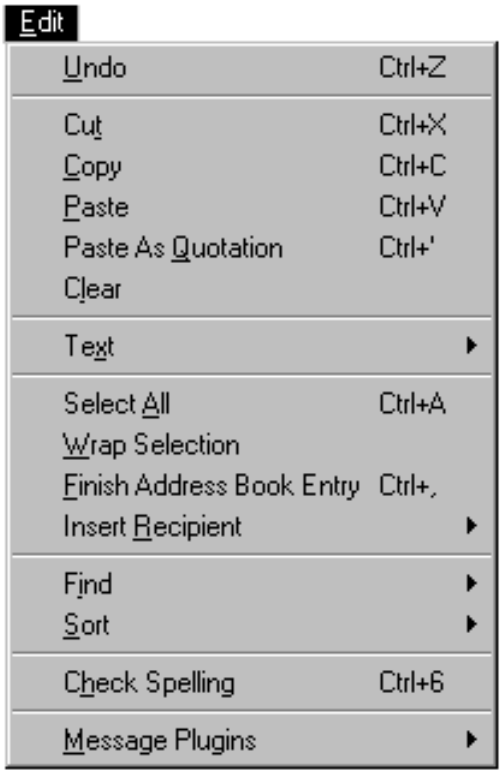
EXHIBIT 9 PART 2

Exhibit K



* * *

Finish Address Book Entry
Complete the partial text of a nickname.

Insert Recipient
Insert the chosen recipient"
Eudora Windows Manual at 137.

"**Special**

This menu lets you use additional Eudora functions.

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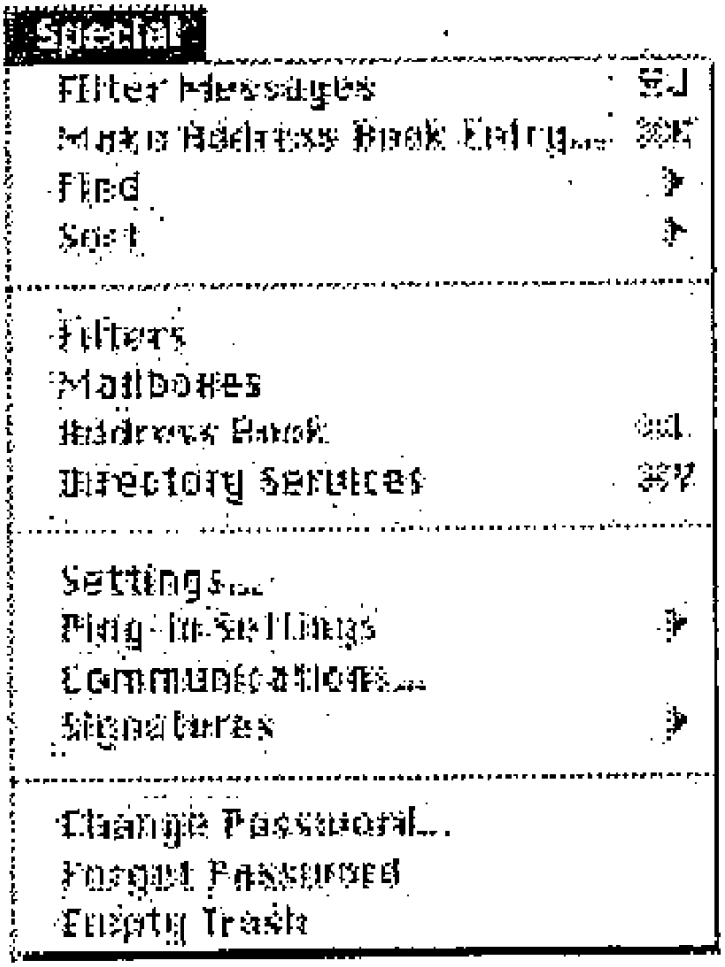

Filter Messages
Run the manual filters for the current message(s).

Make Address Book Entry…
[shift] Make Address Book Entry From Selection…
Create an Address Book entry (nickname) from the current message.
Create an entry from the selected addresses.

Find
Search for the designated character string within a message, messages, mailboxes, or mail folders.

Sort [option] Sort Descending
Sort the message summaries in a mailbox in ascending order.
Sort them in descending order.

Filters

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Display the Filters window.

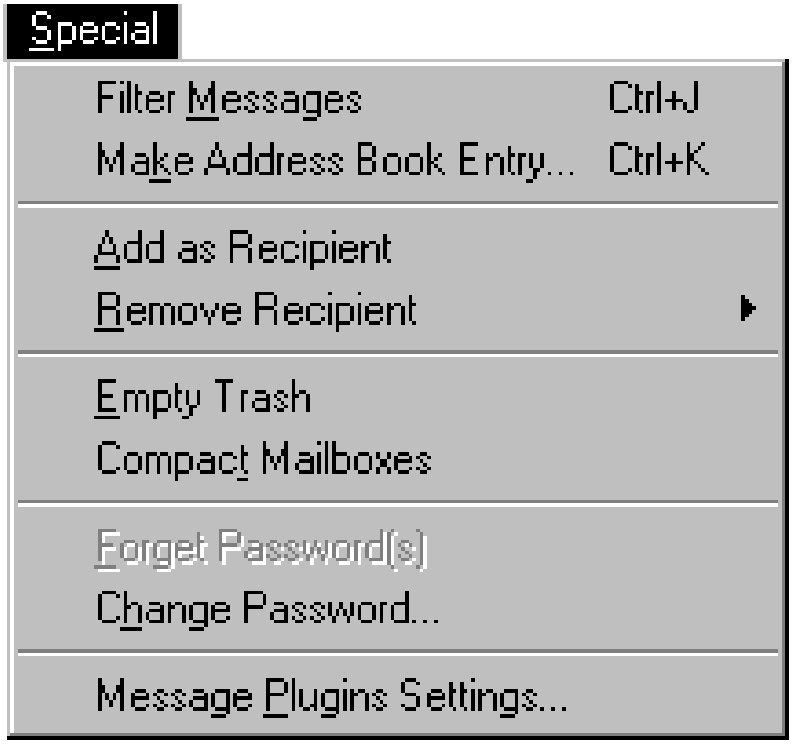
Mailboxes
Display the Mailboxes window.

Address Book
Display the Address Book window.

Directory Services
Display the Directory Services window.
Eudora Mac Manual at 155.

"Special

This menu lets you use additional Eudora functions.



Filter Messages
Run the manual filters for the current message(s).

Make Address Book Entry…
Create an Address Book entry from the current message.

Add As Recipient
Add selected text to the Quick Recipient list.

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	Remove Recipient Select a recipient from this menu and the recipient is removed from the Quick Recipient list. **Empty Trash** Delete all messages from the Trash mailbox. **Compact Mailboxes** Reclaim unused space in all mailboxes. **Forget Password(s)** Make Eudora forget your passwords so mail can't be checked. **Change Password...** Change a POP account password on the POP server. **Message Plugins Settings...** Open the Message Plugins Settings." *Eudora Windows Manual* at 141. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.	Eudora discloses claim 1. *See* claim 1 above. Eudora further discloses this element. See, e.g.: Disclosure to Claim 1. "**Inserting the Contents of a Text File into a Message** The contents of a text file can be inserted directly into a message (and then edited if desired). To insert a text file into a message, put the cursor where you want the text inserted, and select Attach Document… from the Message menu. Then select the text file you want and click on the Insert button. The text from the file is inserted into your message and you can edit it as normal." Eudora Mac Manual at 42. "The **Replace with** field displays the dictionary entry alphabetically closest to the questioned word. If this suggestion is not acceptable, you

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	can change it by clicking on a word from the list. Or, you can type the correct spelling of the word directly in the **Replace with** field. Once the **Replace with** field contains the correct entry, click the **Replace** button. The word in the document is replaced with the word in the **Replace with** field. The spelling checker then proceeds with the check. ****** Replace with Replace the questioned word with the word in this field. You can select a word from the Dictionary/Guesses field, or type a new one. ****** **Replace (All)** Replace this occurrence of the questioned word with the word in the **Replace with** field. If you use **Replace All**, you replace this and all subsequent occurrences of the questioned word. Eudora Mac Manual at 43-44. **"**To correct the misspelled word, type the correct spelling of the word in the Change To field, select it from Suggestions list and click the **Change** button, or double-click it in the Suggestions list. The spelling checker then proceeds with the check. **Check Spelling Dialog** The Check Spelling dialog allows you to ignore an unknown word, change it, suggest the correct spelling, add the word to your user dictionary, edit your dictionary, or change the spell checking preferences via the Options button. Each of the fields and buttons is described below. ****** **Change To Field** This field works in conjunction with the Change and Change all buttons. It allows you to modify the unknown word by typing its correct spelling in this field, or selecting a suggested alternative spelling from the Suggestions field, and then clicking the Change or Change all buttons, as described below. ****** **Change Button** This button substitutes to contents of the Change To field for the unknown word.

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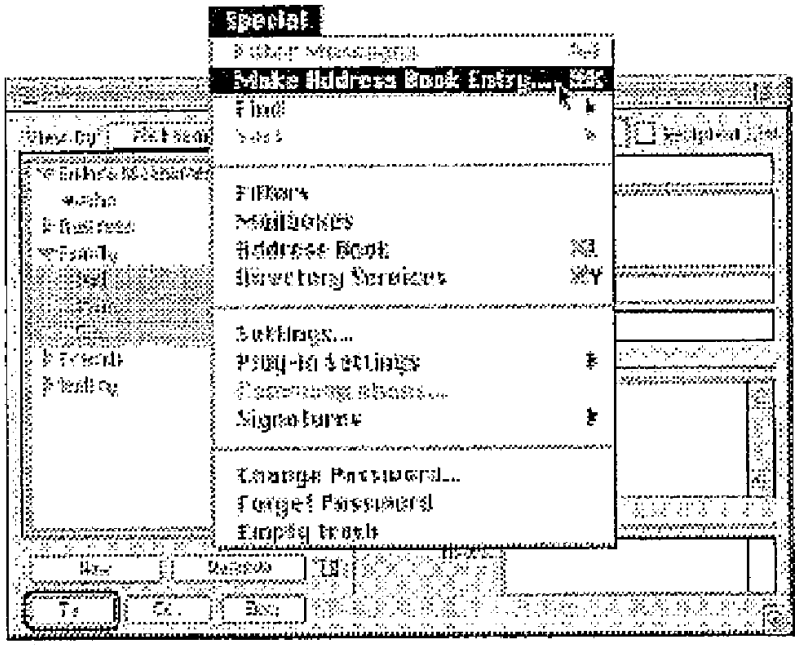
	Change all Button This button substitutes to contents of the Change To field for the unknown word, and all subsequent occurrences of the unknown word. Eudora Windows Manual at 34-35. "**The 'Make Address Book Entry' Command** The **Make Address Book Entry…** command is used to create entries in your Address Book, and is especially helpful for making group entries. You can use this command from anywhere in Eudora, including the Address Book, mailboxes, open messages, and the Directory Services window. From anywhere in Eudora, including open messages, you can highlight the addresses you want, then hold down the shift key and select **Make Address Book Entry From Selection…** from the **Special** menu. The New Nickname dialog is displayed prompting you for the nickname of the new entry. The new entry's **Address(es)** field will include all of the addresses that you selected. *Note: If the new nickname has the same name as an existing nickname, a prompt is displayed asking if you want to add the selected names to the existing nickname or replace the existing nickname with the new selection.* In the Address Book, highlight several different entries (hold down the shift key to select multiple entries in sequence, or the command key to make disjoint selections), the select **Make Address Book Entry…** from the **Special** menu. The New Nickname dialog is displayed prompting you for the nickname of the new entry. The **Address(es)** field of the new entry will include the nicknames for the entries you selected, not the real addresses.

Exhibit K



Using the "Make Address Book Entry" command from the Address Book

In a mailbox, highlight the message(s) you want and select **Make Address Book Entry…** from the **Special** menu. The New Nickname dialog is displayed prompting you for the nickname of the new entry. Follow the instructions for creating a new entry. If the current message is an outgoing message, the new entry will include all of the addresses in the **To**, **Cc**, and **Bcc** fields. If the current message is an incoming message, the new entry will include the address in the **From** field. If multiple messages are current (i.e., you have several message summaries selected in a mailbox window), addresses are taken from each message and are all put in the new entry.

*Note: The **Make Address Book Entry…** command uses the Replying Settings. If the **Reply to all by Default** setting is turned on (or you hold down the option key), the new entry will include all of the recipients of the messages plus the sender. Or, if the **Include yourself** setting is turned off, your address is not included in the new entry.*

In an open message window, select **Make Address Book Entry…** from the **Special** menu. The New Nickname dialog is displayed so that you can name the nickname. If the current message is an outgoing message, the new entry will include all of the addresses in the **To**, **Cc**, and **Bcc** fields. If the current message is an incoming message, the new entry will include the address in the **From** field. See the note above about the Replying Settings.

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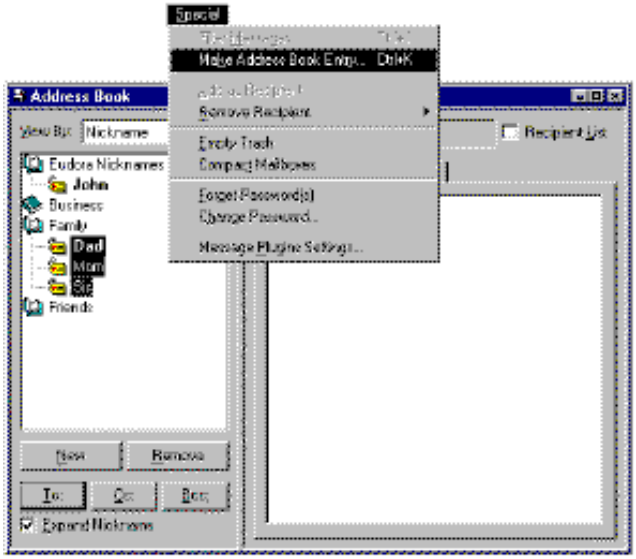
	In the Directory Services window, finish a Ph query and select **Make Address Book Entry…** from the **Special** menu. The New Nickname dialog is displayed so that you can name the nickname. The real name and e-mail address are included in the new entry. **The 'Finish Address Book Entry' Command** With the **Finish Address Book Entry** command, you can enter a unique portion of a nickname in the **To**, **Cc**, or **Bcc** fields of a message, then select **Finish Address Book Entry** from the **Edit** menu, and the nickname will be completed for you. You must enter the characters in the nickname that make it unique, or Eudora will not know which nickname to use. For example, if you have two nicknames, joan and john, you would have to enter 'joa' or 'joh' for Eudora to complete them. To insert the real addresses for the entry, instead of the nickname, hold down the option key and select **Finish & Expand Address Book Entry** from the **Edit** menu. To set this to happen all the time, turn on the **Expand nicknames immediately** option in the Sending Mail settings." Eudora Mac Manual at 99-101. **"The "Make Address Book Entry" Command** The Make Address Book entry command is used to create entries in your Address Book, and is especially helpful for making group entries. In the Address Book, highlight several different entries (hold down the Shift key to select multiple entries in sequence, or the Ctrl key to make disjoint selections), then select **Make Address Book Entry...** from the **Special** menu. The New Nickname dialog is displayed prompting you for the nickname of the new entry. The **Address(es)** field of the new entry will include the nicknames for the entries you selected, not the real addresses.

Exhibit K



Using the "Make Address Book Entry" command from the Address Book

In a mailbox, highlight the message summaries you want and select **Make Address Book Entry…** from the **Special** menu. The New Nickname dialog is displayed prompting you for the nickname of the new entry. Follow the instructions for creating a new entry. If the current message is an outgoing message, the new entry will include all of the addresses in the **To**, **Cc**, and **Bcc** fields. If the current message is an incoming message, the new entry will include the address in the **From** field. If multiple messages are current (i.e., you have several message summaries selected in a mailbox window), addresses are taken from each message and are all put in the new entry.

*Note: The **Make Address Book Entry** command uses the Reply Options. If the **Include yourself** option is on, your address is included in the new entry.*

In the Directory Services window, finish a Ph query, select the items that you want to include in the entry (or do not select anything to use all of the items), and select **Make Address Book Entry...** from the **Special** menu. The New Nickname dialog is displayed so that you can name the nickname. The real name and e-mail address are included in the new entry.

The "Finish Address Book Entry" Command

With the **Finish Address Book Entry** command, you can enter a unique portion of a nickname in the **To**, **Cc**, or **Bcc** fields of a message, then select **Finish Address Book Entry** from the **Edit** menu, and the nickname will be completed for you. You must enter the characters in the

Exhibit K

	nickname that make it unique, or Eudora will not know which nickname to use. For example, if you have two nicknames, jon and john, you would have to enter "jon" or "joh" for Eudora to complete them. To insert the real addresses for the entry, instead of the nickname, hold down the Shift key and select **Finish Address Book Entry** from the **Edit** menu. To set this to happen all the time, turn on the **Automatically Expand Nicknames** option in the Miscellaneous Options." Eudora Windows Manual at 87-89. "To open a new message address to someone on your Quick Recipient List, select **New Message To, Forward to**, or **Redirect To** from the **Message** menu, and select the nickname from the displayed list. To insert a nickname into a message that you have already opened, put the cursor where you want the nickname and select **Insert Recipient** from the **Edit** menu. To insert the real address(es), instead of the nickname, hold down the option key and select **Insert & Expand Recipient** from the **Edit** menu. To set this to happen all the time, turn on the **Expand nicknames immediately** option in the Sending Mail Settings." Eudora Mac Manual at 102. "To open a new message addressed to someone on your Quick Recipient List, select **New Message To, Forward To**, or **Redirect To** from the **Message** menu, and select the nickname from the displayed list. To insert a recipient into a message that you have already opened, put the cursor where you want the recipient and select **Insert Recipient** from the **Edit** menu. To insert the real address(es), instead of a nickname, hold down the Shift key and select **Insert Recipient** from the **Edit** menu. To set this to happen all the time, turn on the **Automatically Expand Nicknames** option in the Miscellaneous Options. More than one recipient from the Quick Recipient List can be added to the **To**, **Cc**, and **Bcc** fields of any message. If you use the Insert Recipient command, commas are added where necessary." Eudora Windows Manual at 90. "*Note: To add the results of your Ph query to your Address Book, select **Make Address Book Entry…** from the **Special** menu (for details on how to use this command, see the section 'The "Make Address Book Entry"*

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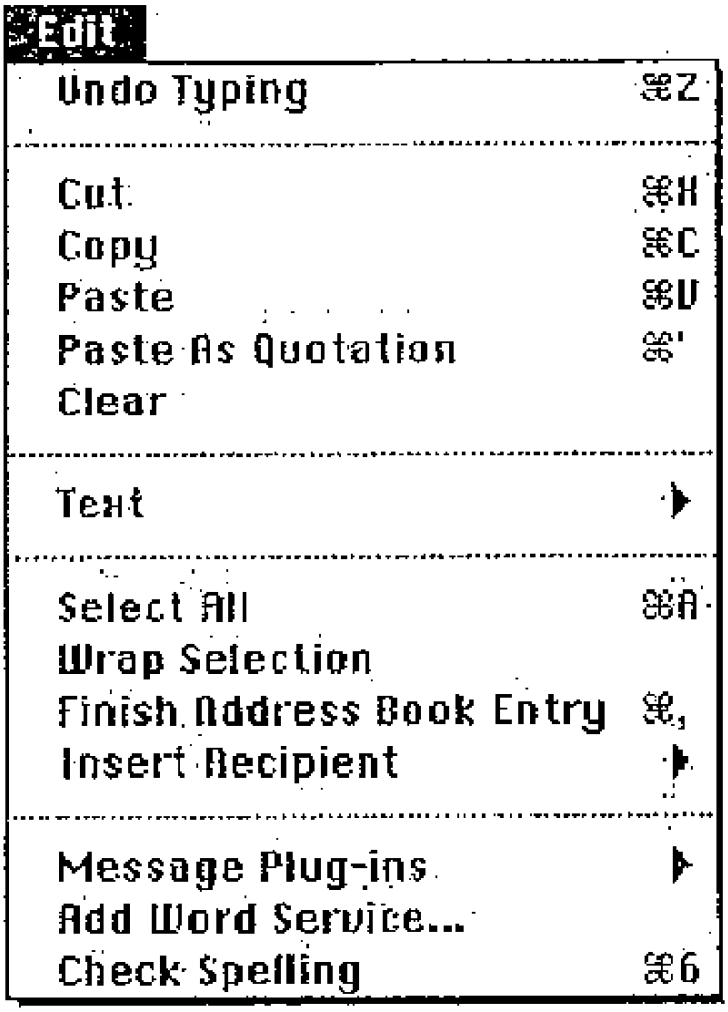
	Command'). This may not work if your Ph server is not set up for it. ****** To add an address to an existing message, make sure the message you want to address is active, open the Directory Services window, do the Ph or Finder query, then click on the **To**, **Cc** or **Bcc** button. The address from the query result is added to the appropriate field of the current message. Or, you can select the e-mail address from the results and drag it into the appropriate field of the outgoing message. Eudora Mac Manual at 104-105. "**Addressing a Message from the Directory Services Window** You can create and address a message with the command results in the Directory Services window. To create a new message, be sure there are no outgoing messages already open, do the Ph or Finder command, and use the Tab key to select the right address (if there is more than one). Then click on the **To**, **Cc** or **Bcc** button. A new message is created, and addressed appropriately with the query results. To add an address to an existing message, make sure the message you want to address is active, open the Directory Services window, do the Ph or Finger command, and use the Tab key to select the right address. Then click on the **To**, **Cc** or **Bcc** button. The address from the query result is added to the appropriate field of the current message." Eudora Windows Manual at 92. "**Edit** This menu provides text editing tools.

Exhibit K



* * *

Finish Address Book Entry
[option] Finish & Expand Address Book Entry
Complete the partial text of a nickname.
Complete it and expand it to its real address.

Insert Recipient
[option] Insert & Expand Recipient
Insert the chosen nickname.
Insert the real address of the nickname."
Eudora Mac Manual at 149-50.

"Edit

This menu provides text editing tools.

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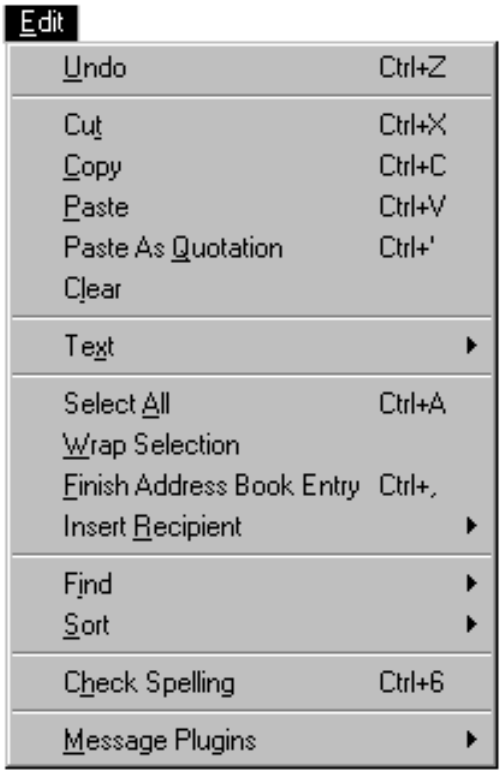

* * *

Finish Address Book Entry
Complete the partial text of a nickname.

Insert Recipient
Insert the chosen recipient"
Eudora Windows Manual at 137.

"**Make Address Book Entry…**
[shift] Make Address Book Entry From Selection…
Create an Address Book entry (nickname) from the current message.
Create an entry from the selected addresses.
Eudora Mac Manual at 155.

"**Make Address Book Entry…**
Create an Address Book entry from the current message.

Add As Recipient
Add selected text to the Quick Recipient list."
Eudora Windows Manual at 141.

For example (and without limitation to the Obviousness Statement that is

Exhibit K

	incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 19	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.	Eudora discloses claim 1. *See* claim 1 above. Eudora further discloses this element. See, e.g.: Disclosure to Claim 1. "**Inserting the Contents of a Text File into a Message** The contents of a text file can be inserted directly into a message (and then edited if desired). To insert a text file into a message, put the cursor where you want the text inserted, and select Attach Document… from the Message menu. Then select the text file you want and click on the Insert button. The text from the file is inserted into your message and you can edit it as normal." Eudora Mac Manual at 42. "The **Replace with** field displays the dictionary entry alphabetically closest to the questioned word. If this suggestion is not acceptable, you can change it by clicking on a word from the list. Or, you can type the correct spelling of the word directly in the **Replace with** field. Once the **Replace with** field contains the correct entry, click the **Replace** button. The word in the document is replaced with the word in the **Replace with** field. The spelling checker then proceeds with the check. ****** Replace with Replace the questioned word with the word in this field. You can select a word from the Dictionary/Guesses field, or type a new one. ****** **Replace (All)** Replace this occurrence of the questioned word with the word in the **Replace with** field. If you use **Replace All**, you replace this and all subsequent occurrences of the questioned word. Eudora Mac Manual at 43-44. **"**To correct the misspelled word, type the correct spelling of the word in the Change To field, select it from Suggestions list and click the **Change**

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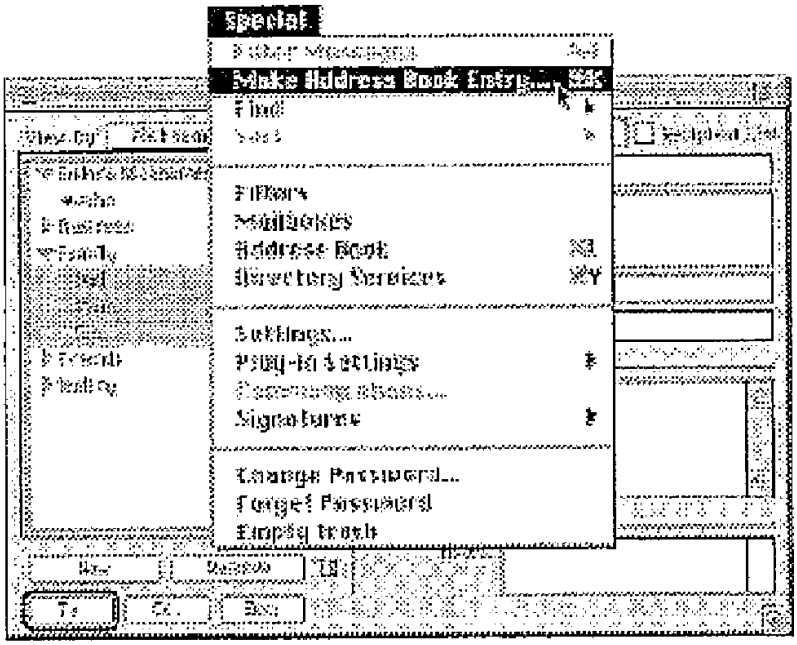
	button, or double-click it in the Suggestions list. The spelling checker then proceeds with the check. **Check Spelling Dialog** The Check Spelling dialog allows you to ignore an unknown word, change it, suggest the correct spelling, add the word to your user dictionary, edit your dictionary, or change the spell checking preferences via the Options button. Each of the fields and buttons is described below. ****** **Change To Field** This field works in conjunction with the Change and Change all buttons. It allows you to modify the unknown word by typing its correct spelling in this field, or selecting a suggested alternative spelling from the Suggestions field, and then clicking the Change or Change all buttons, as described below. ****** **Change Button** This button substitutes to contents of the Change To field for the unknown word. **Change all Button** This button substitutes to contents of the Change To field for the unknown word, and all subsequent occurrences of the unknown word. Eudora Windows Manual at 34-35. "**The 'Make Address Book Entry' Command** The **Make Address Book Entry…** command is used to create entries in your Address Book, and is especially helpful for making group entries. You can use this command from anywhere in Eudora, including the Address Book, mailboxes, open messages, and the Directory Services window. From anywhere in Eudora, including open messages, you can highlight the addresses you want, then hold down the shift key and select **Make Address Book Entry From Selection…** from the **Special** menu. The New Nickname dialog is displayed prompting you for the nickname of the new entry. The new entry's **Address(es)** field will include all of the addresses that you selected. *Note: If the new nickname has the same name as an existing nickname, a*

Exhibit K

prompt is displayed asking if you want to add the selected names to the existing nickname or replace the existing nickname with the new selection.

In the Address Book, highlight several different entries (hold down the shift key to select multiple entries in sequence, or the command key to make disjoint selections), the select **Make Address Book Entry…** from the **Special** menu. The New Nickname dialog is displayed prompting you for the nickname of the new entry. The **Address(es)** field of the new entry will include the nicknames for the entries you selected, not the real addresses.



Using the "Make Address Book Entry" command from the Address Book

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*Note: The **Make Address Book Entry…** command uses the Replying Settings. If the **Reply to all by Default** setting is turned on (or you hold down the option key), the new entry will include all of the recipients of the*

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	*messages plus the sender. Or, if the **Include yourself** setting is turned off, your address is not included in the new entry.* In an open message window, select **Make Address Book Entry…** from the **Special** menu. The New Nickname dialog is displayed so that you can name the nickname. If the current message is an outgoing message, the new entry will include all of the addresses in the **To**, **Cc**, and **Bcc** fields. If the current message is an incoming message, the new entry will include the address in the **From** field. See the note above about the Replying Settings. In the Directory Services window, finish a Ph query and select **Make Address Book Entry…** from the **Special** menu. The New Nickname dialog is displayed so that you can name the nickname. The real name and e-mail address are included in the new entry. **The 'Finish Address Book Entry' Command** With the **Finish Address Book Entry** command, you can enter a unique portion of a nickname in the **To**, **Cc**, or **Bcc** fields of a message, then select **Finish Address Book Entry** from the **Edit** menu, and the nickname will be completed for you. You must enter the characters in the nickname that make it unique, or Eudora will not know which nickname to use. For example, if you have two nicknames, joan and john, you would have to enter 'joa' or 'joh' for Eudora to complete them. To insert the real addresses for the entry, instead of the nickname, hold down the option key and select **Finish & Expand Address Book Entry** from the **Edit** menu. To set this to happen all the time, turn on the **Expand nicknames immediately** option in the Sending Mail settings." Eudora Mac Manual at 99-101. **"The "Make Address Book Entry" Command** The Make Address Book entry command is used to create entries in your Address Book, and is especially helpful for making group entries. In the Address Book, highlight several different entries (hold down the Shift key to select multiple entries in sequence, or the Ctrl key to make disjoint selections), then select **Make Address Book Entry...** from the **Special** menu. The New Nickname dialog is displayed prompting you for the nickname of the new entry. The **Address(es)** field of the new entry will include the nicknames for the entries you selected, not the real addresses.

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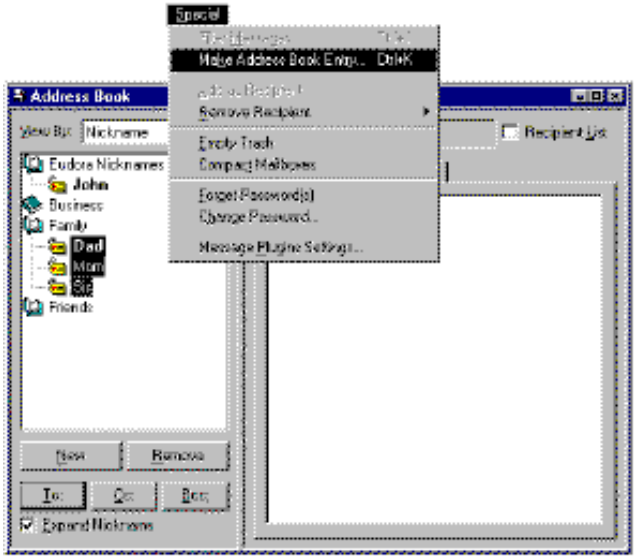

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In the Directory Services window, finish a Ph query, select the items that you want to include in the entry (or do not select anything to use all of the items), and select **Make Address Book Entry...** from the **Special** menu. The New Nickname dialog is displayed so that you can name the nickname. The real name and e-mail address are included in the new entry.

The "Finish Address Book Entry" Command

With the **Finish Address Book Entry** command, you can enter a unique portion of a nickname in the **To**, **Cc**, or **Bcc** fields of a message, then select **Finish Address Book Entry** from the **Edit** menu, and the nickname will be completed for you. You must enter the characters in the

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	nickname that make it unique, or Eudora will not know which nickname to use. For example, if you have two nicknames, jon and john, you would have to enter "jon" or "joh" for Eudora to complete them. To insert the real addresses for the entry, instead of the nickname, hold down the Shift key and select **Finish Address Book Entry** from the **Edit** menu. To set this to happen all the time, turn on the **Automatically Expand Nicknames** option in the Miscellaneous Options." Eudora Windows Manual at 87-89. "To open a new message address to someone on your Quick Recipient List, select **New Message To, Forward to**, or **Redirect To** from the **Message** menu, and select the nickname from the displayed list. To insert a nickname into a message that you have already opened, put the cursor where you want the nickname and select **Insert Recipient** from the **Edit** menu. To insert the real address(es), instead of the nickname, hold down the option key and select **Insert & Expand Recipient** from the **Edit** menu. To set this to happen all the time, turn on the **Expand nicknames immediately** option in the Sending Mail Settings." Eudora Mac Manual at 102. "To open a new message addressed to someone on your Quick Recipient List, select **New Message To, Forward To**, or **Redirect To** from the **Message** menu, and select the nickname from the displayed list. To insert a recipient into a message that you have already opened, put the cursor where you want the recipient and select **Insert Recipient** from the **Edit** menu. To insert the real address(es), instead of a nickname, hold down the Shift key and select **Insert Recipient** from the **Edit** menu. To set this to happen all the time, turn on the **Automatically Expand Nicknames** option in the Miscellaneous Options. More than one recipient from the Quick Recipient List can be added to the **To**, **Cc**, and **Bcc** fields of any message. If you use the Insert Recipient command, commas are added where necessary." Eudora Windows Manual at 90. "*Note: To add the results of your Ph query to your Address Book, select **Make Address Book Entry…** from the **Special** menu (for details on how to use this command, see the section 'The "Make Address Book Entry"*

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	Command'). This may not work if your Ph server is not set up for it. ****** To add an address to an existing message, make sure the message you want to address is active, open the Directory Services window, do the Ph or Finder query, then click on the **To**, **Cc** or **Bcc** button. The address from the query result is added to the appropriate field of the current message. Or, you can select the e-mail address from the results and drag it into the appropriate field of the outgoing message. Eudora Mac Manual at 104-105. "**Addressing a Message from the Directory Services Window** You can create and address a message with the command results in the Directory Services window. To create a new message, be sure there are no outgoing messages already open, do the Ph or Finder command, and use the Tab key to select the right address (if there is more than one). Then click on the **To**, **Cc** or **Bcc** button. A new message is created, and addressed appropriately with the query results. To add an address to an existing message, make sure the message you want to address is active, open the Directory Services window, do the Ph or Finger command, and use the Tab key to select the right address. Then click on the **To**, **Cc** or **Bcc** button. The address from the query result is added to the appropriate field of the current message." Eudora Windows Manual at 92. "**Edit** This menu provides text editing tools.

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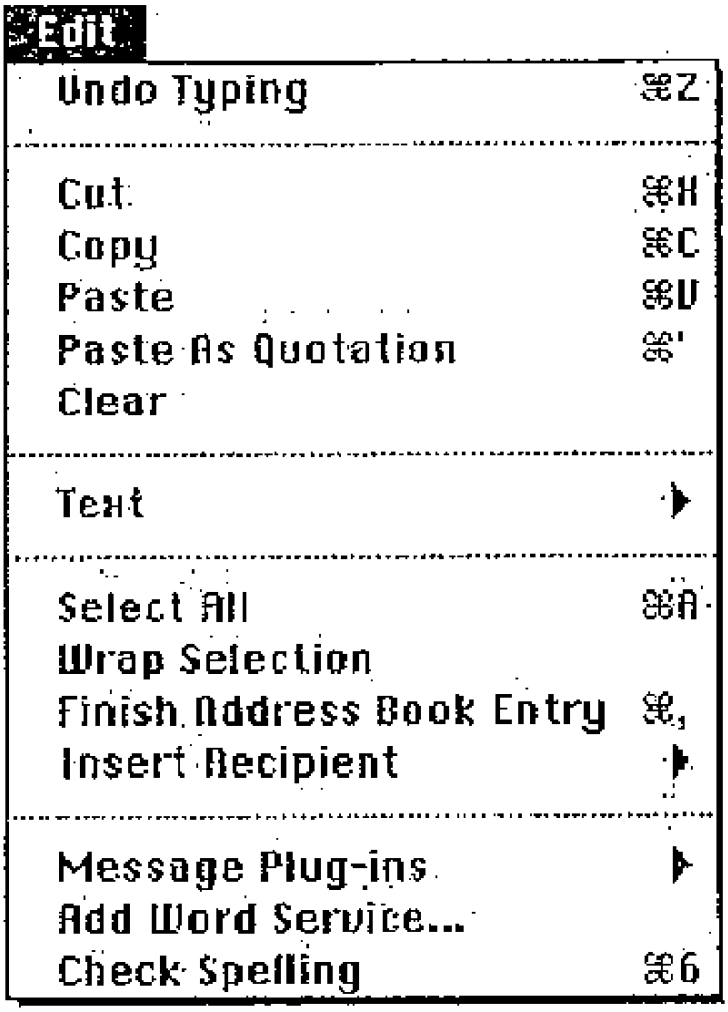


* * *

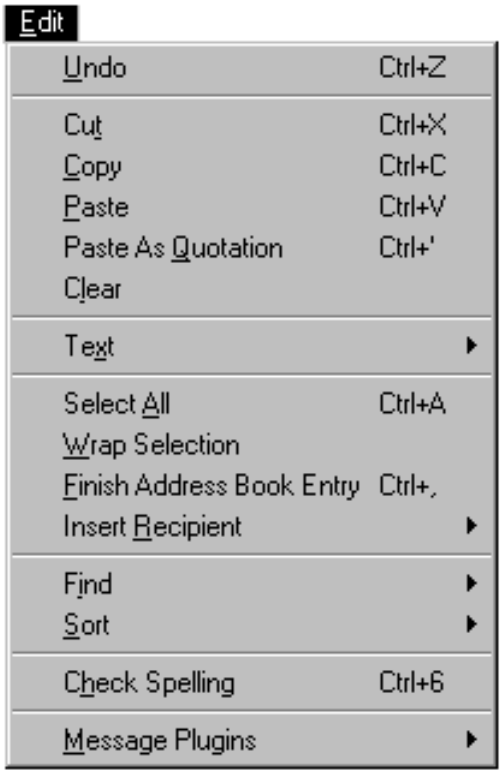
Finish Address Book Entry
[option] Finish & Expand Address Book Entry
Complete the partial text of a nickname.
Complete it and expand it to its real address.

Insert Recipient
[option] Insert & Expand Recipient
Insert the chosen nickname.
Insert the real address of the nickname."
Eudora Mac Manual at 149-50.

"Edit

This menu provides text editing tools.

Exhibit K



* * *

Finish Address Book Entry
Complete the partial text of a nickname.

Insert Recipient
Insert the chosen recipient"
Eudora Windows Manual at 137.

"**Make Address Book Entry…**
[shift] Make Address Book Entry From Selection…
Create an Address Book entry (nickname) from the current message.
Create an entry from the selected addresses.
Eudora Mac Manual at 155.

"**Make Address Book Entry…**
Create an Address Book entry from the current message.

Add As Recipient
Add selected text to the Quick Recipient list."
Eudora Windows Manual at 141.

For example (and without limitation to the Obviousness Statement that is

Exhibit K

	incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 23	
At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data related to the contents of a document using a first computer program running on a computer, the processes comprising:	Eudora discloses this element. See, e.g.: Disclosure to Claim 1.
displaying the document electronically using the first computer program;	Eudora discloses this element. See, e.g.: Disclosure to Claim 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Eudora discloses this element. See, e.g.: Disclosure to Claim 1.
retrieving the first information;	Eudora discloses this element. See, e.g.: Disclosure to Claim 1.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent	Eudora discloses this element. See, e.g.: Disclosure to Claim 1.

Exhibit K

at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Eudora discloses this element. See, e.g.: Disclosure to Claim 1.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Eudora discloses this element. See, e.g.: Disclosure to Claim 1.
Claim 30	
At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising:	Eudora discloses claim 23. *See* claim 23. See, e.g.: Disclosure to Claims 1 and 23.
providing a prompt for updating the information source to include the first information.	Eudora discloses this element. See, e.g.: Disclosures to Claim 8.

Exhibit L

Claim Chart Applying Microsoft Word 97 Against the '843 Patent

Microsoft Word 97 ("Word 97") was offered for sale / sold / publicly used in the United States at least by 12/30/1996. It therefore constitutes prior art under pre-AIA 35 U.S.C. § 102(b). As shown below, Word 97 anticipates and/or renders obvious claims 1, 8, 13, 15, 17, 18, 19, 23, and 30 of the '843 patent.

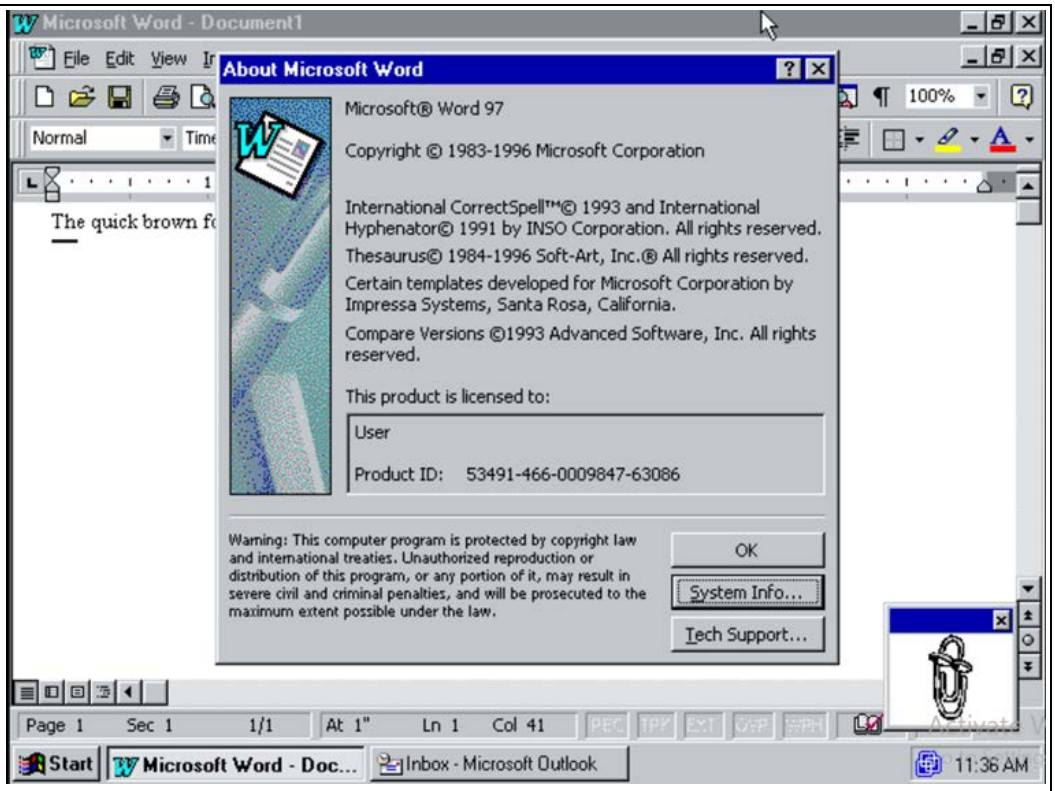
"Obviousness Statement" - To the extent that the Judge or Jury finds that Word 97 does not teach an element either expressly or inherently, then the claim element is obvious to a POSITA based on the state of the art (*see, e.g.*, Section V of my Report), including the admissions of the prior art functionalities and motivations to combine those prior art functionalities in the '843 patent, as well as the motivations to combine and understandings of a POSITA discussed in my Report (*see, e.g.*, Section IX of my Report and Exhibit U), in light of the teachings of, at least, the prior art listed and discussed in Exhibit U, and each prior art system and/or reference listed in my Report, including, without limitation, Pandit, Chalas, Domini, Hachamovitch, Tso, Person, CyberDesk System (including specific publications describing aspects of the CyberDesk System), Eudora System (including specific publications describing aspects of the Eudora System), Apple Data Detectors System (including specific publications describing aspects of the Apple Data Detectors System), LiveDoc System (including specific publications describing aspects of the LiveDoc System), Newton System (including specific publications describing aspects of the Newton System), Microsoft Outlook 97 (including specific publications describing aspects of Microsoft Outlook 97), Selection Recognition Agent System (including specific publications describing aspects of the Selection Recognition Agent System), and Microsoft Word 97 (including specific publications describing aspects of Microsoft Word 97).

Evidence of the availability, design, and operation of Word 97 includes the following:

- "Special Edition Using Microsoft Word 97" ("Person"), published by Que Publisher on December 16, 1996.
- "How to use Microsoft Word (part 2 of 8)"
- "Word 97 Core Lesson 01"
- "Word 97 Core Lesson 16"
- Microsoft Word 97
- "Microsoft Office 97/98," WinWorld

'843 Patent Claims	**Disclosure**
Claim 1	
A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:	To the extent that the preamble is limiting, Word 97 discloses this preamble. For example, the following screenshots highlight aspects of Word 97 functionality that disclose the preamble. Specifically, Word 97 discloses:

Exhibit L


Microsoft Word - Document1
File Edit View
About Microsoft Word
Microsoft® Word 97
Copyright © 1983-1996 Microsoft Corporation
International CorrectSpell™© 1993 and International Hyphenator© 1991 by INSO Corporation. All rights reserved.
Thesaurus© 1984-1996 Soft-Art, Inc.® All rights reserved.
Certain templates developed for Microsoft Corporation by Impressa Systems, Santa Rosa, California.
Compare Versions ©1993 Advanced Software, Inc. All rights reserved.
This product is licensed to:
User
Product ID: 53491-466-0009847-63086
Warning: This computer program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
OK
System Info...
Tech Support...
Normal
100%
The quick brown fo
Page 1 Sec 1 1/1 At 1" Ln 1 Col 41
Start
Microsoft Word - Doc...
Inbox - Microsoft Outlook
11:36 AM

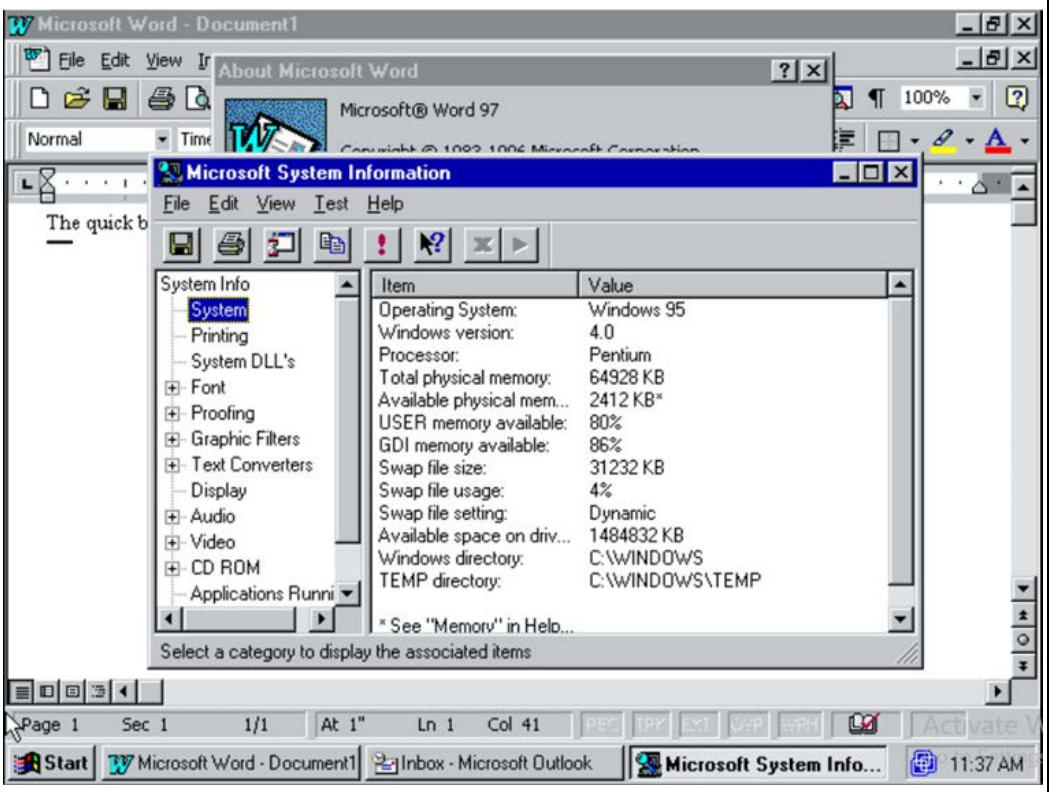

Microsoft Word - Document1
File Edit View
About Microsoft Word
Microsoft® Word 97
Microsoft System Information
File Edit View Test Help
System Info
System
Printing
System DLL's
Font
Proofing
Graphic Filters
Text Converters
Display
Audio
Video
CD ROM
Applications Runni
Item
Value
Operating System: Windows 95
Windows version: 4.0
Processor: Pentium
Total physical memory: 64928 KB
Available physical mem... 2412 KB*
USER memory available: 80%
GDI memory available: 86%
Swap file size: 31232 KB
Swap file usage: 4%
Swap file setting: Dynamic
Available space on driv... 1484832 KB
Windows directory: C:\WINDOWS
TEMP directory: C:\WINDOWS\TEMP
* See "Memory" in Help...
Select a category to display the associated items
Normal
100%
The quick b
Page 1 Sec 1 1/1 At 1" Ln 1 Col 41
Start
Microsoft Word - Document1
Inbox - Microsoft Outlook
Microsoft System Info...
11:37 AM

Exhibit L

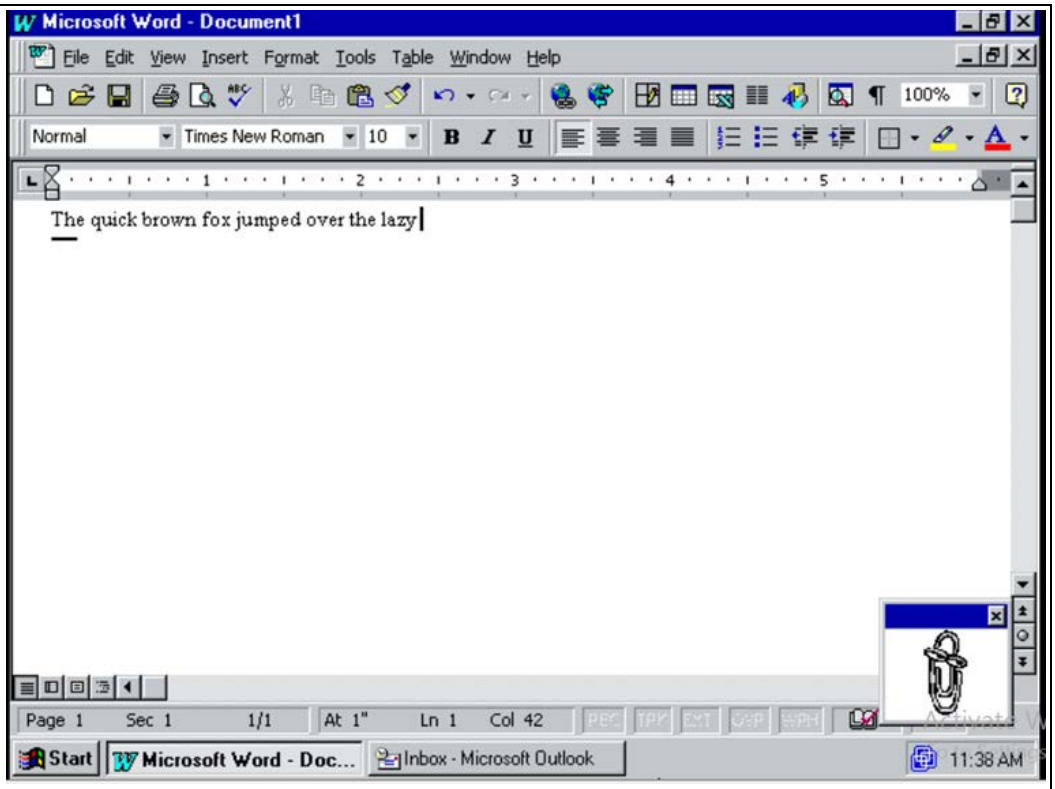
	 Word 97. Word 97 further discloses:

Exhibit L

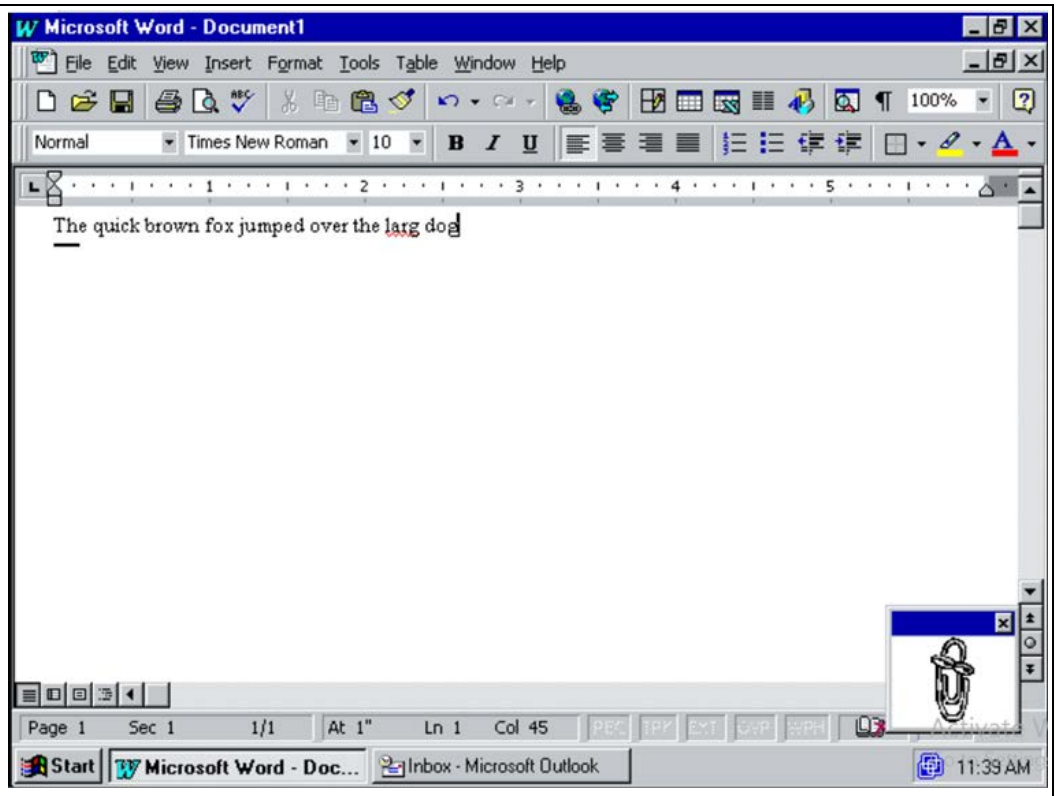
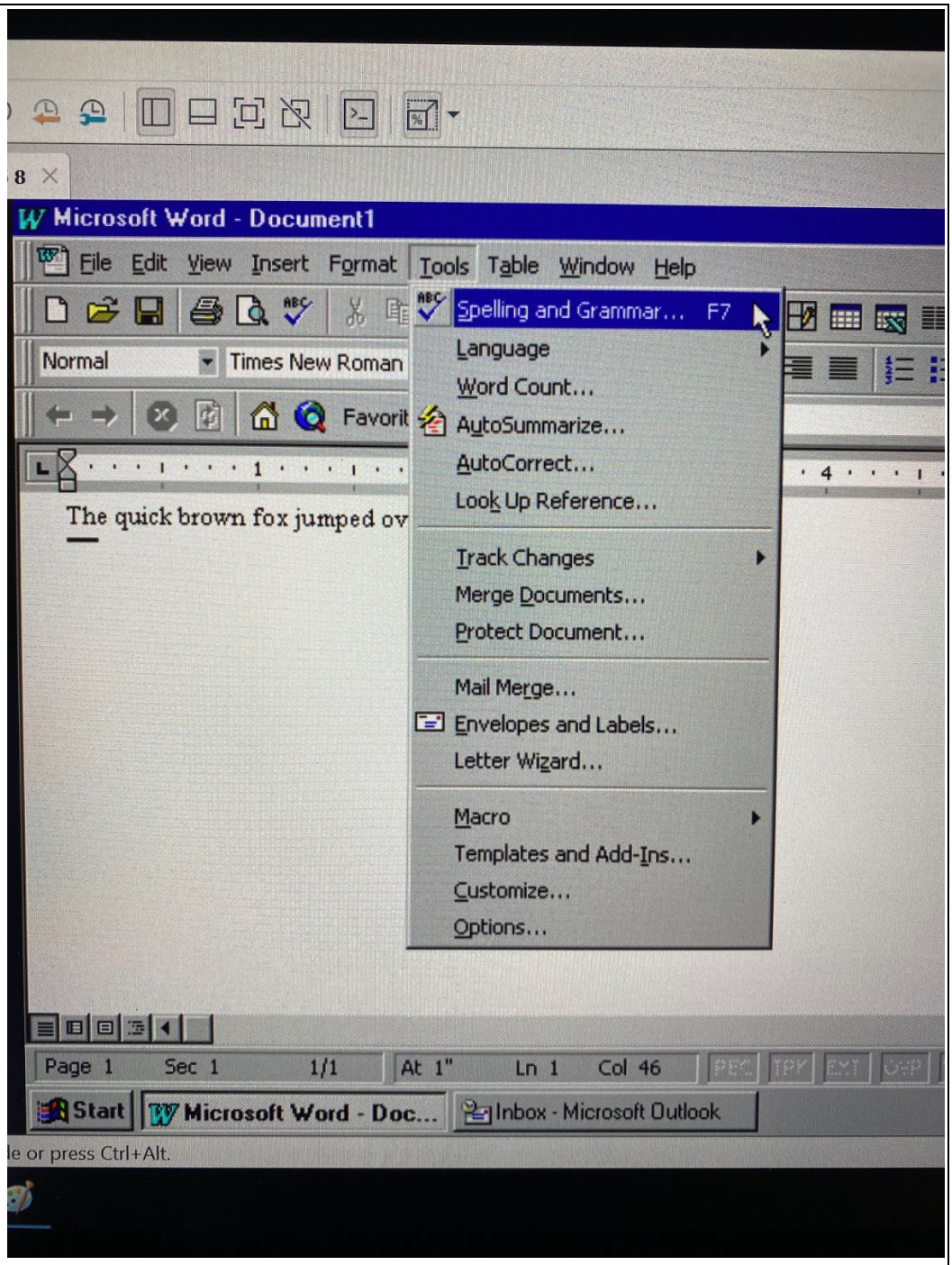
	 Word 97. Word 97 further discloses:

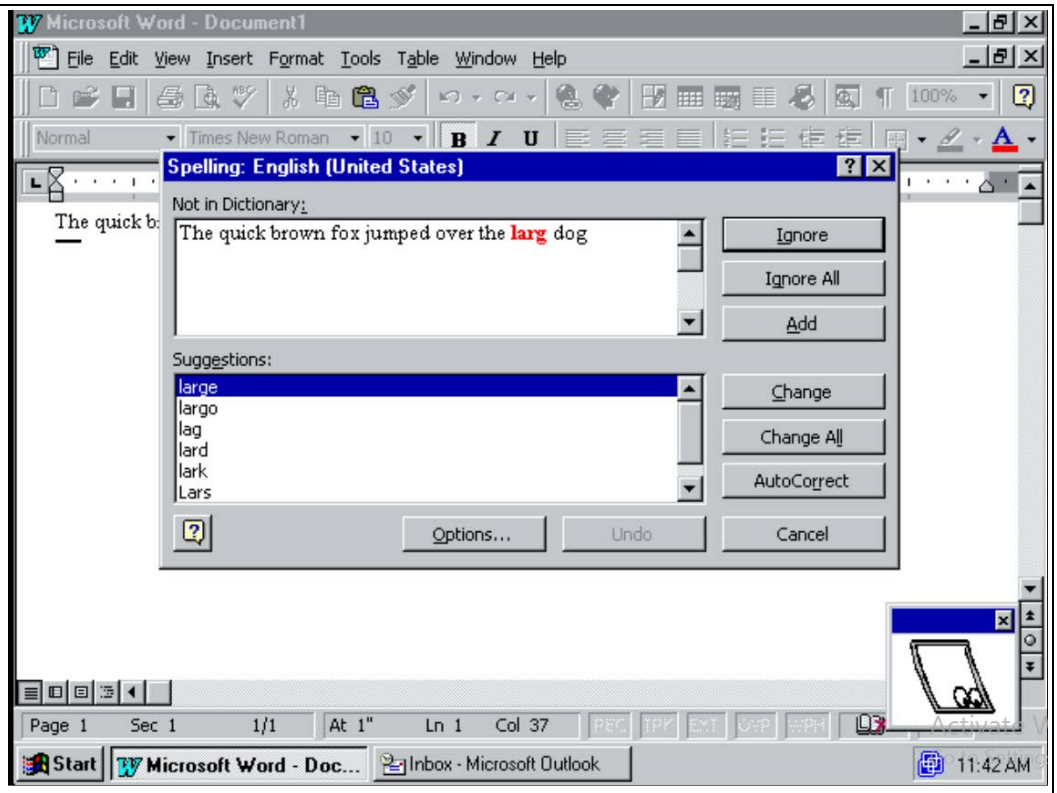
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

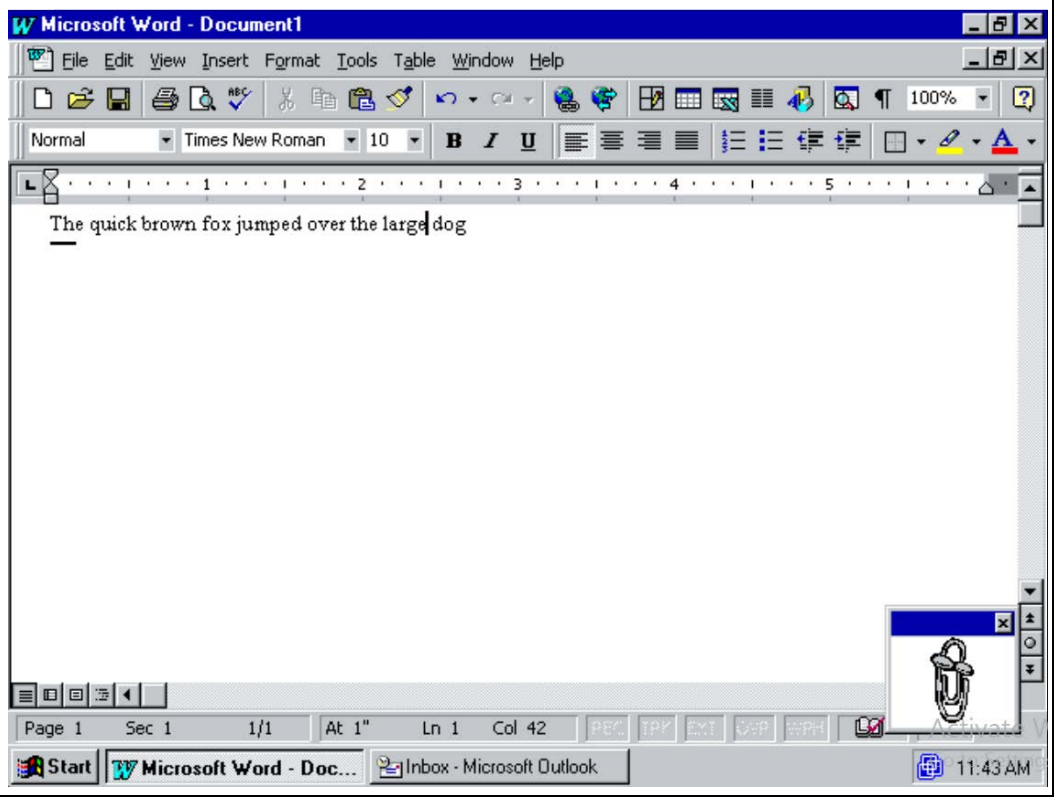


Exhibit L

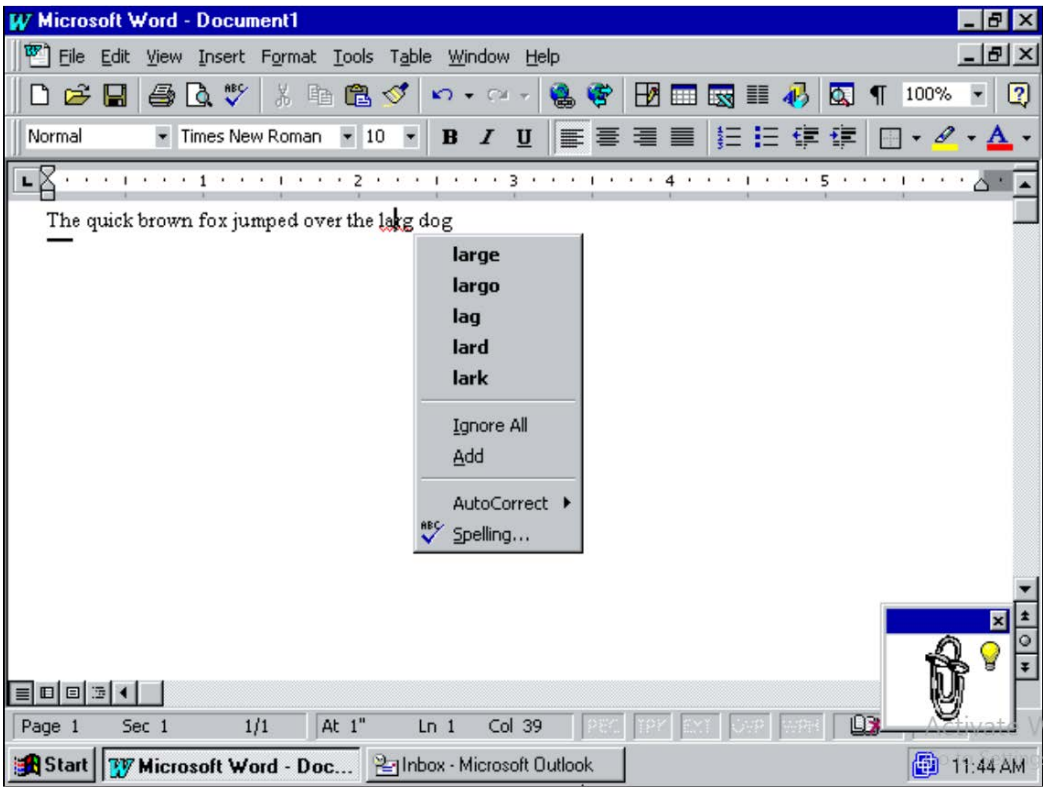
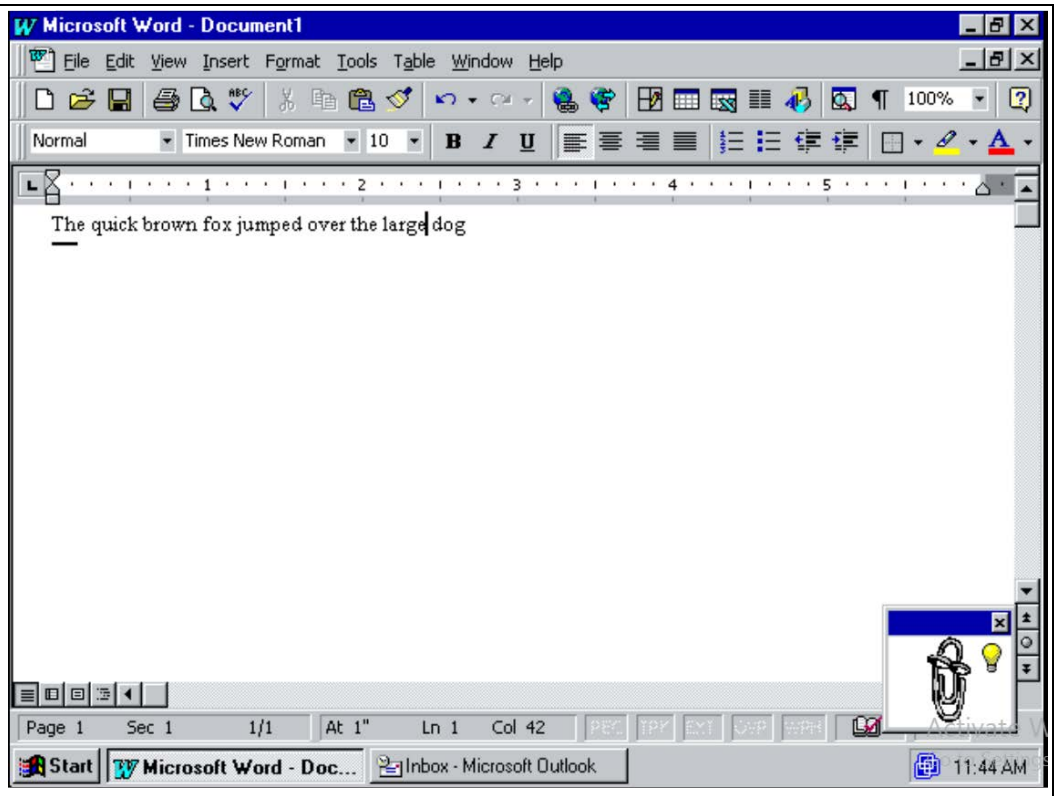
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

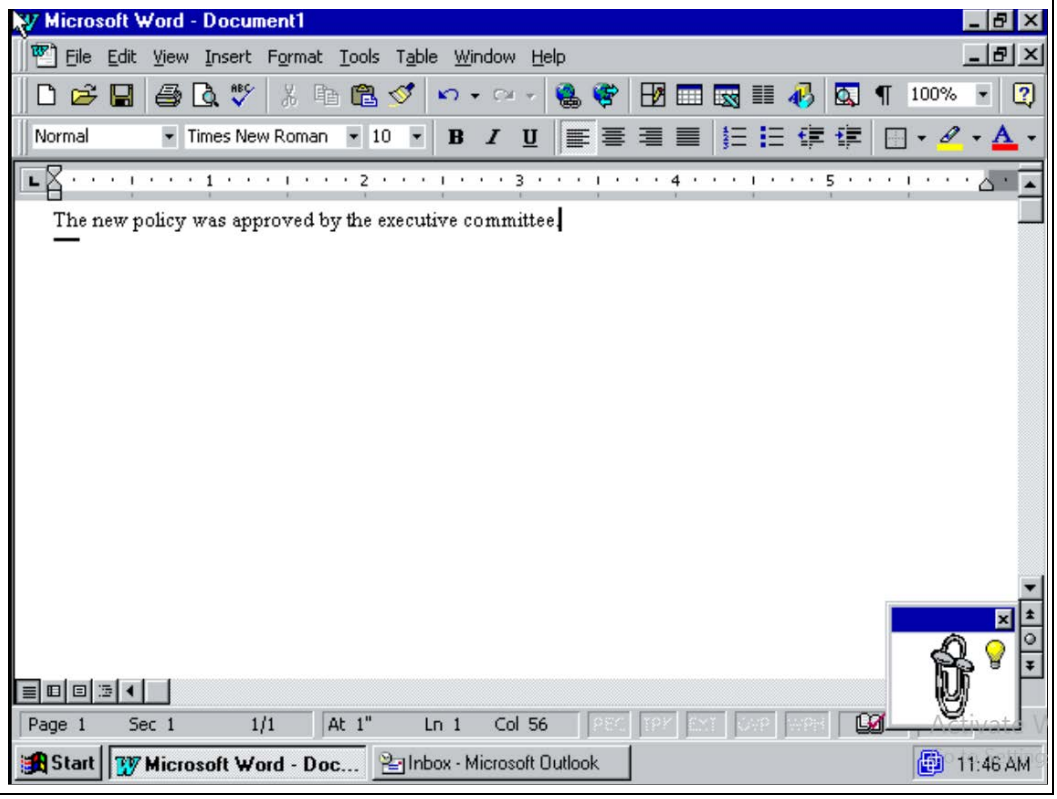


Exhibit L

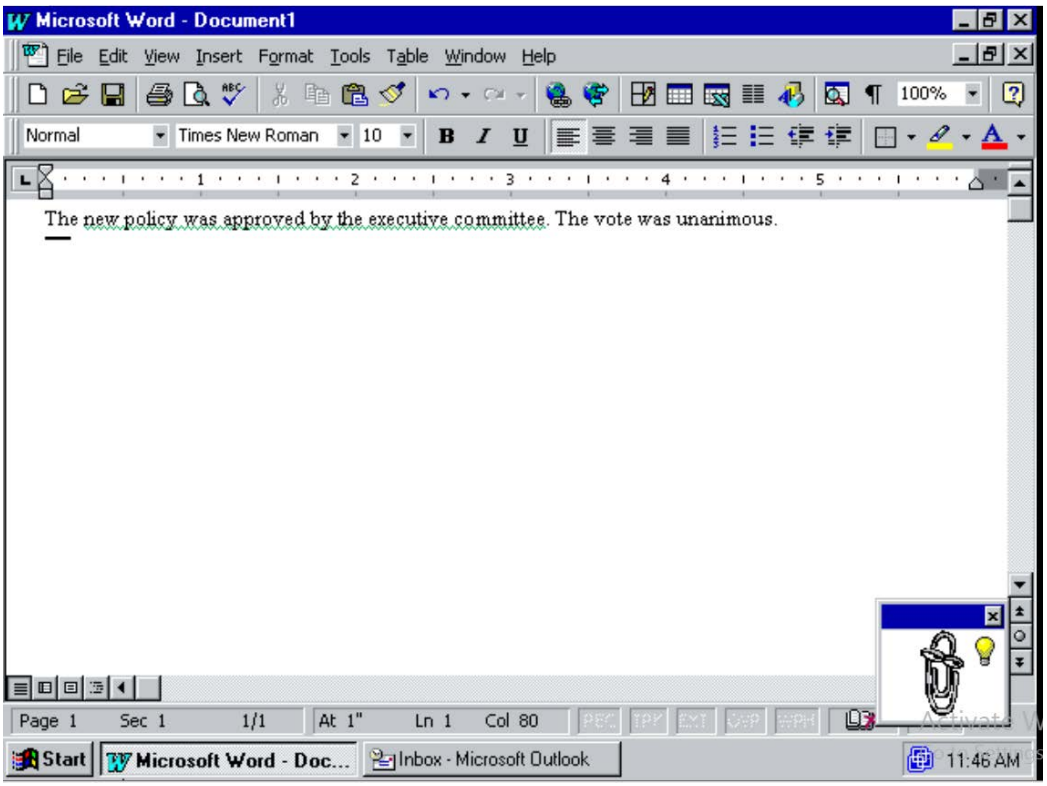
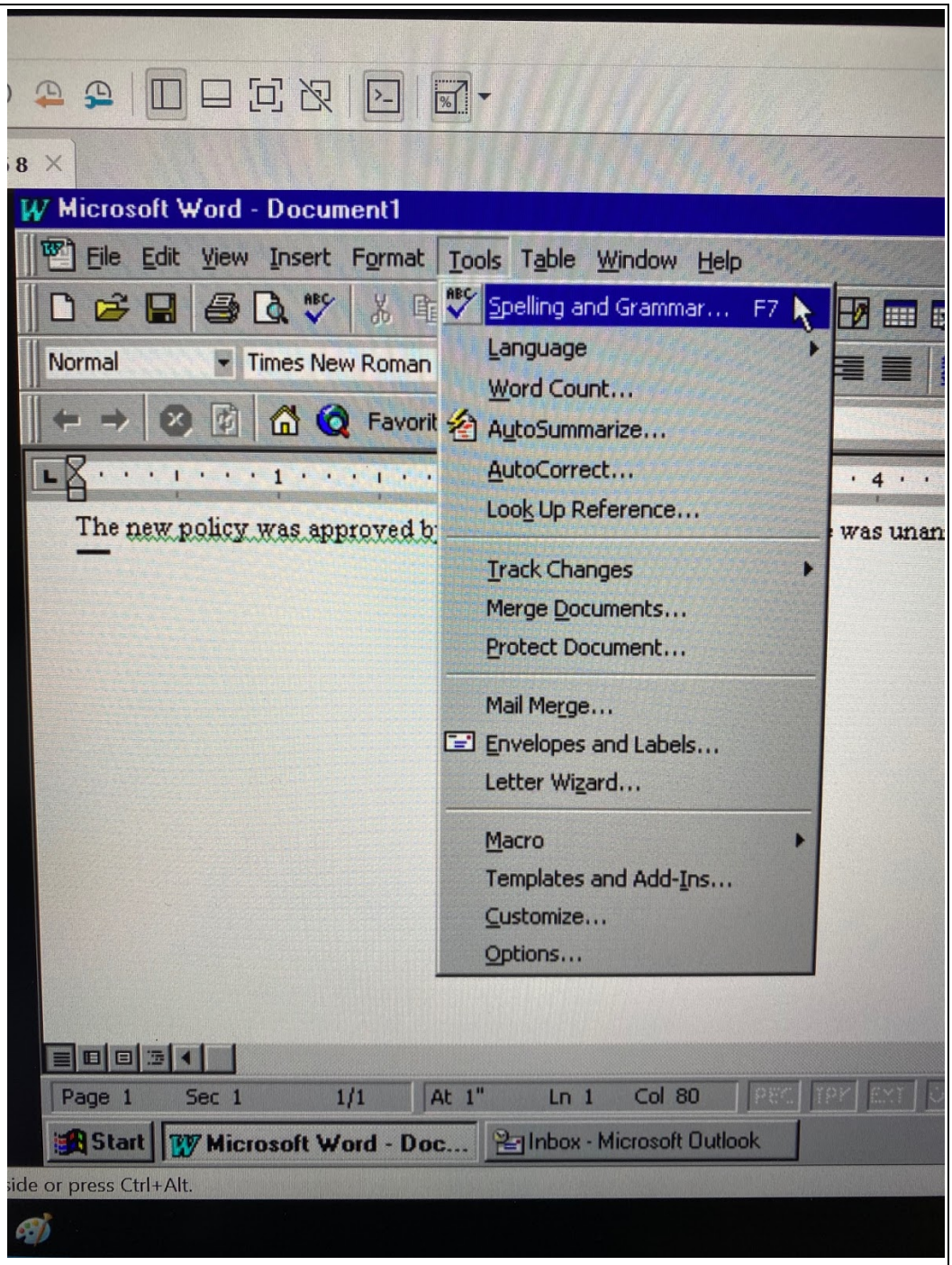
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

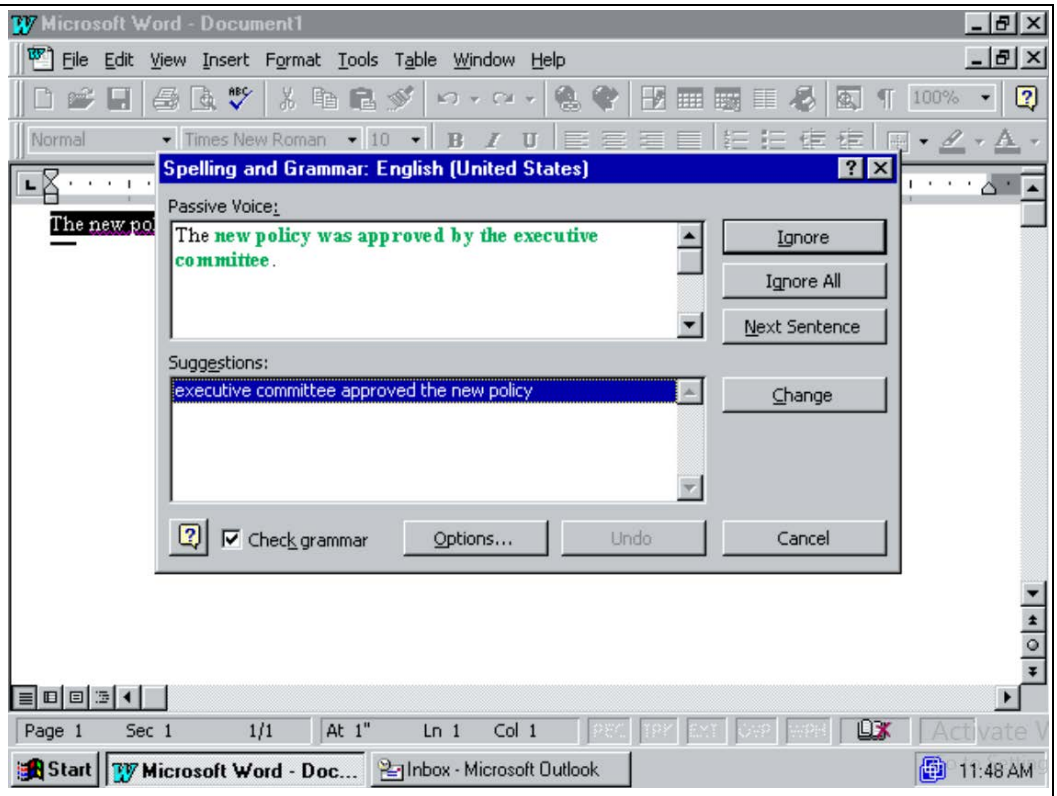
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

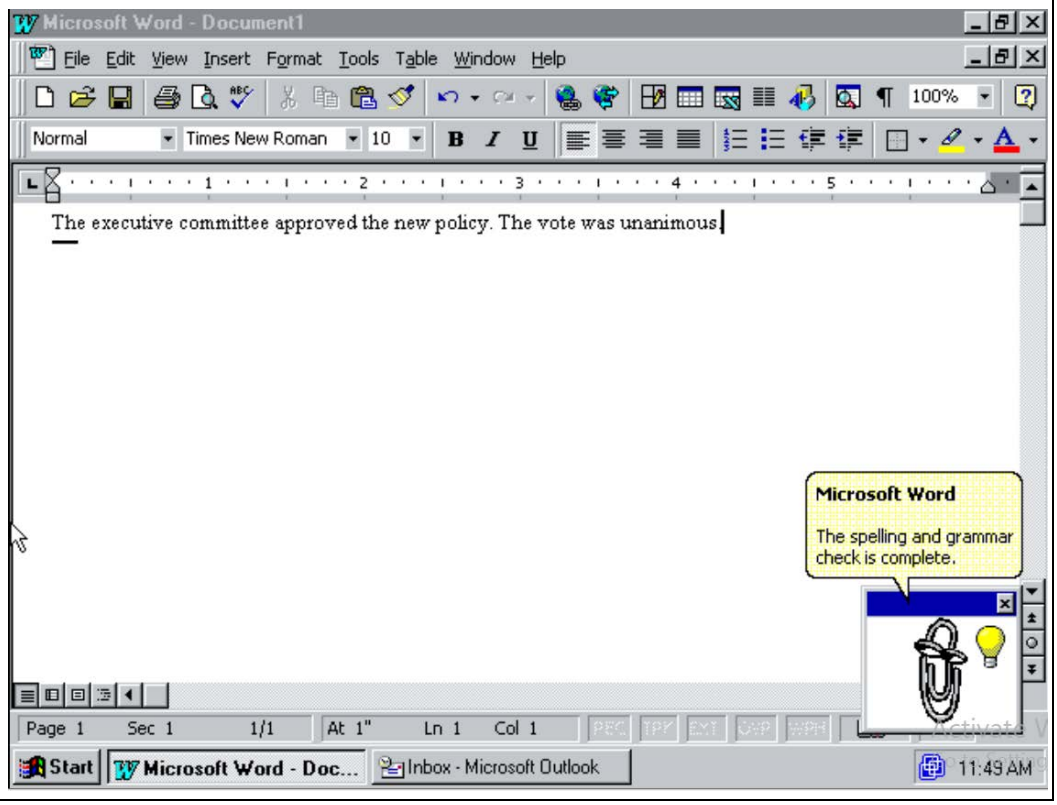


Exhibit L

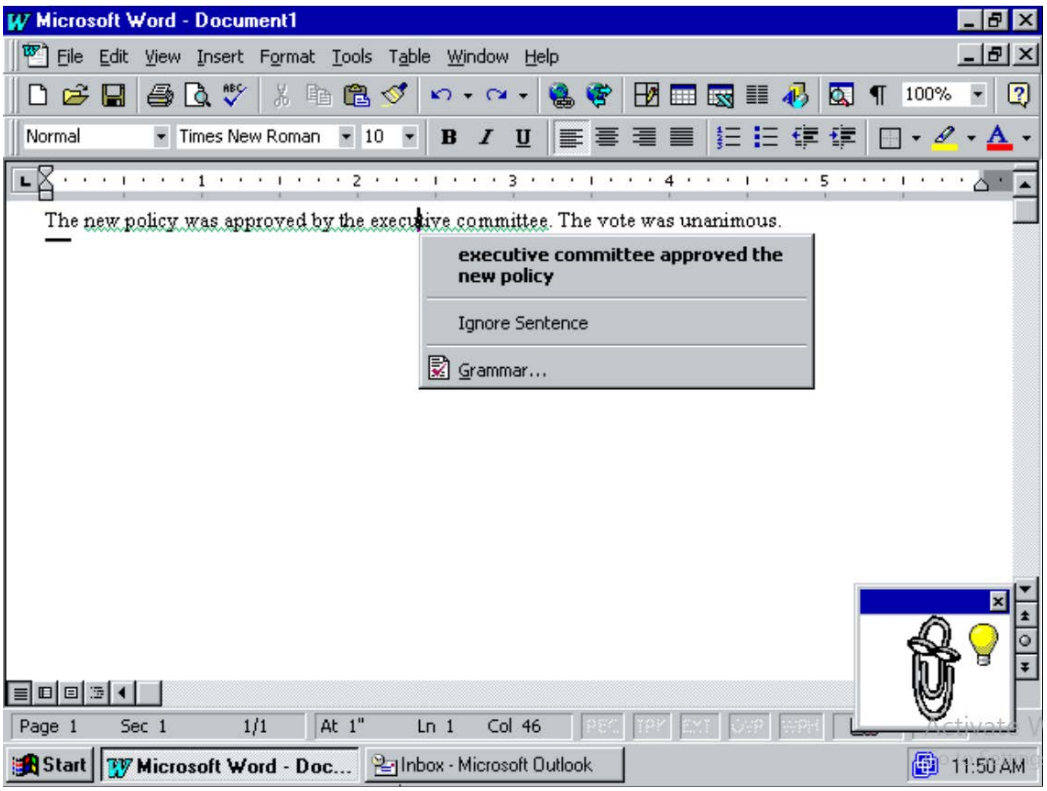
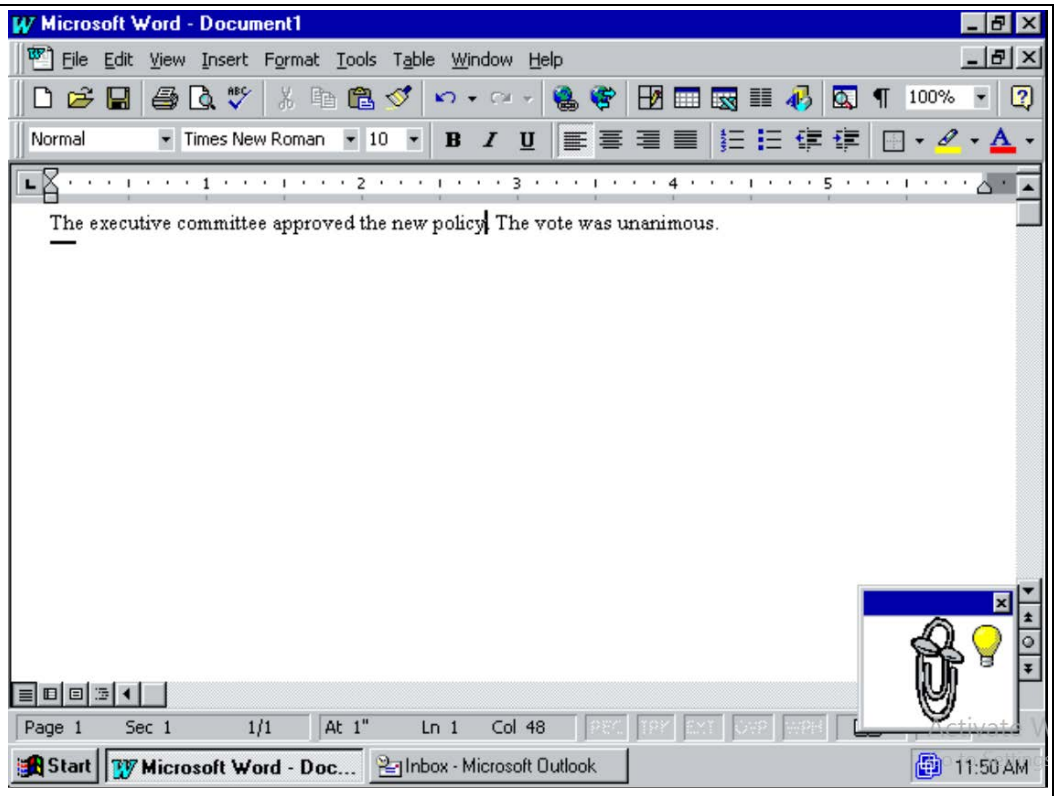
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:

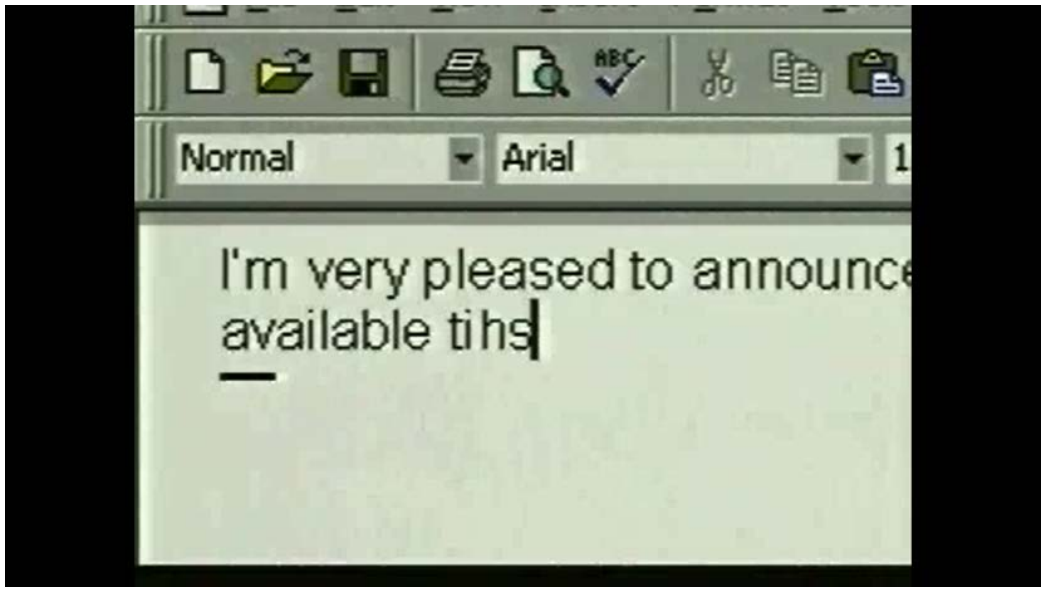
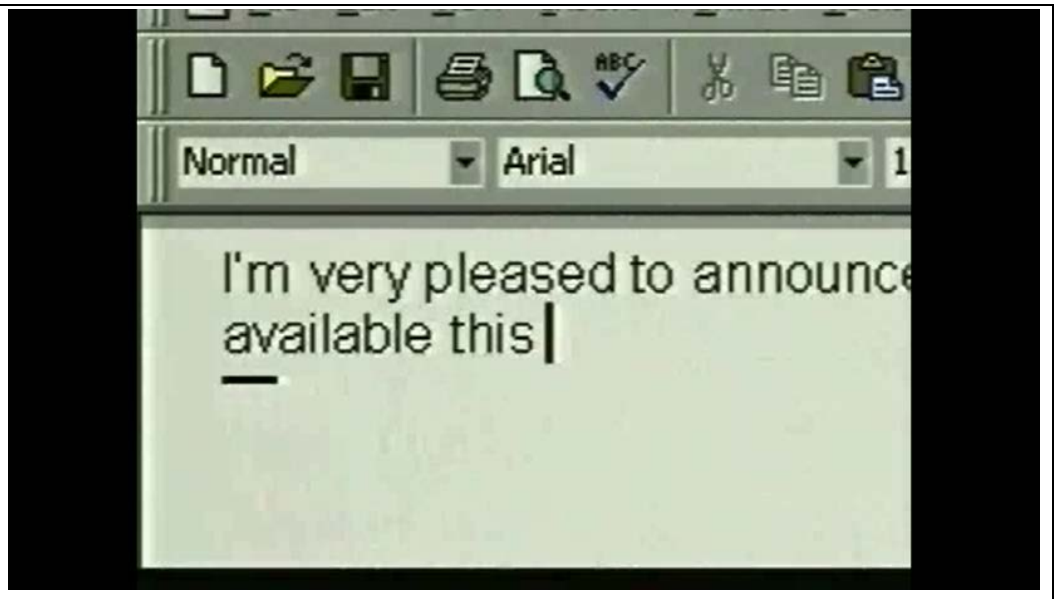
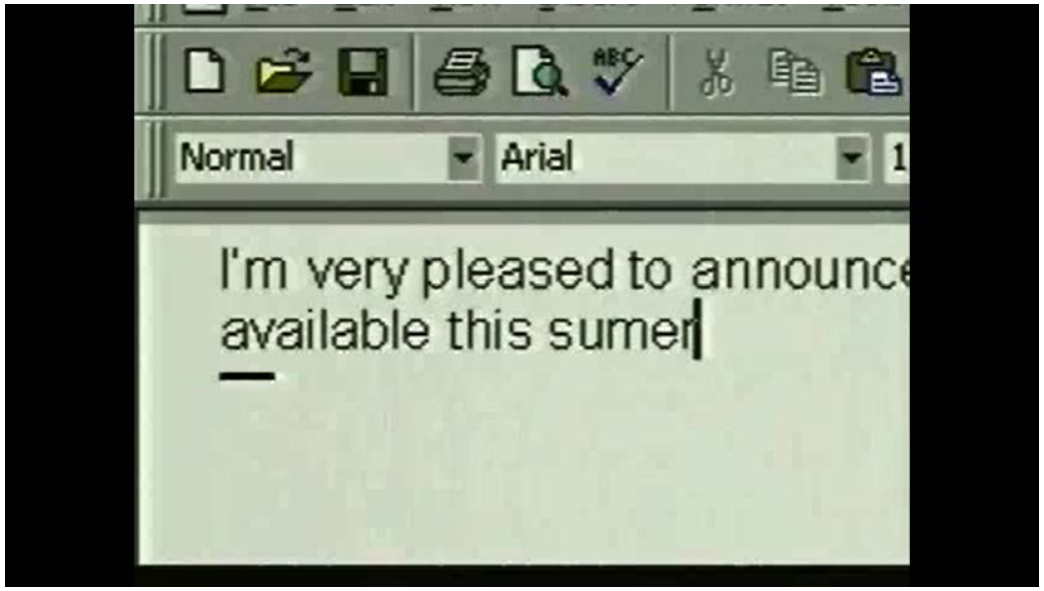


Exhibit L

	 Normal Arial I'm very pleased to announce available this  Normal Arial I'm very pleased to announce available this sumer

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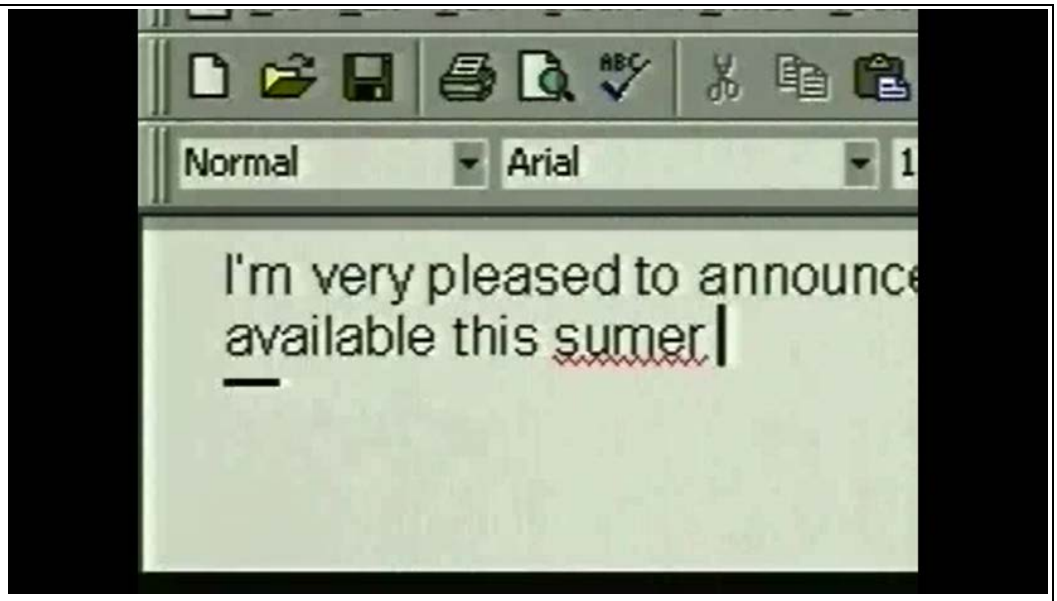
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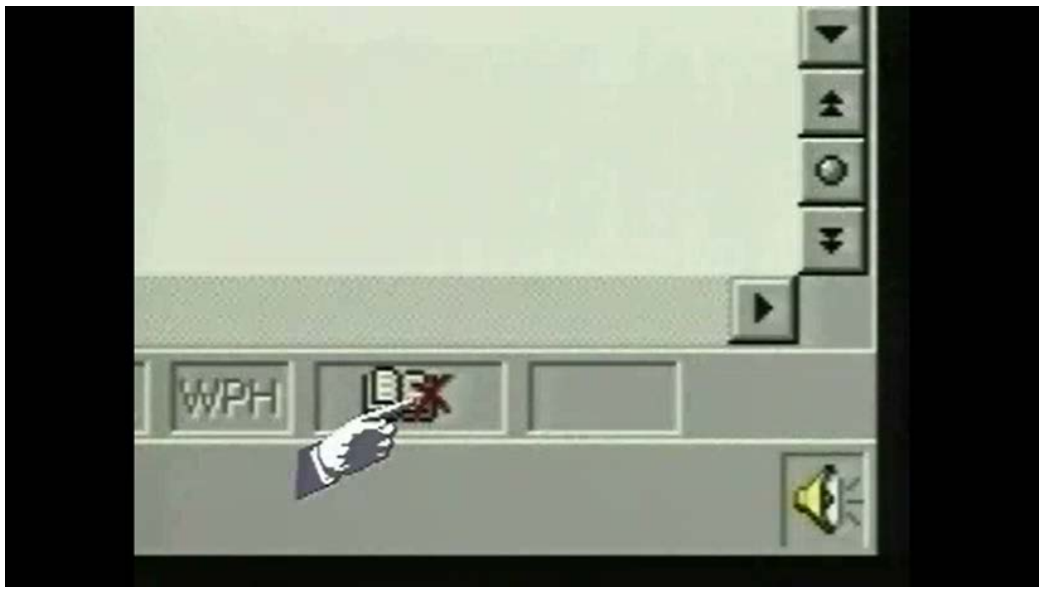
WPH

Exhibit L


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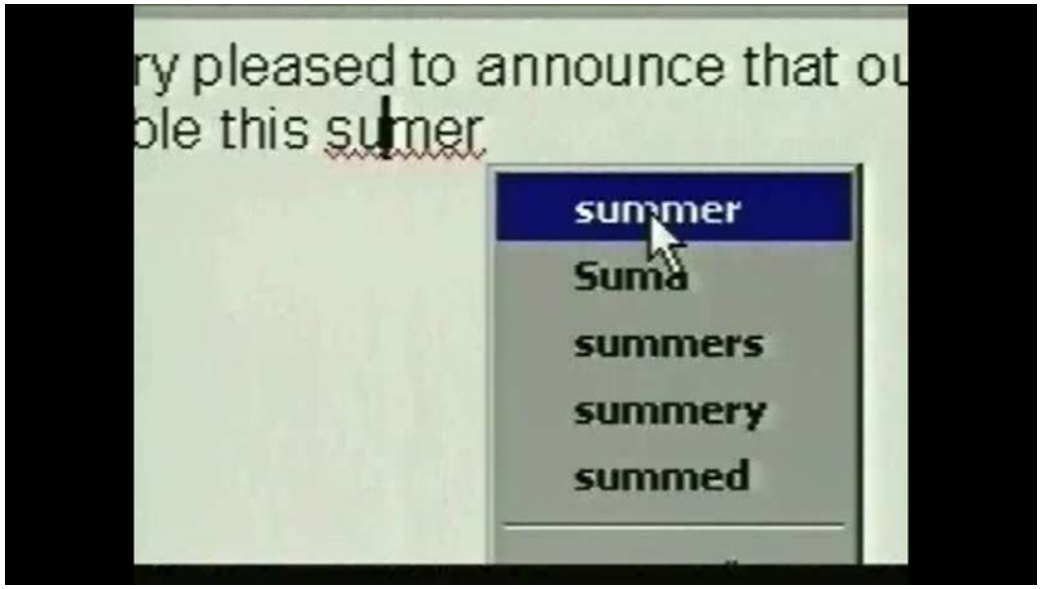
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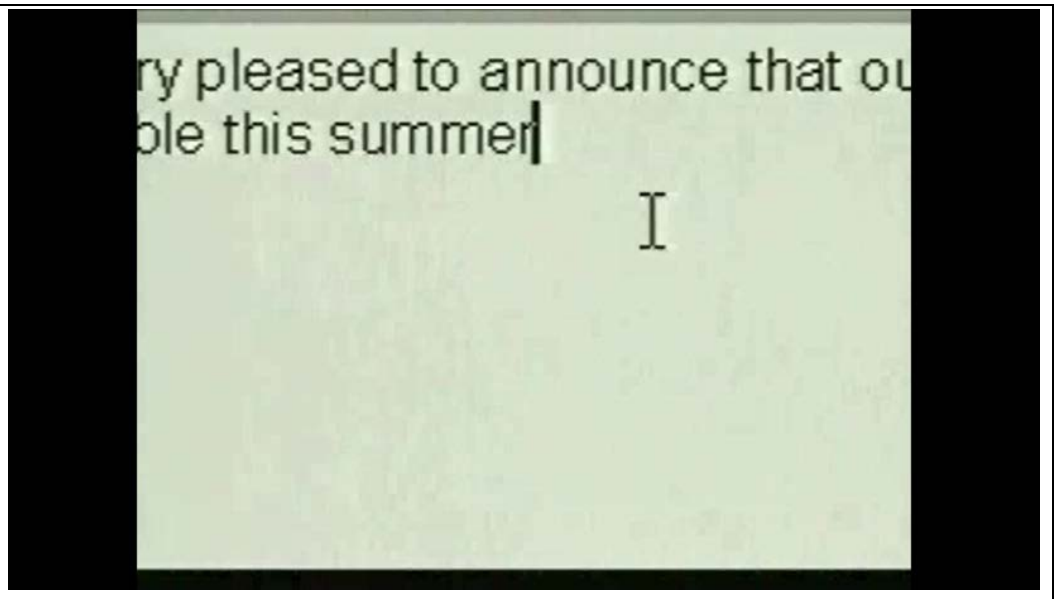
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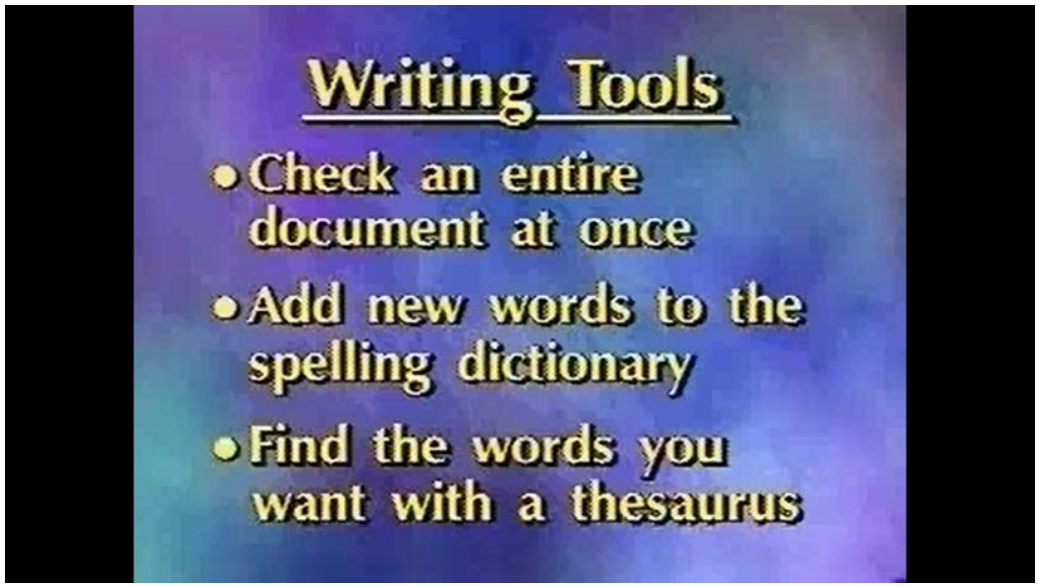

Writing Tools
• Check an entire document at once
• Add new words to the spelling dictionary
• Find the words you want with a thesaurus

Exhibit L

"Insert an individual's name and address in a letter

Insert an address from the Personal Address Book, Scheduler, or Outlook" Person at 477.

"Use the Mail Merge Helper to create a main document and a data source and to control the data merging of documents

The Mail Merge Helper manages the entire mail-merge process in three easy steps." *Id.*

"You can create two types of form letters with Word: those that are filled in manually and those that are filled in from computer-generated lists. In this

Exhibit L

chapter, you learn to create an automated form letter that prompts you for information the document needs for creating an invoice. You learn also how to fill in the blanks in a form letter by merging a mailing list with the main document. Finally, you learn advanced Word techniques for document automation, including a form letter that combines manual fill-in with merging of information."

Id.

"Merging Mailing Lists and Documents

One of the most powerful and time-saving features available in any word processor is mail merge. *Mail merge* enables you to create multiple letters or envelopes by merging together a list of names and addresses with letters, envelopes, or address labels. Mail merge can also be used for such tasks as filling in administrative forms and creating invoices from accounting files. Whenever you keep a list or get a list from other programs and you need to put information into a Word document, you should consider using mail merge.

The time you save by using mail merge can be tremendous. Instead of typing or modifying tens or hundreds of documents, Word can make all the documents for you. All you need to do is keep your list (names, addresses, and so on) up-to-date and create a form letter in which to insert the data. In fact, you can even make each document pause during mail merge so that you can enter personalized information." *Id.* at 485.

Word 97 Core Lesson 16 further discloses:

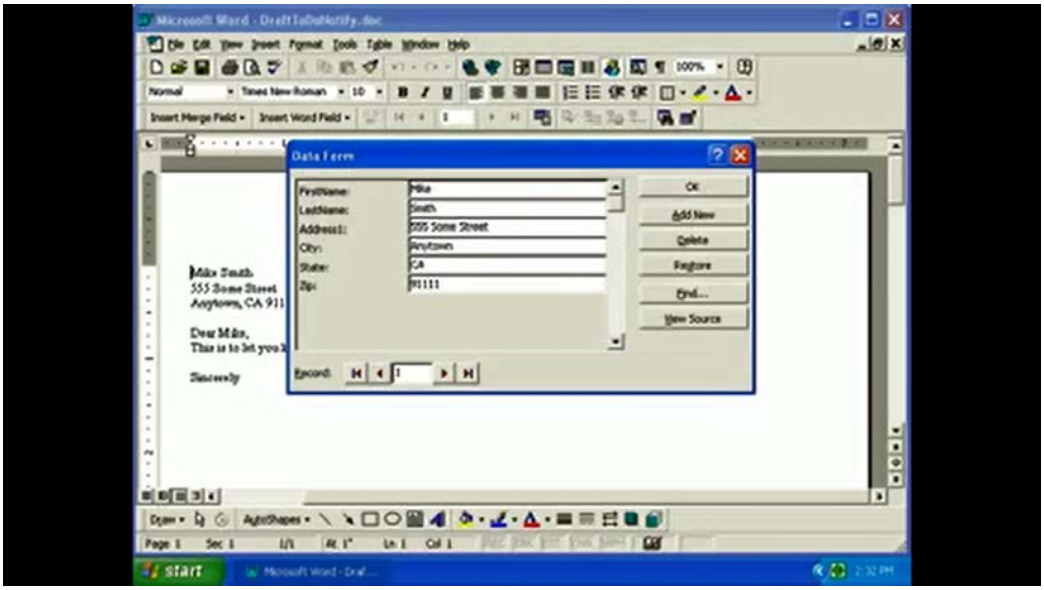
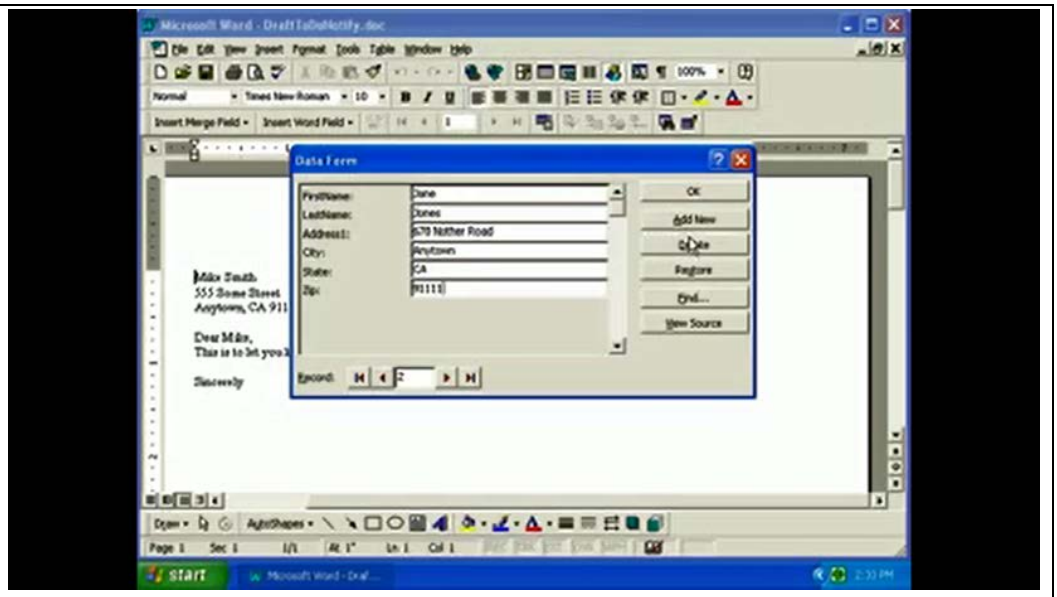


Exhibit L


Microsoft Word - DraftToDoNotify.doc
Data Form
OK
Add New
Delete
Restore
Find...
View Source
Max Smith
555 Some Street
Anytown, CA 91111
Dear Max,
Sincerely
start

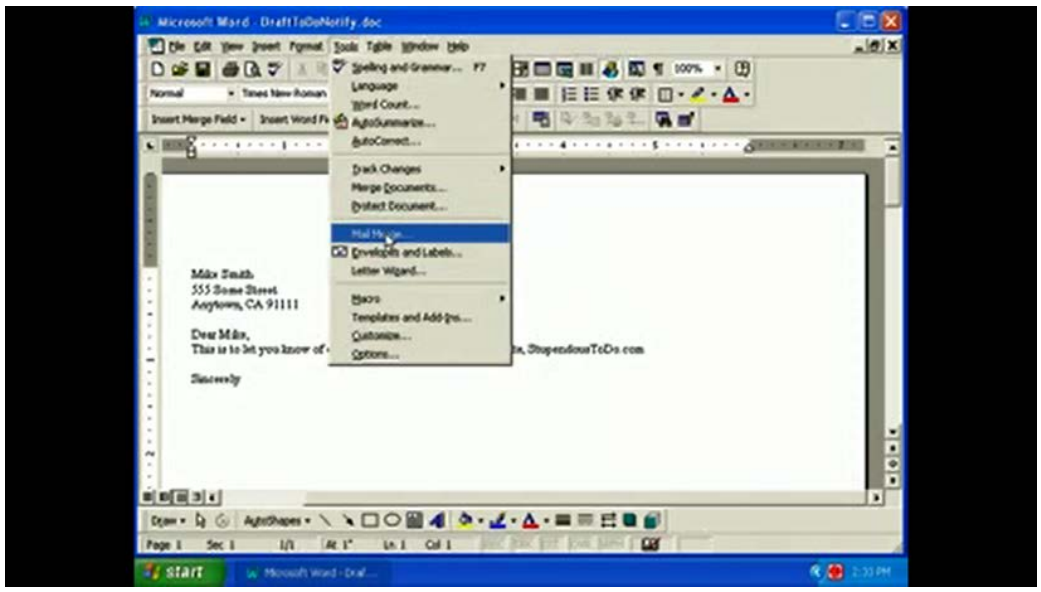
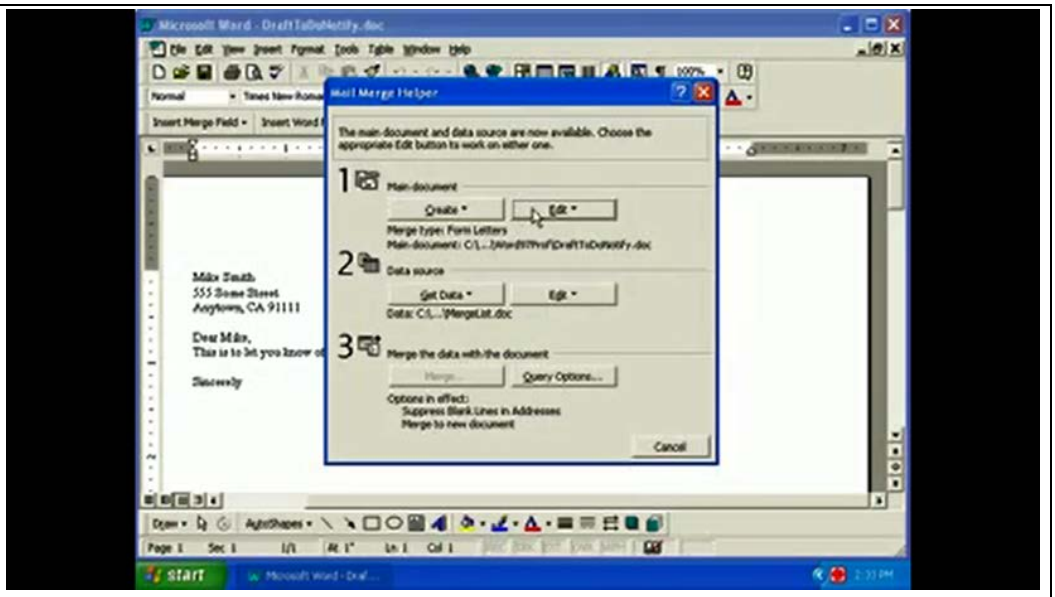

Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar... F7
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Mail Merge...
Envelopes and Labels...
Letter Wizard...
Macros
Templates and Add-Ins...
Customize...
Options...
Max Smith
555 Some Street
Anytown, CA 91111
Dear Max,
Sincerely
start

Exhibit L


Microsoft Word - DraftToDoNotify.doc
Mail Merge Helper
The main document and data source are now available. Choose the appropriate Edit button to work on either one.
1 Main document
Create
Edit
Merge type: Form Letters
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel
Max Smith
555 Some Street
Anytown, CA 91111
Dear Max,
Sincerely
start

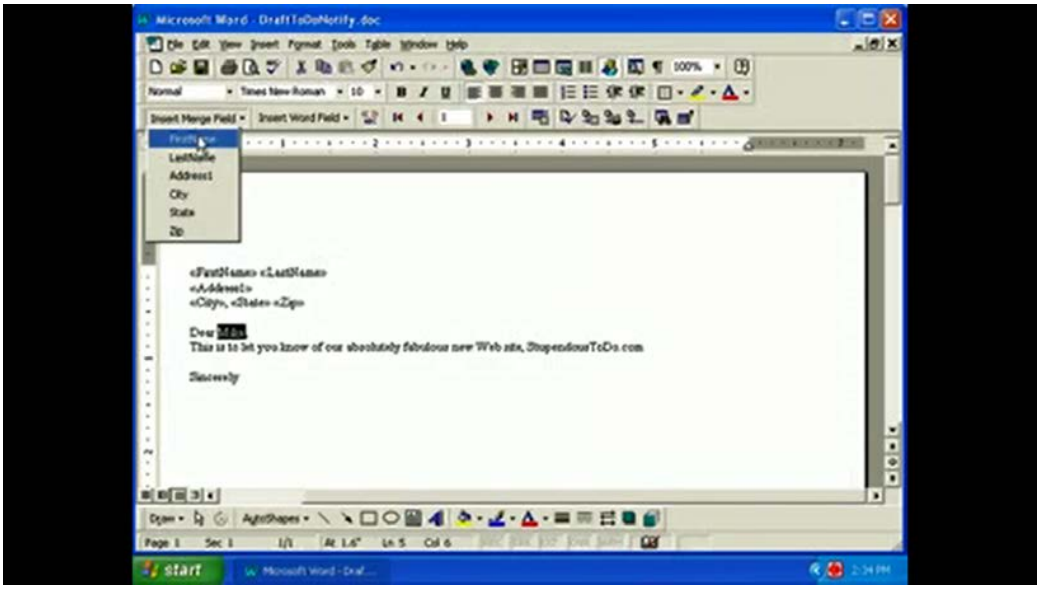
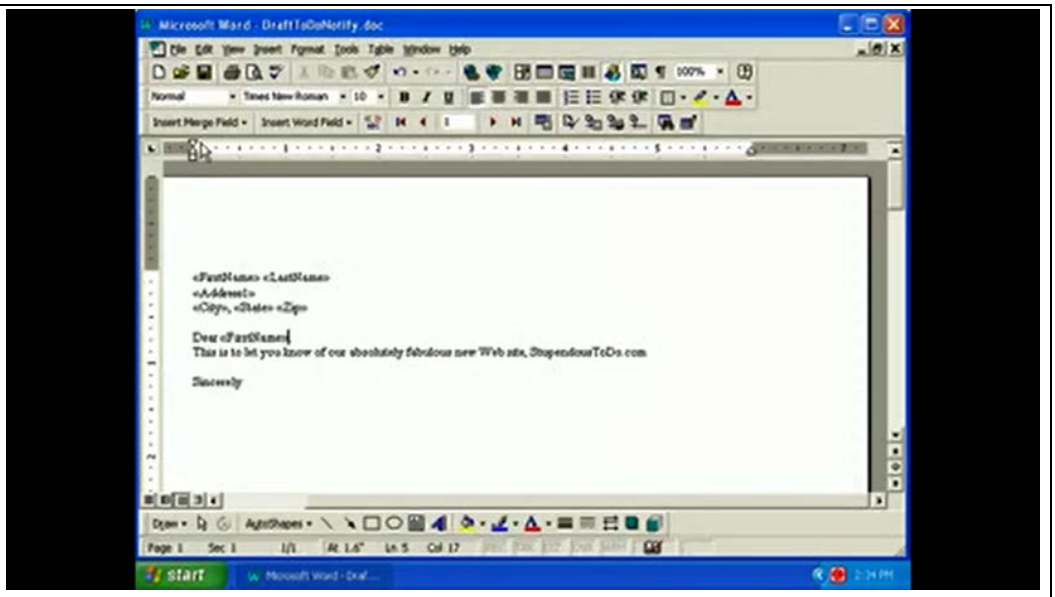

Microsoft Word - DraftToDoNotify.doc
Insert Merge Field
Insert Word Field
FirstName
LastName
Address1
City
State
Zip
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear Max,
This is to let you know of our absolutely fabulous new Web site, StupendousToDo.com
Sincerely
start

Exhibit L


Microsoft Word - DraftToDoNotify.doc
Dear <FirstName>
Sincerely
start

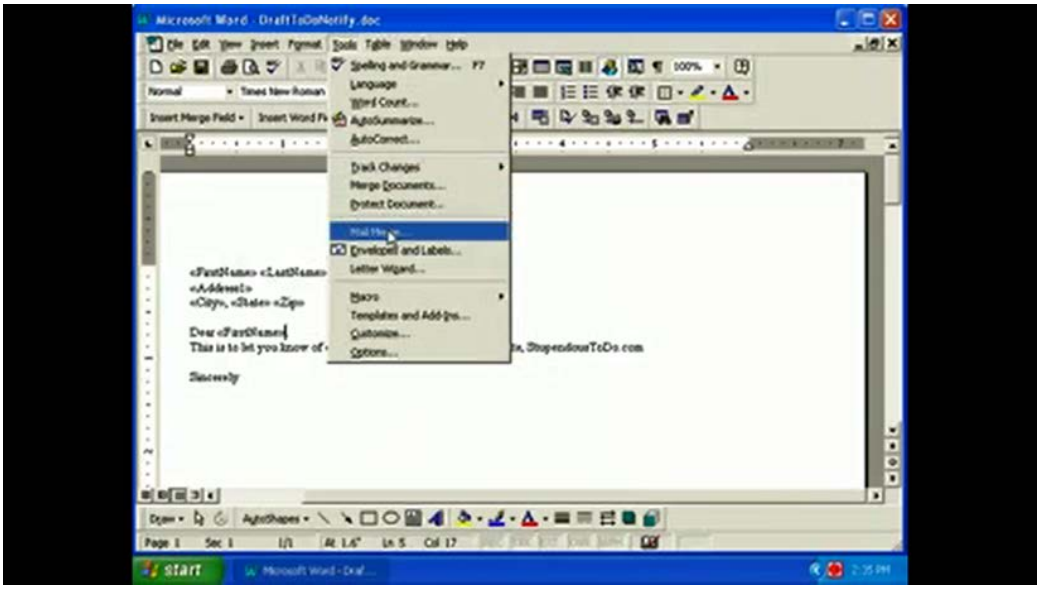
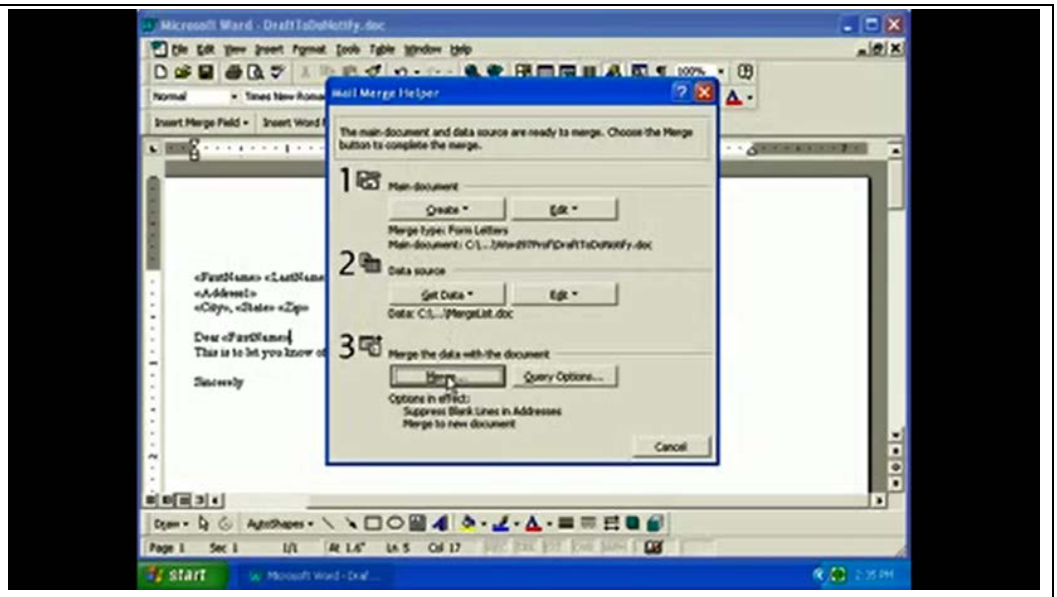

Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar... F7
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Envelopes and Labels...
Letter Wizard...
Macros
Templates and Add-Ins...
Customize...
Options...
Dear <FirstName>
Sincerely
start

Exhibit L


Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

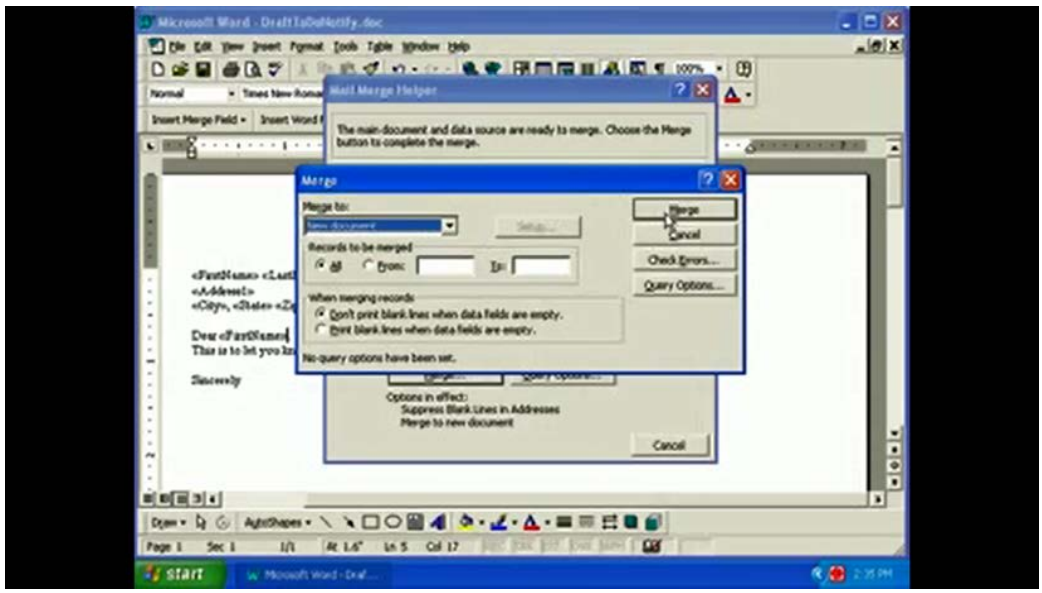

Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
Merge
Merge to:
Records to be merged
All
From:
To:
When merging records:
Don't print blank lines when data fields are empty.
Print blank lines when data fields are empty.
No query options have been set.
Merge
Cancel
Check Errors...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

Exhibit L

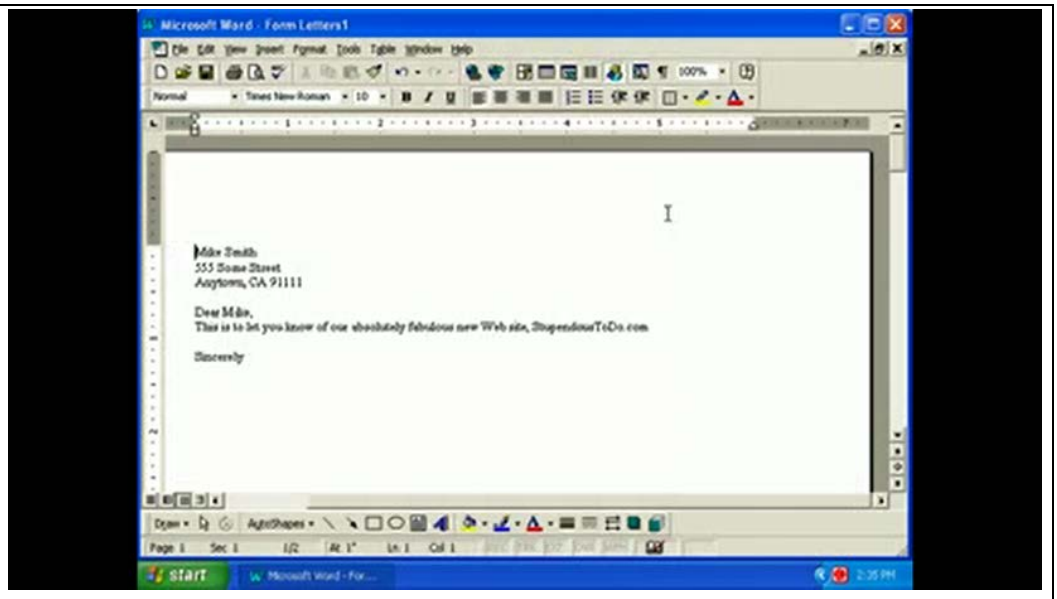
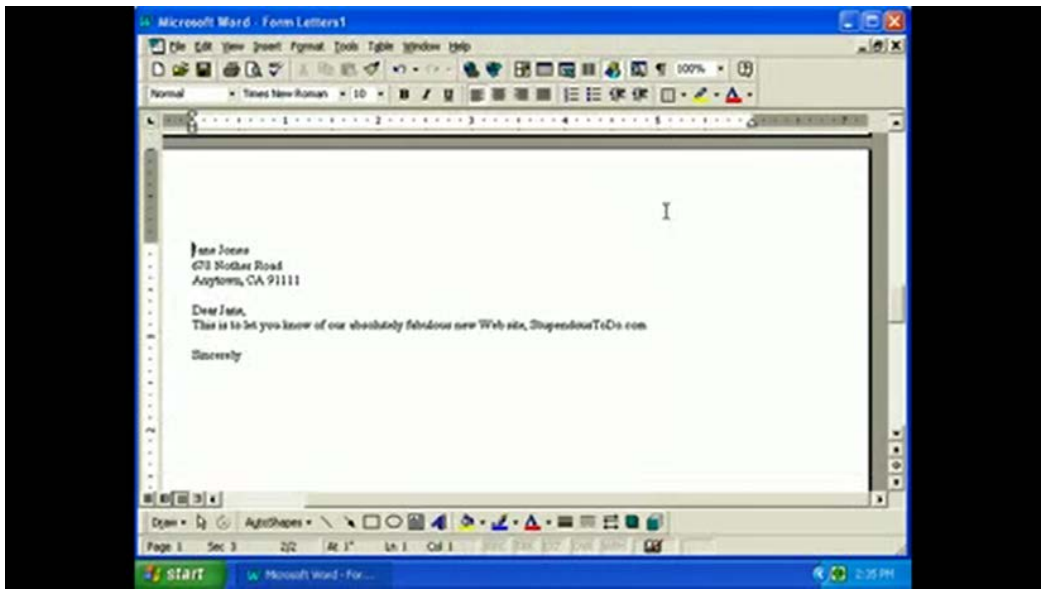
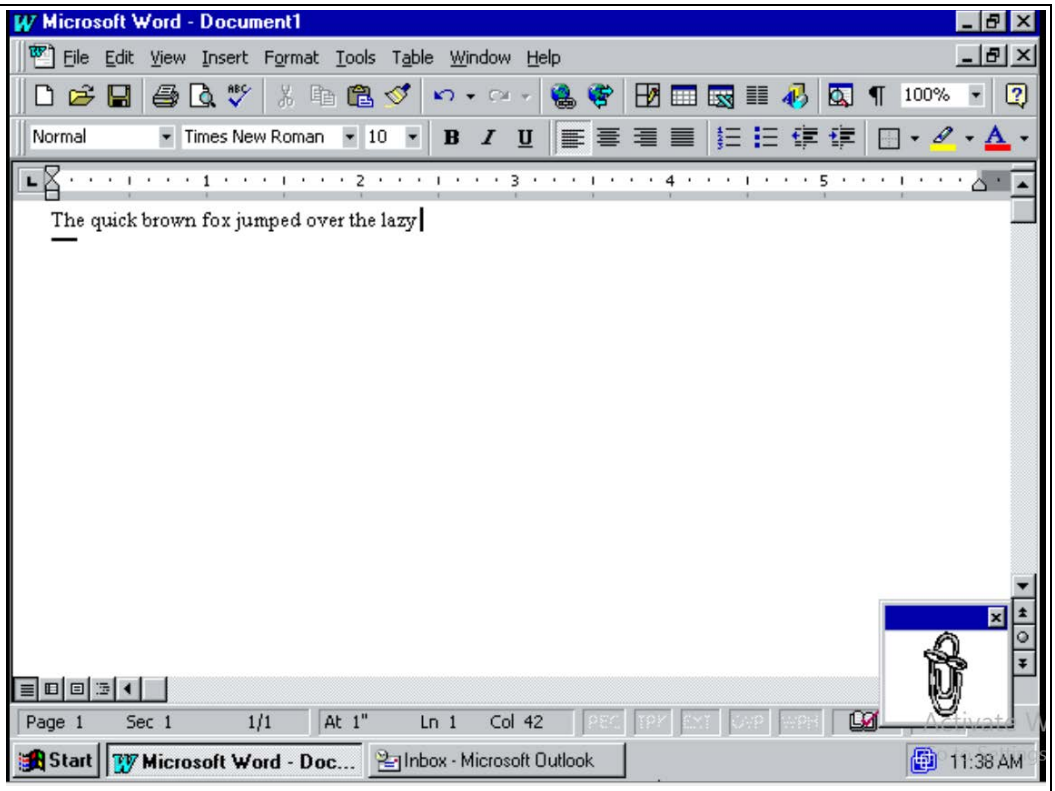
	  For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 1, 9, and 18.
displaying the document electronically using the first computer program;	Word 97 discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses displaying the document electronically using the first computer program. Specifically, Word 97 discloses:

Exhibit L



Word 97.

Word 97 further discloses:

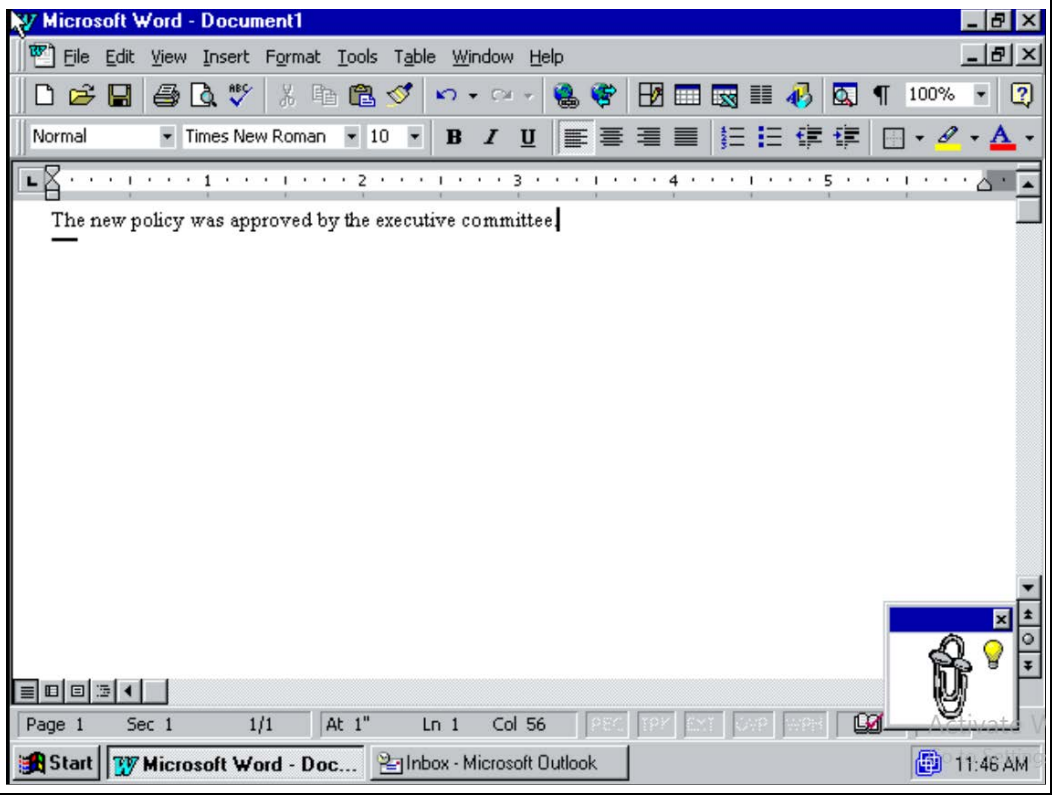


Exhibit L

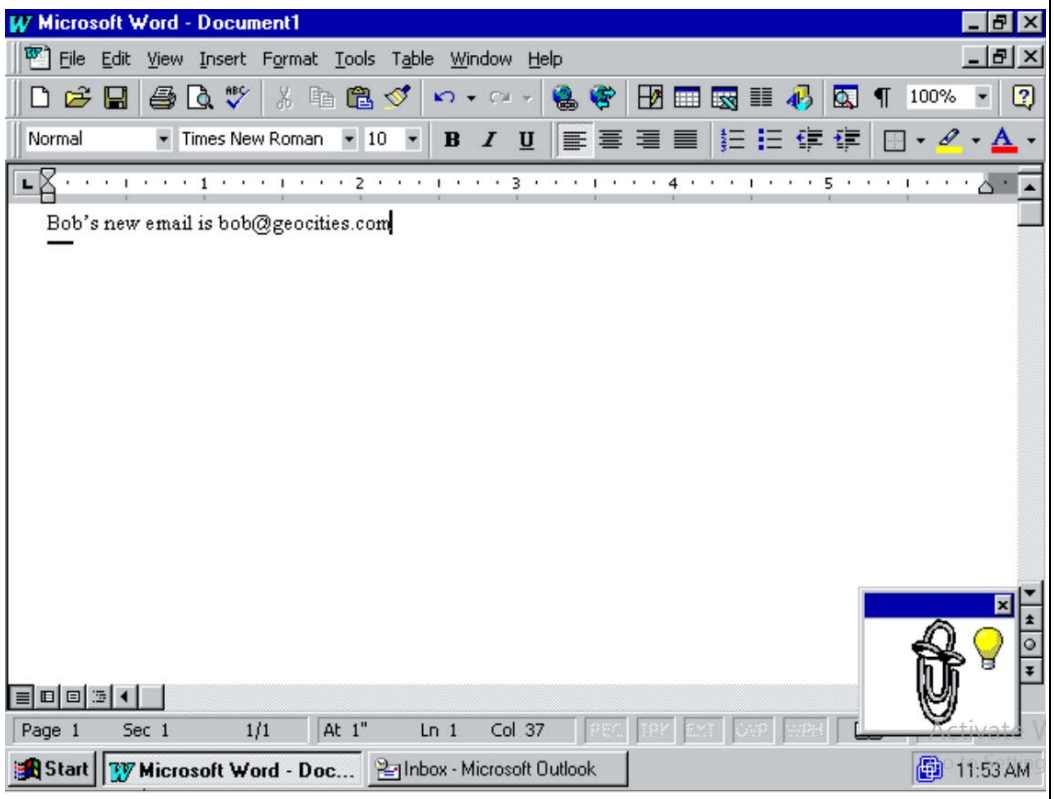
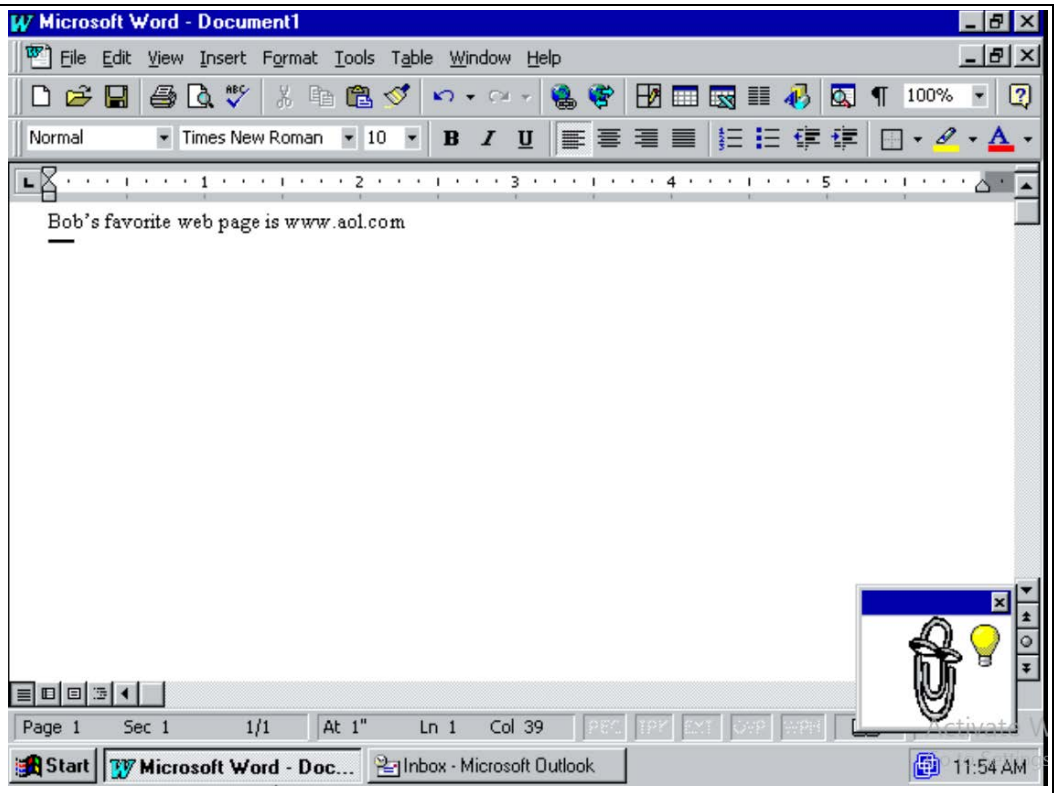
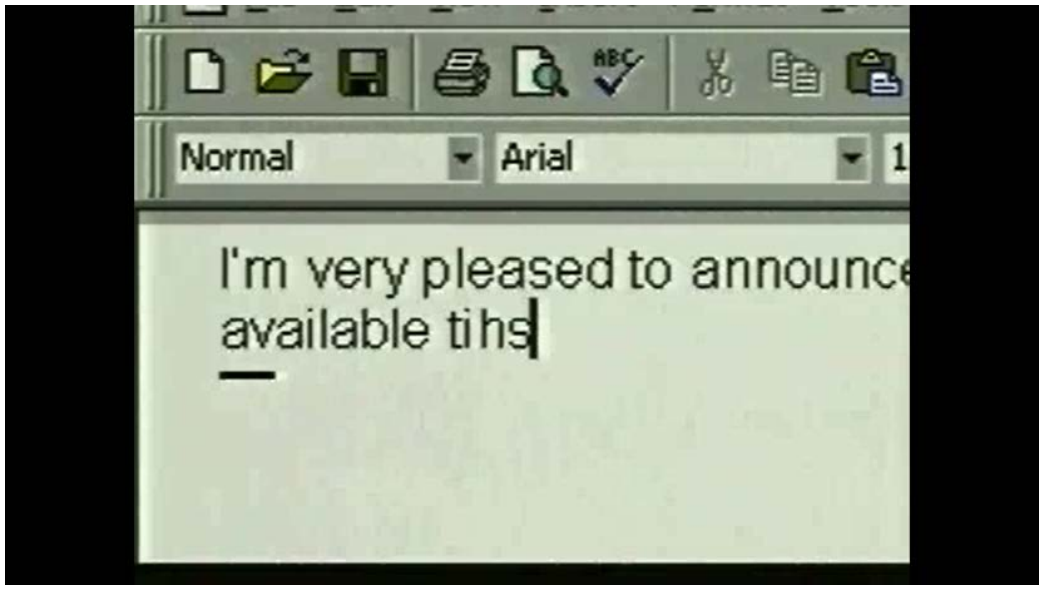
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:



"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information

Exhibit L

	by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "If you click Edit Main Document, Word displays the main document as a normal Word document with one exception--the Mail Merge toolbar is now

Exhibit L

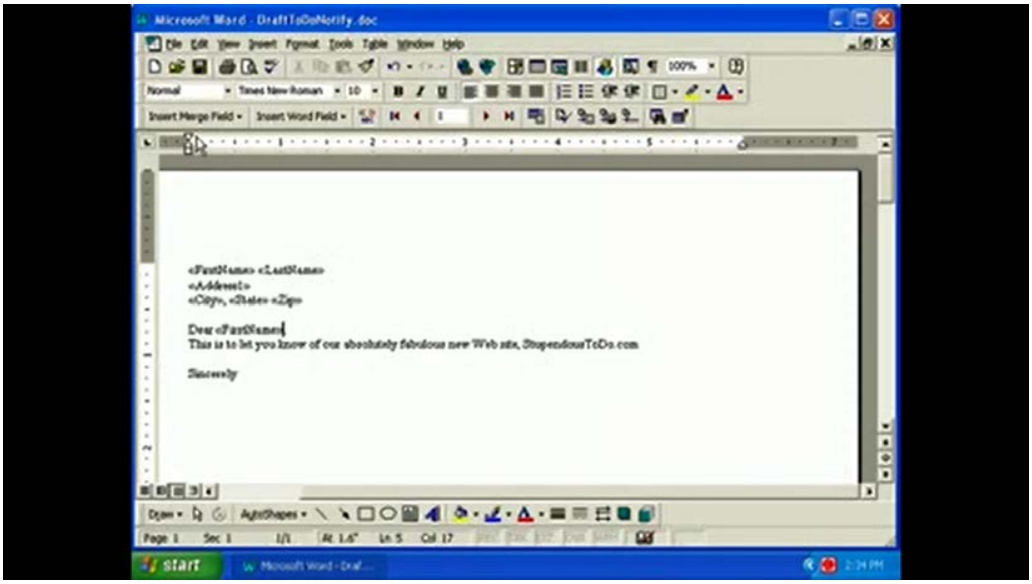
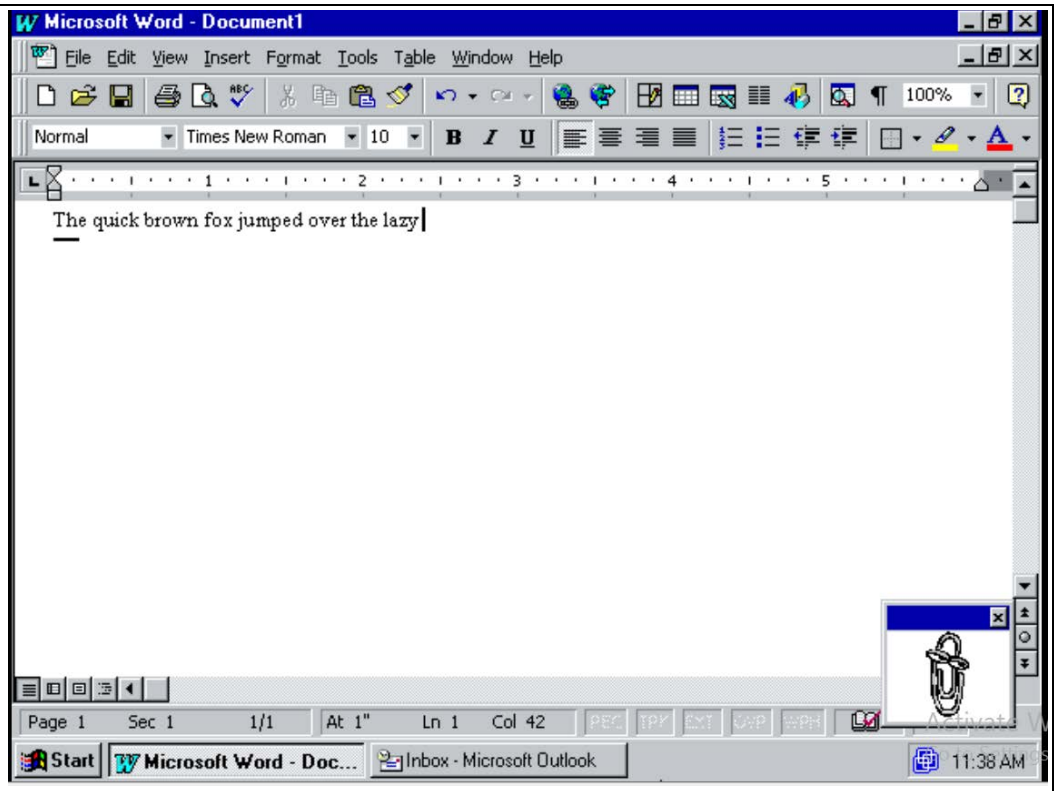
	displayed below the toolbar(s) and above the ruler (see Figure 17.16). With the main document on-screen, you can create a main document in which the data will be inserted." *Id.* at 491. Word 97 Core Lesson 16 further discloses:  For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Word 97 discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information. Specifically, Word 97 discloses:

Exhibit L



Word 97.

Word 97 further discloses:

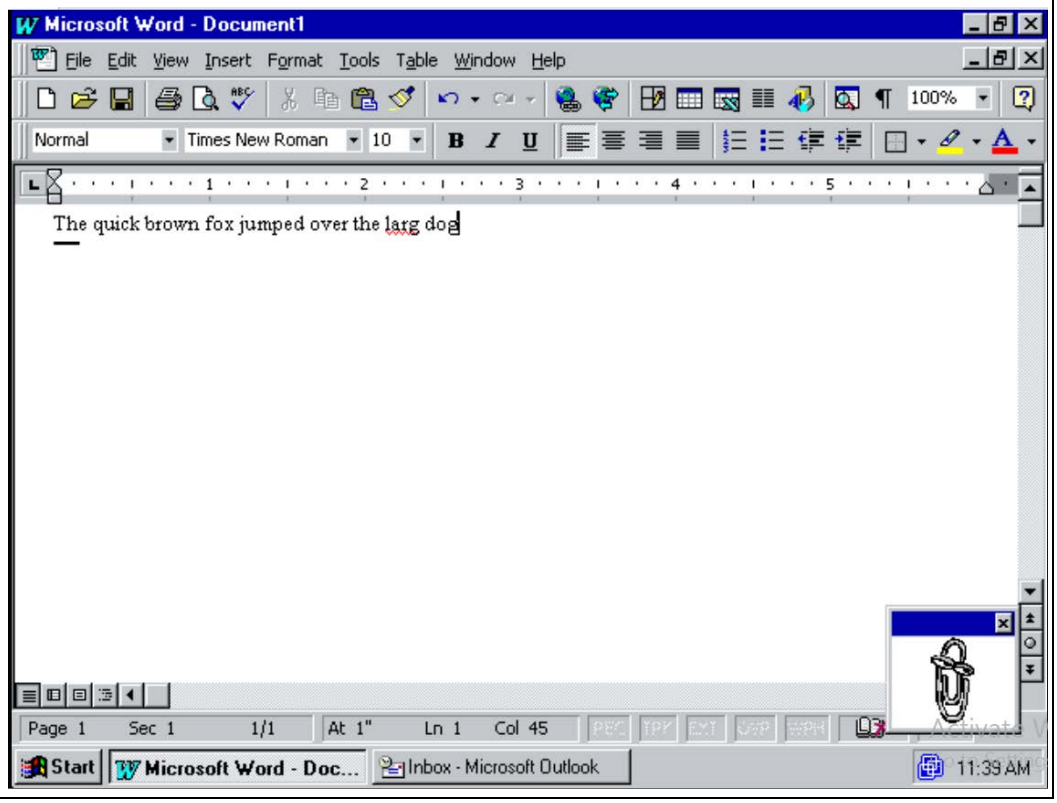


Exhibit L

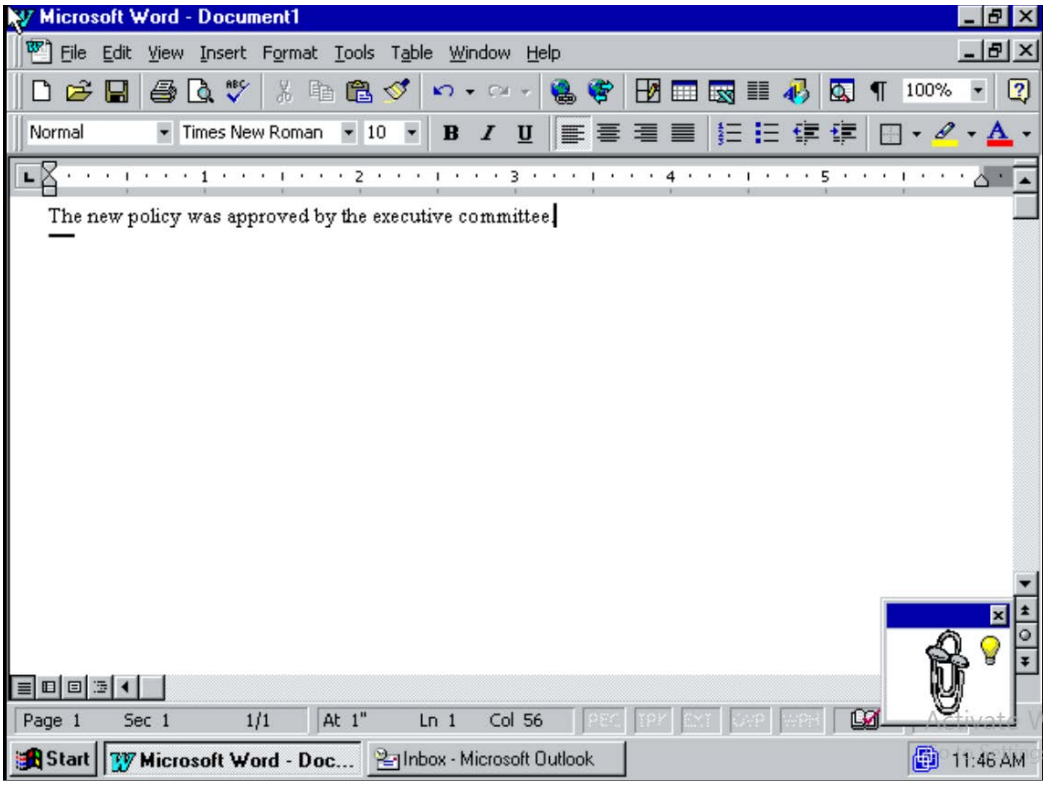
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L

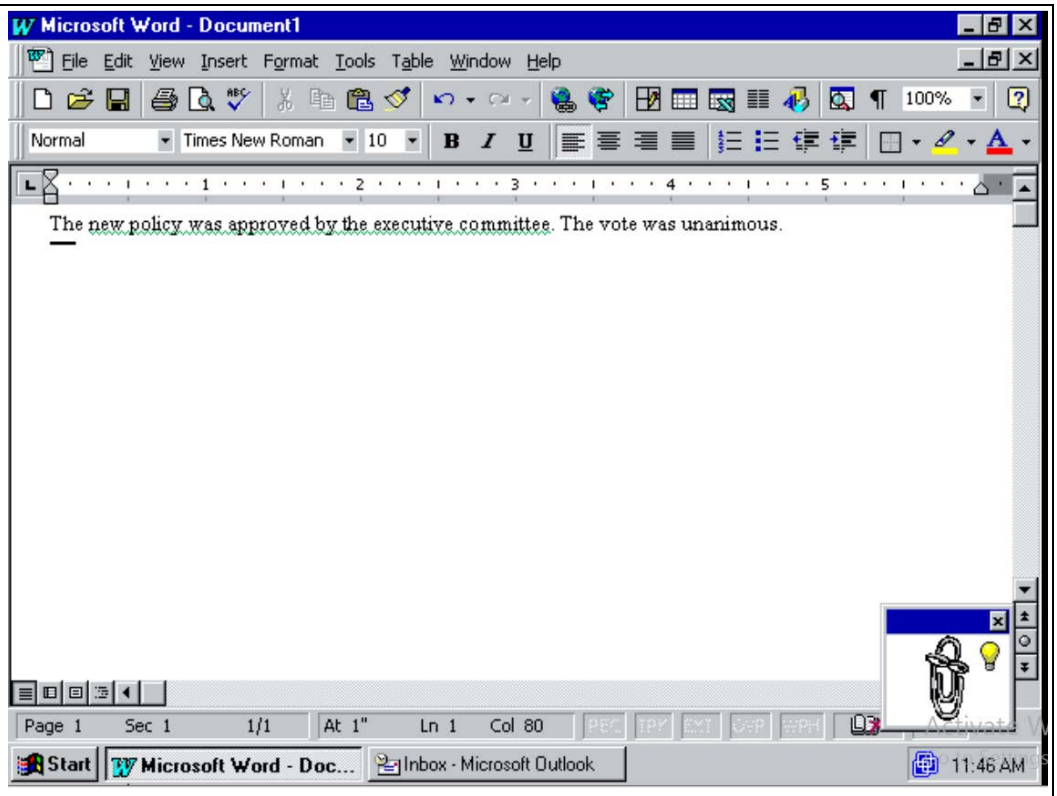
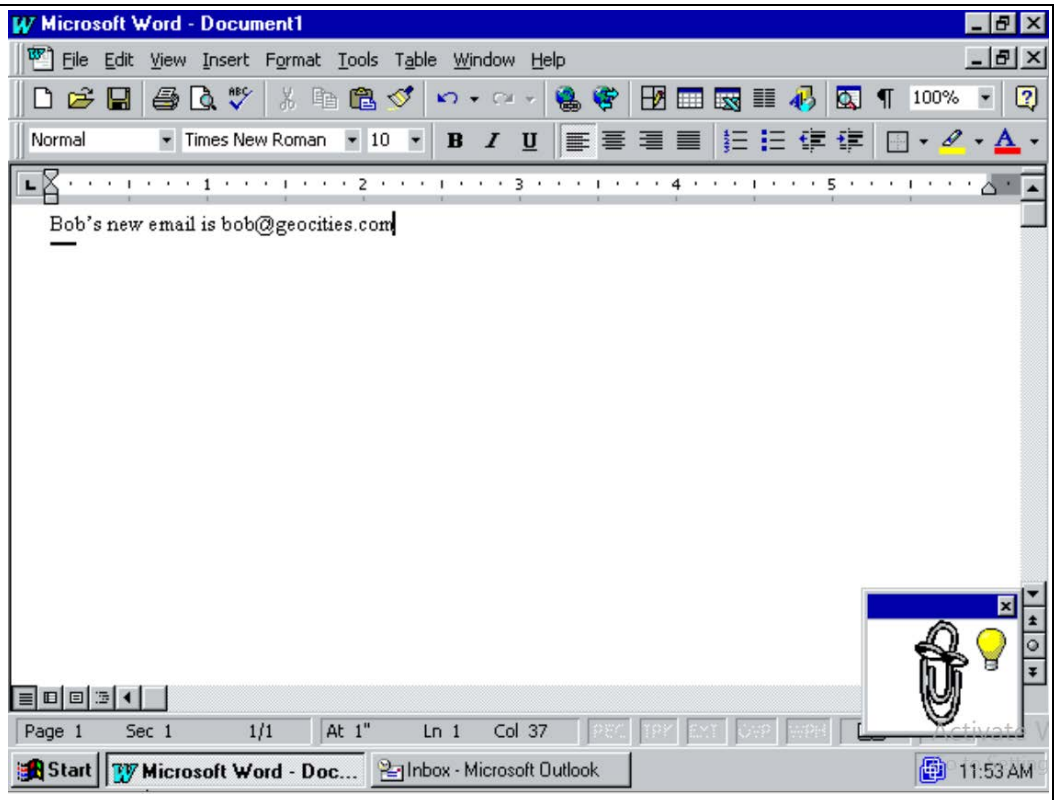
	 Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

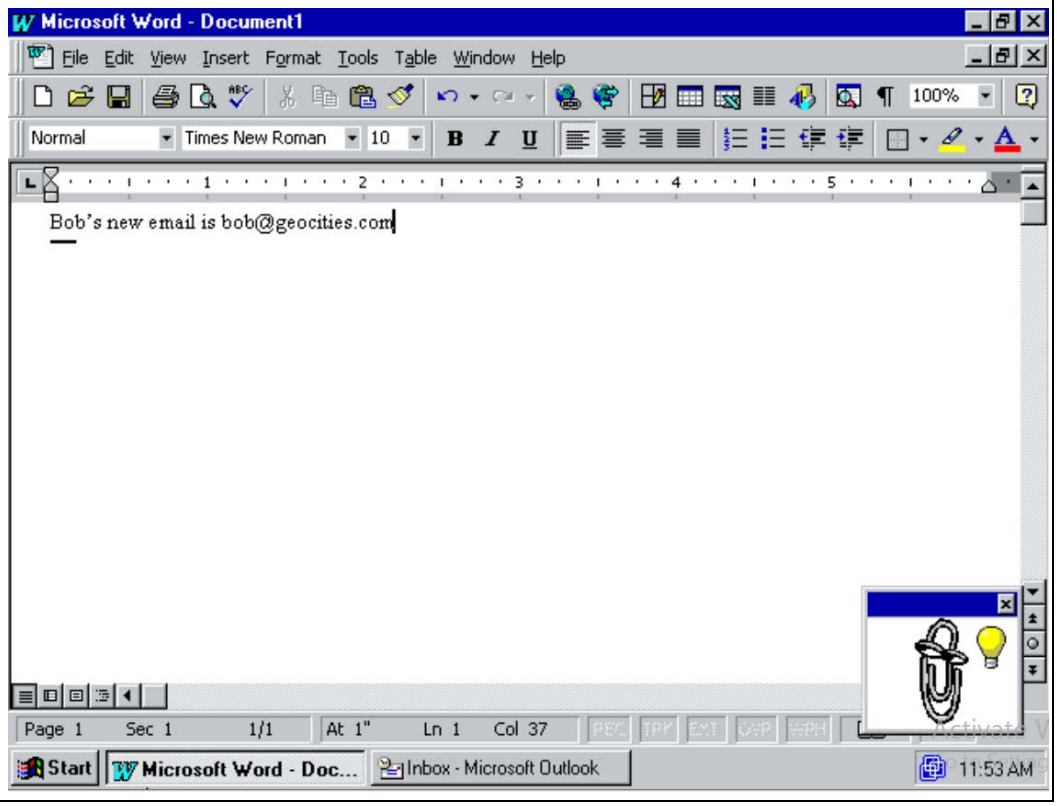


Exhibit L

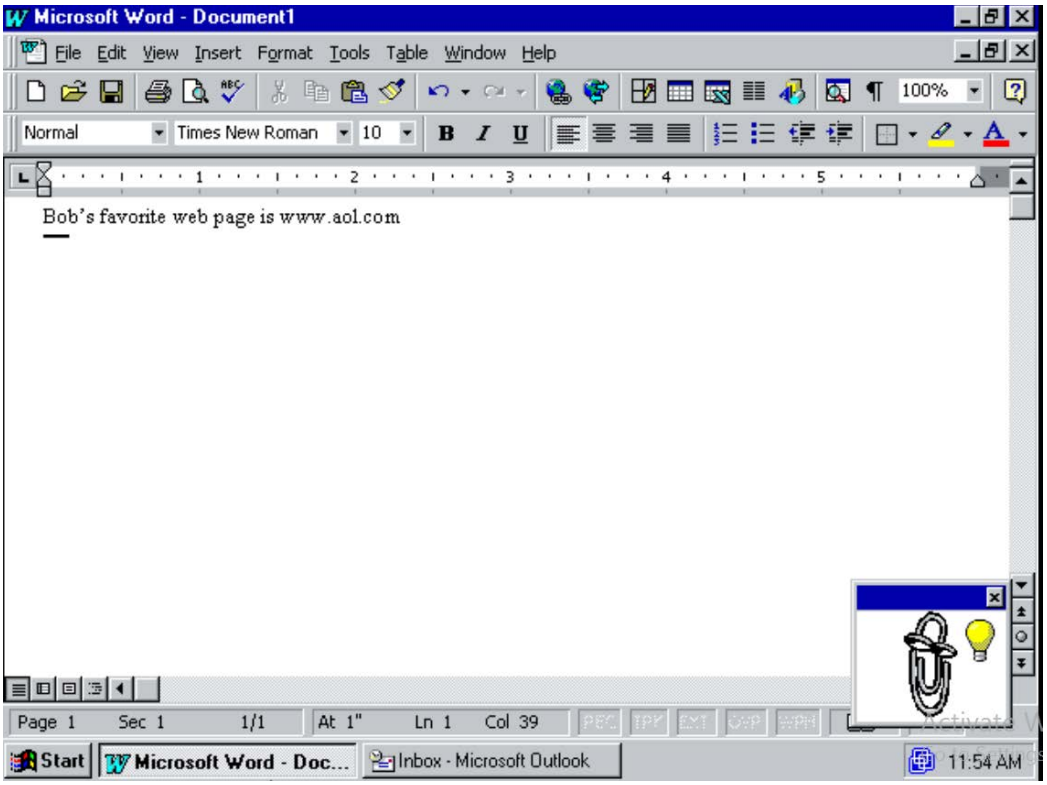
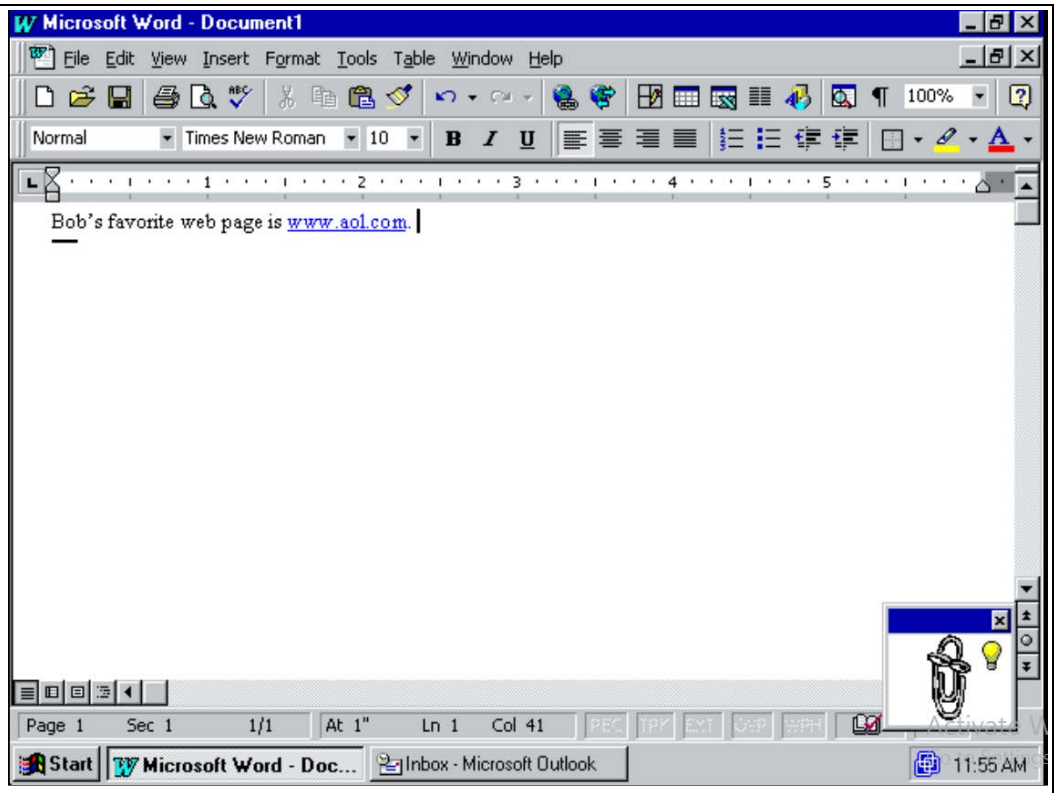
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:

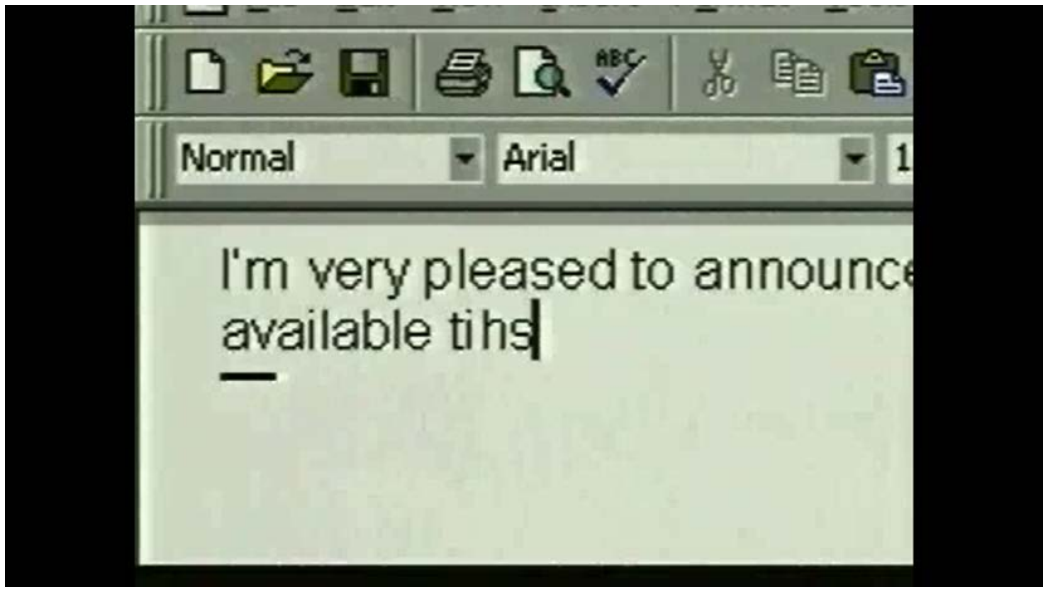
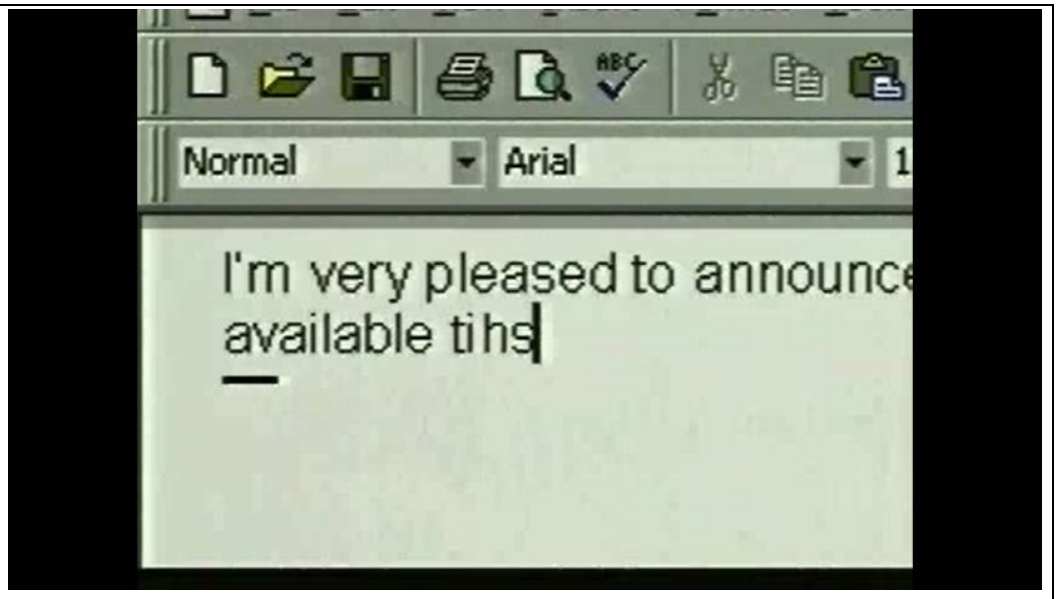


Exhibit L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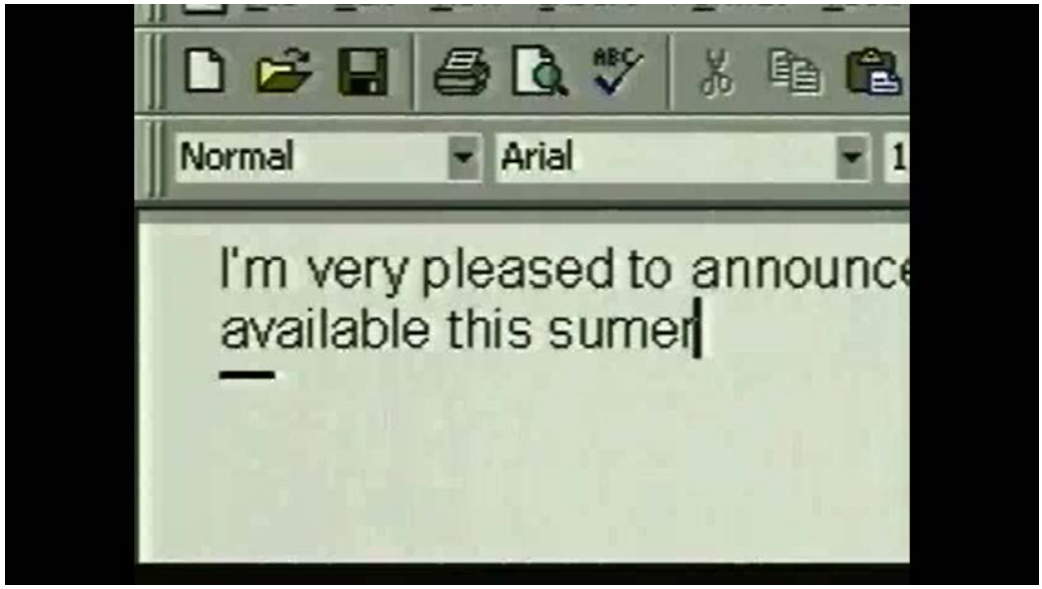
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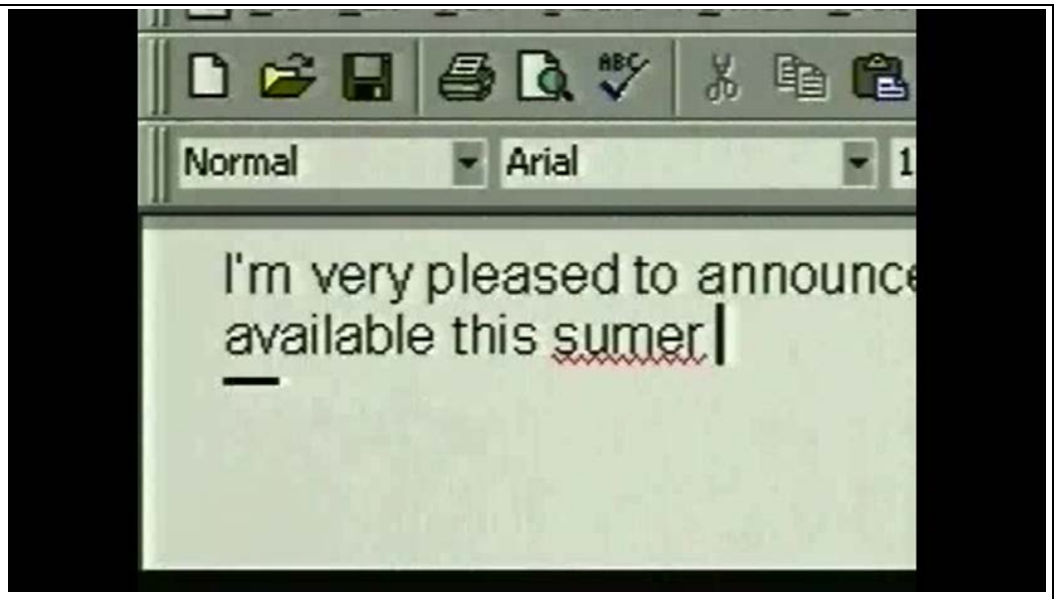
Exhibit L



"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

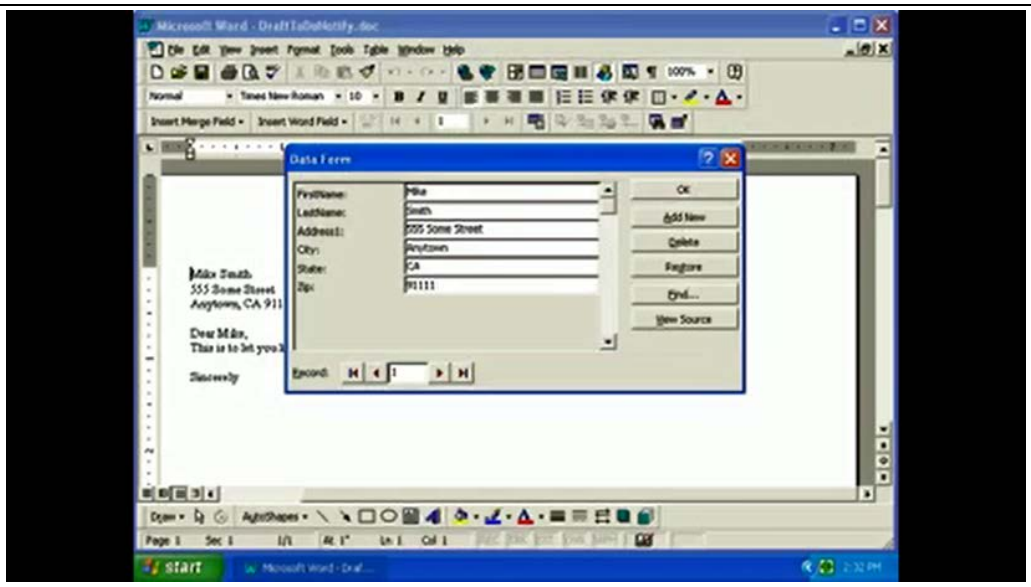
"1. Position the insertion point in the document where you want to past a person's address.

2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1

Exhibit L

	3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. "Word enables you to select the records you want to merge. You can build *rules* that limit which data is merged. The rules form English statements specifying the data you want to merge." *Id.* at 508. Word 97 Core Lesson 16 further discloses:

Exhibit L


Microsoft Word - DraftToDoNotify.doc
Data Form
FirstName:
Mike
LastName:
Smith
Address1:
555 Some Street
City:
Anytown
State:
CA
Zip:
91111
OK
Add New
Delete
Restore
Find...
View Source
Record:
Mike Smith
555 Some Street
Anytown, CA 911
Dear Mike,
Sincerely
start

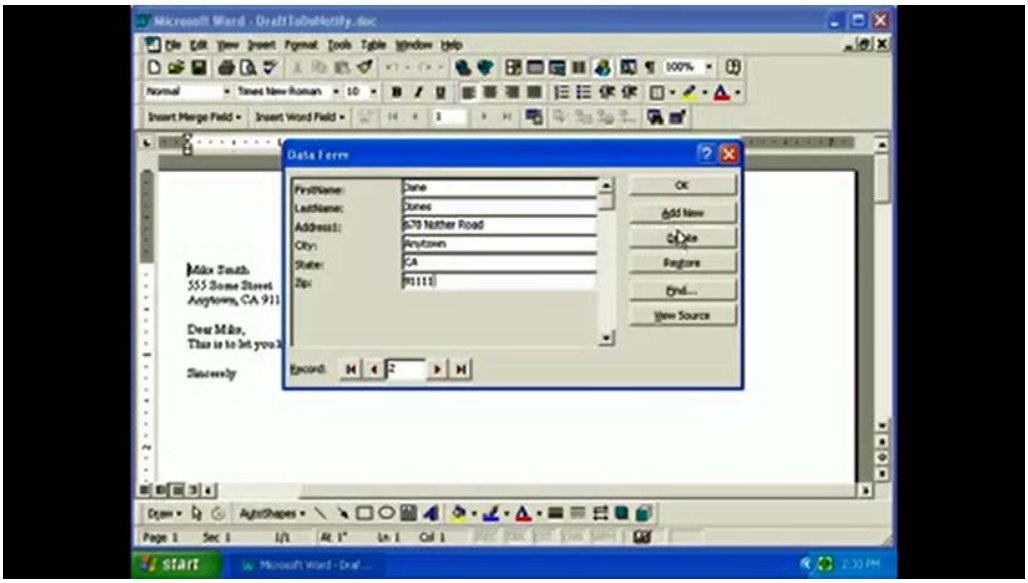
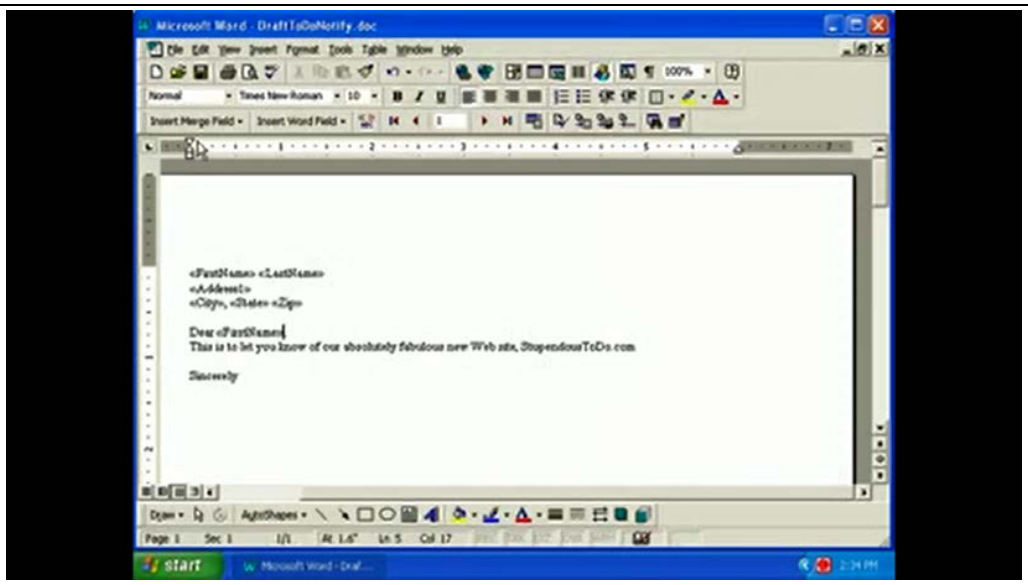

Microsoft Word - DraftToDoNotify.doc
Data Form
FirstName:
Jane
LastName:
Jones
Address1:
570 Nather Road
City:
Anytown
State:
CA
Zip:
91111
OK
Add New
Delete
Restore
Find...
View Source
Record:
Mike Smith
555 Some Street
Anytown, CA 911
Dear Mike,
Sincerely
start

Exhibit L


Microsoft Word - DraftToDoNotify.doc
Dear
Sincerely
start

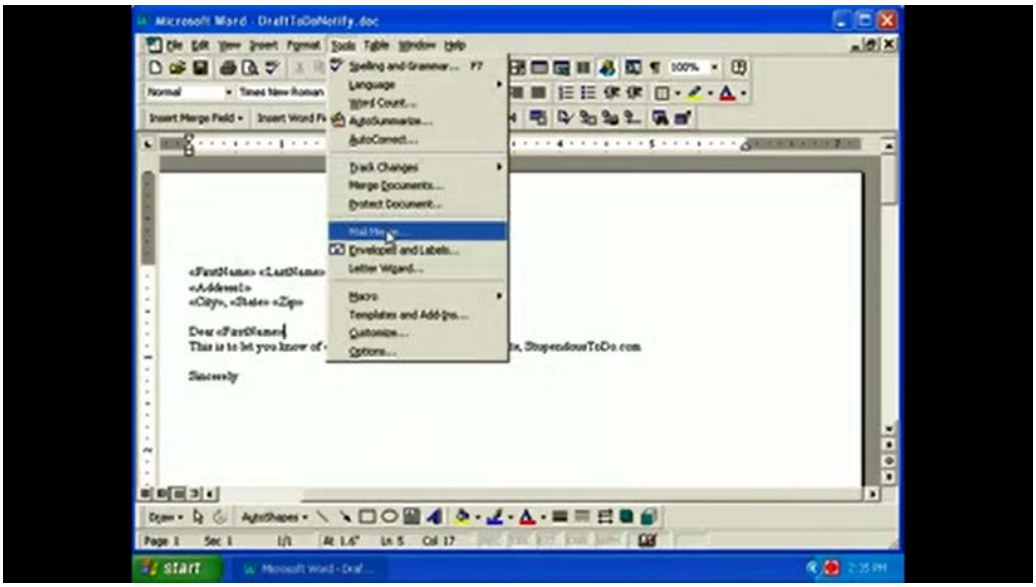
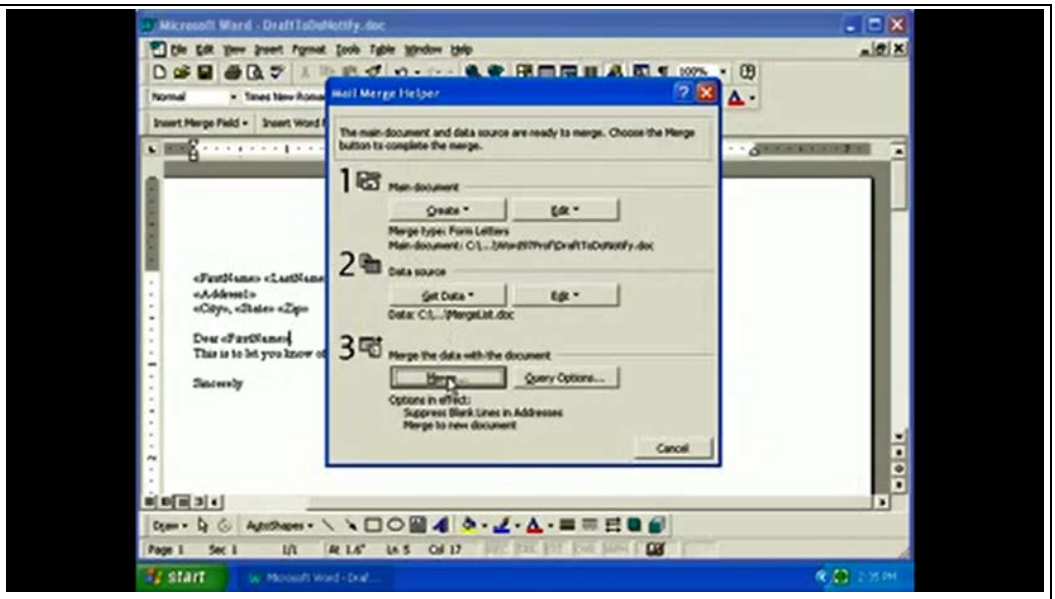

Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar...
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Developer and Labels...
Letter Wizard...
Macros
Templates and Add-Ins...
Customize...
Options...
Sincerely
start

Exhibit L


Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

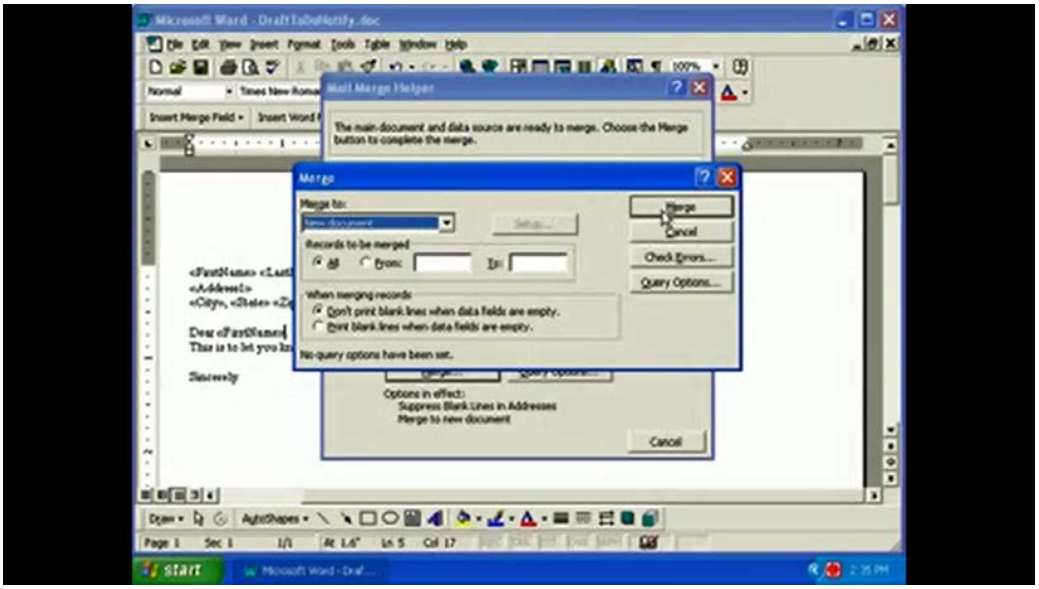

Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
Merge
Merge to:
Merge
Cancel
Records to be merged
Check Errors...
Query Options...
When merging records:
Don't print blank lines when data fields are empty.
Print blank lines when data fields are empty.
No query options have been set.
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

Exhibit L

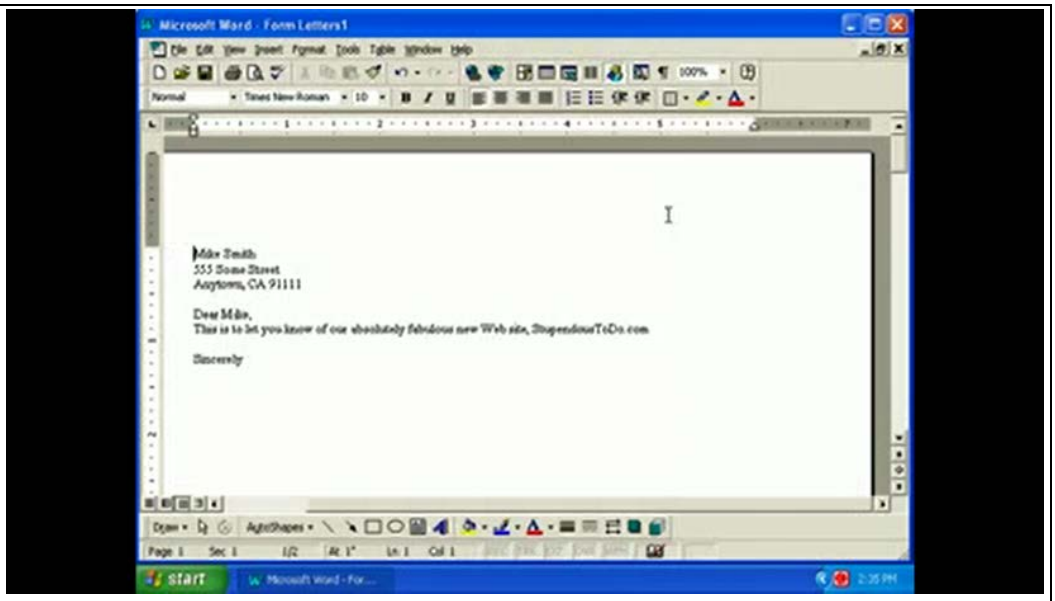
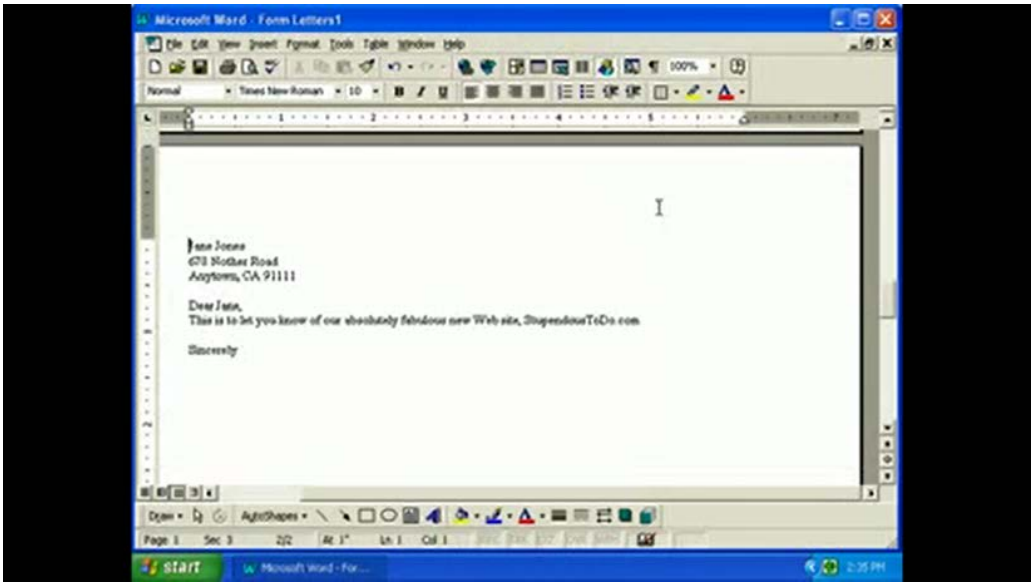
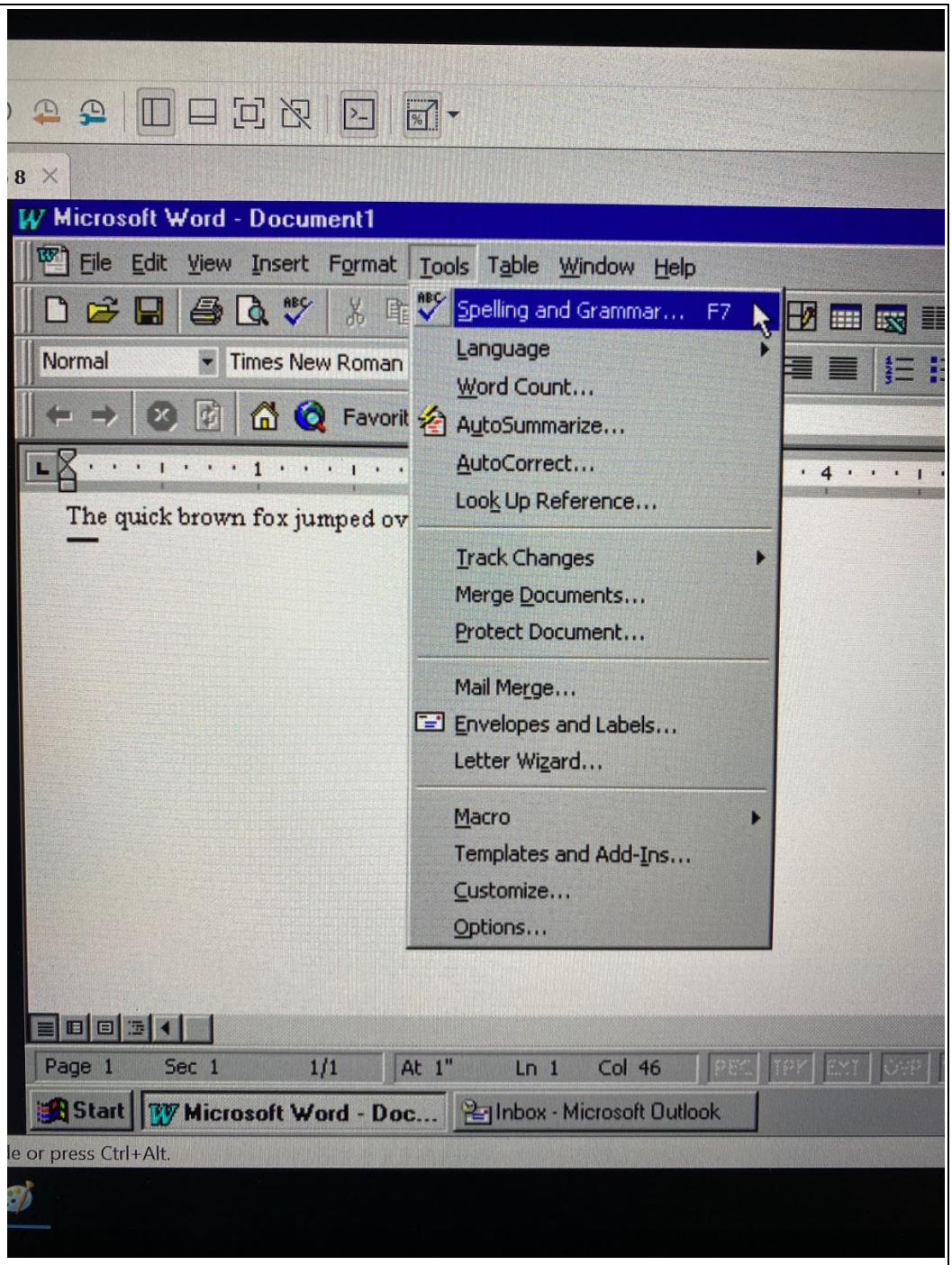
	  For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 11, 14, and 15.
retrieving the first information;	Word 97 discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses retrieving the first information. Specifically, Word 97 discloses:

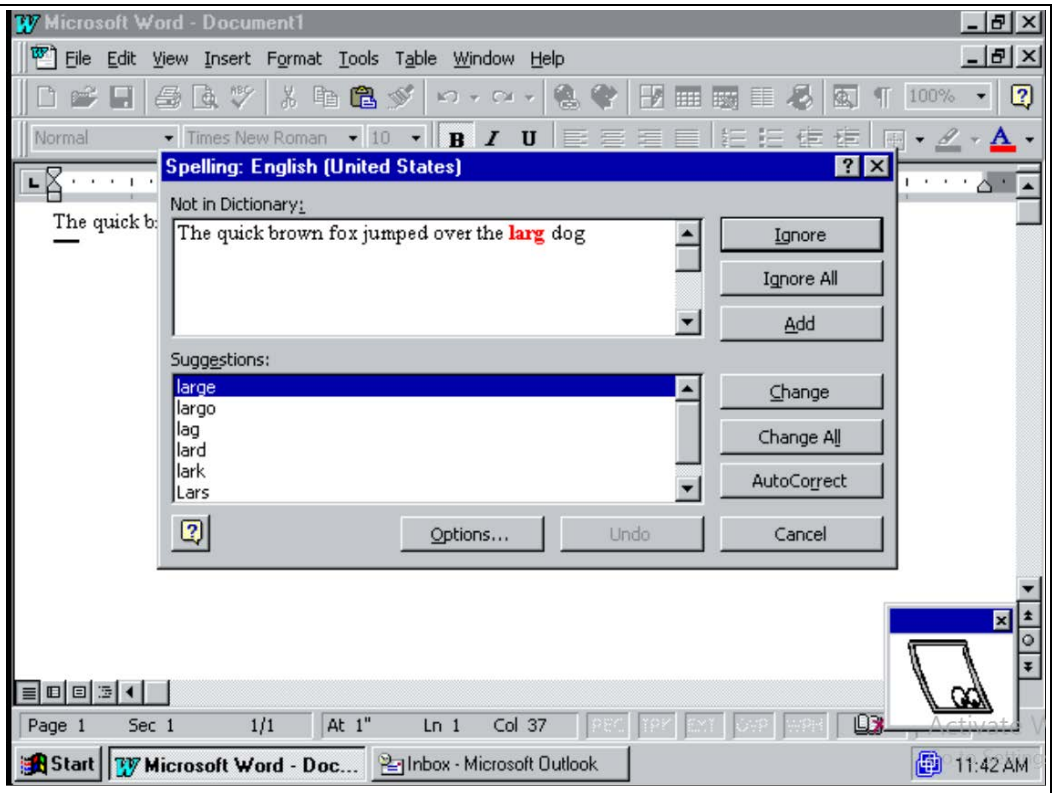
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

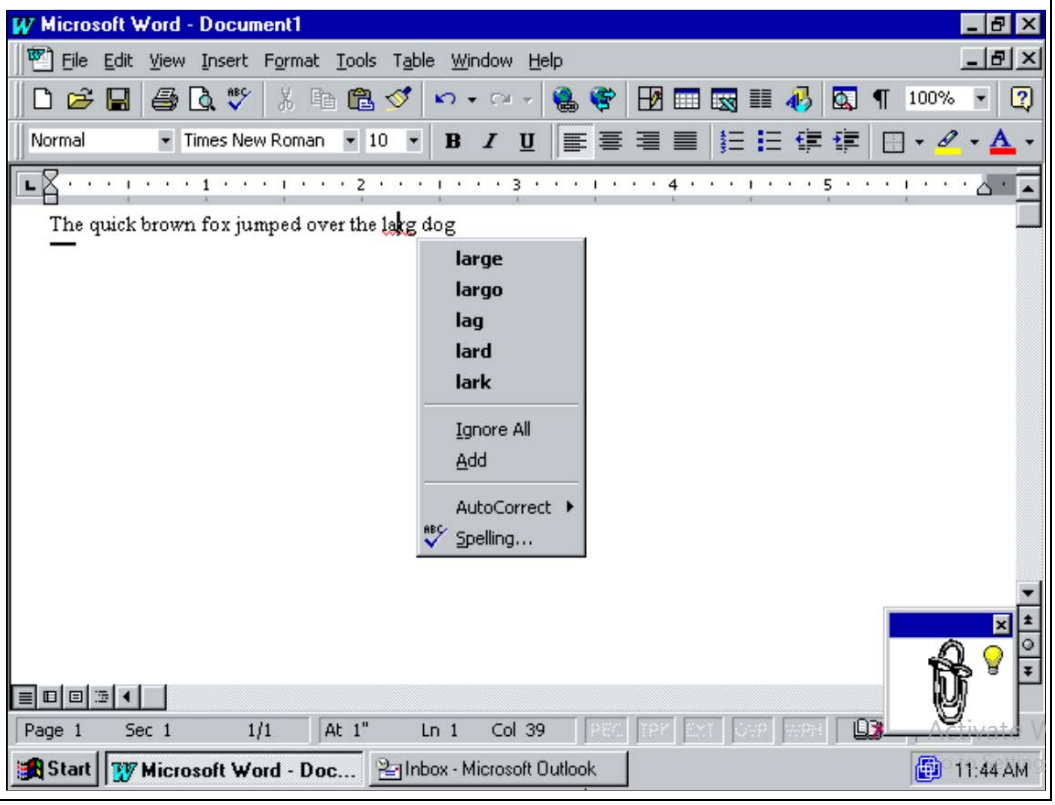


Exhibit L

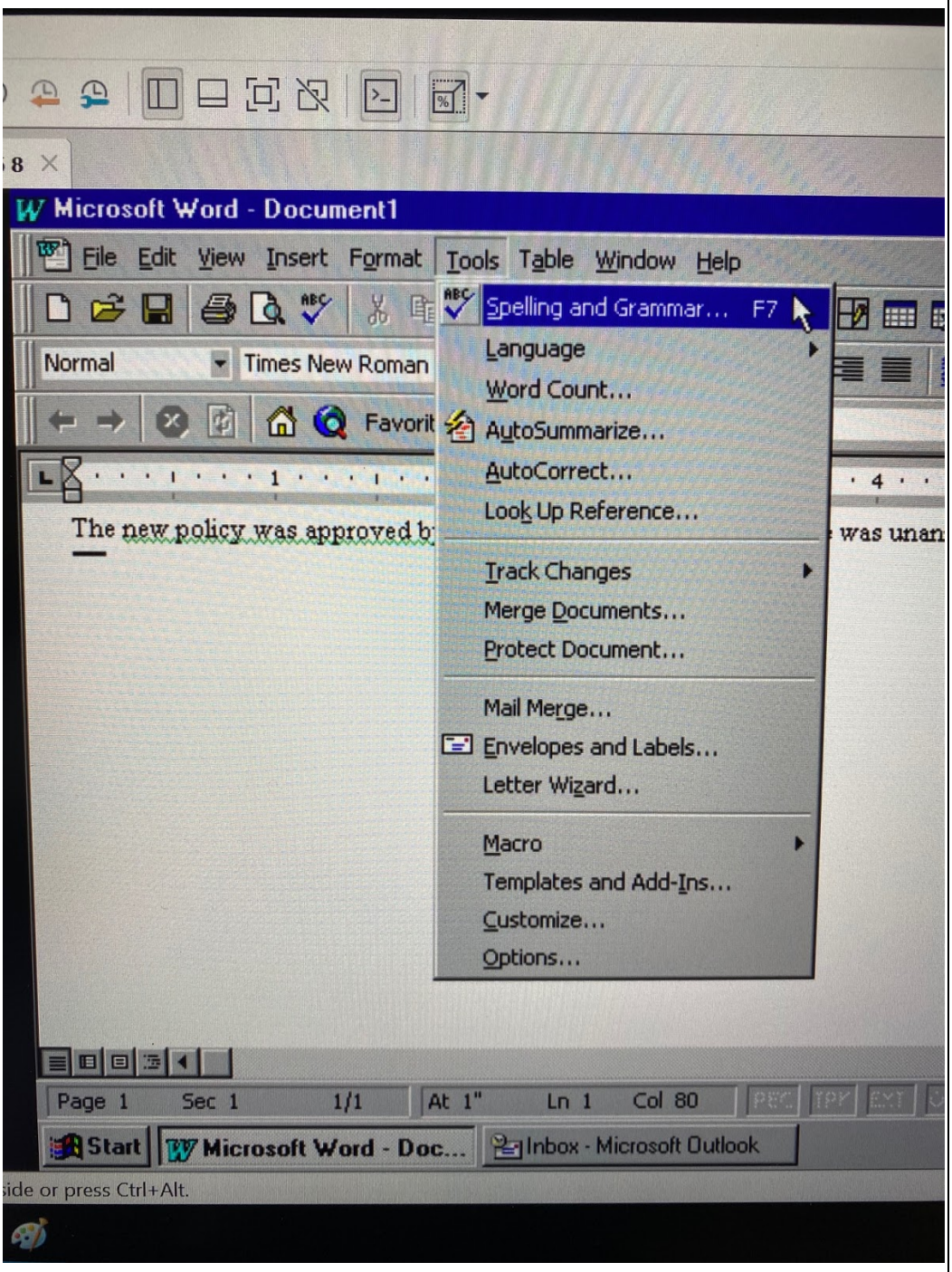
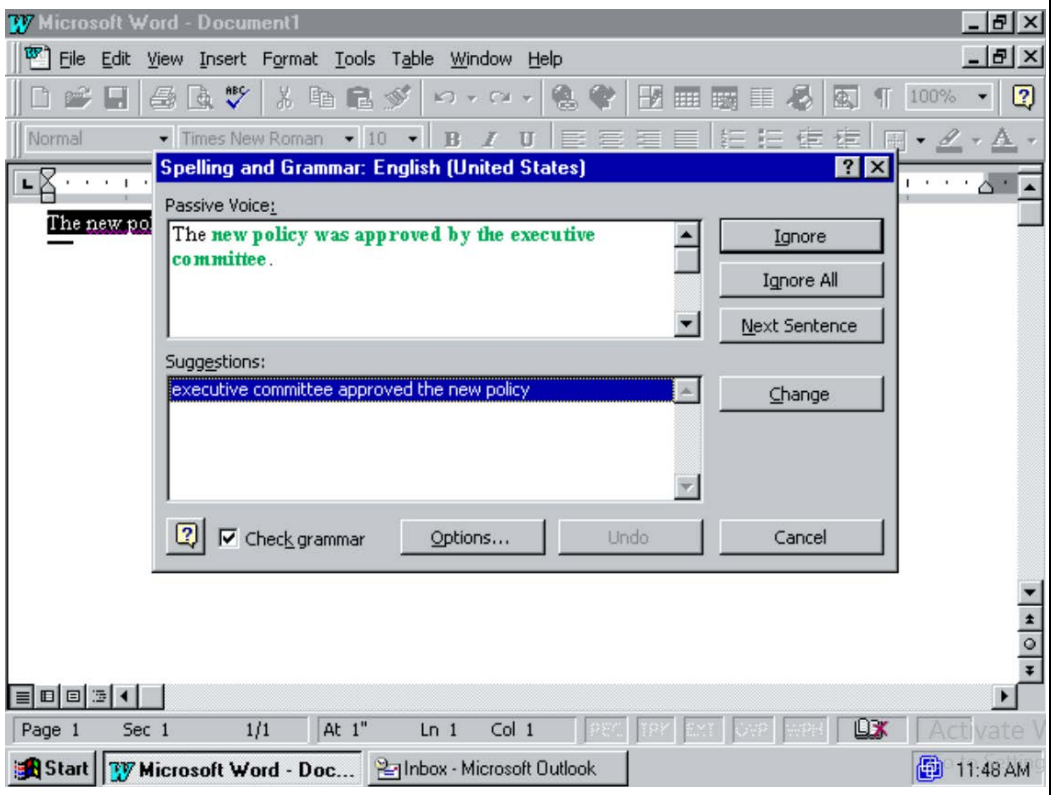
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L

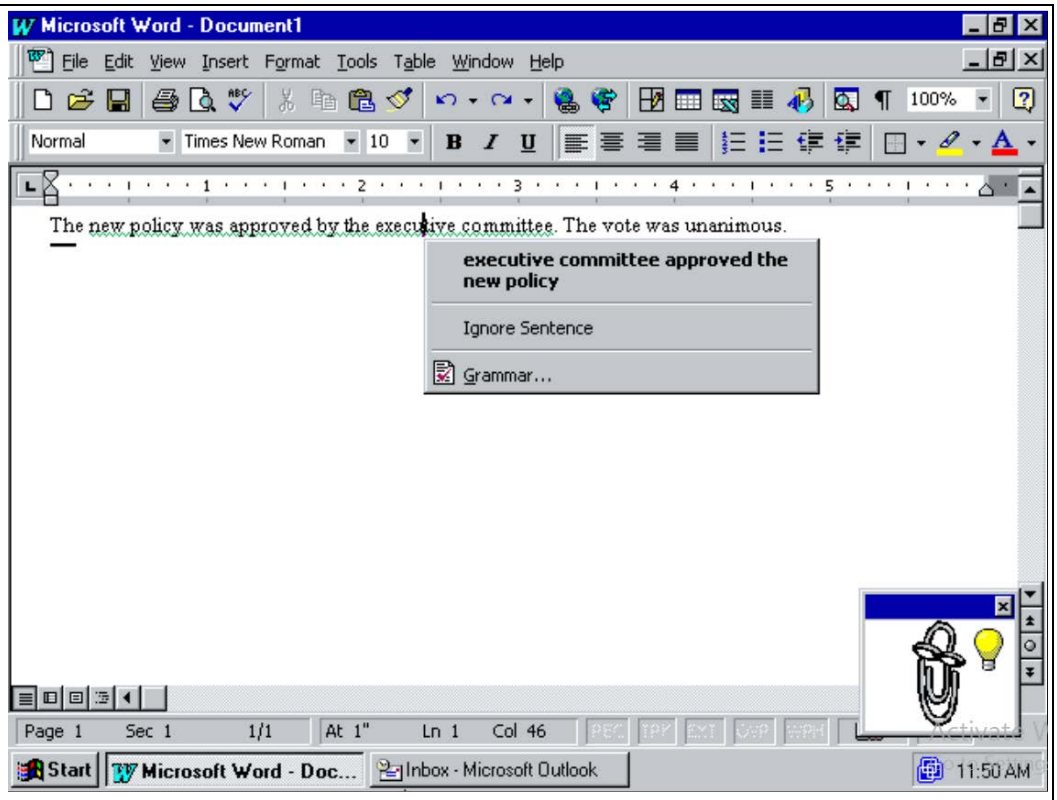
	 Word 97. Word 97 further discloses:

Exhibit L

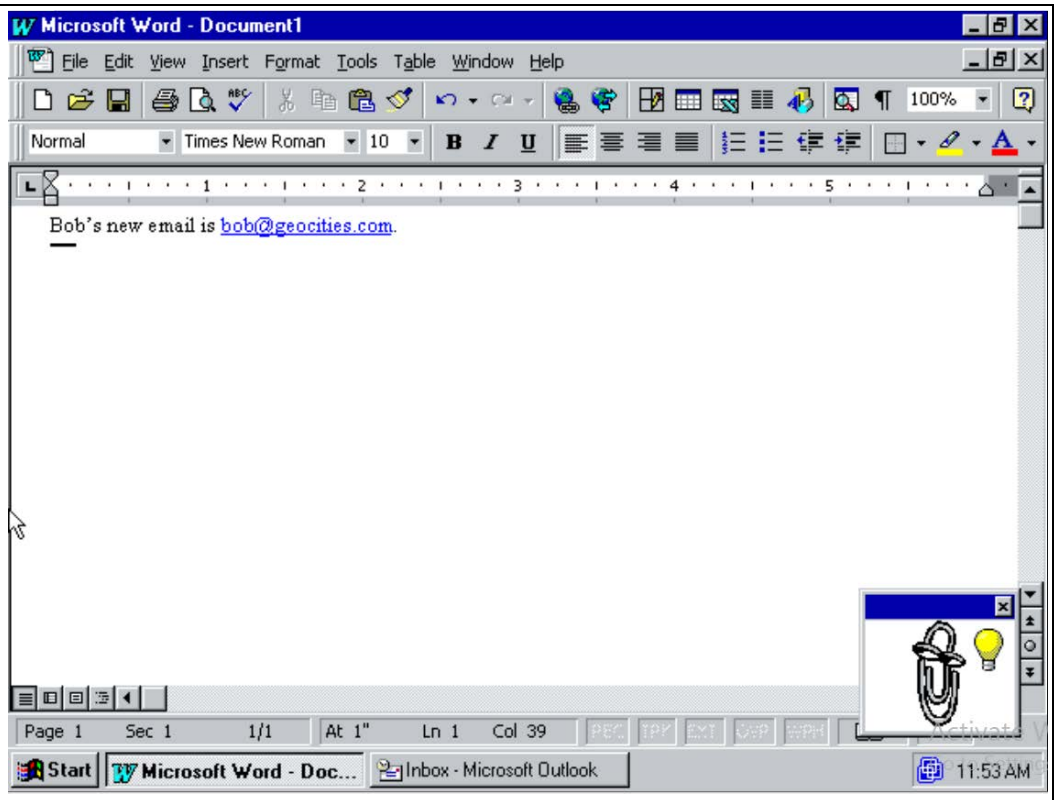
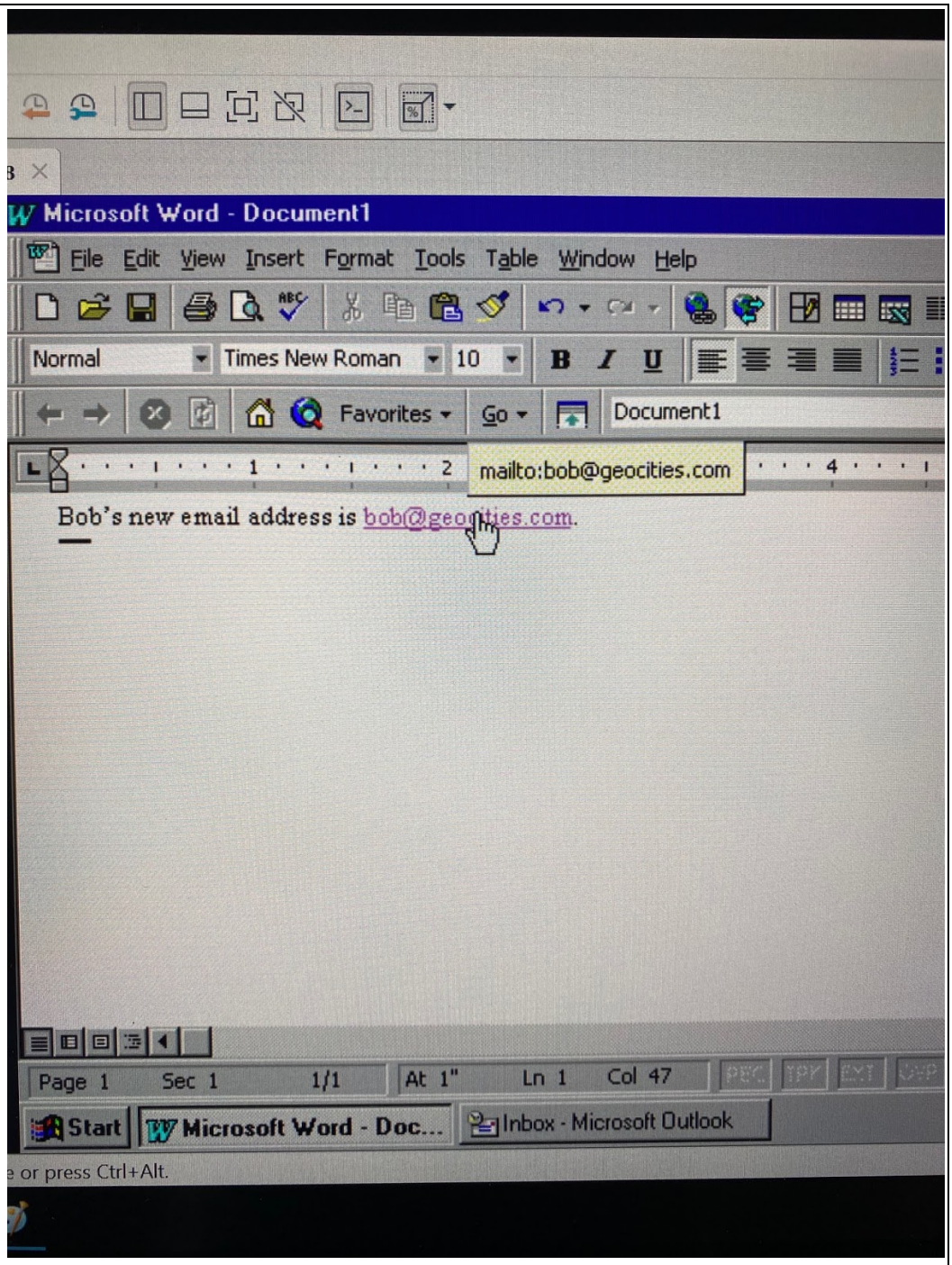
	 Word 97. Word 97 further discloses:

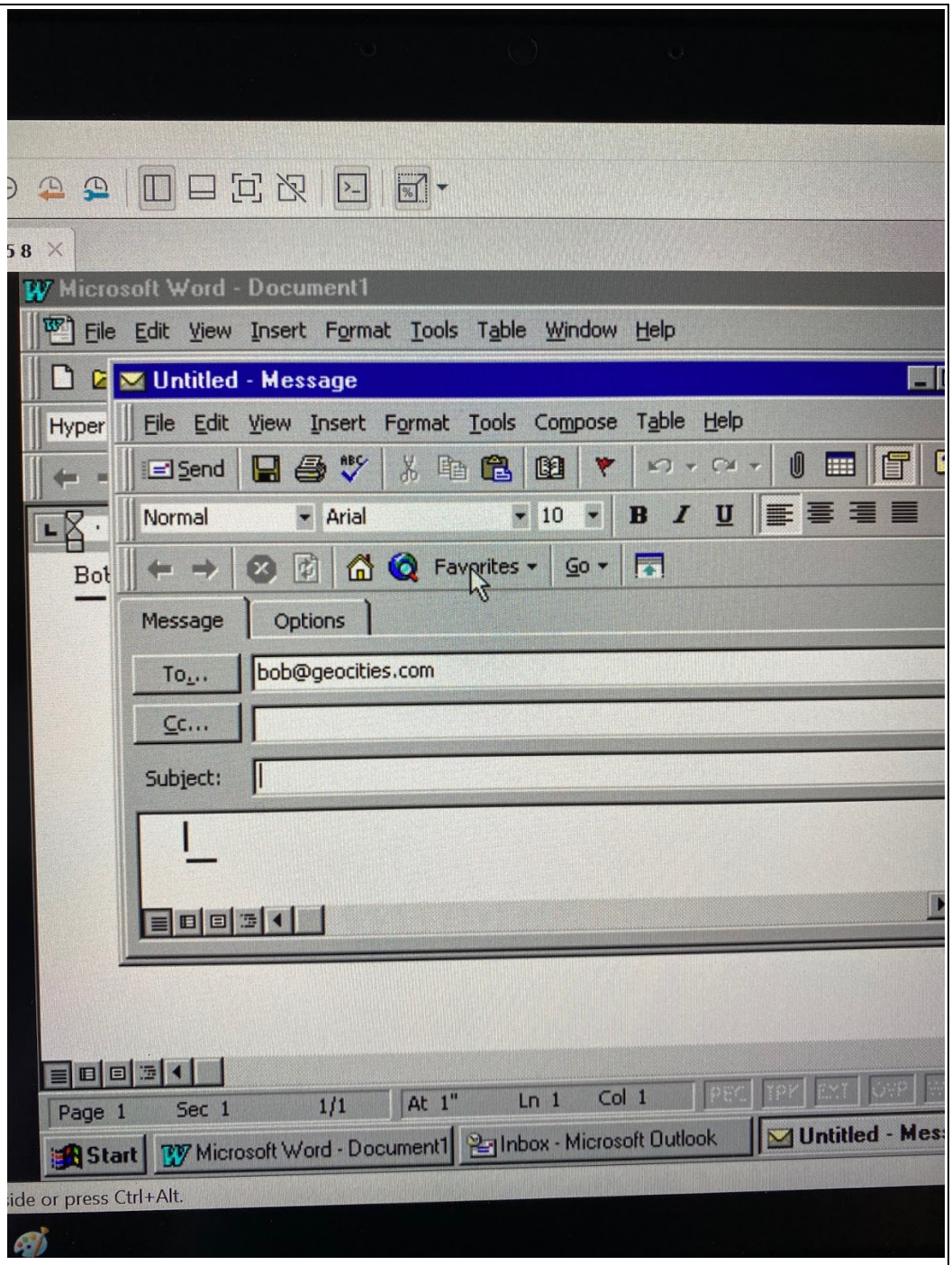
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L

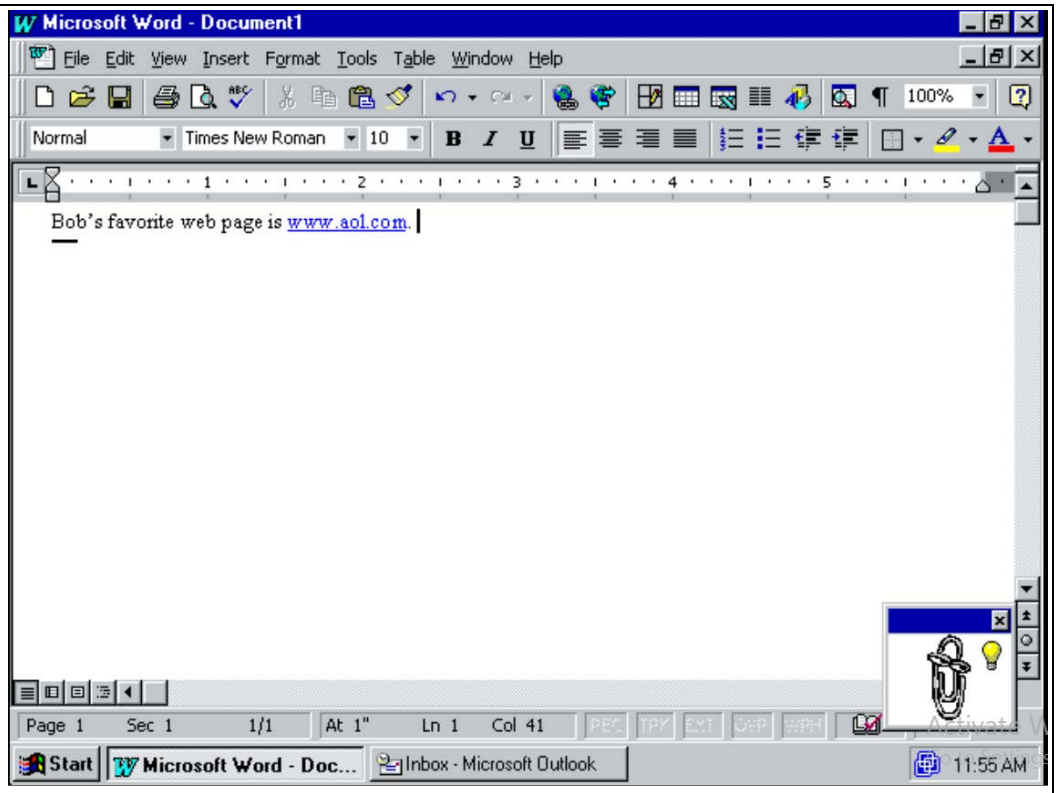
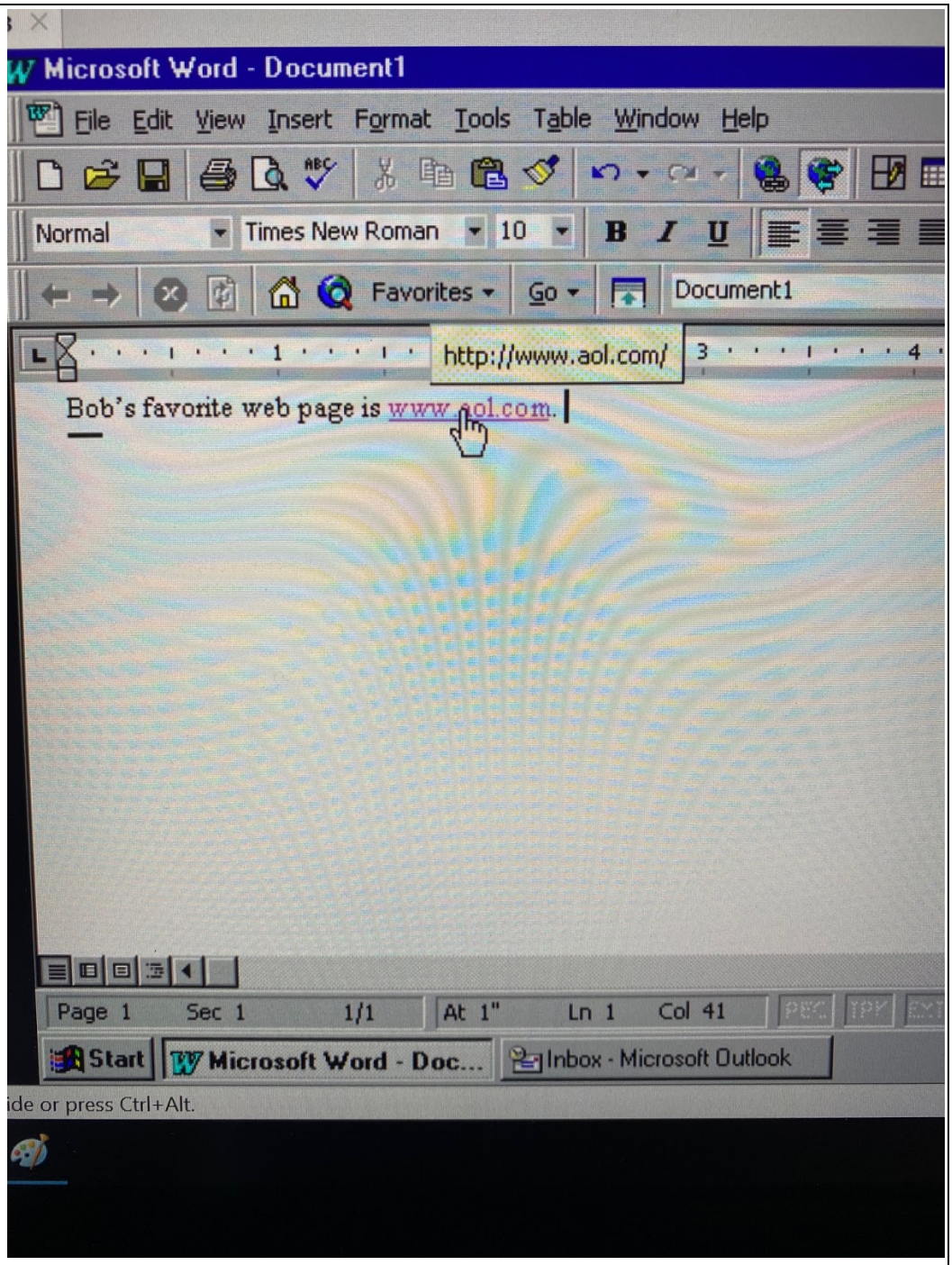
	 Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:

Exhibit L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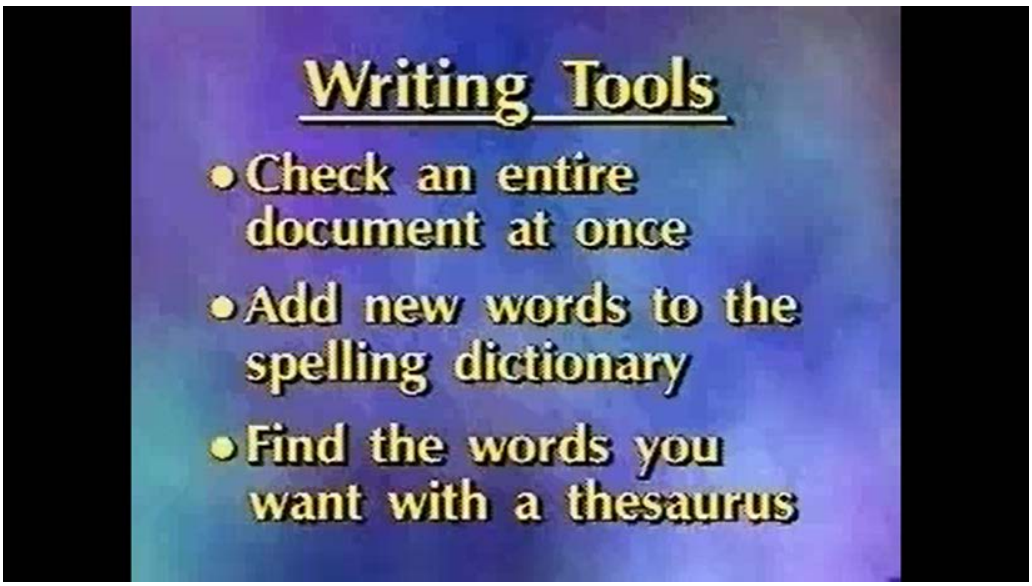

Writing Tools
• Check an entire document at once
• Add new words to the spelling dictionary
• Find the words you want with a thesaurus

Exhibit L

"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

"1. Position the insertion point in the document where you want to past a person's address.

2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1

3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document

* * *

4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list

5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79.

"Understanding the Mail Merge Components: Data Sources and Main Documents

You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that

Exhibit L

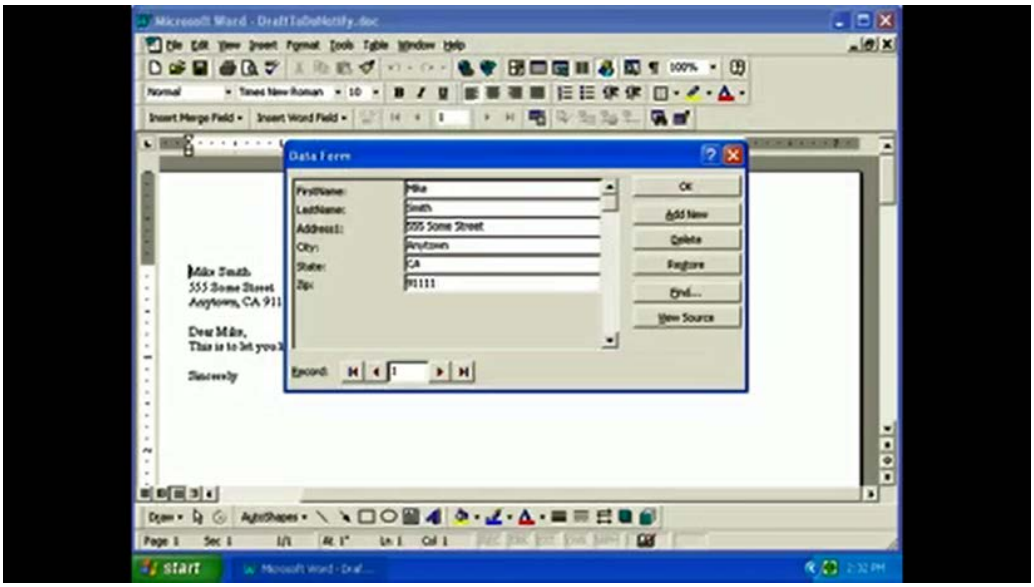
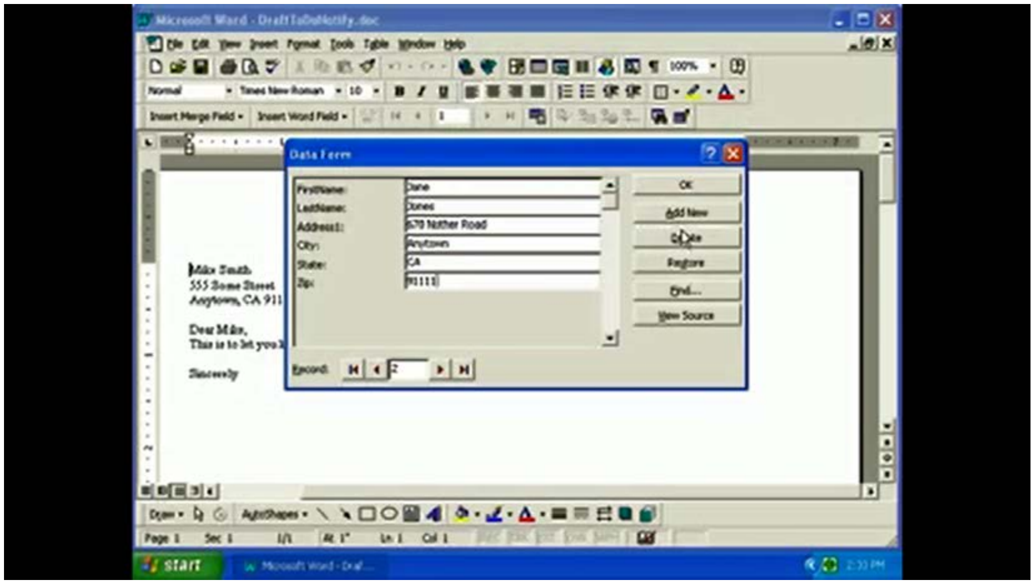
	receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* Word 97 Core Lesson 16 further discloses: 

Exhibit L


Microsoft Word - DraftToDoNotify.doc
Data Form
FirstName:
LastName:
Address1:
City:
State:
Zip:
Jane
Jones
570 Nether Road
Anytown
CA
91111
OK
Add New
Delete
Restore
Find...
View Source
Record:
Mike Smith
555 Some Street
Anytown, CA 911
Dear Mike,
This is to let you
Sincerely
start

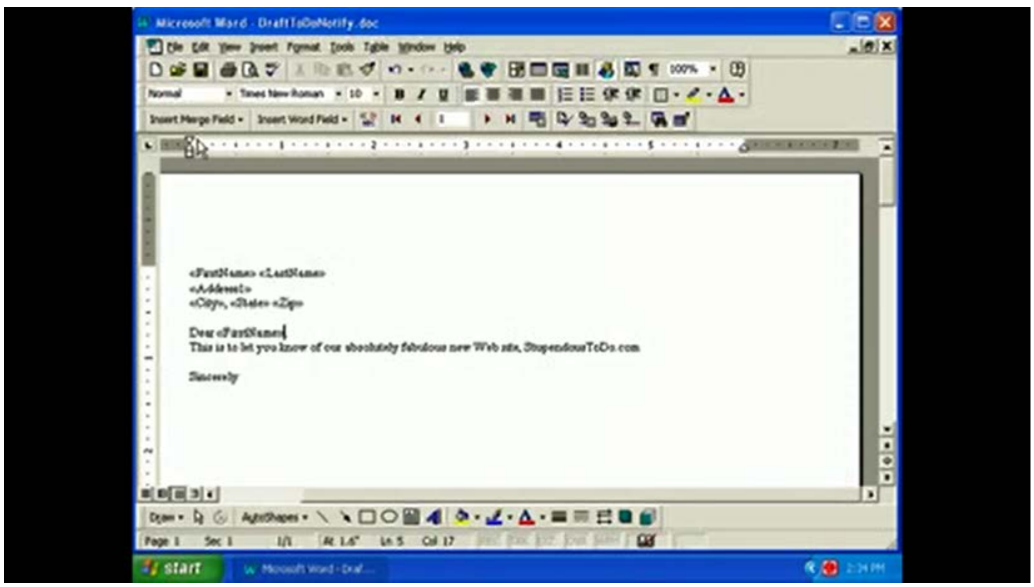
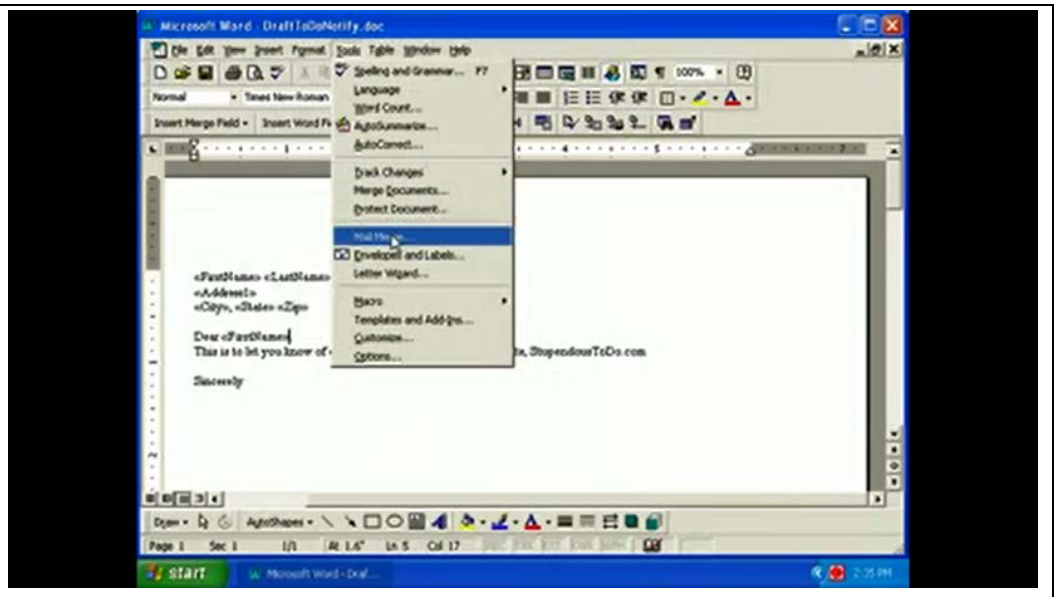

Microsoft Word - DraftToDoNotify.doc
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear «FirstName»
This is to let you know of our absolutely fabulous new Web site, StupendousToDo.com
Sincerely
start

Exhibit L


Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar...
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Mail Merge...
Envelopes and Labels...
Letter Wizard...
Macros
Templates and Add-Ins...
Customize...
Options...
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start

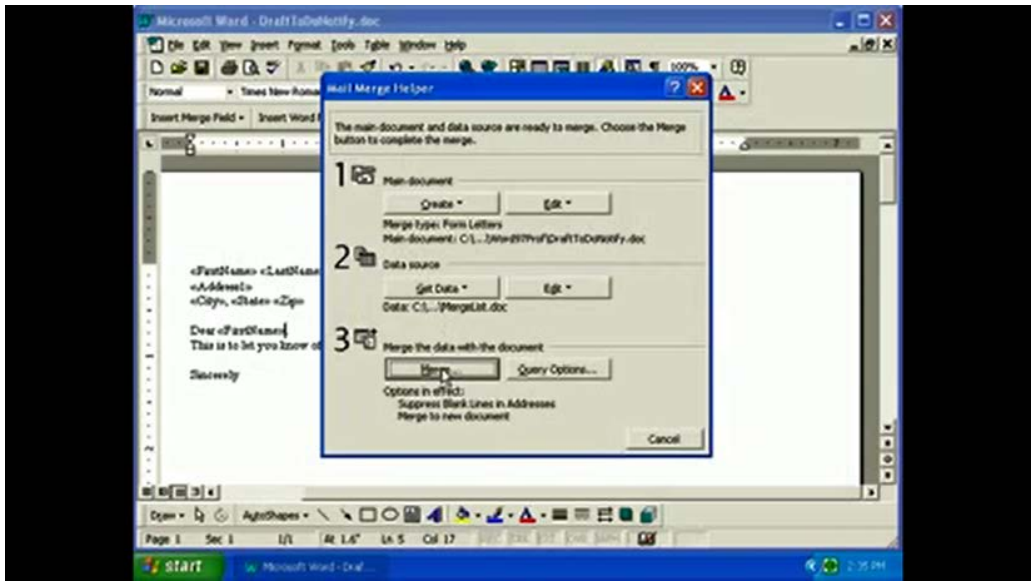

Microsoft Word - DraftToDoNotify.doc
Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel
Sincerely
start

Exhibit L

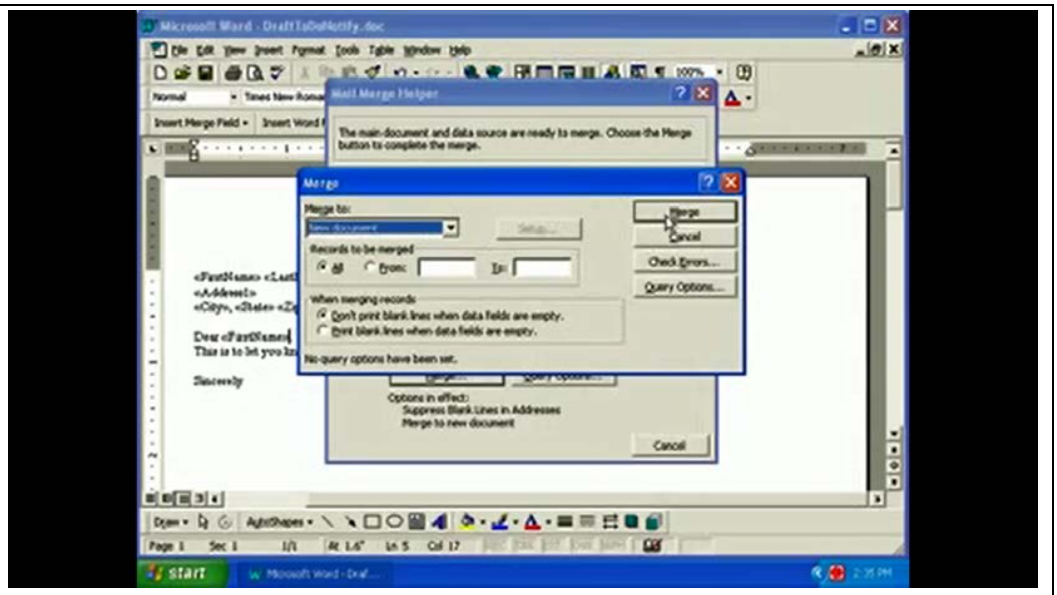
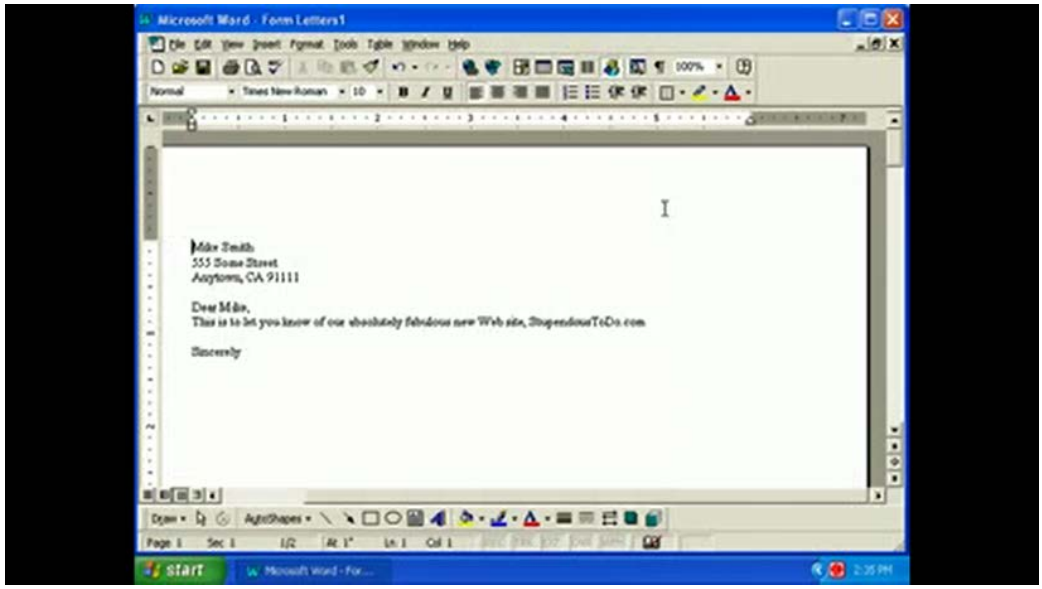
	 Microsoft Word - DraftToDoNotify.doc Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. Merge Merge to: Records to be merged When merging records: Don't print blank lines when data fields are empty. Print blank lines when data fields are empty. No query options have been set. Options in effect: Suppress Blank Lines in Addresses Merge to new document Merge Cancel Check Errors... Query Options... Cancel Sincerely start  Microsoft Word - Form Letters1 Mike Smith 555 Some Street Anytown, CA 91111 Dear Mike, This is to let you know of our absolutely fabulous new Web site, StupendousToDo.com Sincerely start

Exhibit L

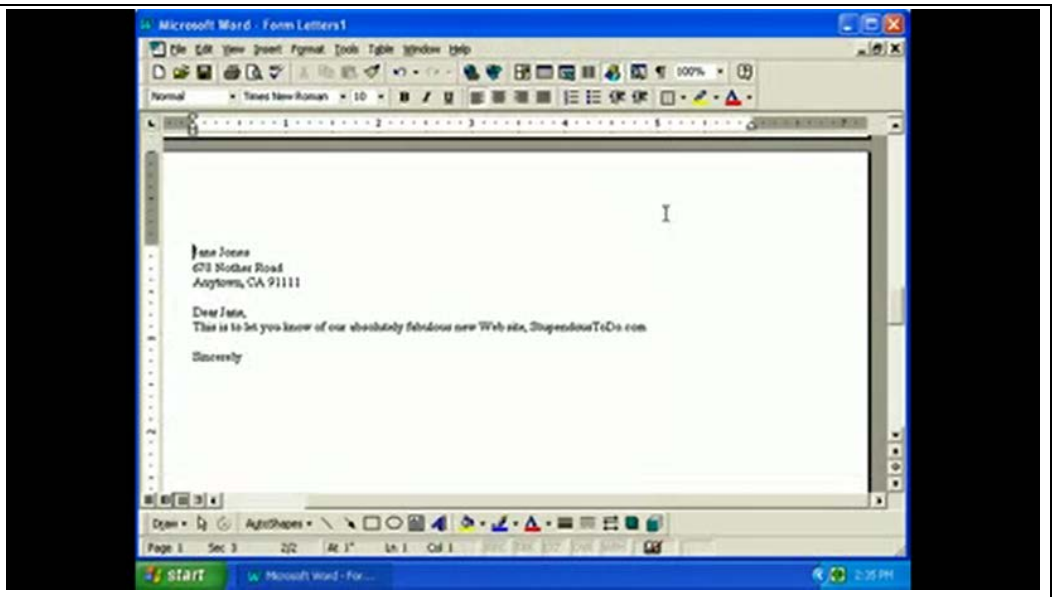
	 "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Word 97 discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information. Specifically, Word 97 discloses: Word 97 further discloses:

Exhibit L

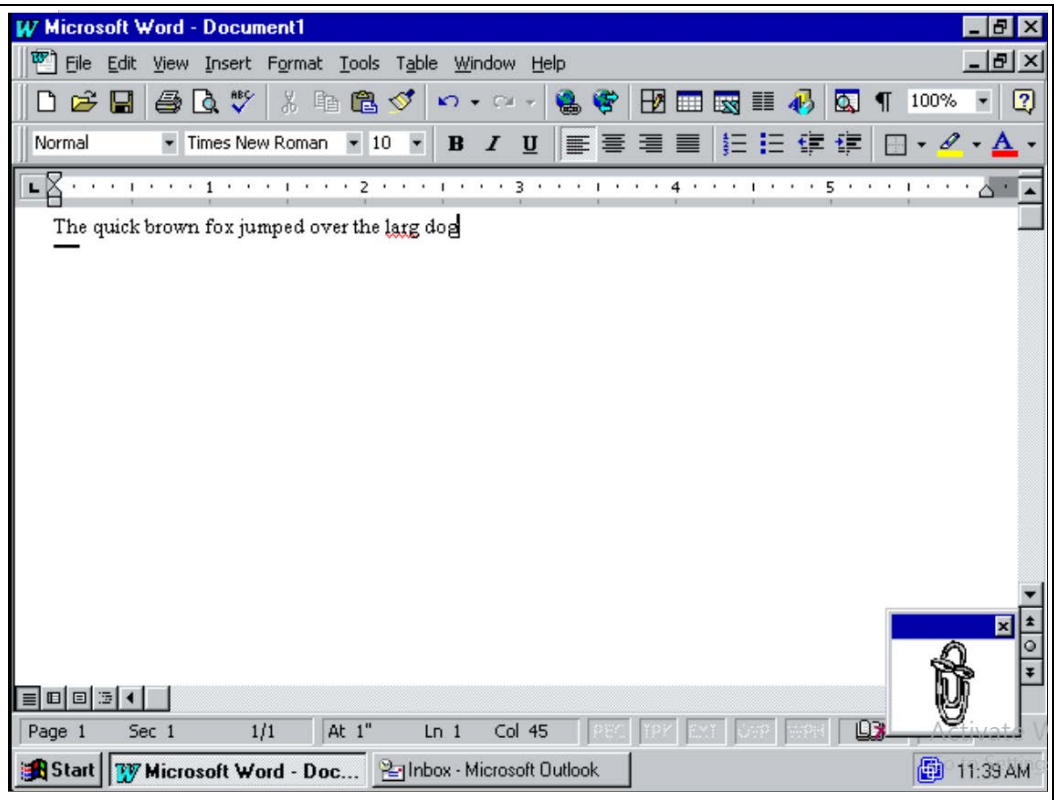
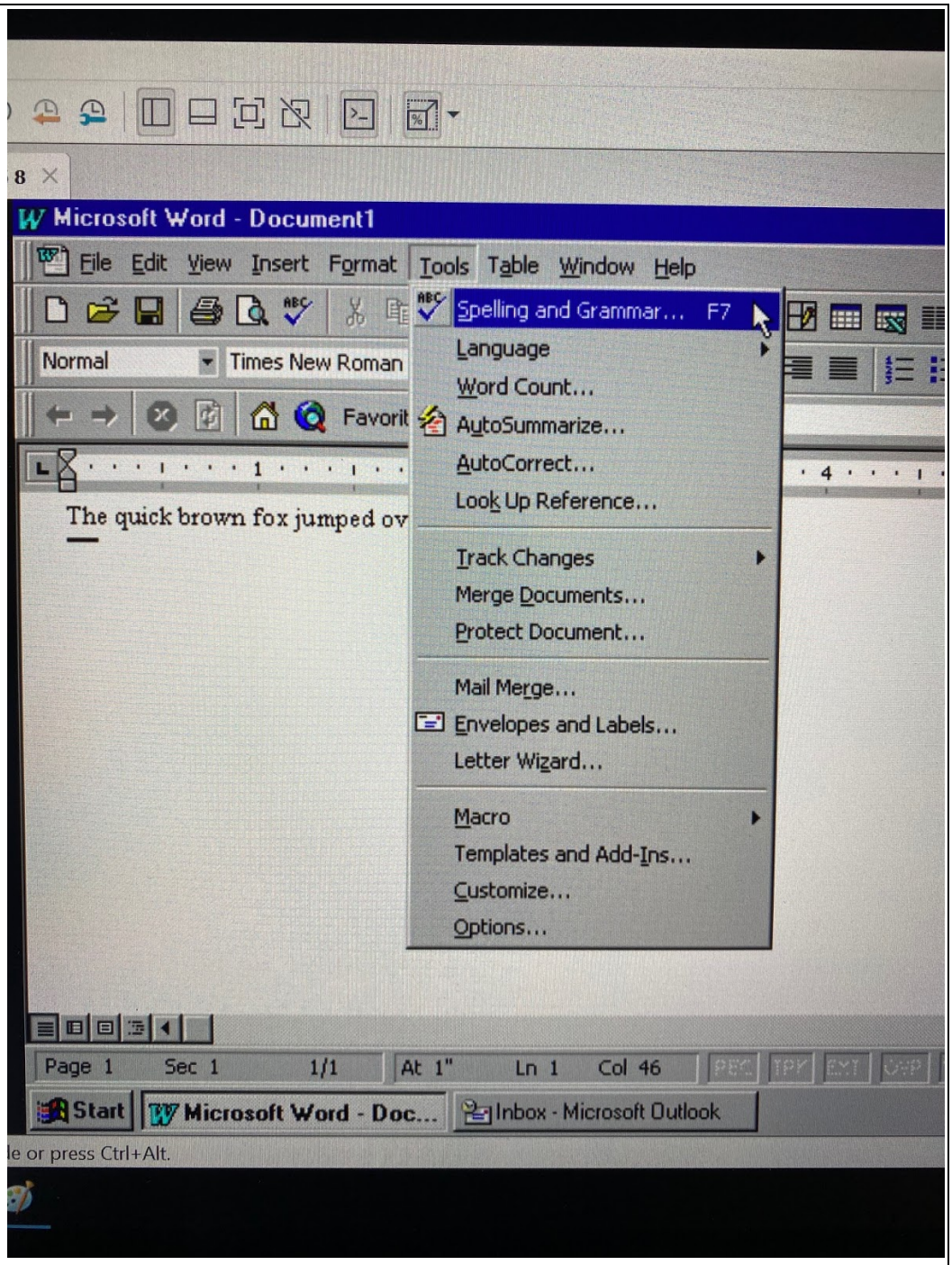
	 Word 97. Word 97 further discloses:

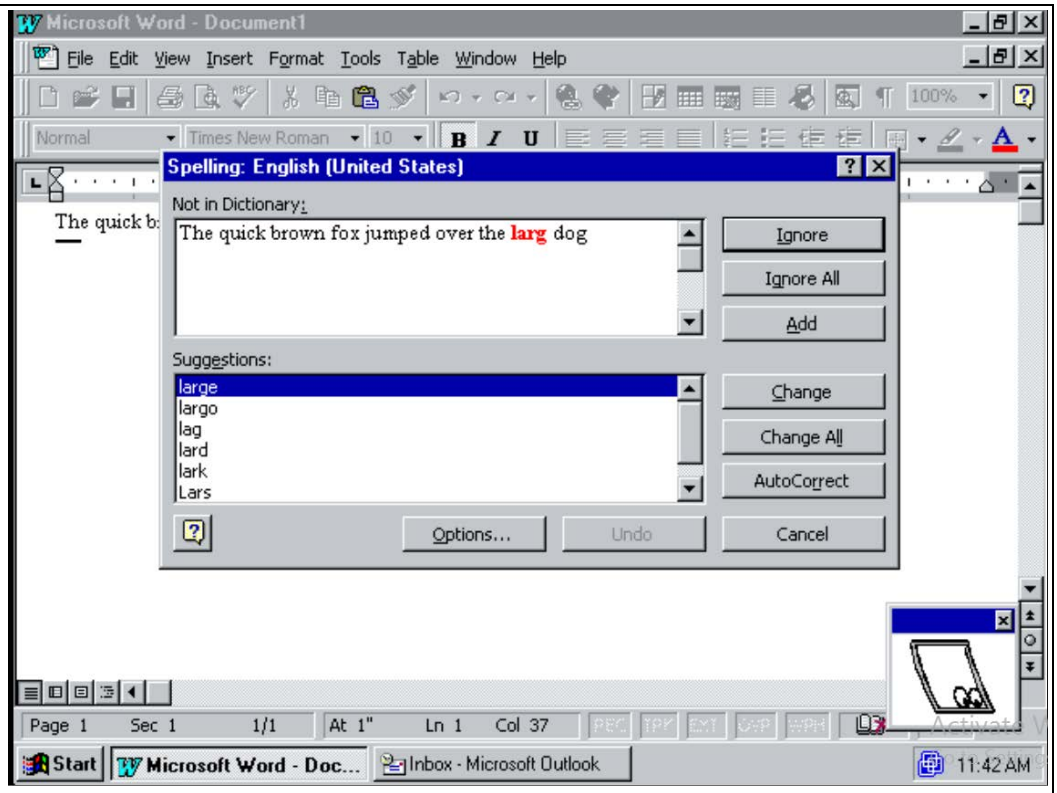
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

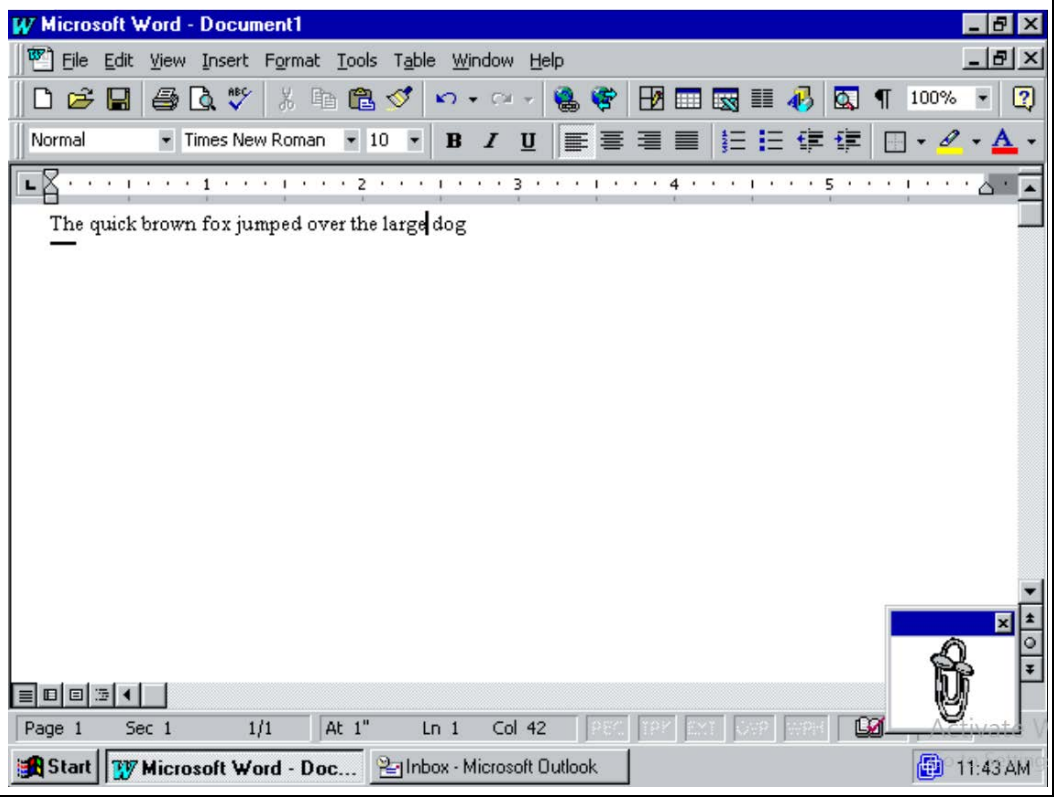
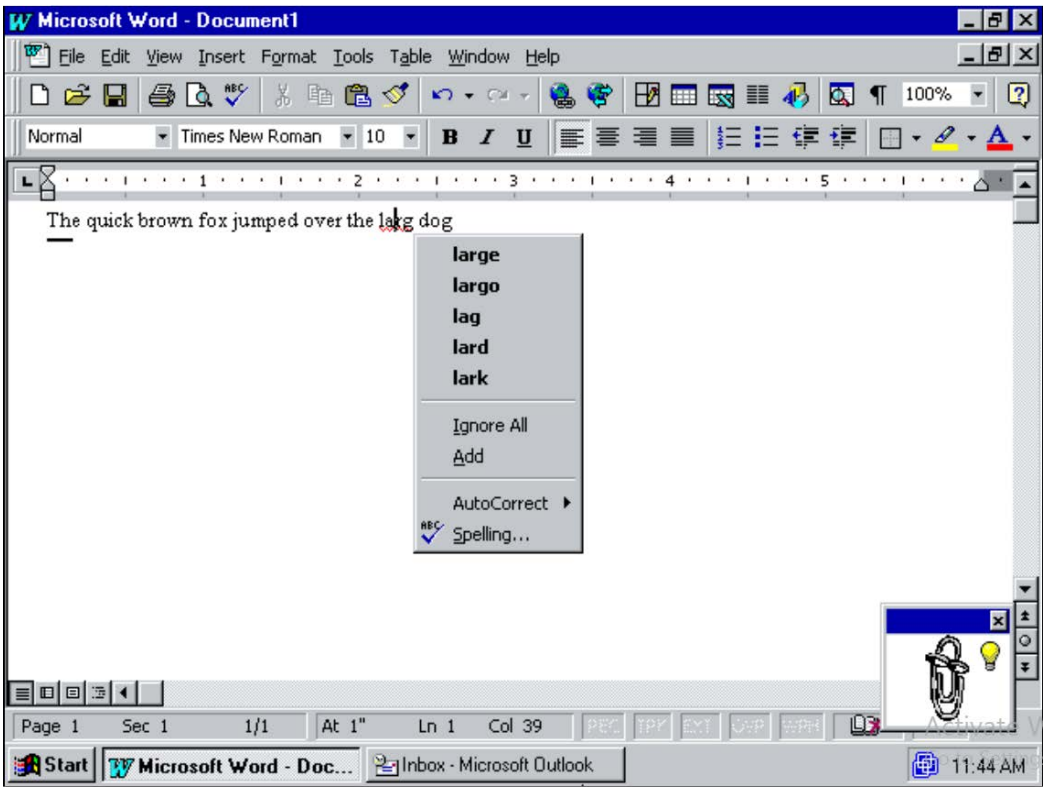


Exhibit L

	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

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	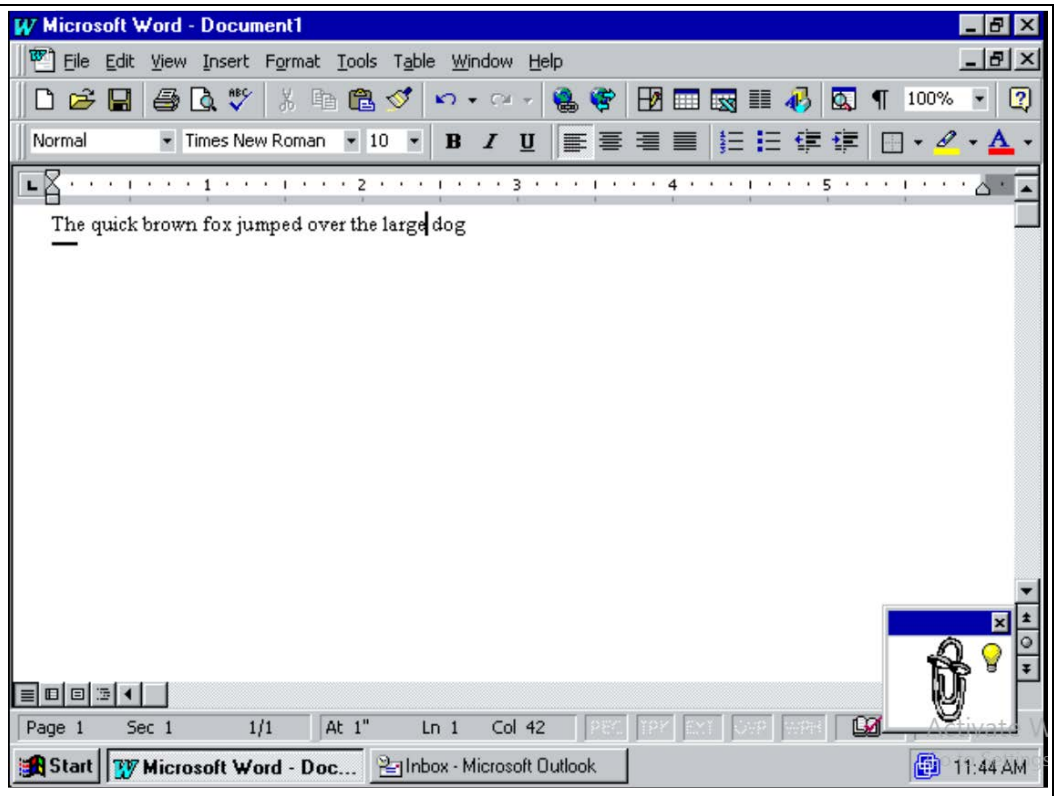 Word 97. Word 97 further discloses:

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	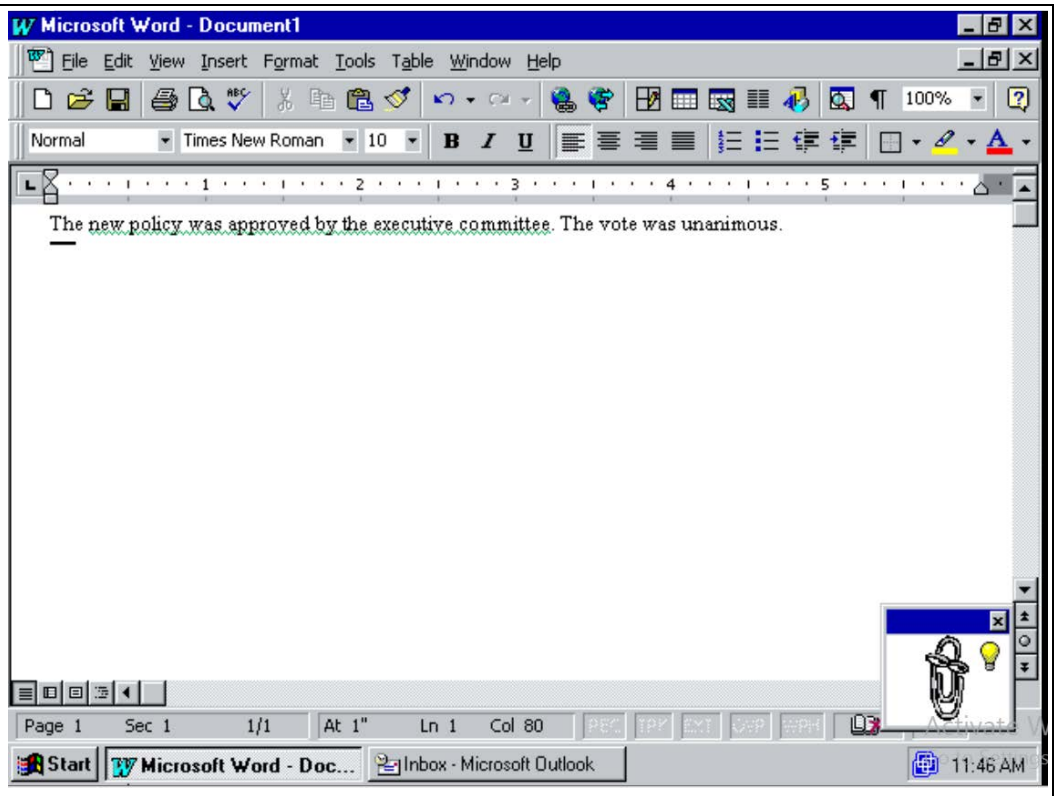 Word 97. Word 97 further discloses:

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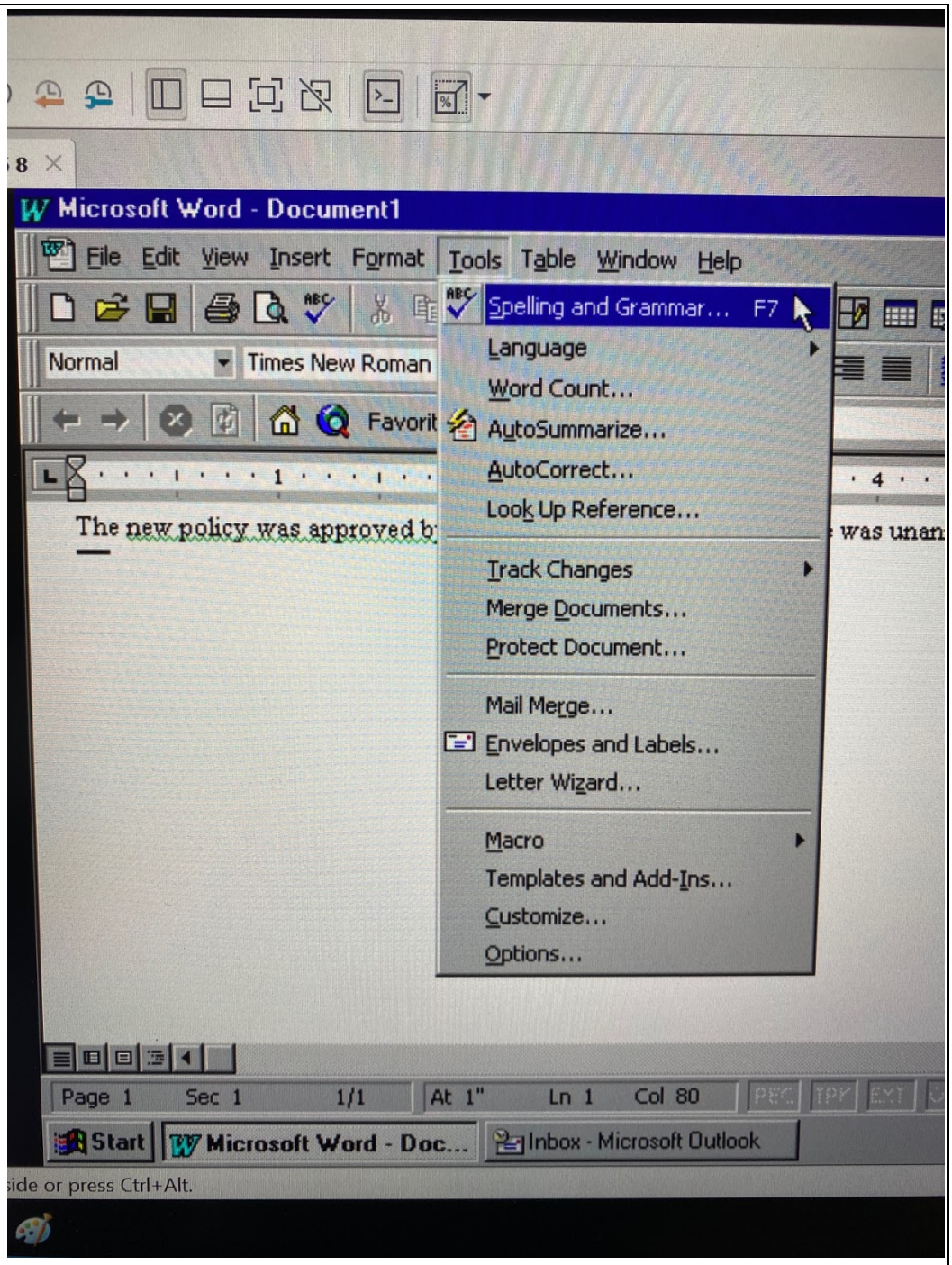

Word 97.

Word 97 further discloses:

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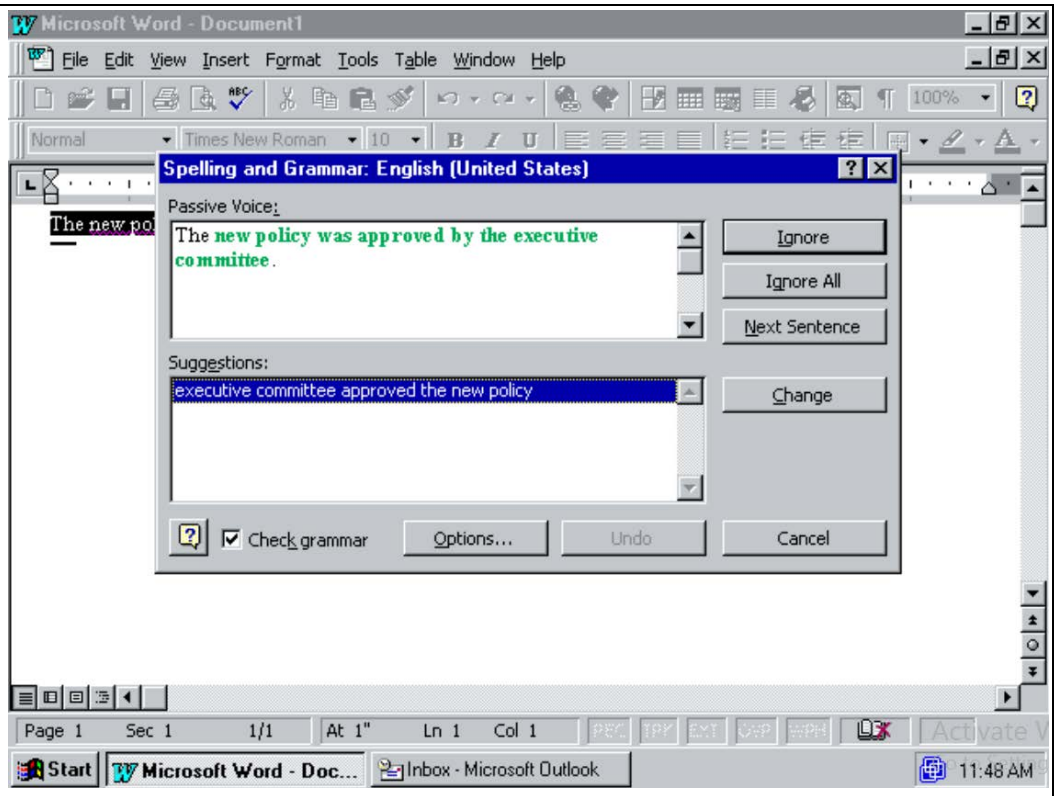
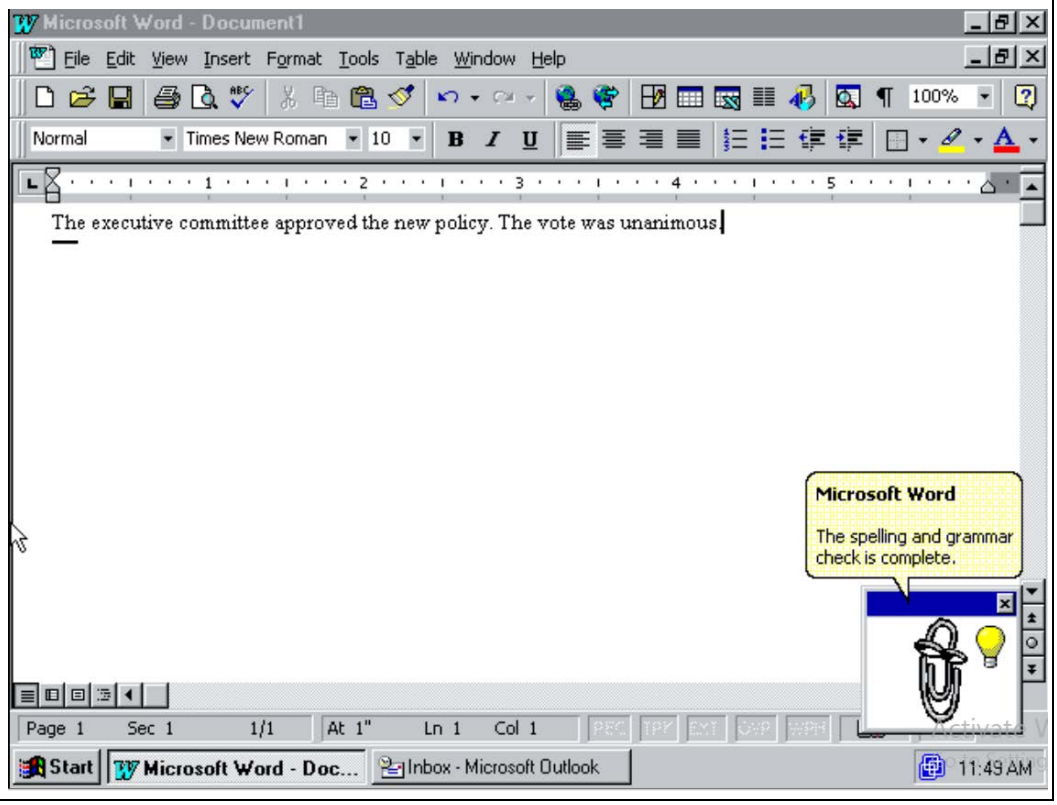


Word 97.

Word 97 further discloses:



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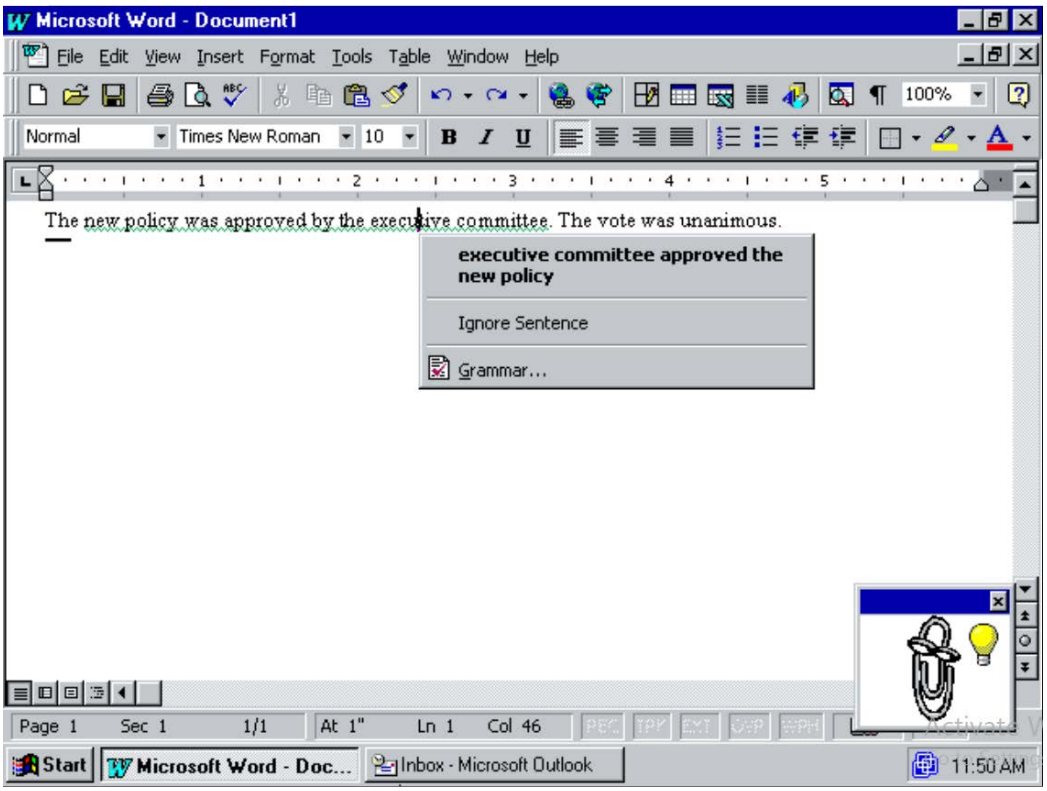
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

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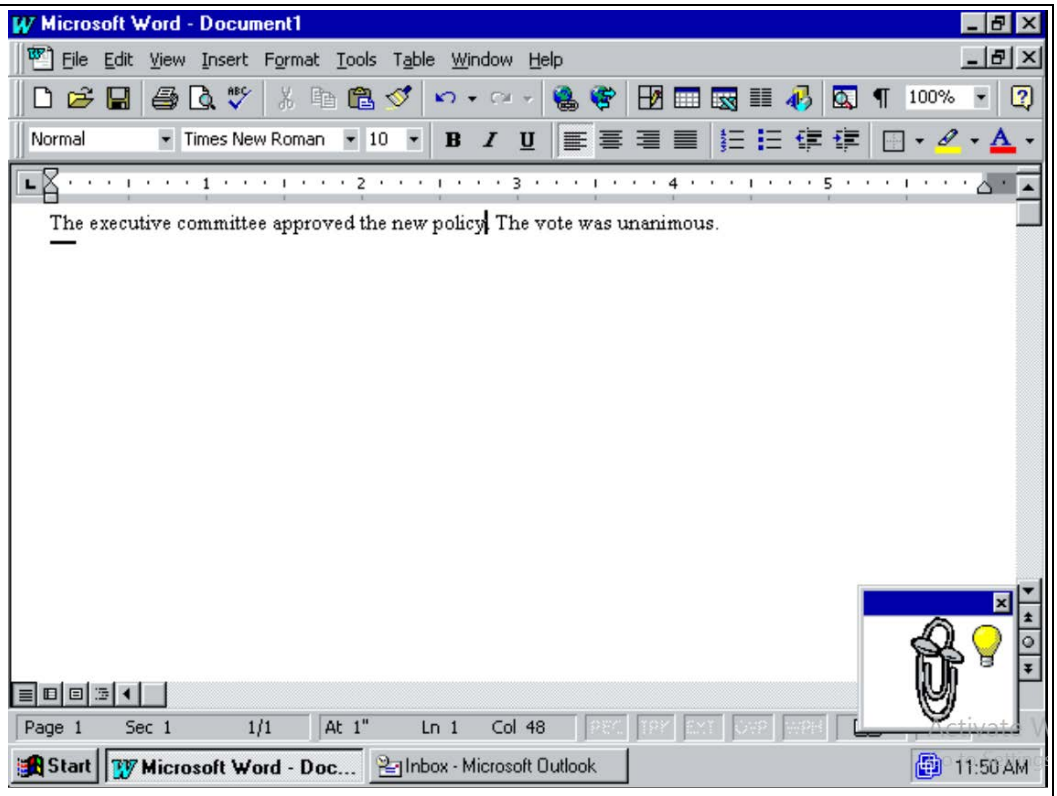
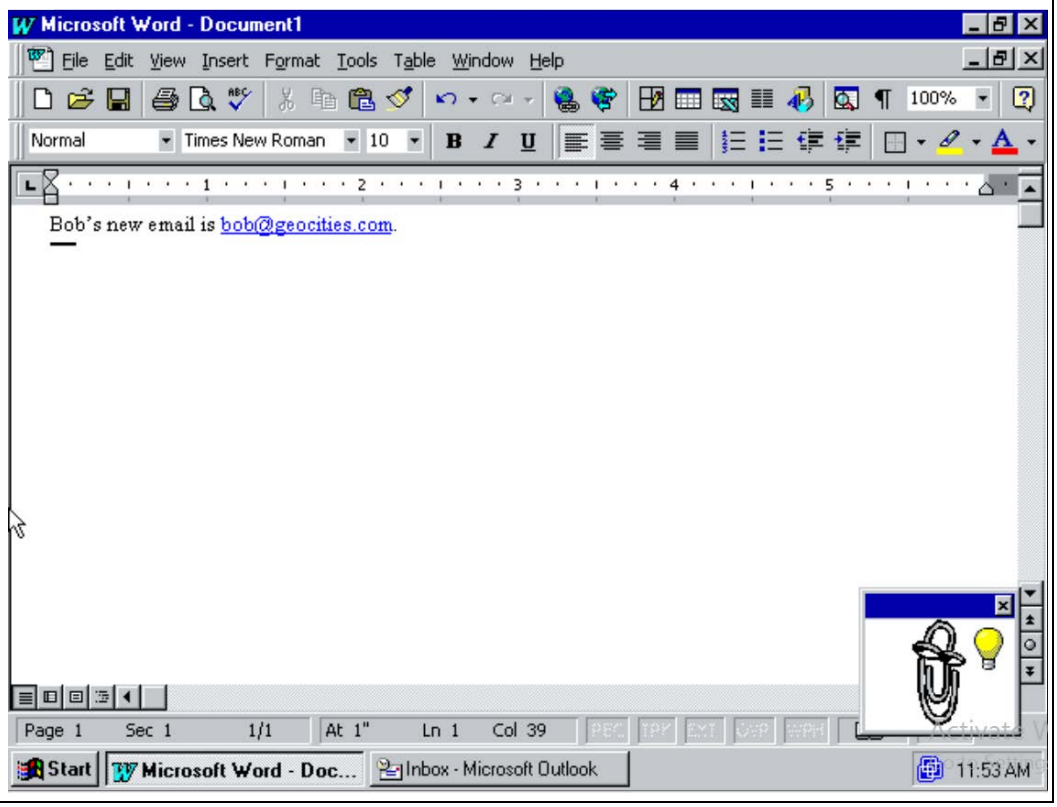


Word 97.

Word 97 further discloses:



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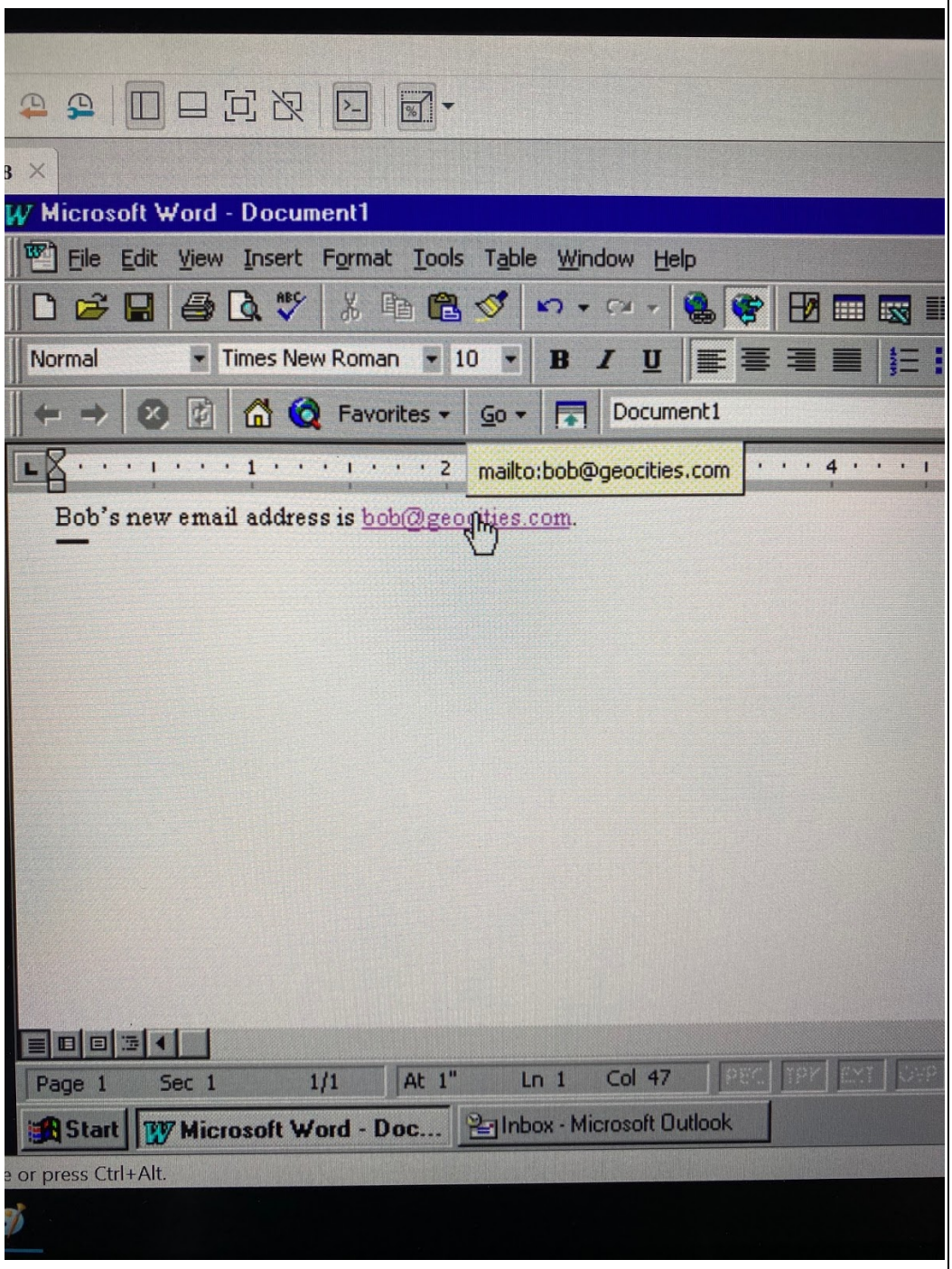
	Word 97. Word 97 further discloses:  Word 97.

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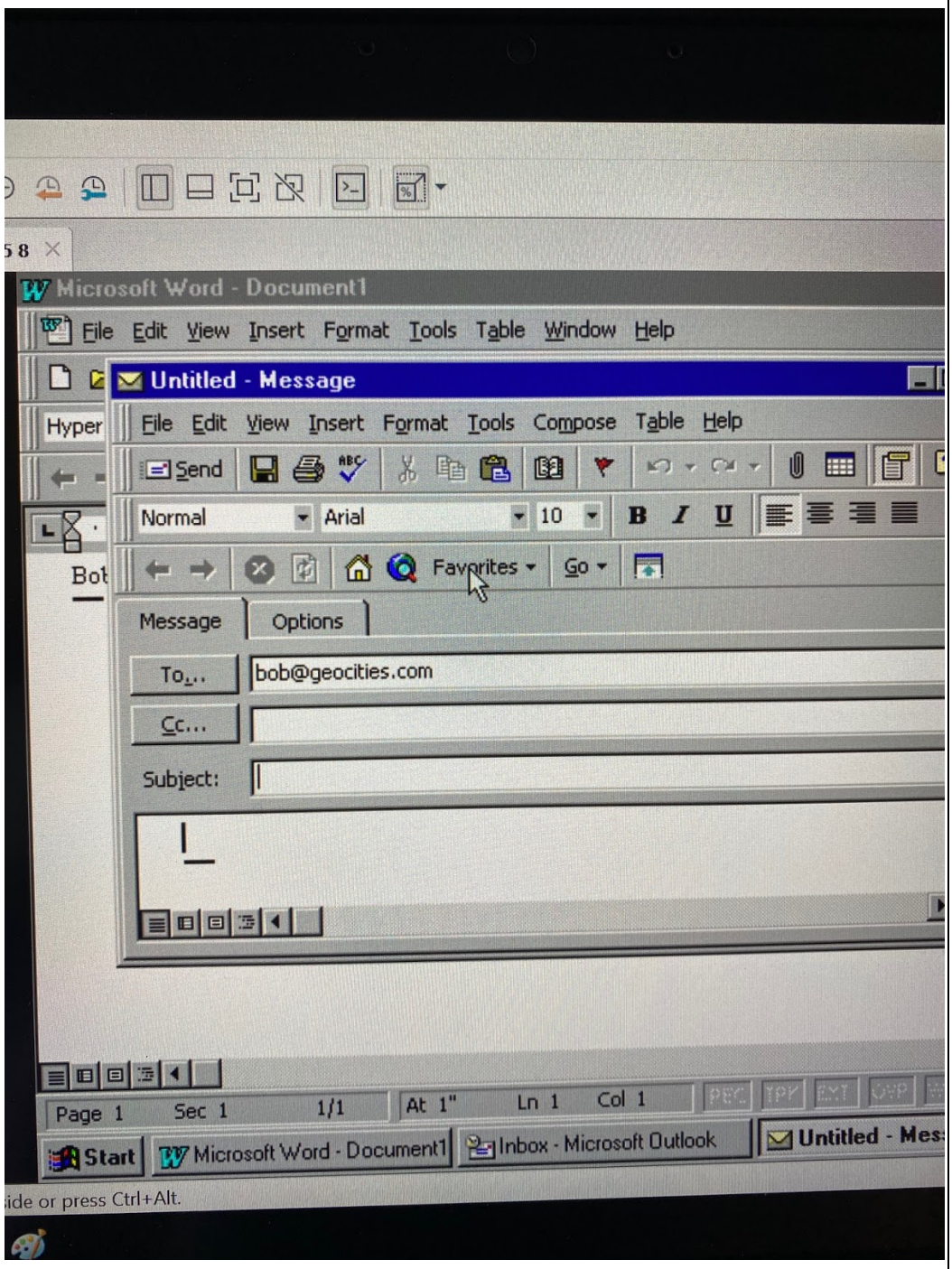
	Word 97 further discloses:  Word 97. Word 97 further discloses:

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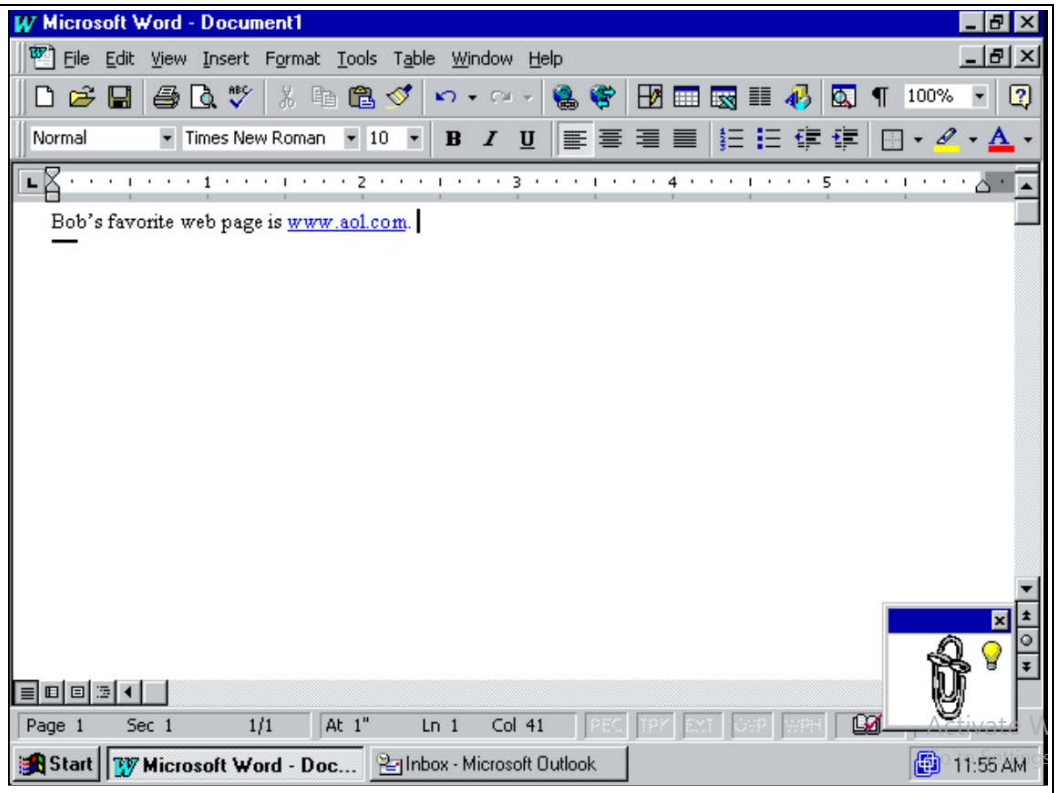
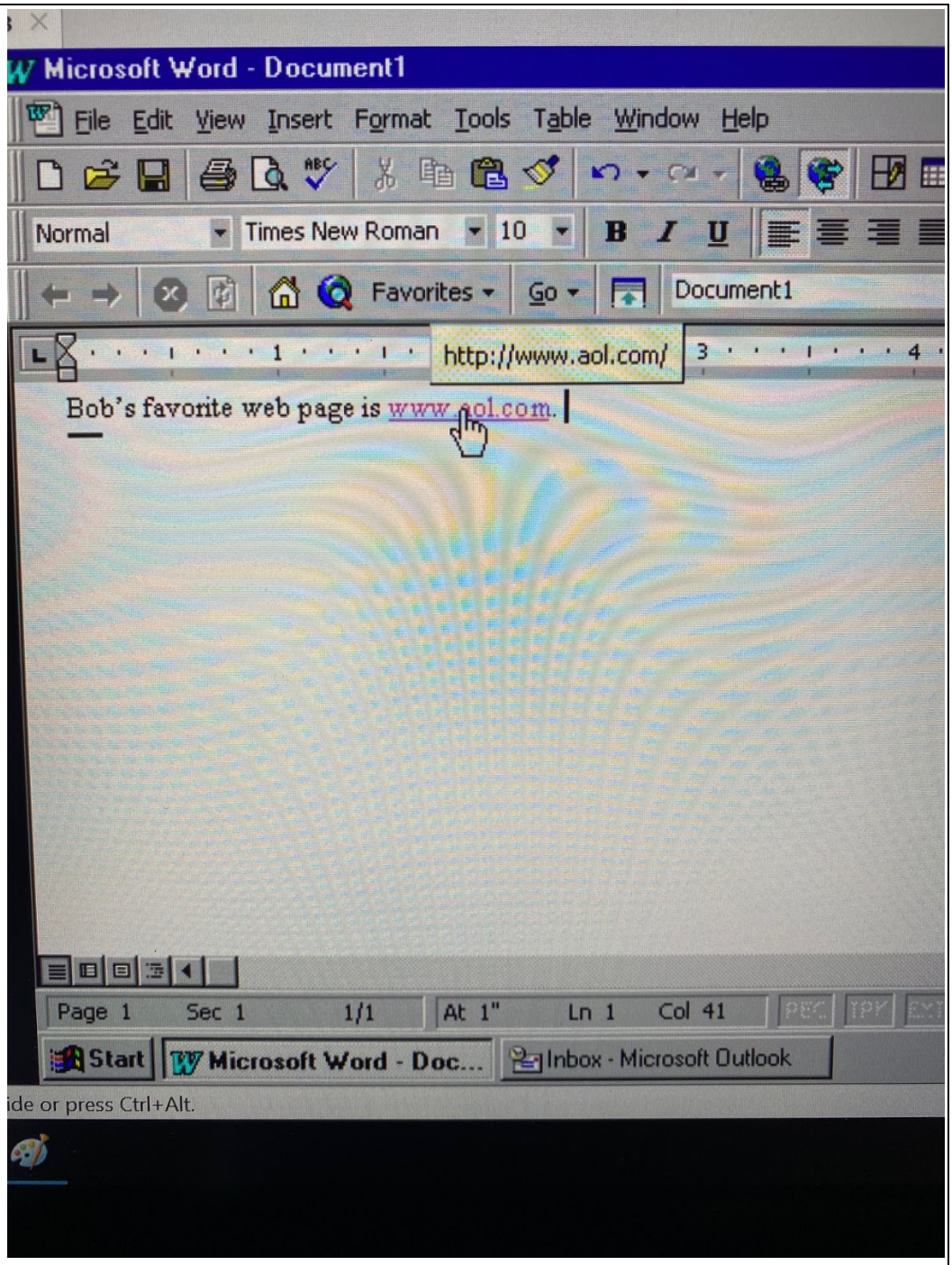
	 Word 97. Word 97 further discloses:

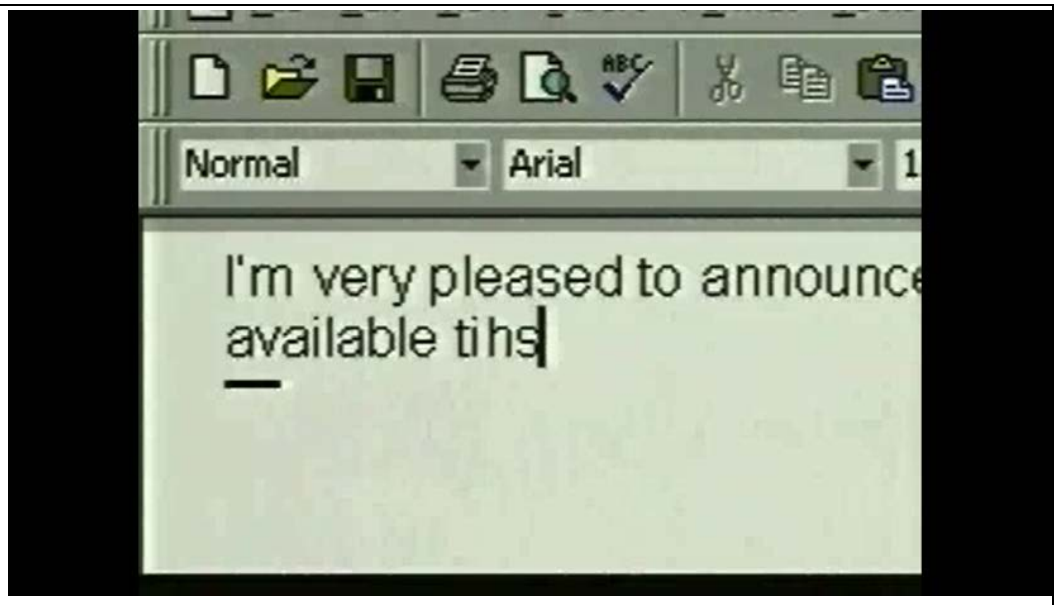
Exhibit L



Word 97.

How to use Microsoft Word further discloses:

Exhibit L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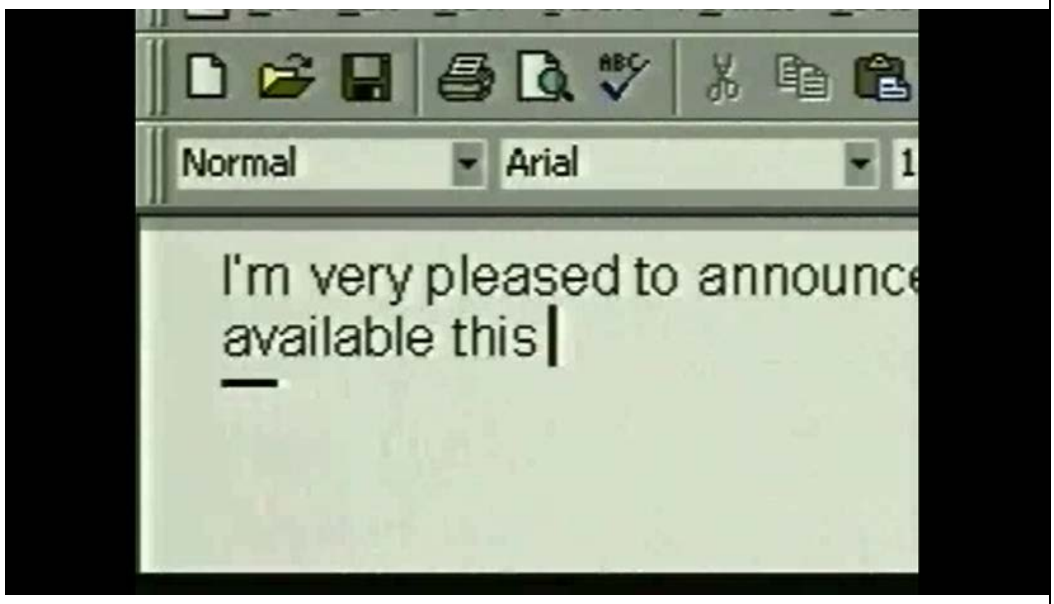
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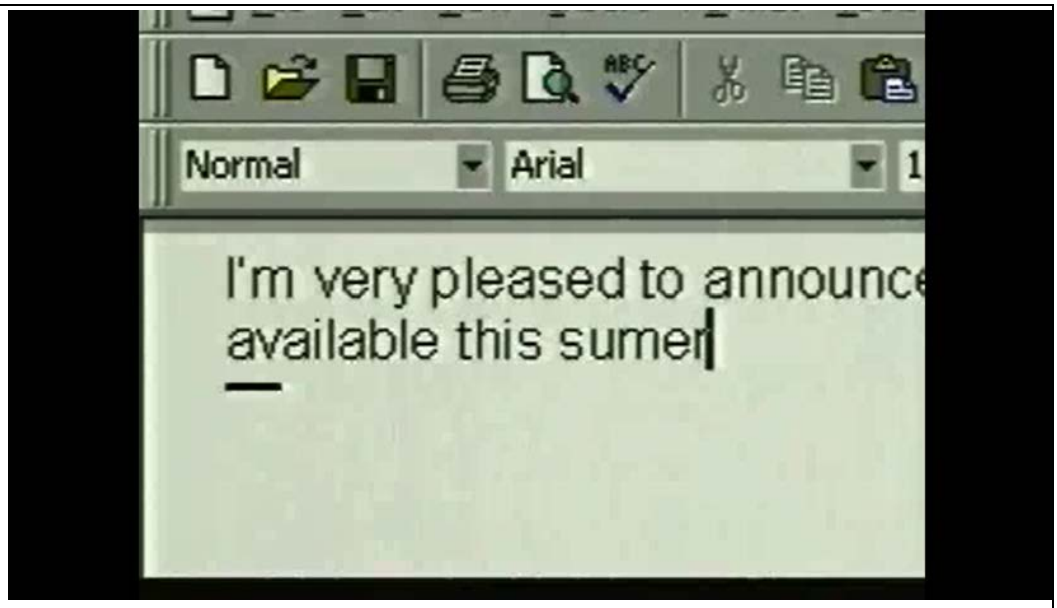
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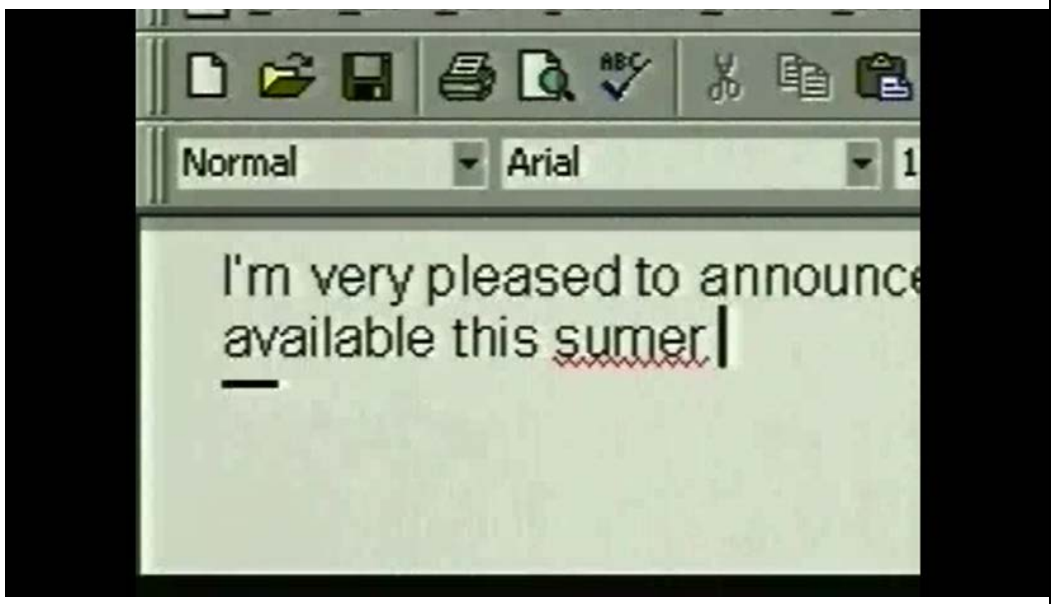
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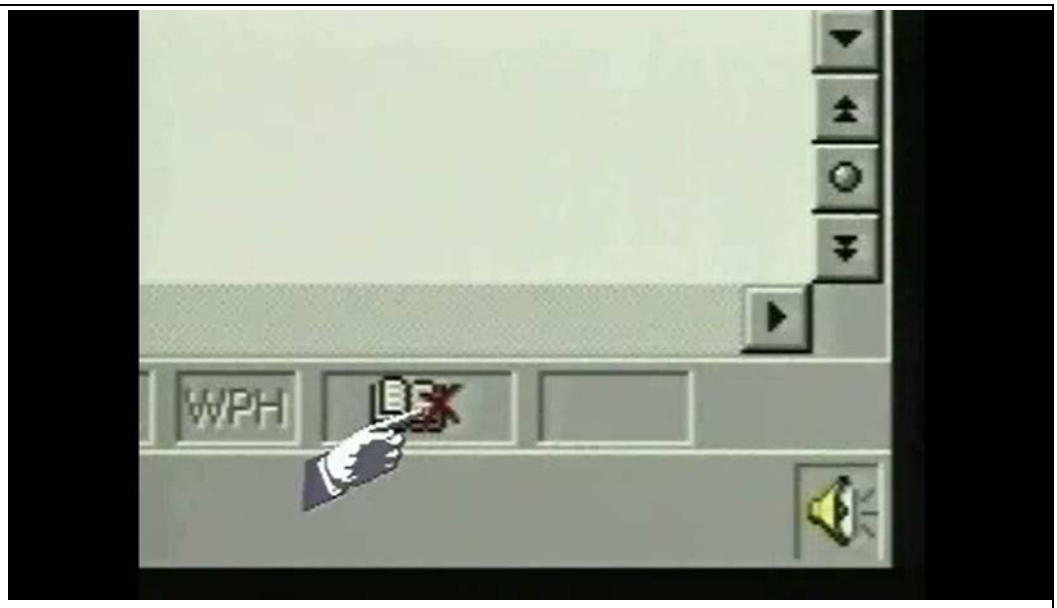
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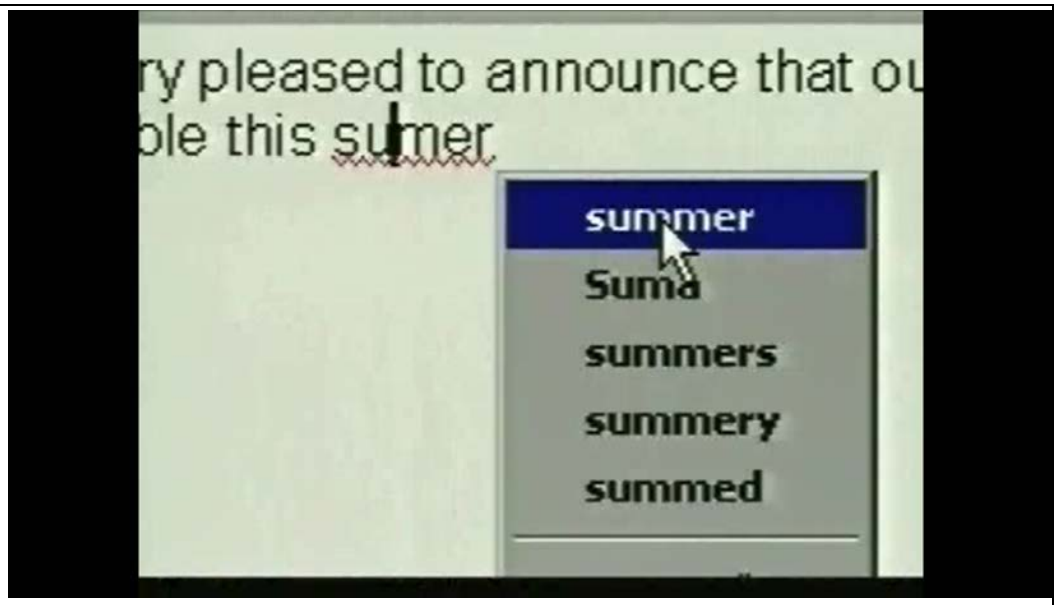
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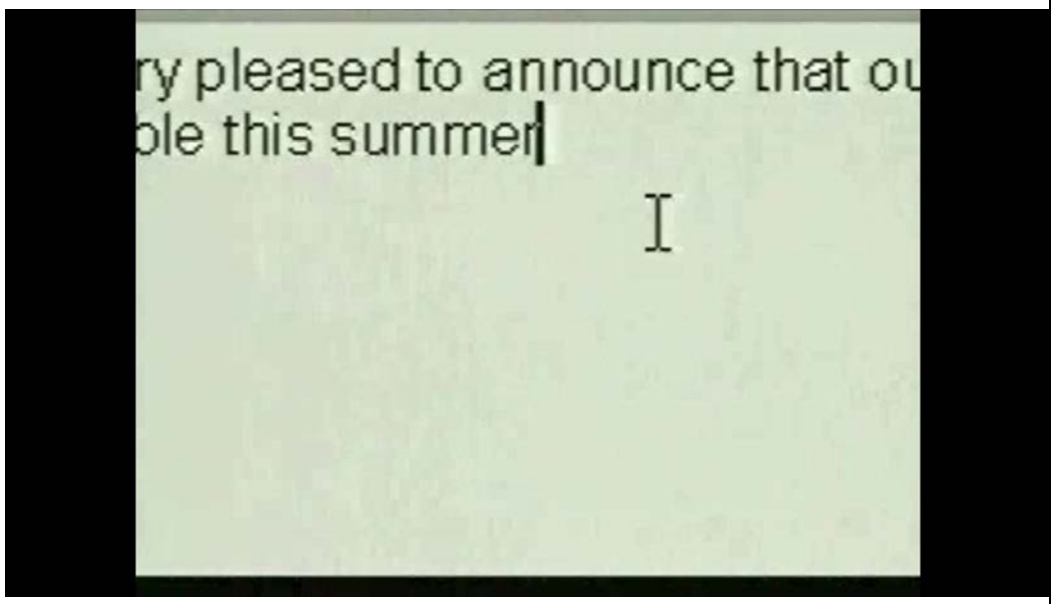
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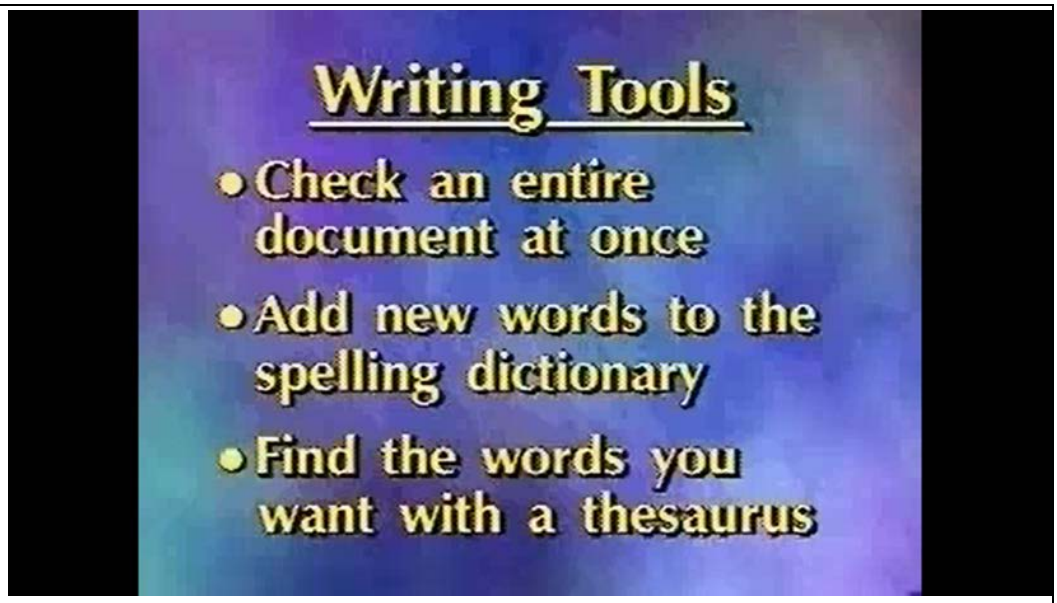
Writing Tools
• Check an entire document at once
• Add new words to the spelling dictionary
• Find the words you want with a thesaurus


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September
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Exhibit L

"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

"1. Position the insertion point in the document where you want to past a person's address.

2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1

3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document

* * *

4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list

5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79.

"Understanding the Mail Merge Components: Data Sources and Main Documents

You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that

Exhibit L

	receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "If you click Edit Main Document, Word displays the main document as a normal Word document with one exception--the Mail Merge toolbar is now displayed below the toolbar(s) and above the ruler (see Figure 17.16). With the main document on-screen, you can create a main document in which the data will be inserted." *Id.* at 491. "You can get a sneak preview of the merged document by clicking the View Merged Data button in the Mail Merge toolbar. With View Merged Data off, your completed main document resembles the document at the top in Figure 17.31. After you click the View Merged Data button, the document appears as shown at the bottom of that figure." *Id.* at 506. "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. Word 97 Core Lesson 16 further discloses:

Exhibit L

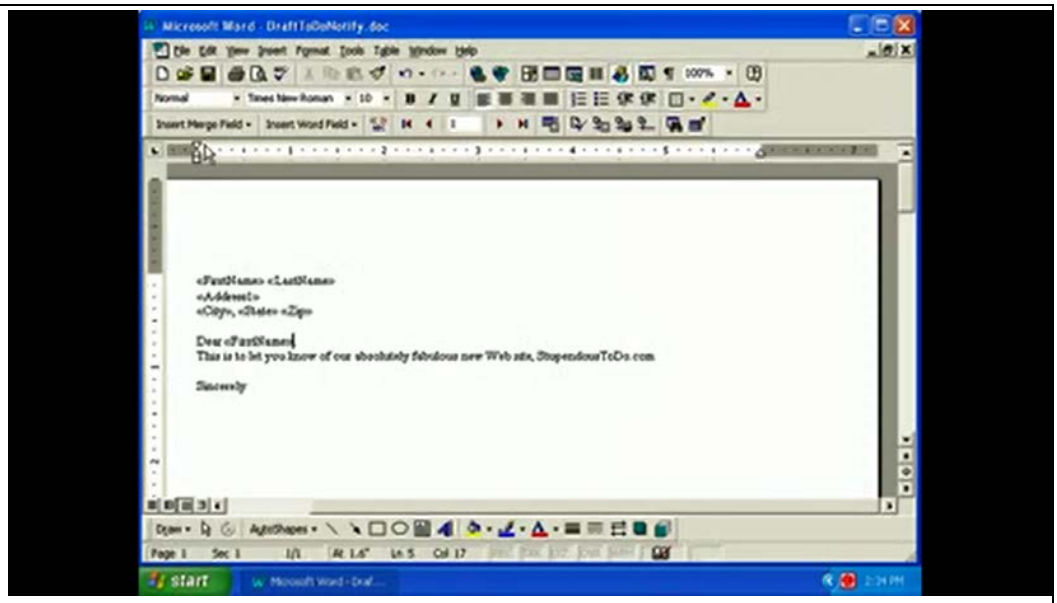
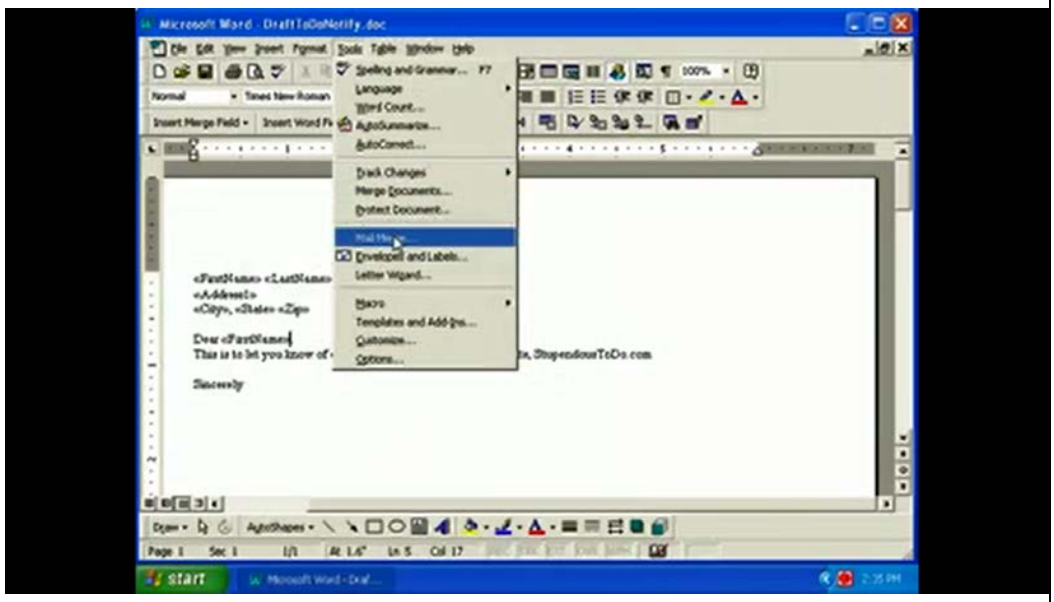
	 

Exhibit L

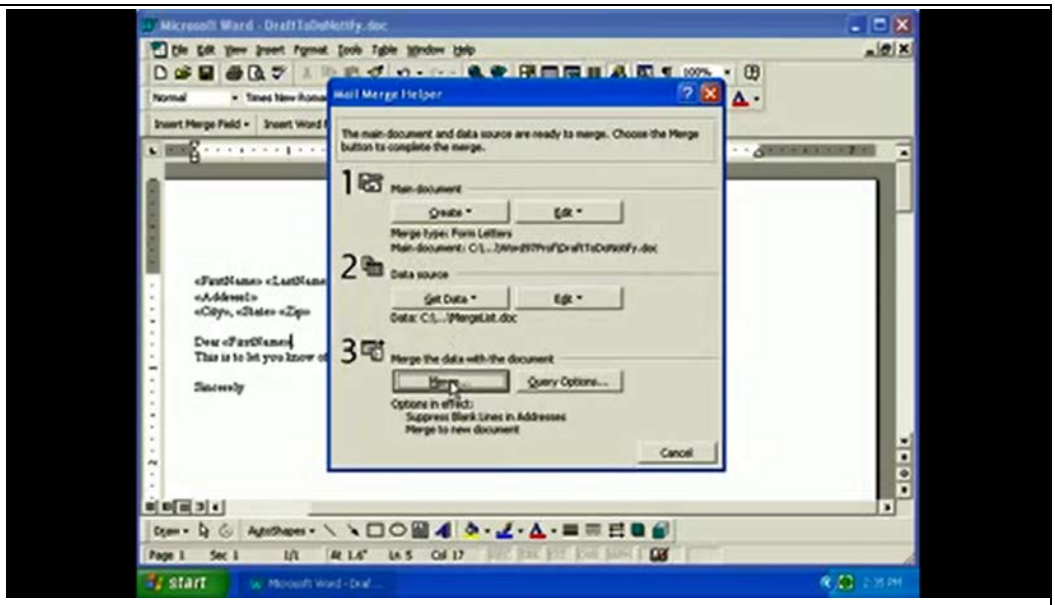
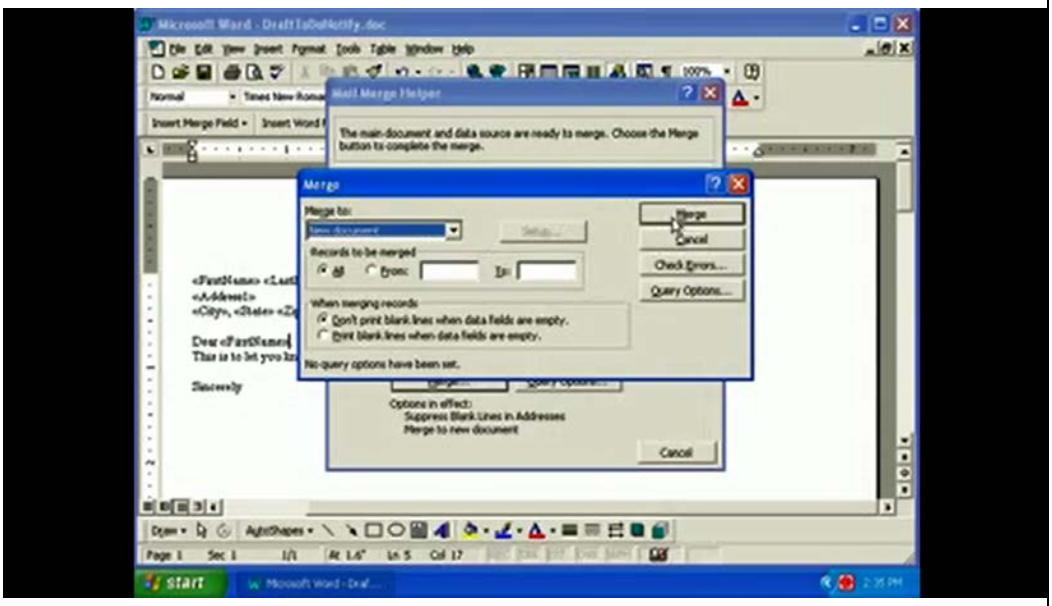
	 Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. 1 Main document Create Edit 2 Data source Get Data Edit 3 Merge the data with the document Merge... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel  Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. Merge Merge to: Records to be merged All From: To: When merging records Don't print blank lines when data fields are empty. Print blank lines when data fields are empty. No query options have been set. Merge Cancel Check Errors... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel

Exhibit L

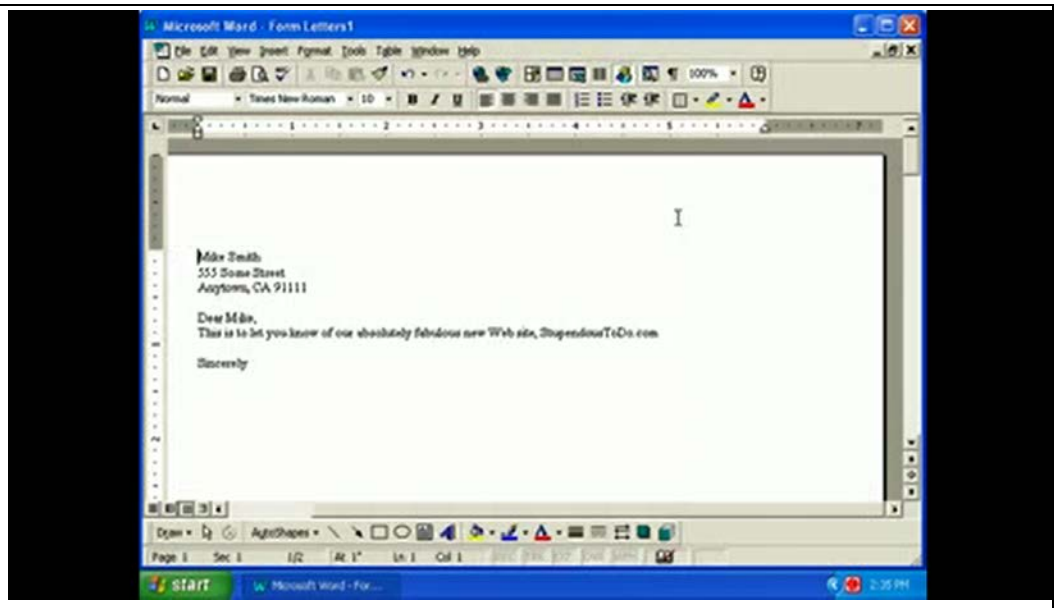
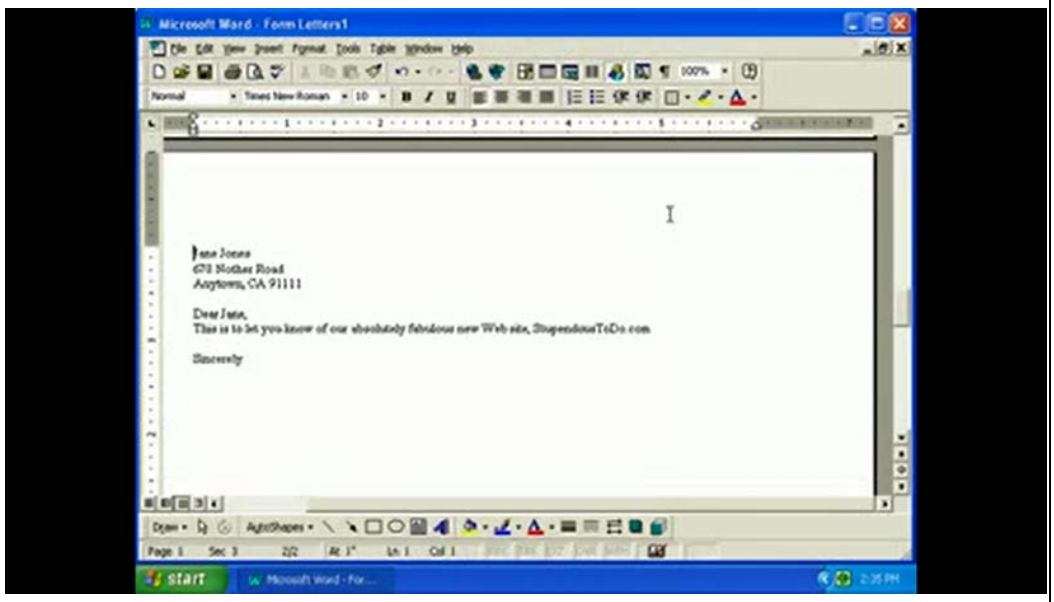
	  For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 6, 8, 9, 11, 12, 14, 19, and 20.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related	Word 97 discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term. Specifically, Word 97 discloses:

Exhibit L

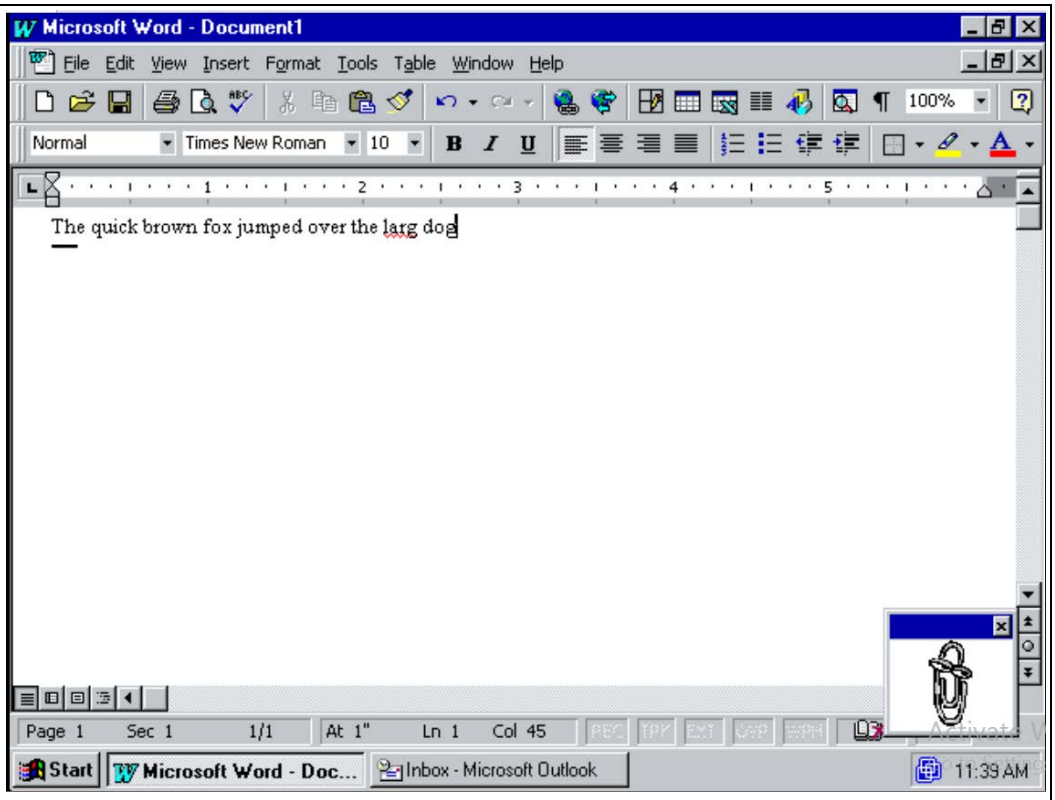
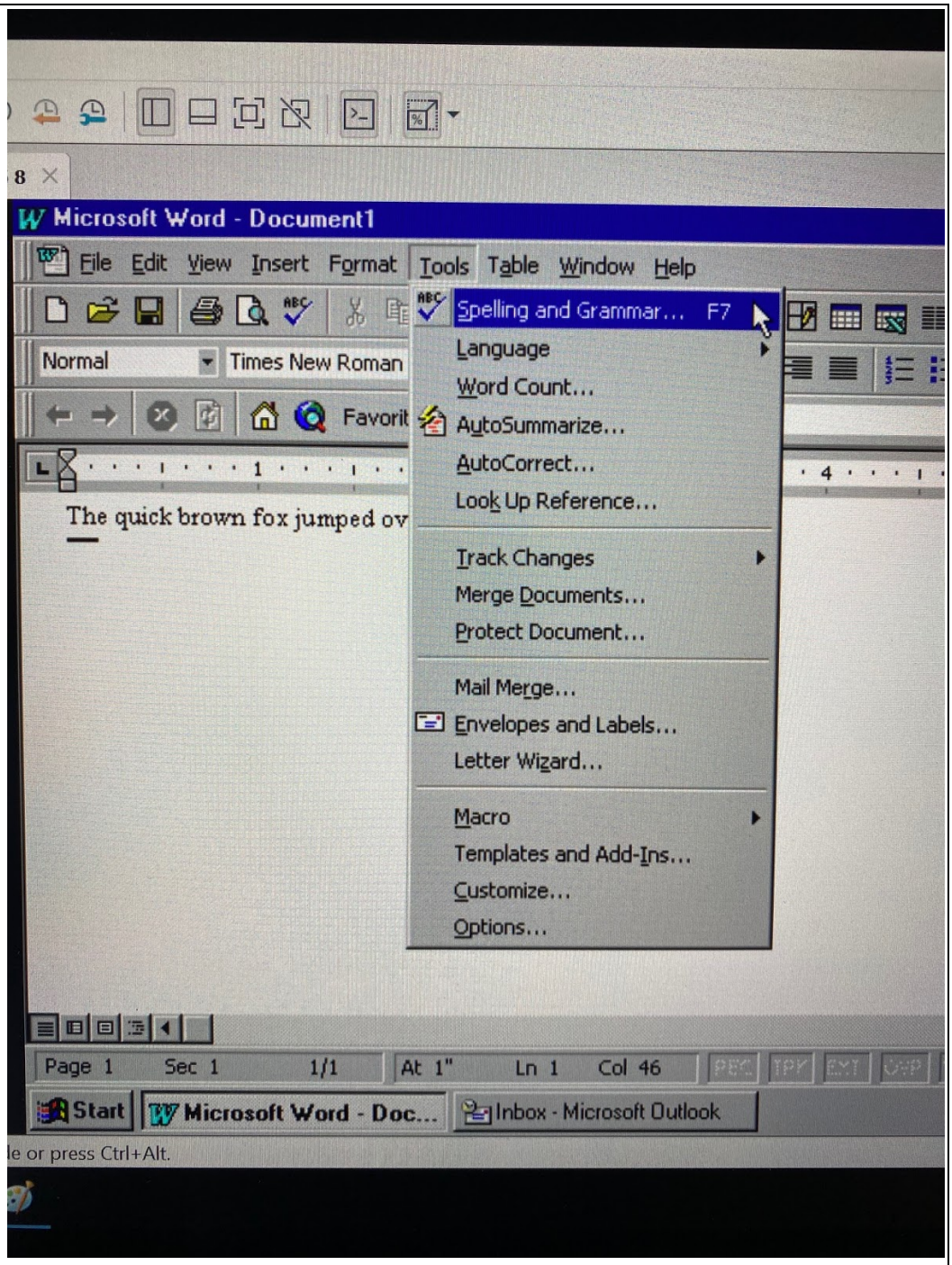
to the search term; and	 Word 97 further discloses:

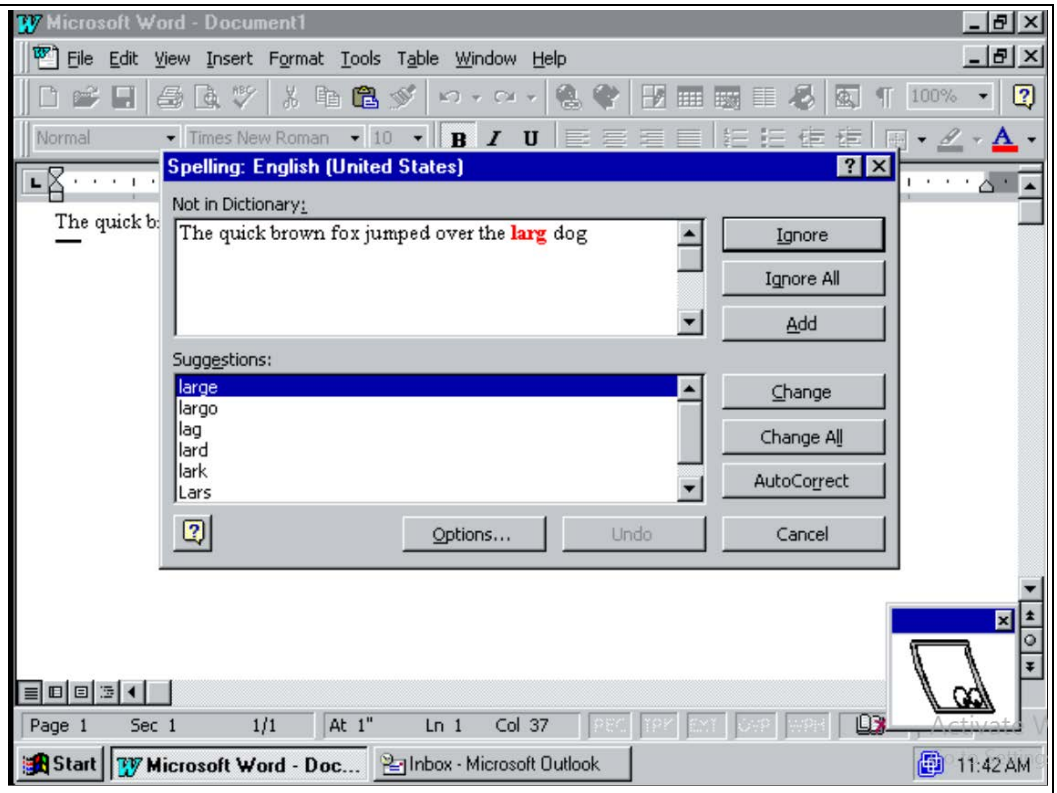
Exhibit L



Word 97.

Word 97 further discloses:

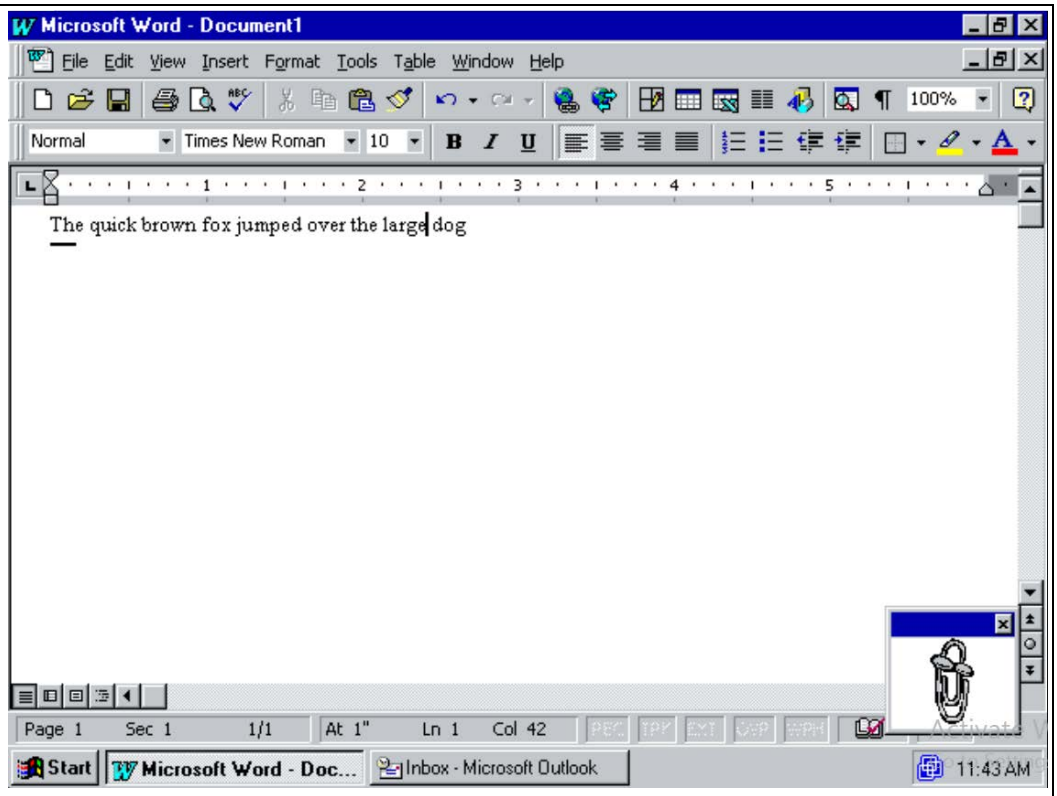
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97 further discloses:

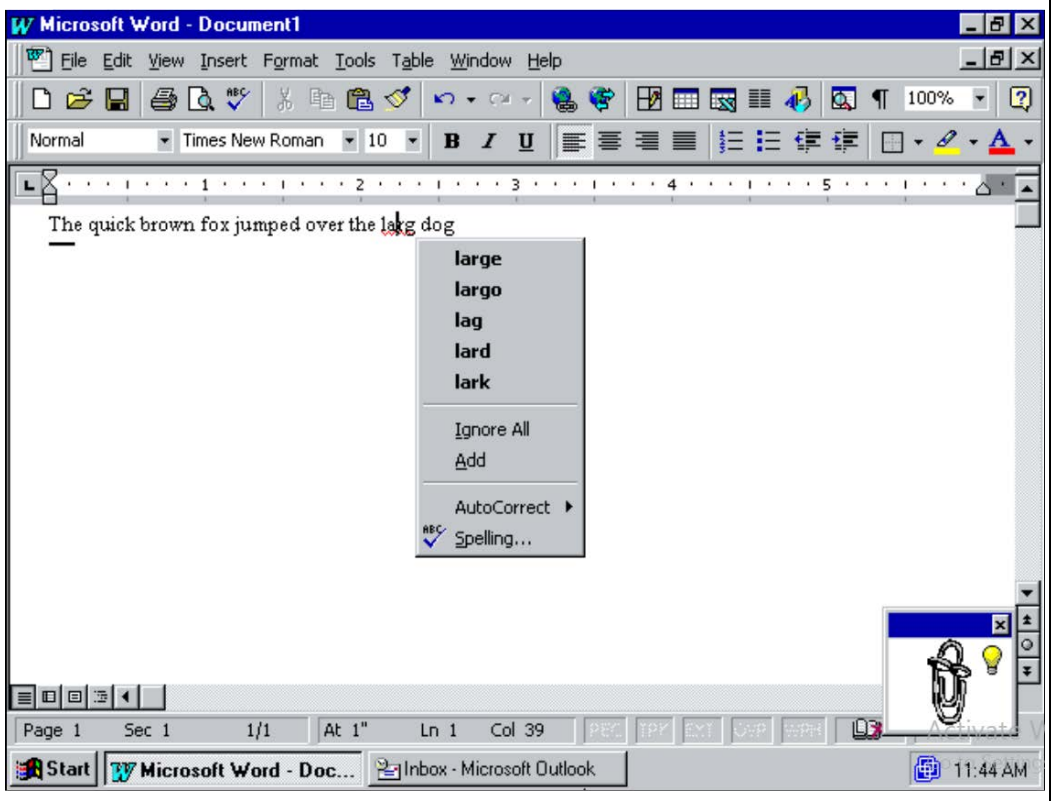


Exhibit L

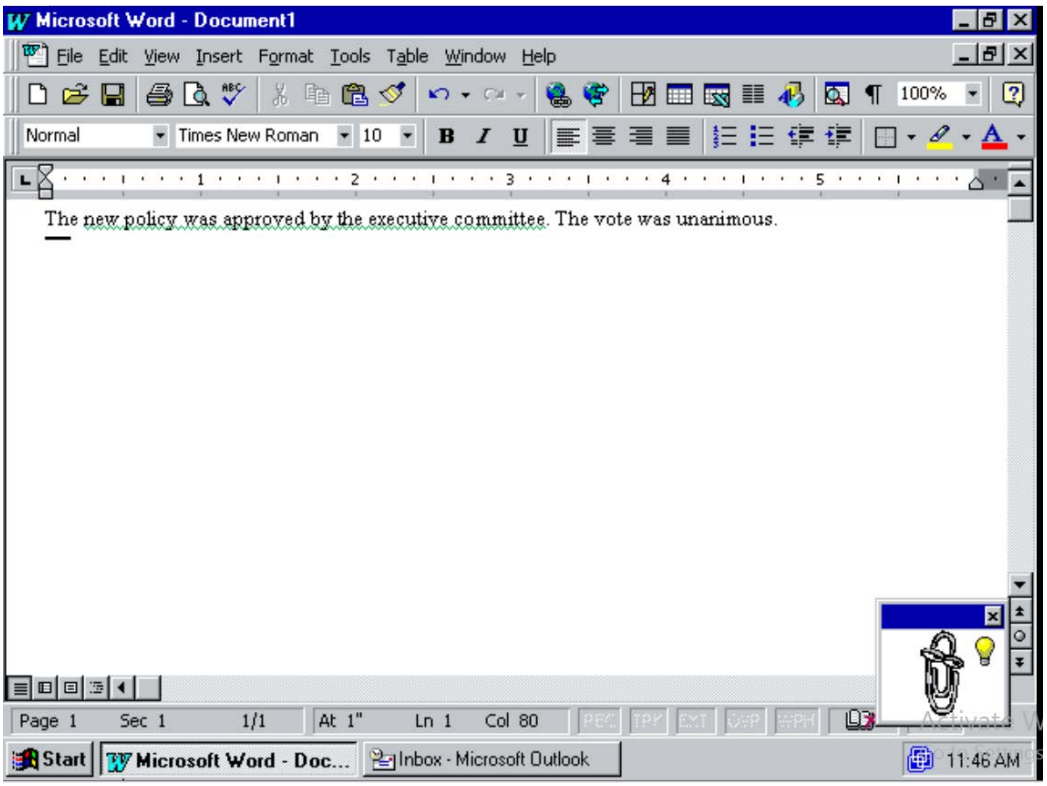
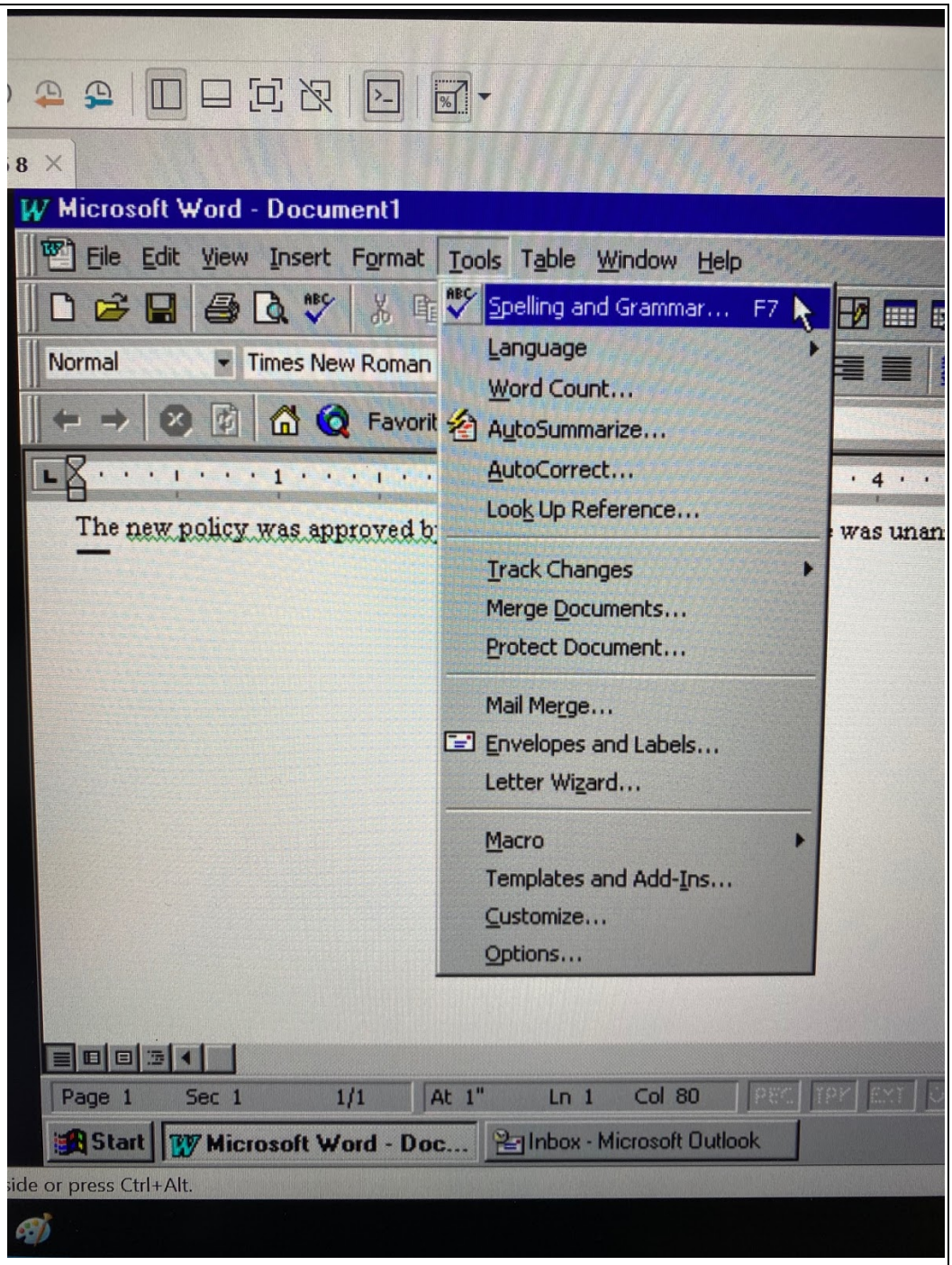
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

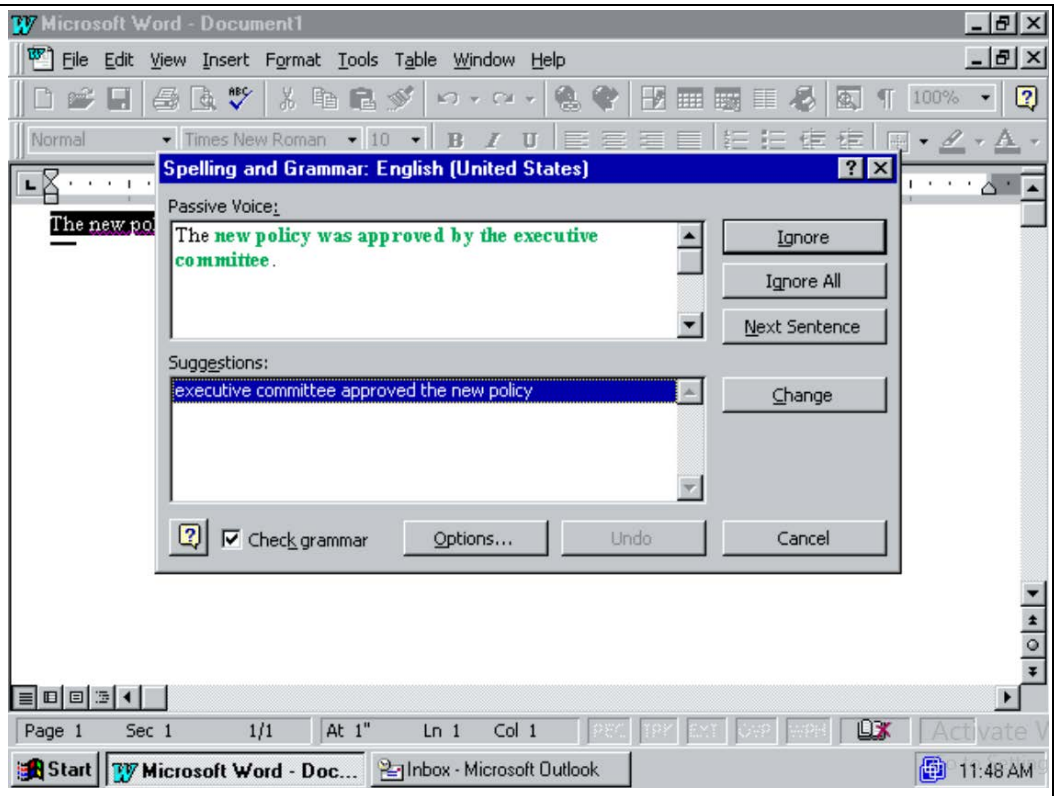
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L

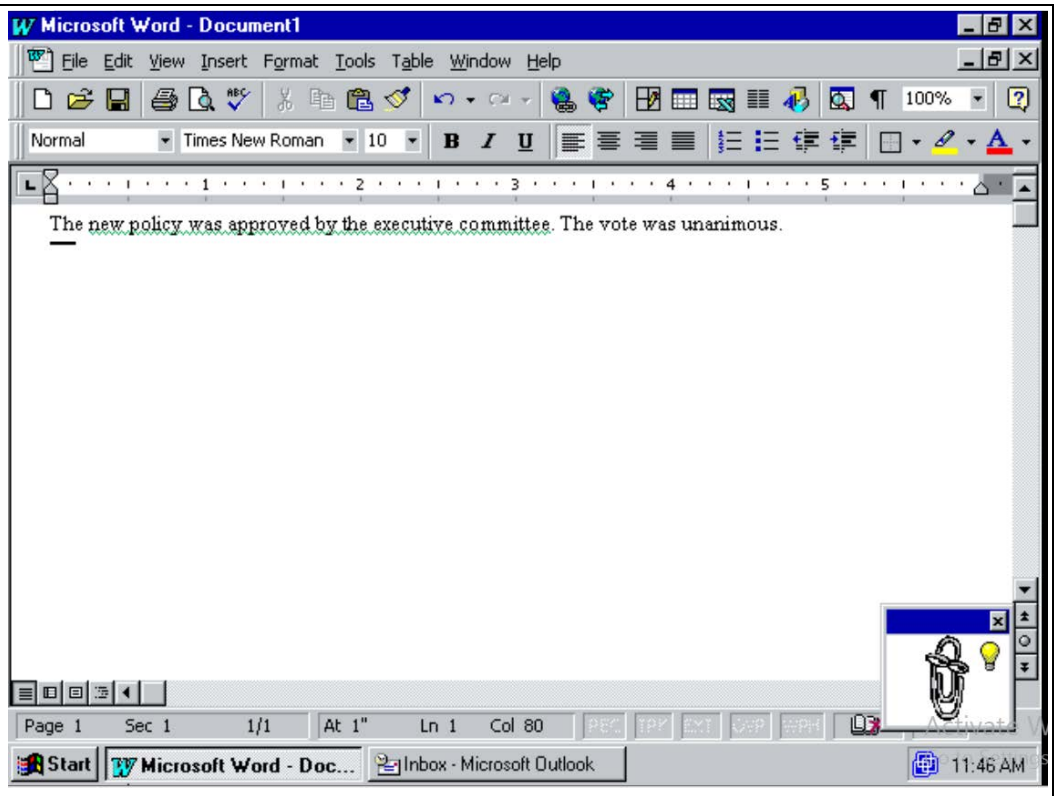
	 Word 97. Word 97 further discloses:

Exhibit L

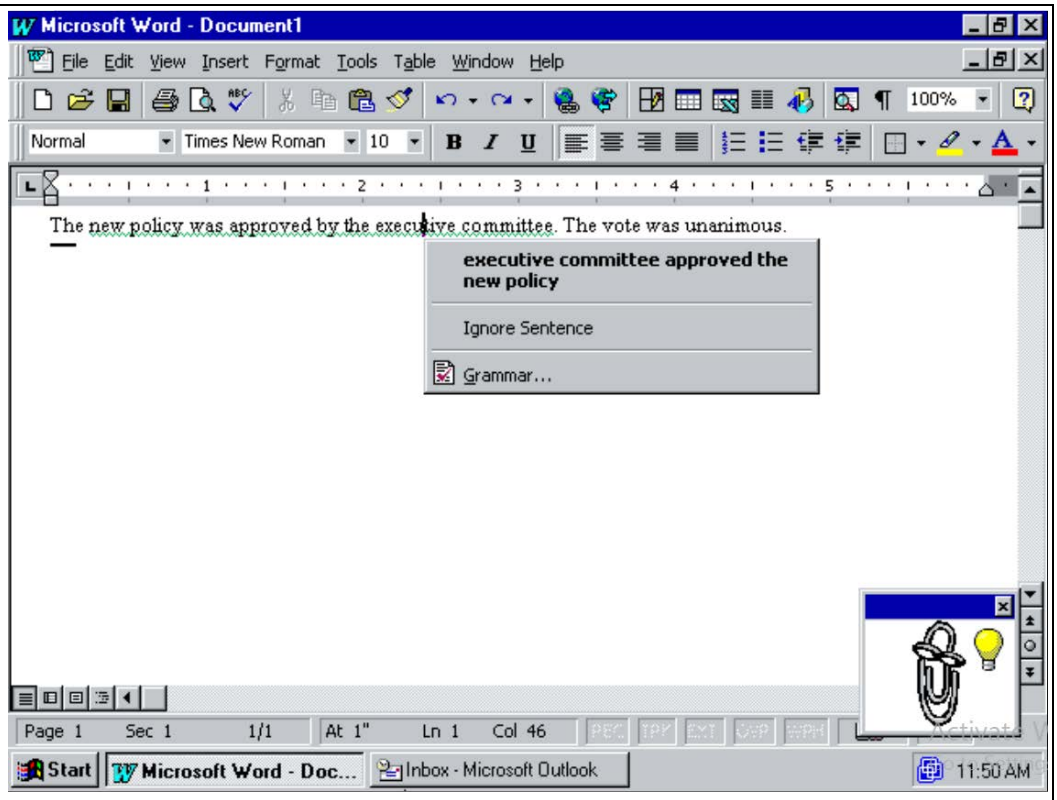
	 Word 97. Word 97 further discloses:

Exhibit L

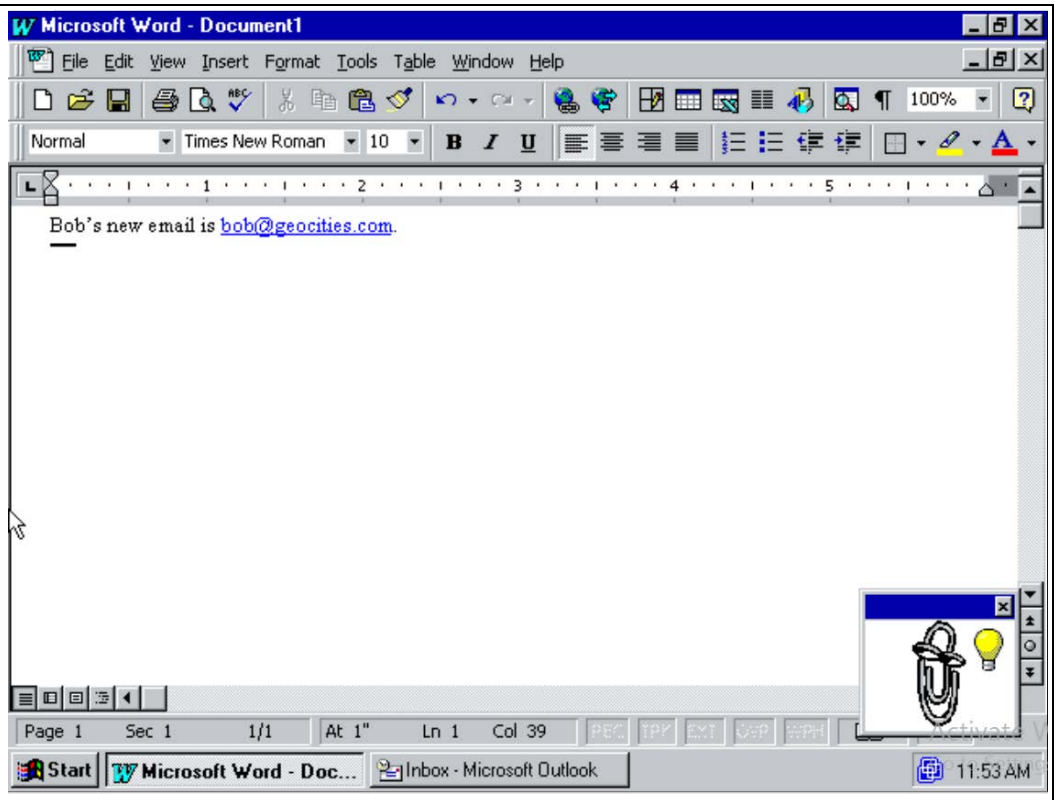
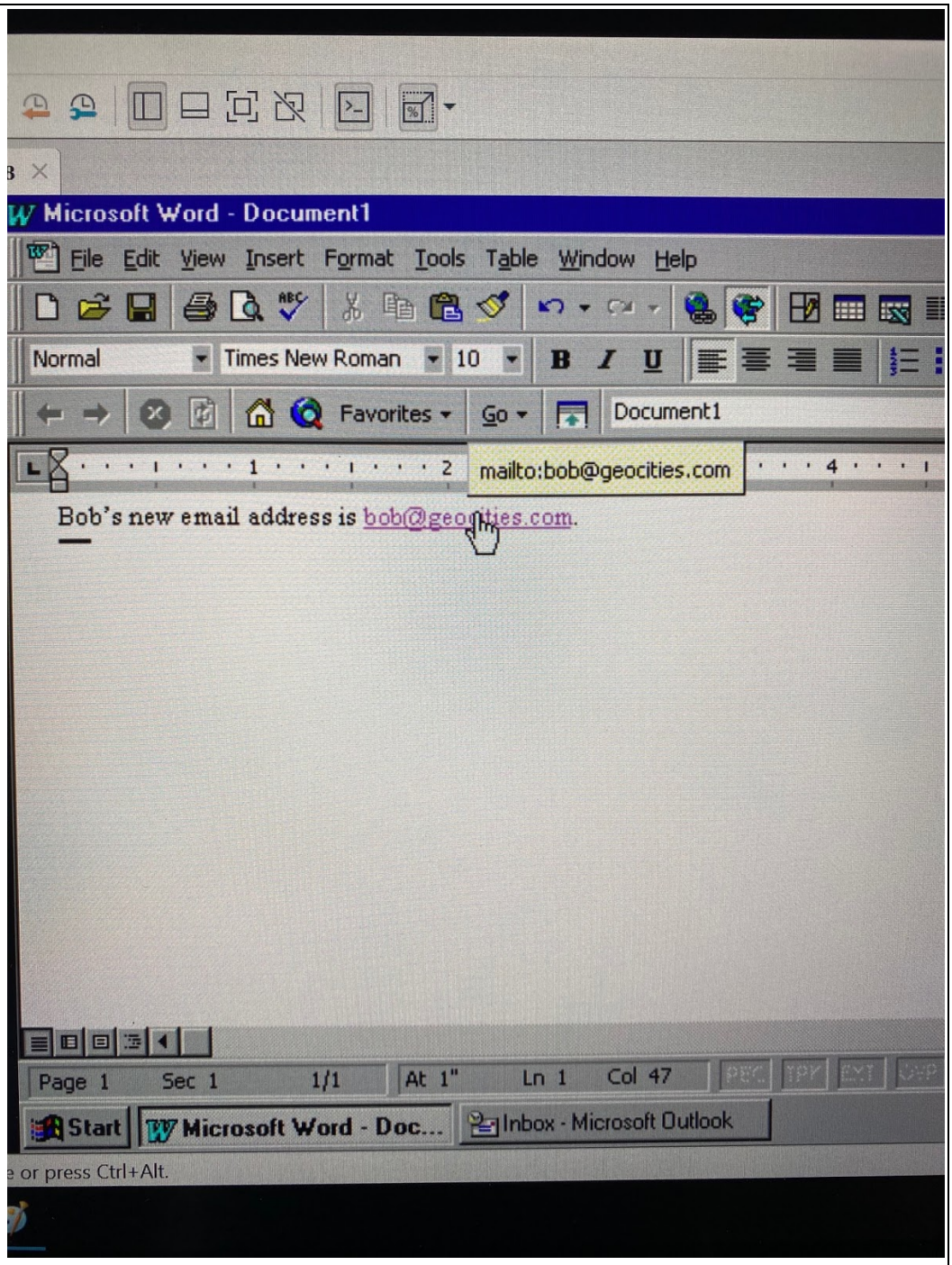
	 Word 97. Word 97 further discloses:

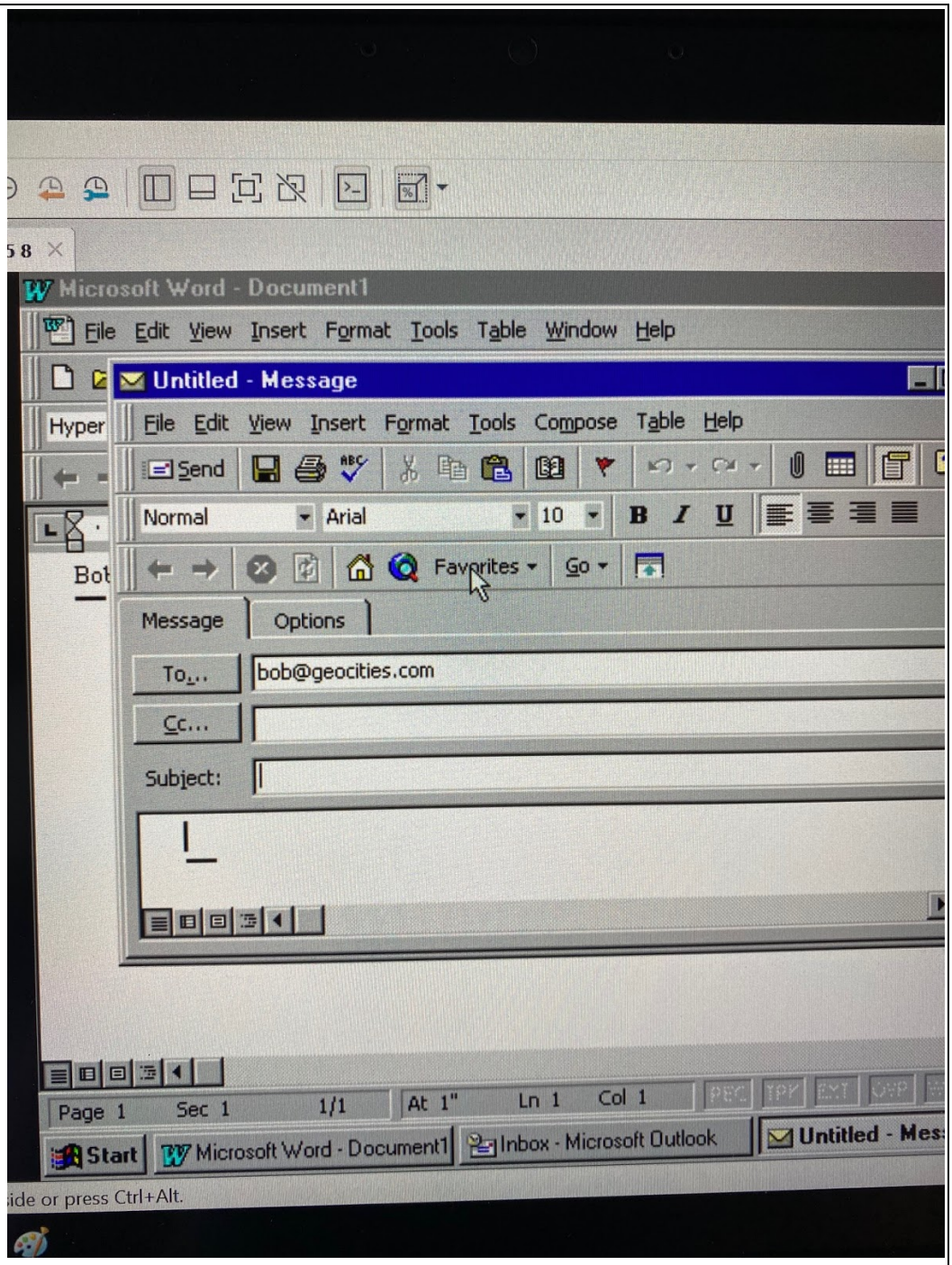
Exhibit L



Word 97.

Word 97 further discloses:

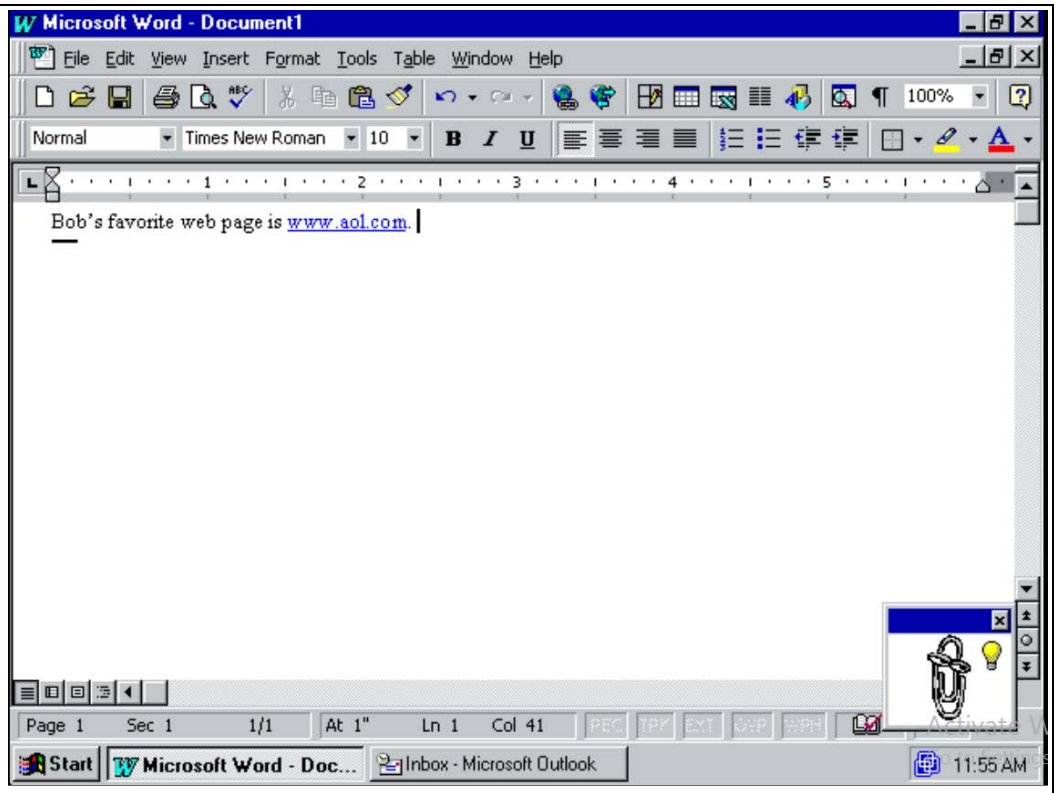
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L

	 Word 97. Word 97 further discloses:

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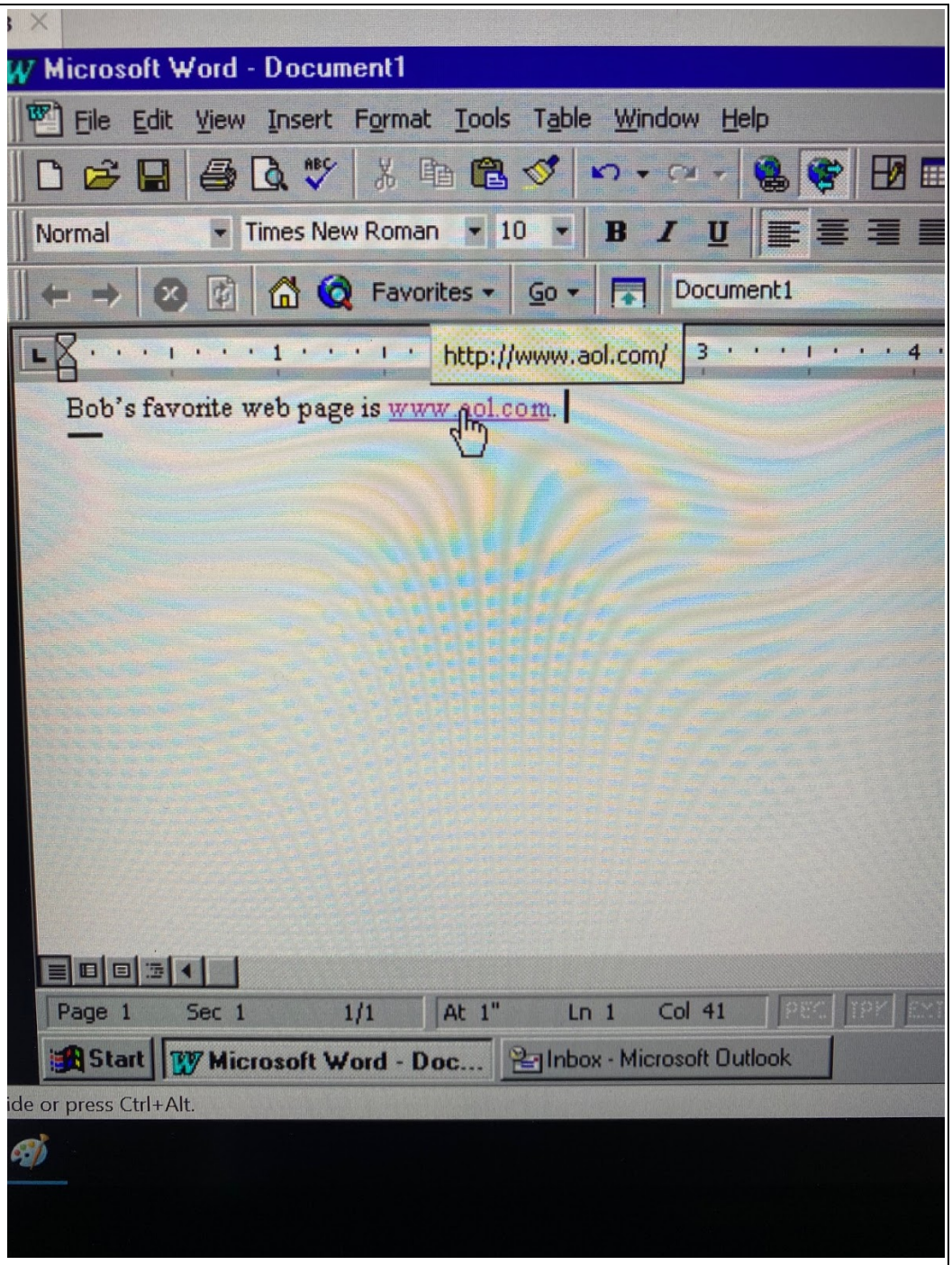
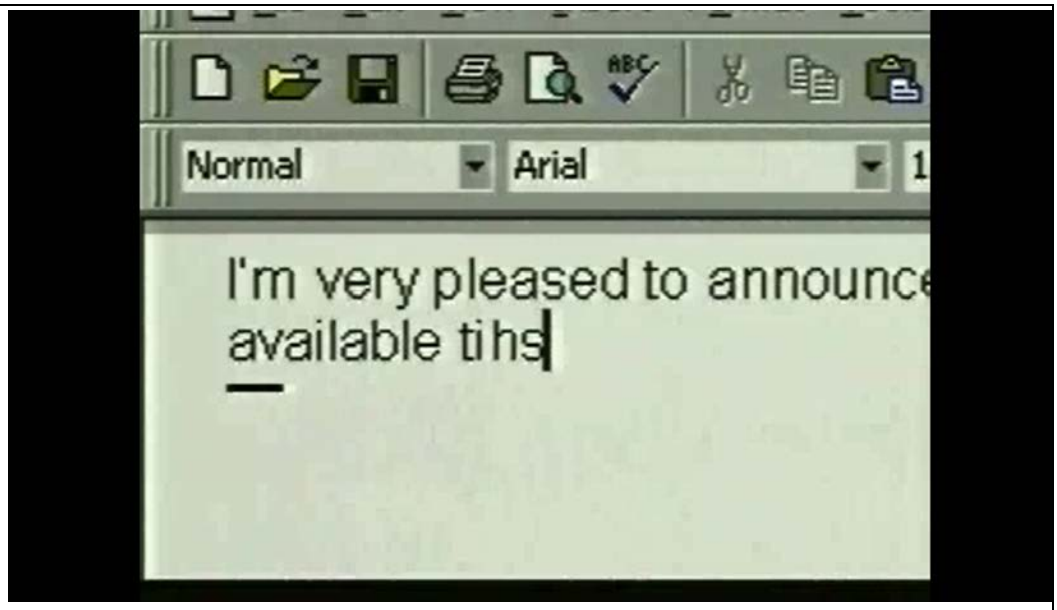


Word 97.

How to use Microsoft Word further discloses:

Exhibit L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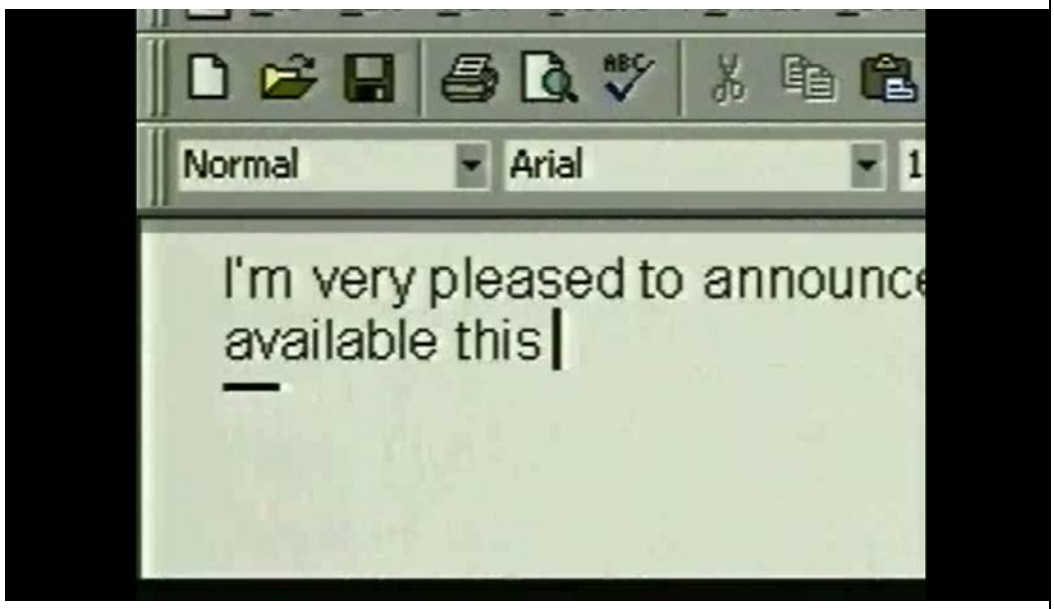
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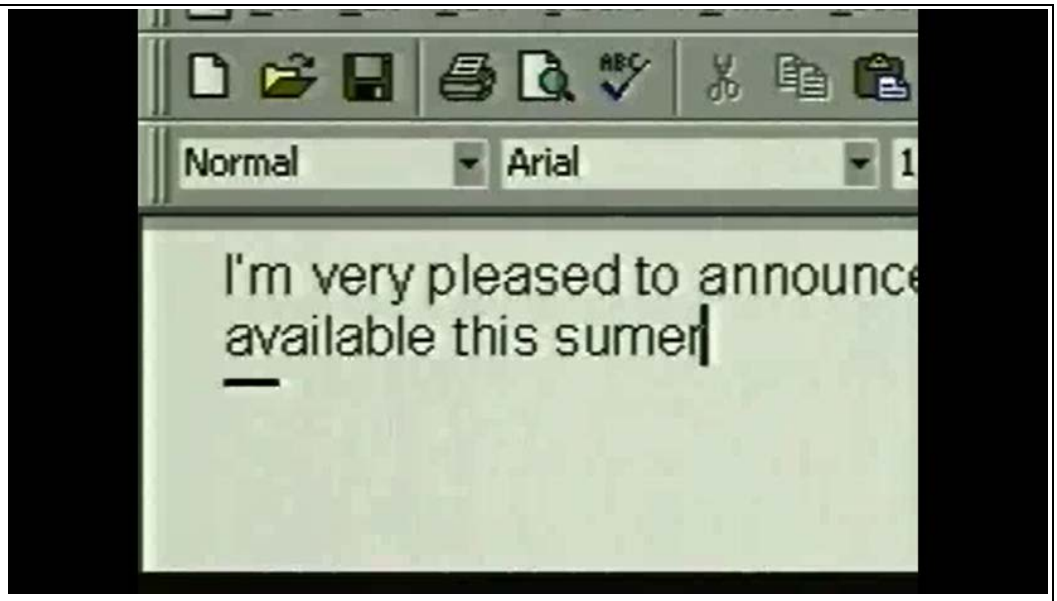
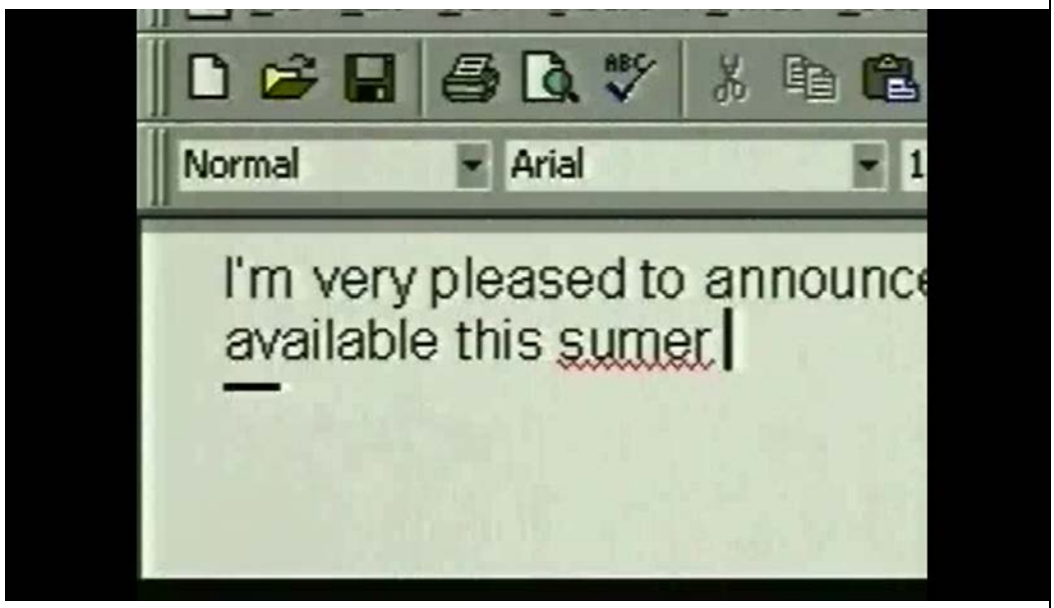
	 Normal Arial I'm very pleased to announce available this sumer  Normal Arial I'm very pleased to announce available this sumer

Exhibit L

"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

"1. Position the insertion point in the document where you want to past a person's address.

2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1

Exhibit L

	3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. Word 97 Core Lesson 16 further discloses:

Exhibit L

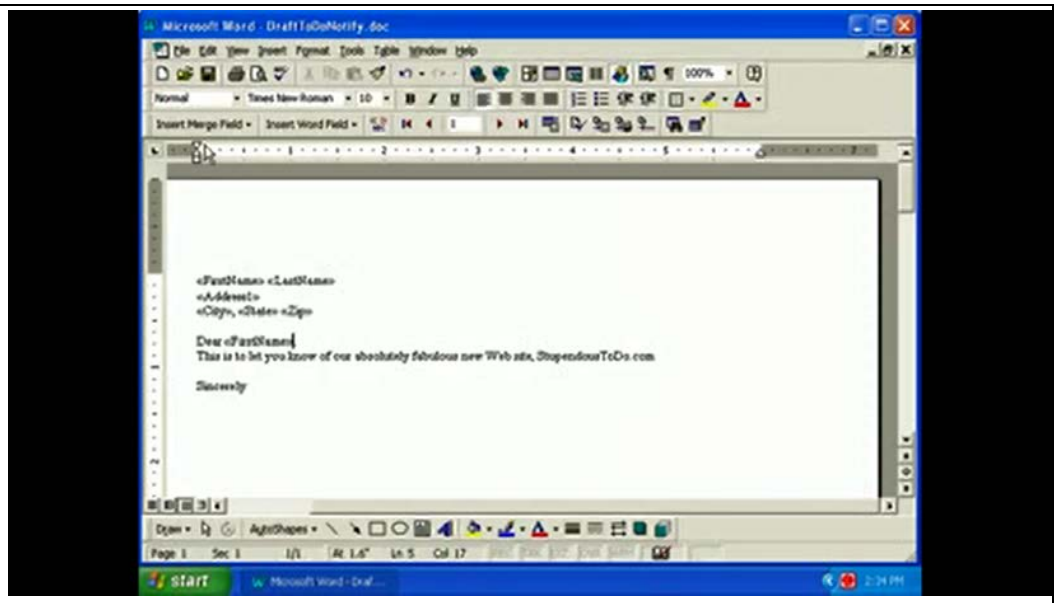
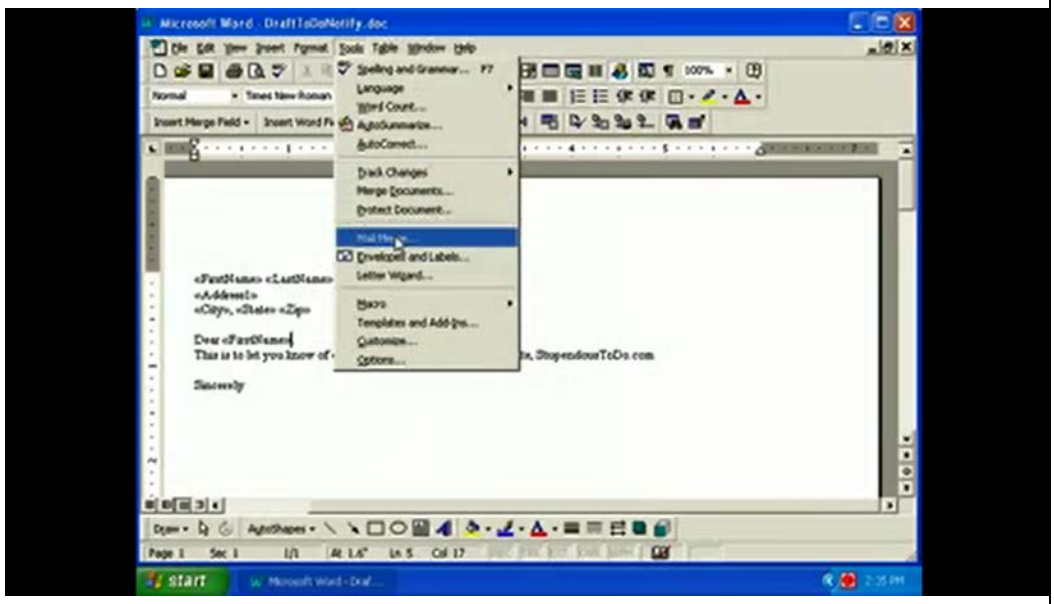
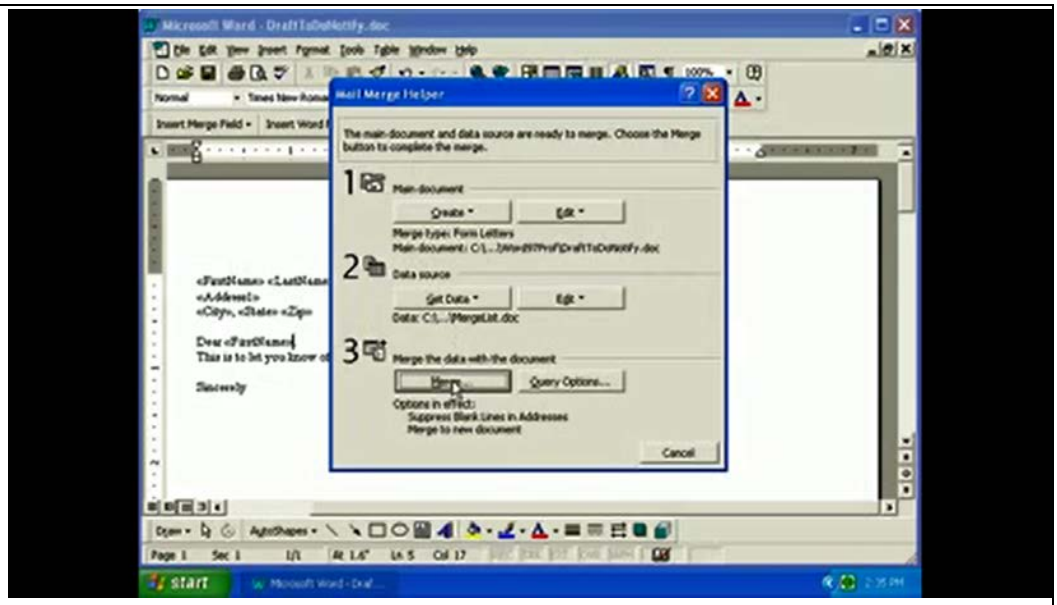
	 Microsoft Word - DraftToDoNotify.doc «FirstName» «LastName» «Address1» «City», «State» «Zip» Dear «FirstName» This is to let you know of our absolutely fabulous new Web site, StupendousToDos.com Sincerely  Microsoft Word - DraftToDoNotify.doc Spelling and Grammar... F7 Language Word Count... AutoSummarize... AutoCorrect... Track Changes Merge Documents... Protect Document... Envelopes and Labels... Letter Wizard... Macro Templates and Add-Ins... Customize... Options... «FirstName» «LastName» «Address1» «City», «State» «Zip» Dear «FirstName» Sincerely

Exhibit L


Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

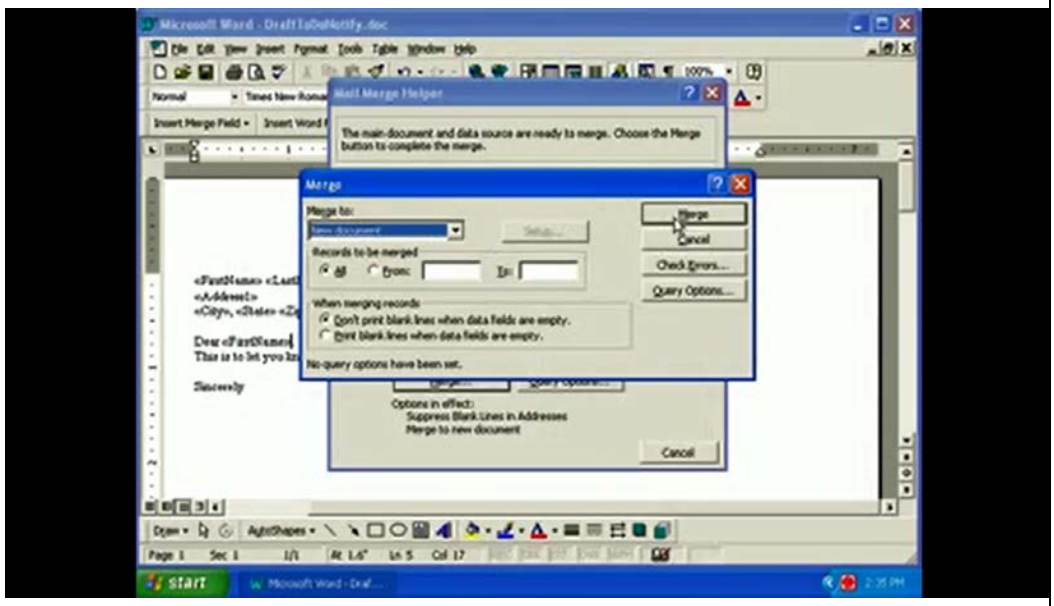

Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
Merge
Merge to:
Records to be merged
When merging records
Don't print blank lines when data fields are empty.
Print blank lines when data fields are empty.
No query options have been set.
Merge
Cancel
Check Errors...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

Exhibit L

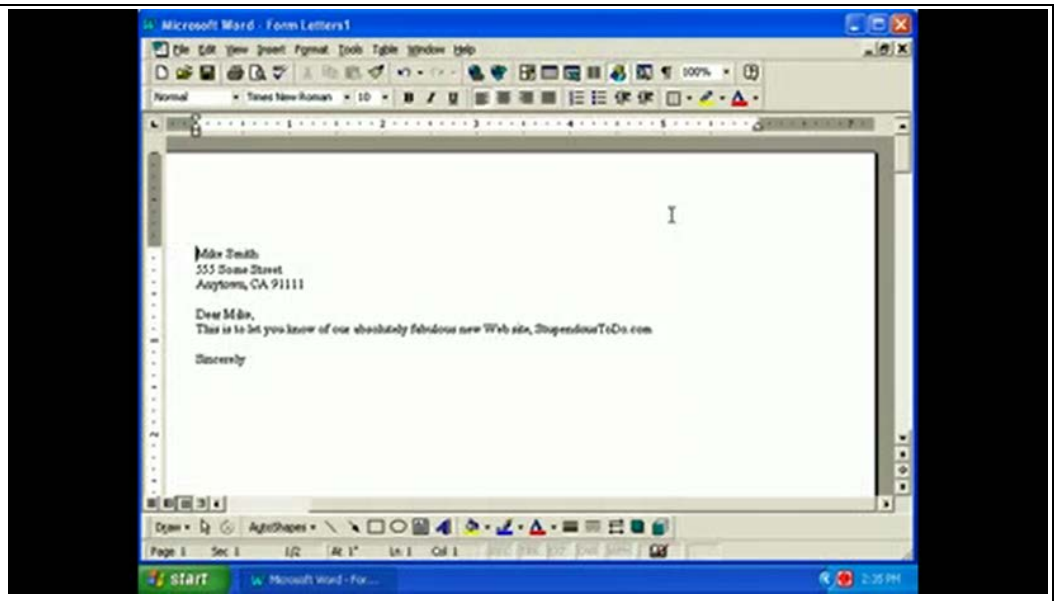
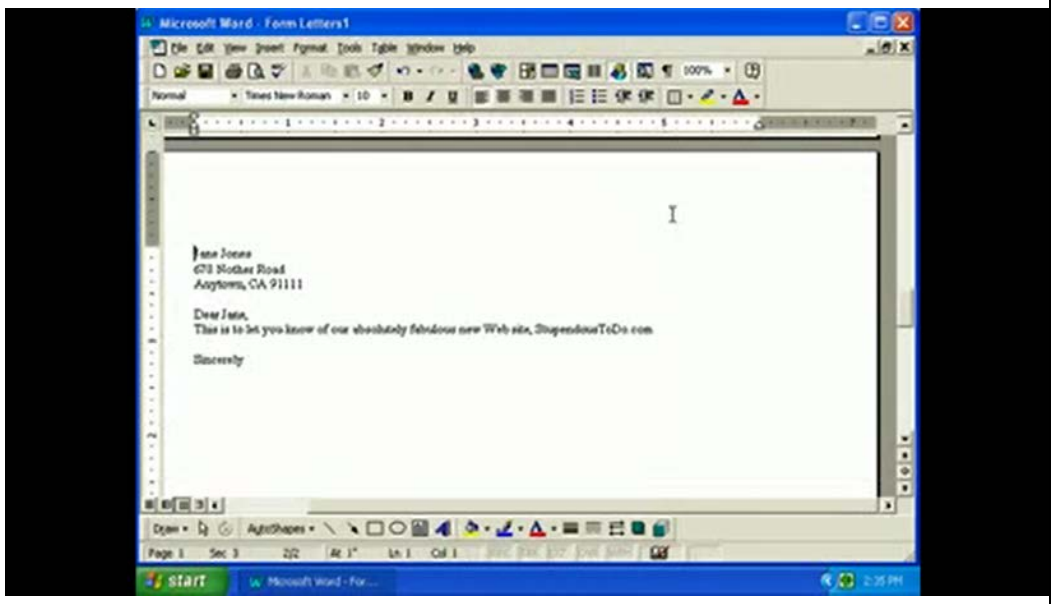
	  For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 10, and 19.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first	Word 97 discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information. Specifically, Word 97 discloses:

Exhibit L

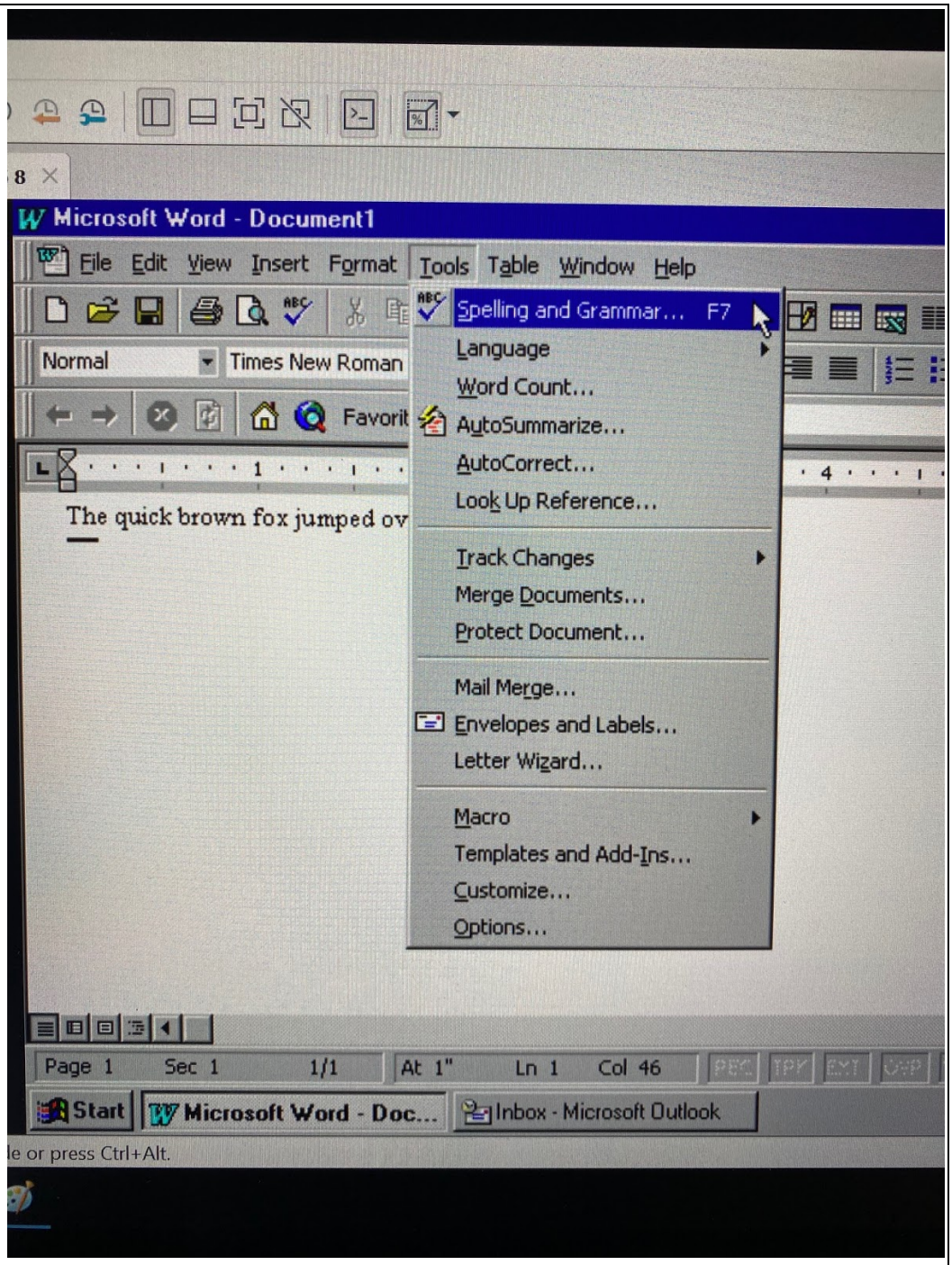
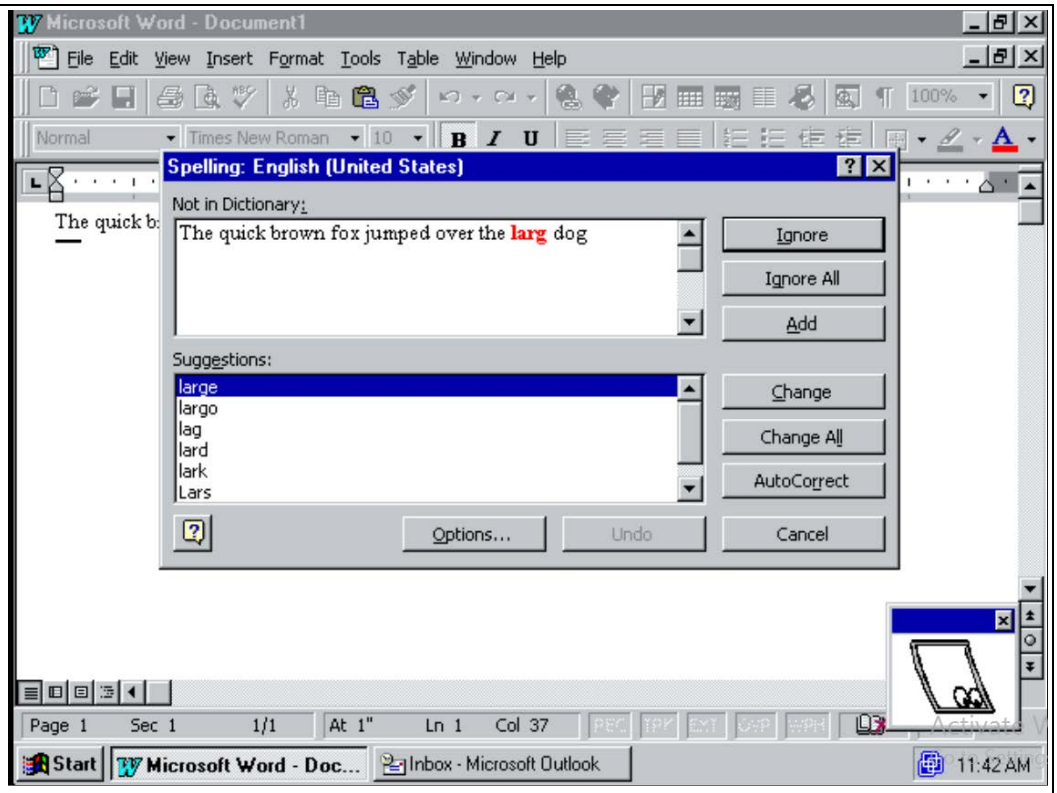
information.	 Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

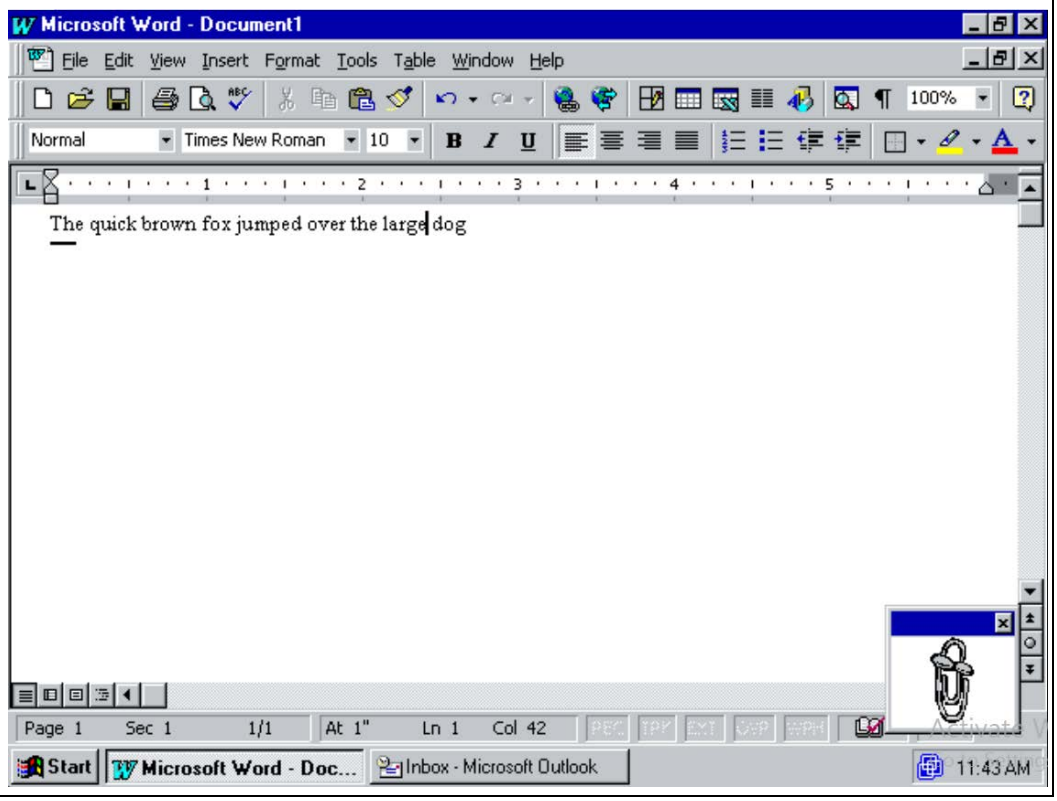


Exhibit L

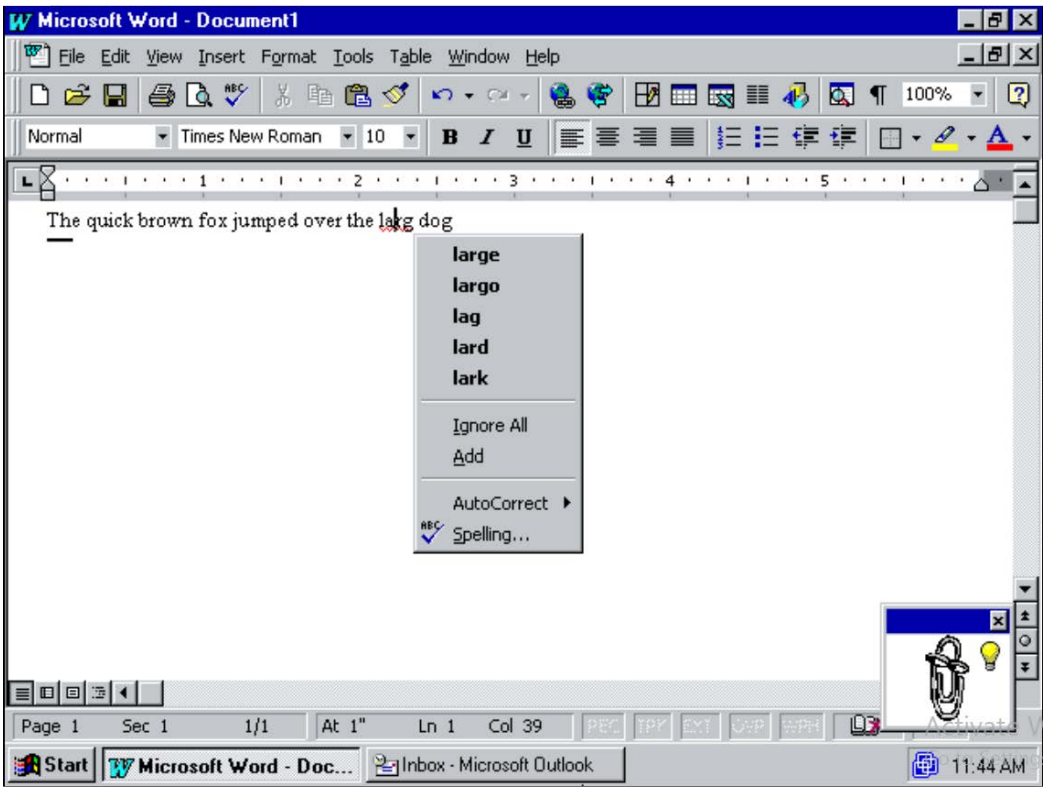
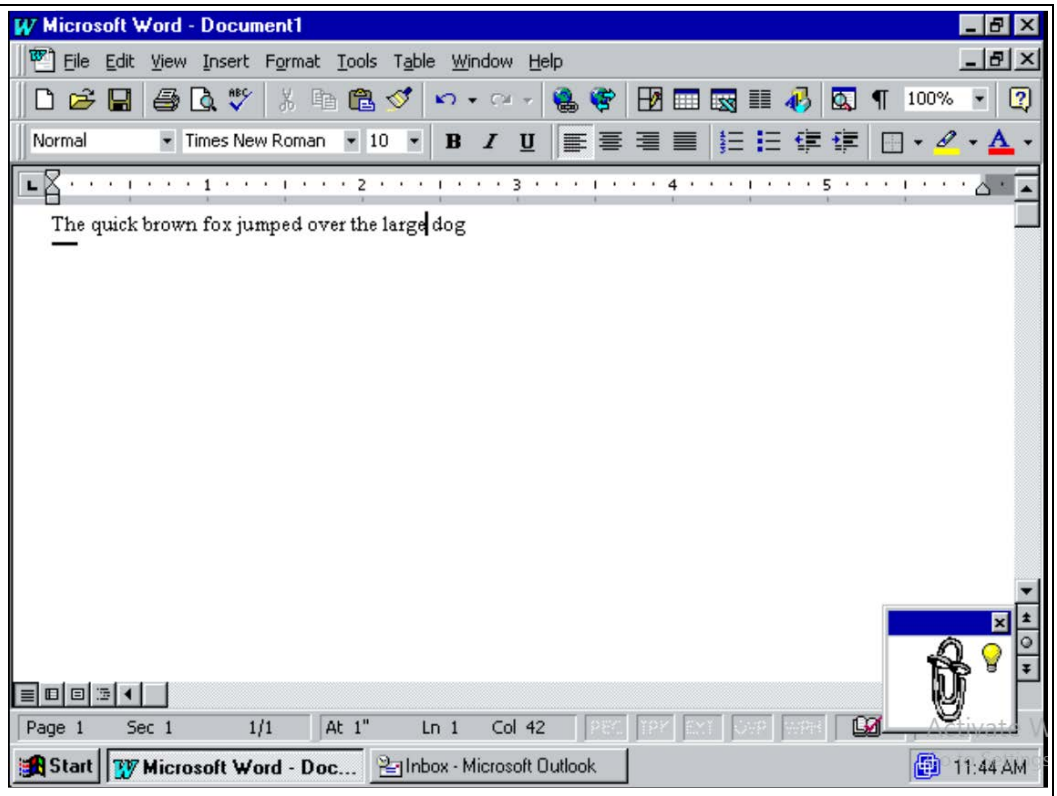
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

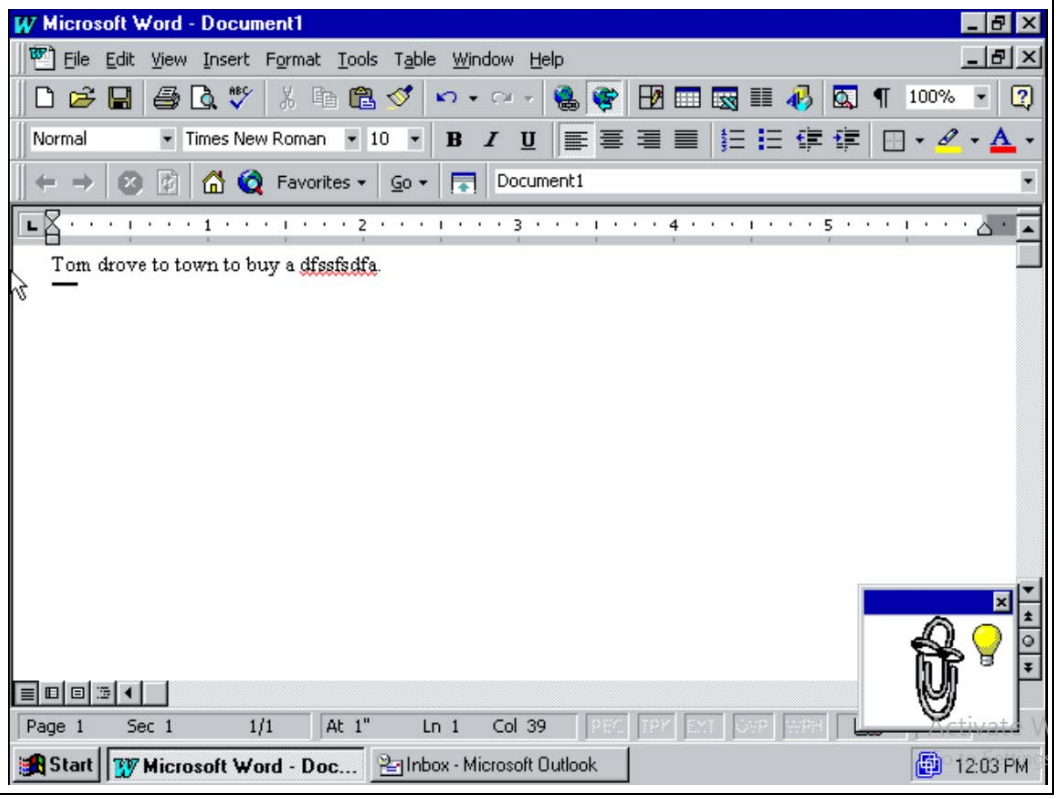


Exhibit L

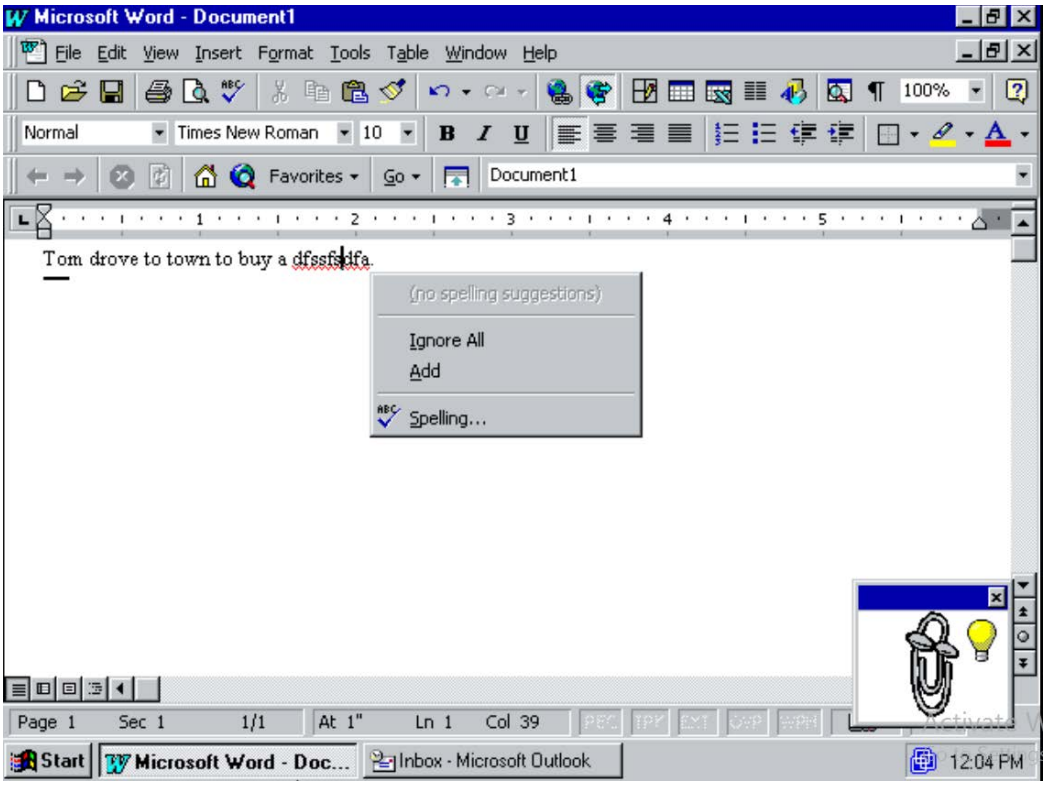
	Word 97. Word 97 further discloses:  Word 97. Word further discloses:

Exhibit L

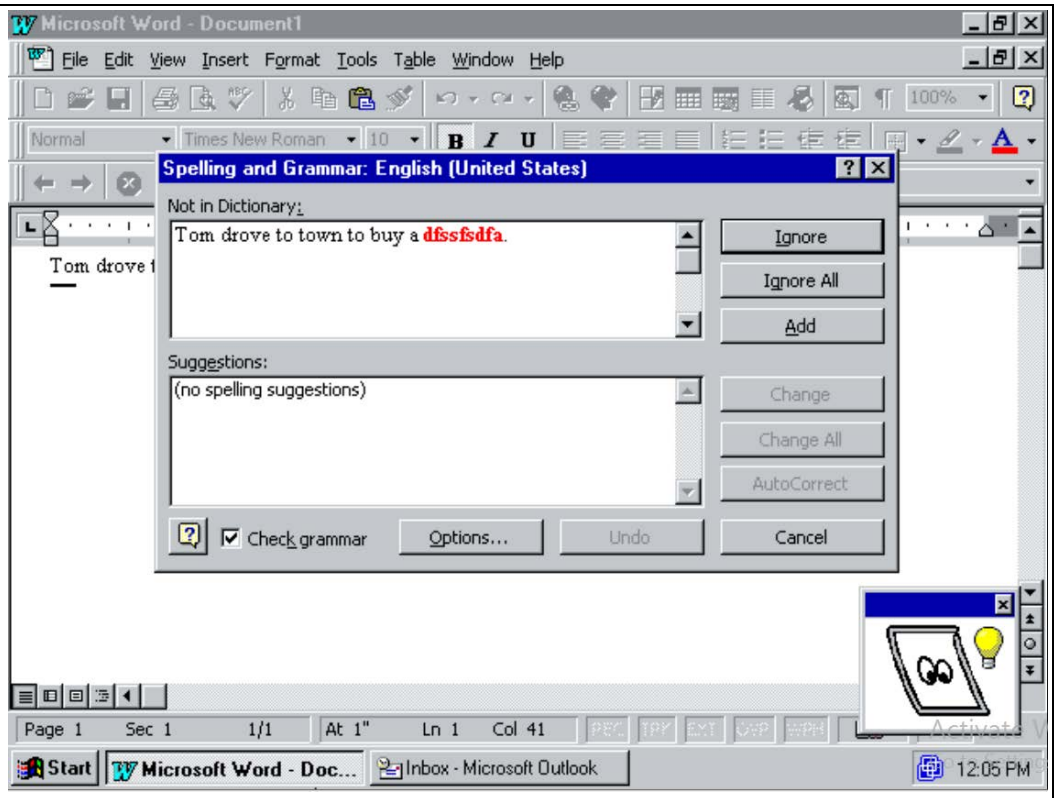
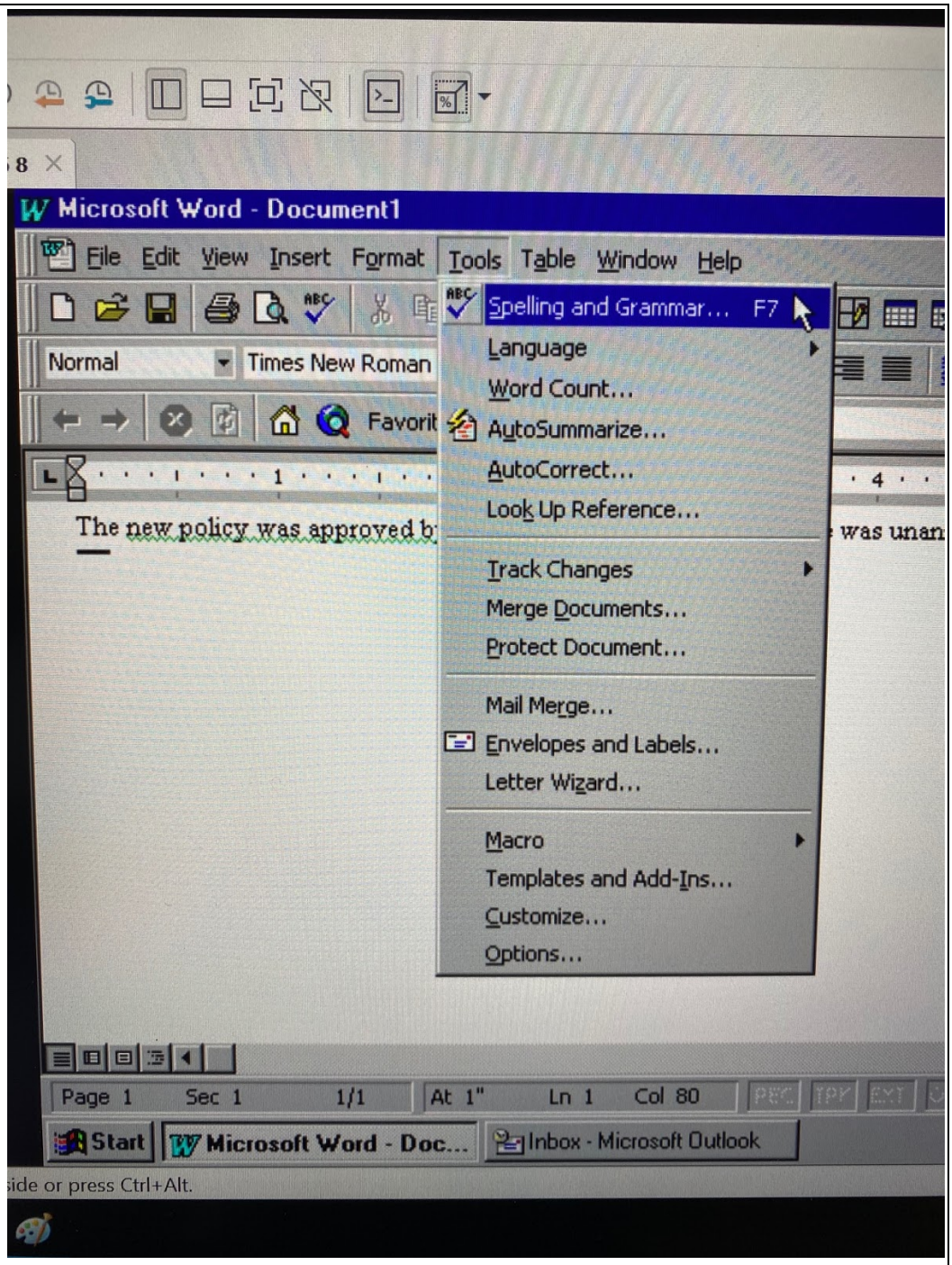
	 Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

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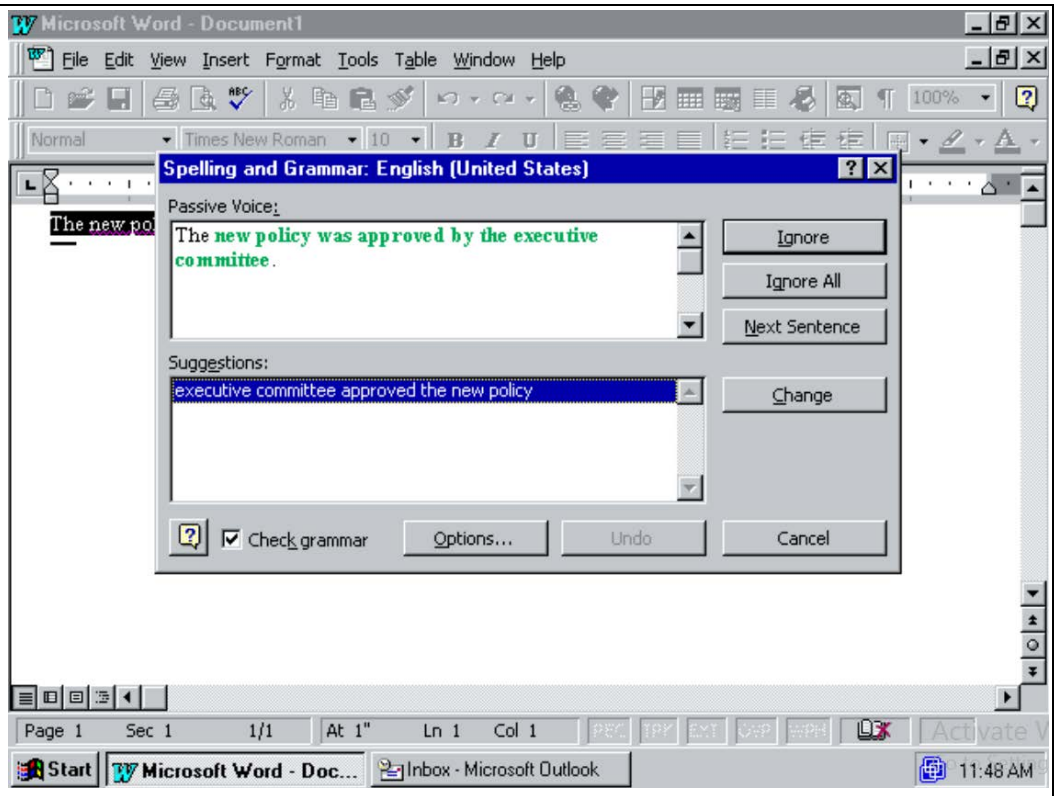
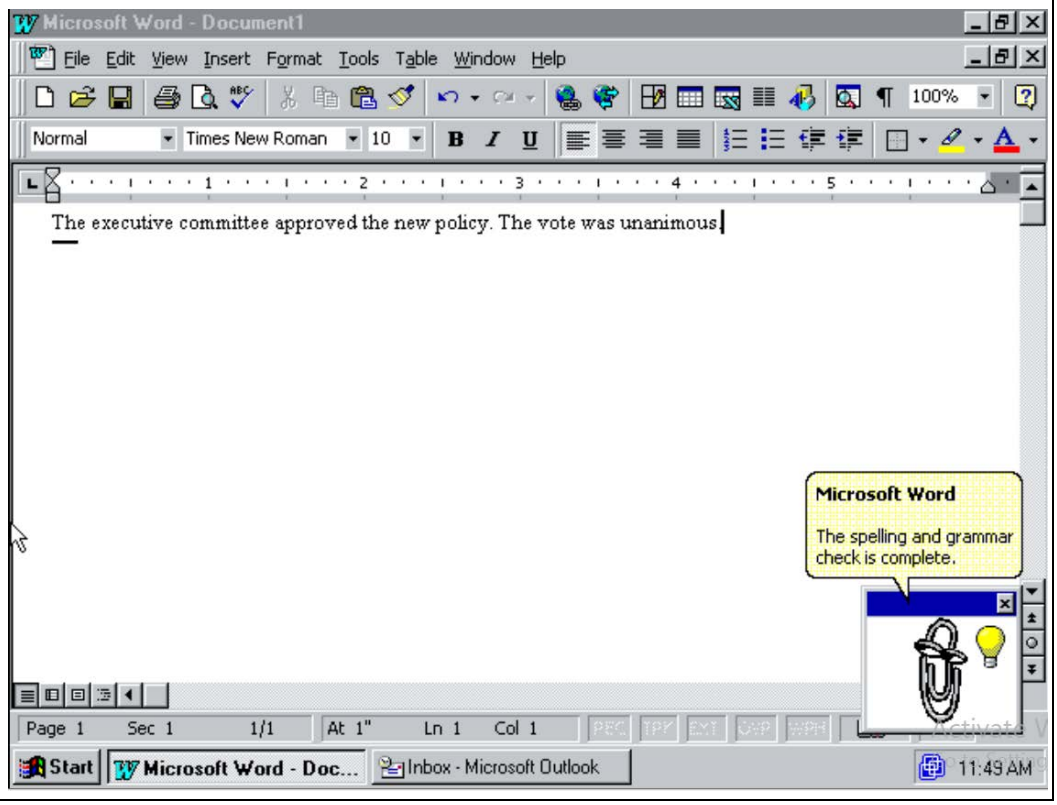


Word 97.

Word 97 further discloses:



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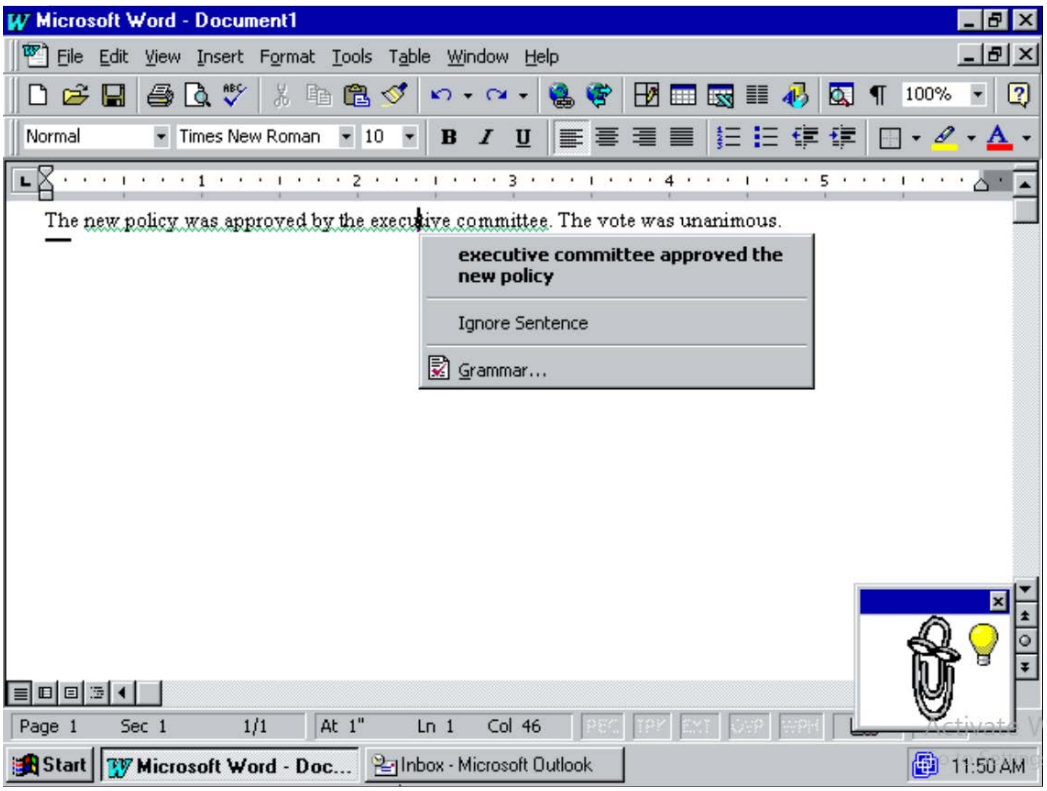
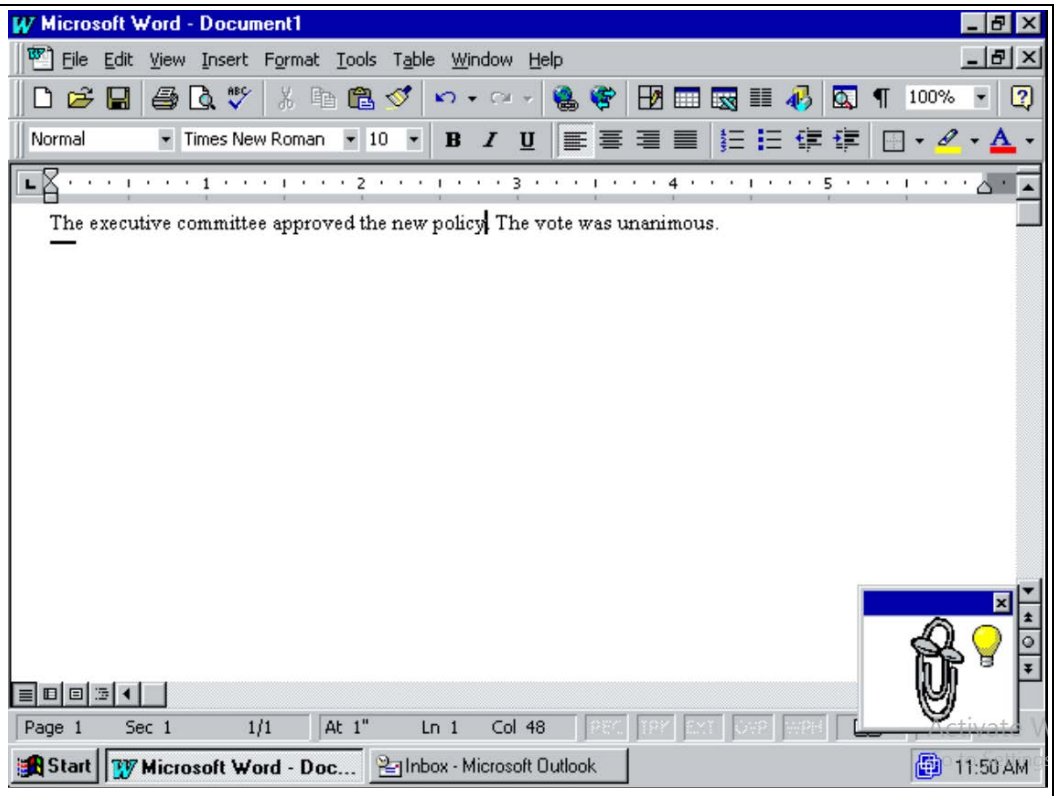
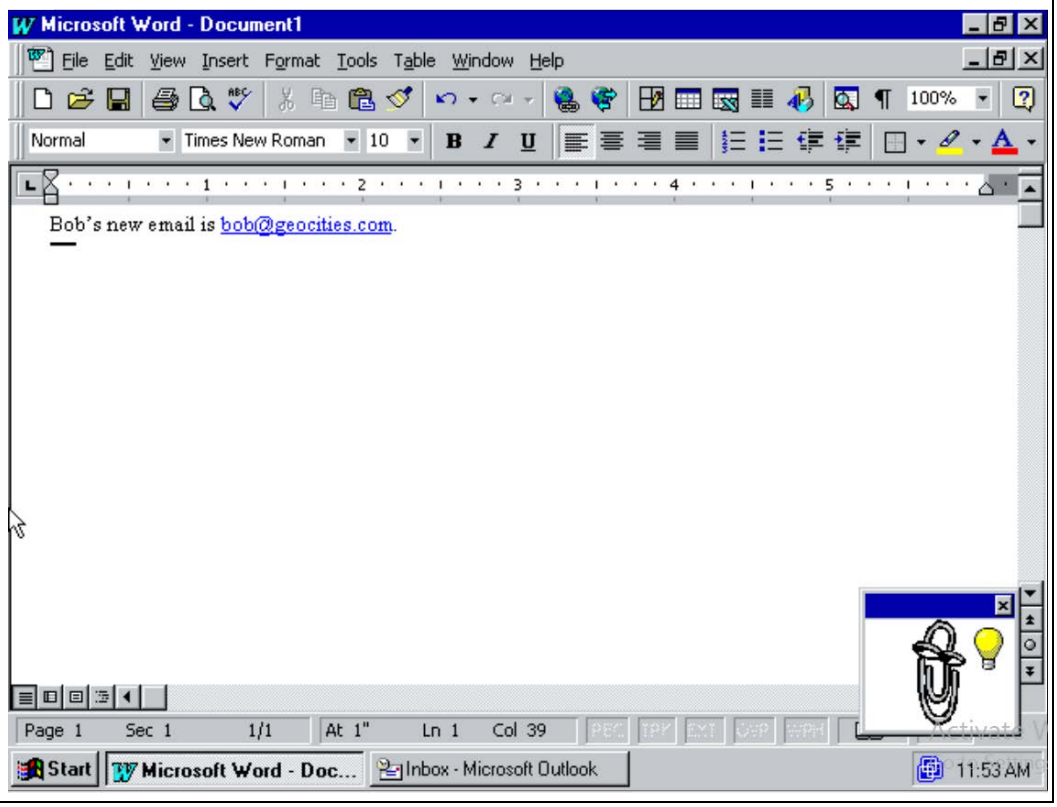
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:



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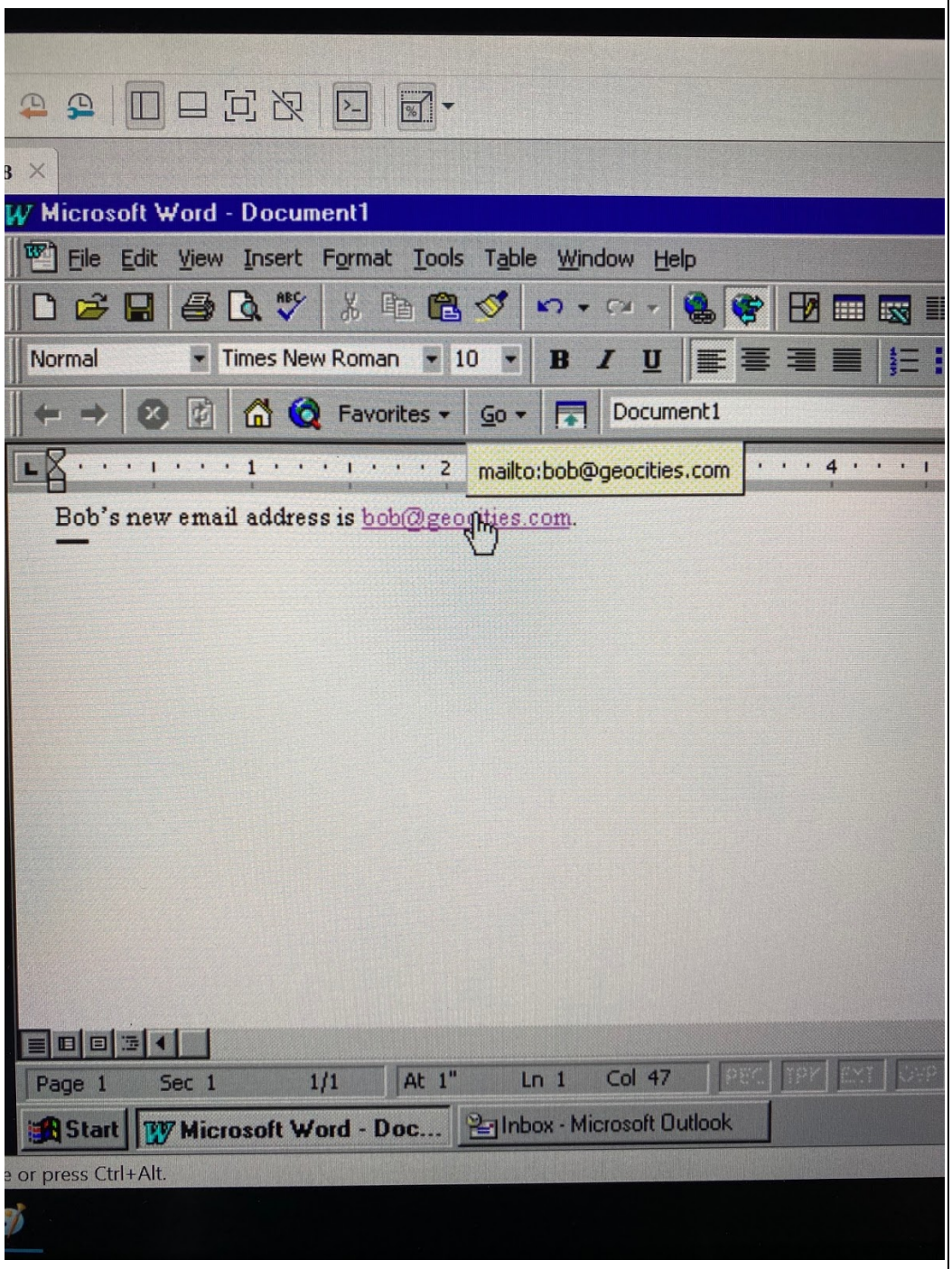
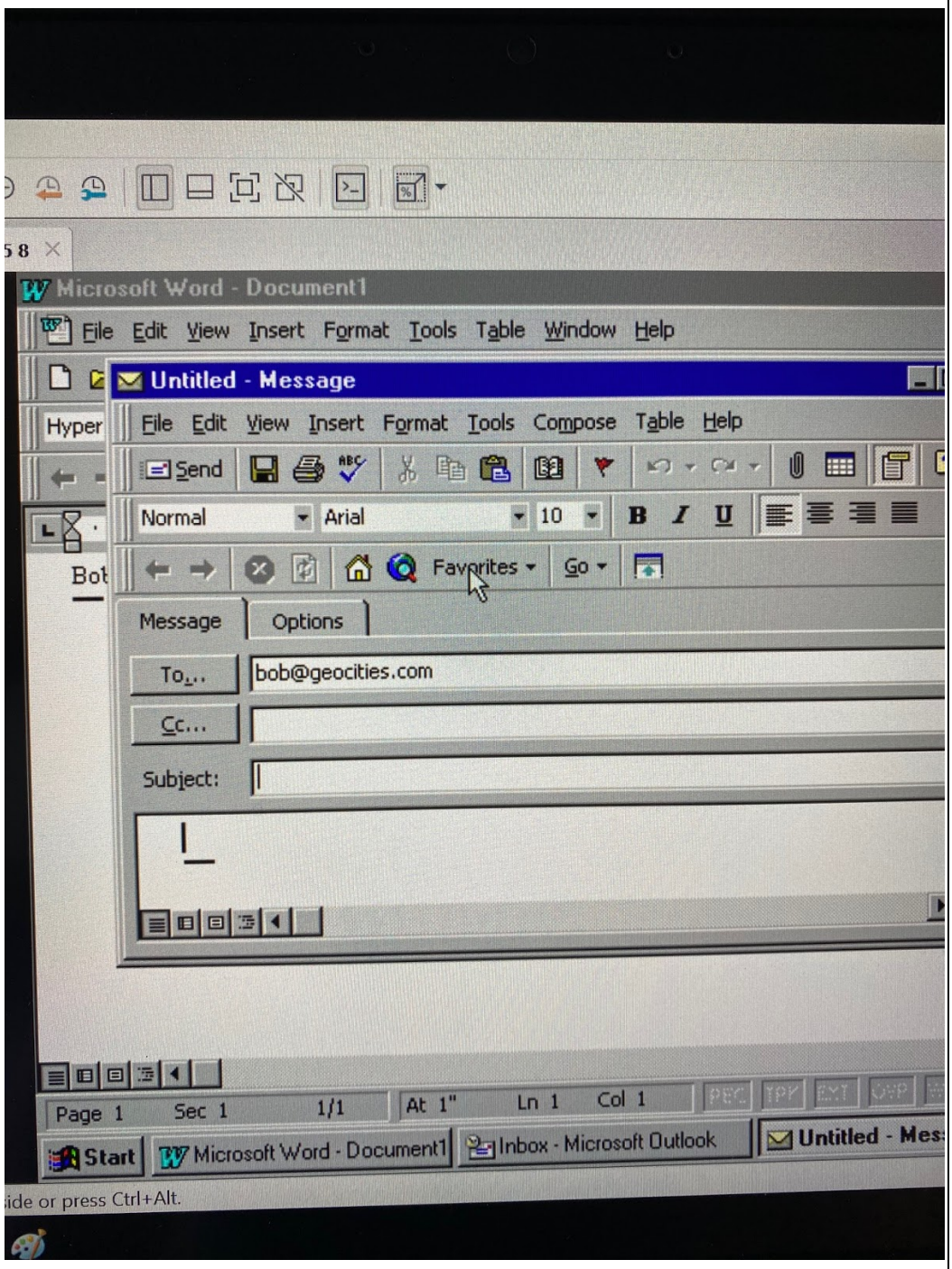
	Word 97. Word 97 further discloses:  Word 97.

Exhibit L

	Word 97 further discloses:  Word 97. Word 97 further discloses:

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	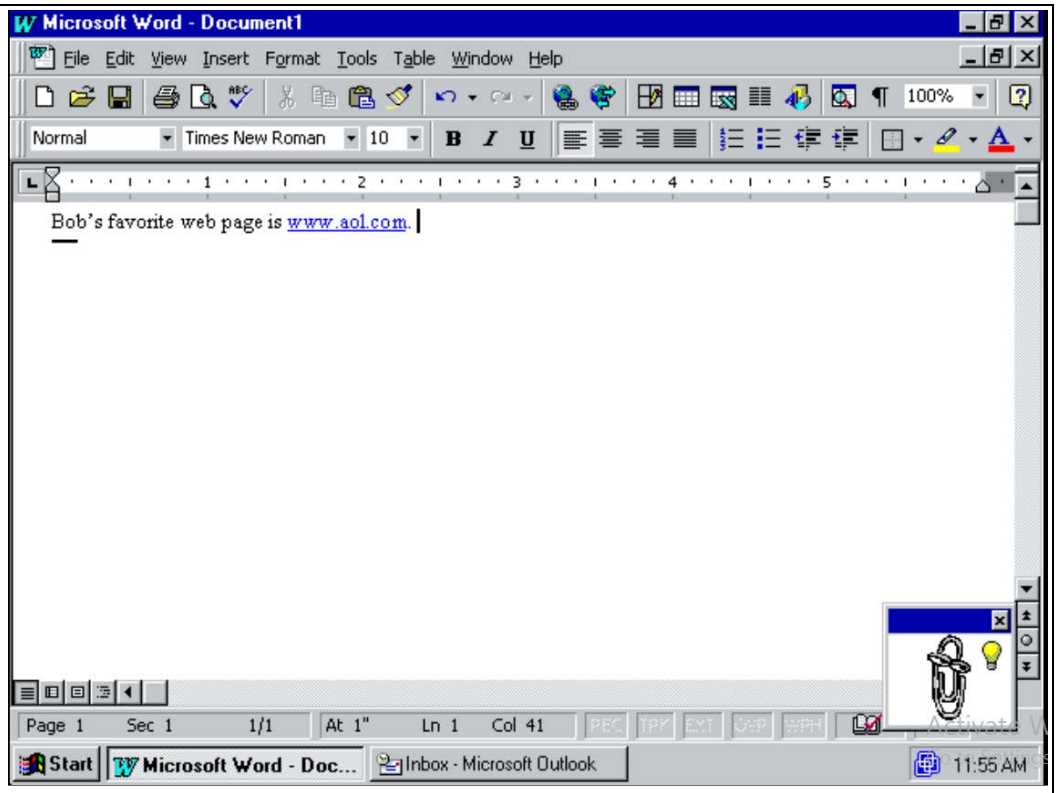 Word 97. Word 97 further discloses:

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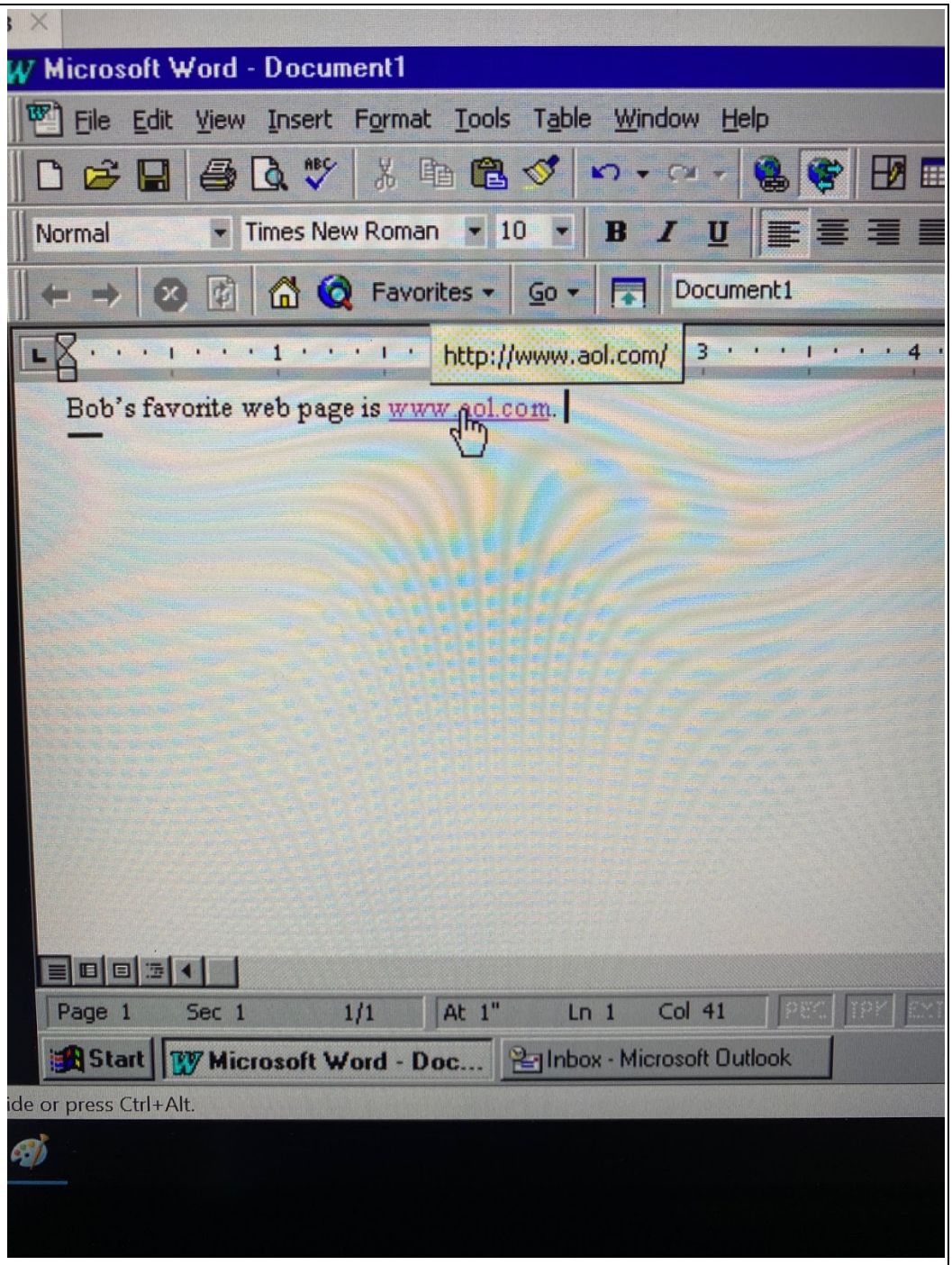
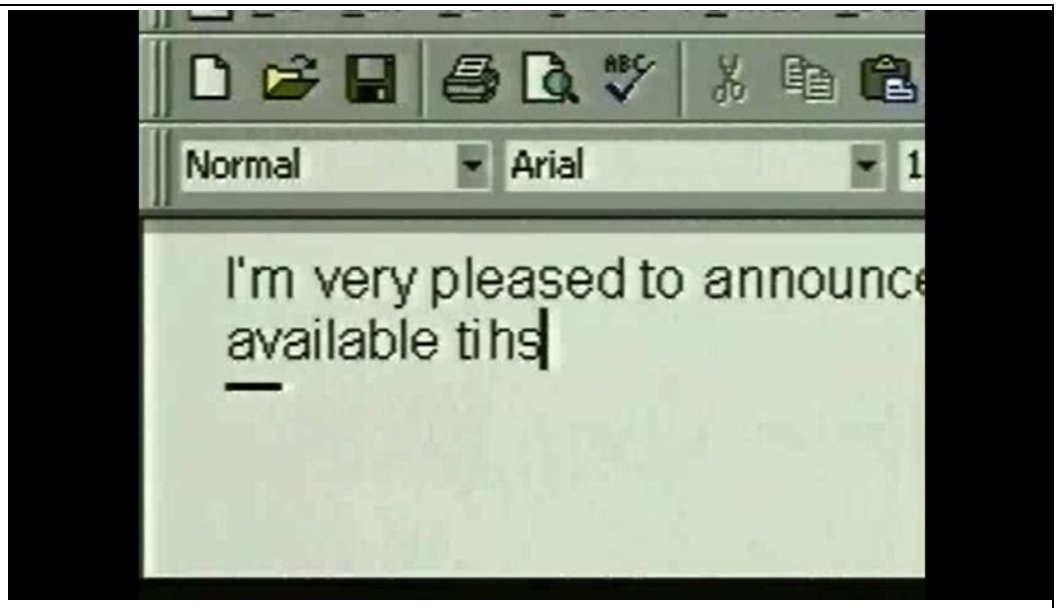
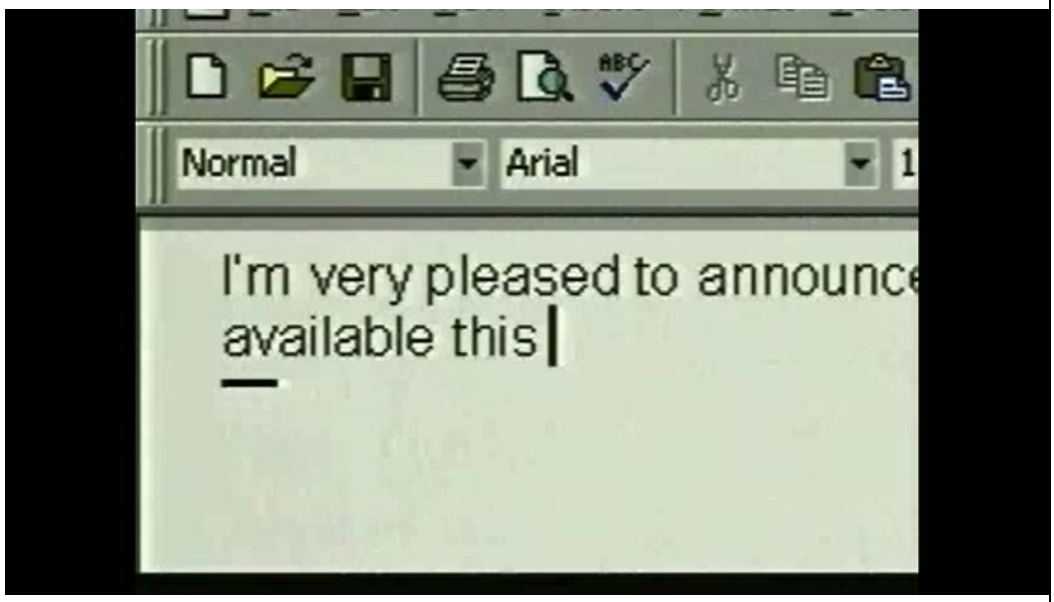


Word 97.

How to use Microsoft Word further discloses:

Exhibit L

	 Normal Arial I'm very pleased to announce available tihs  Normal Arial I'm very pleased to announce available this

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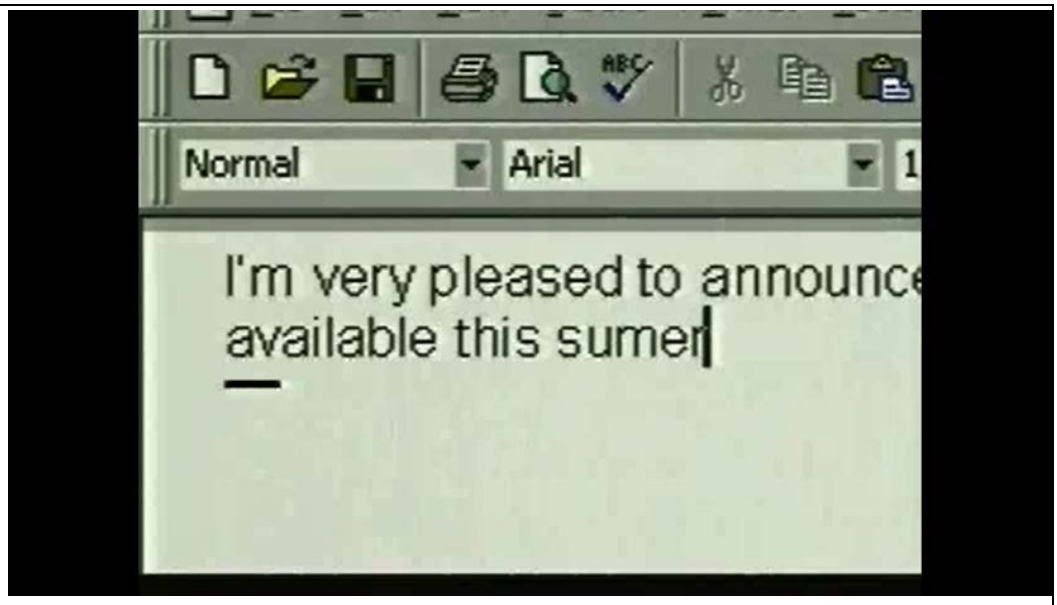
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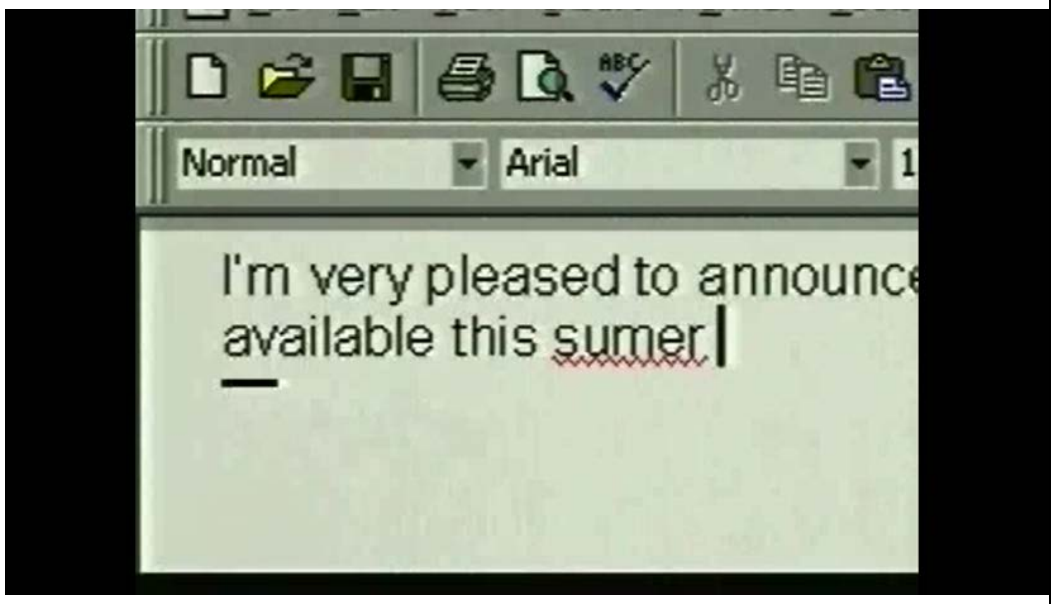
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Exhibit L


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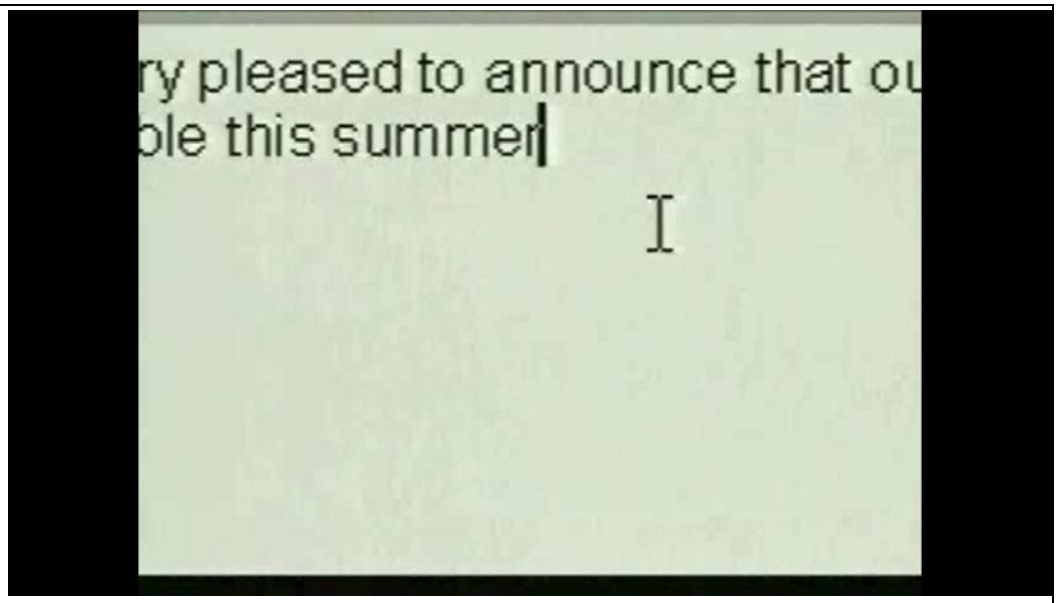
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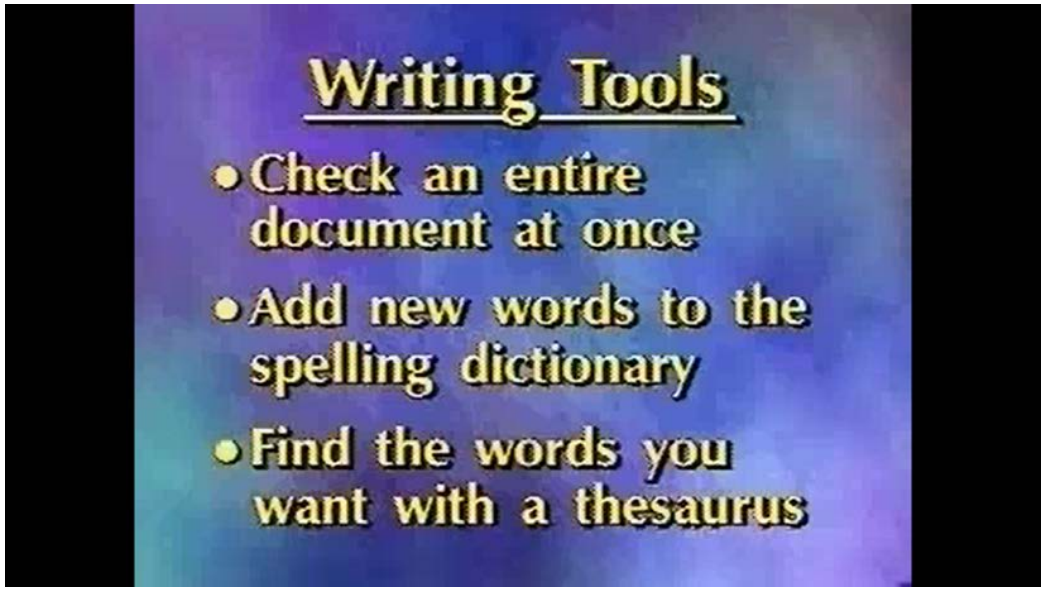

Writing Tools
• Check an entire document at once
• Add new words to the spelling dictionary
• Find the words you want with a thesaurus

Exhibit L

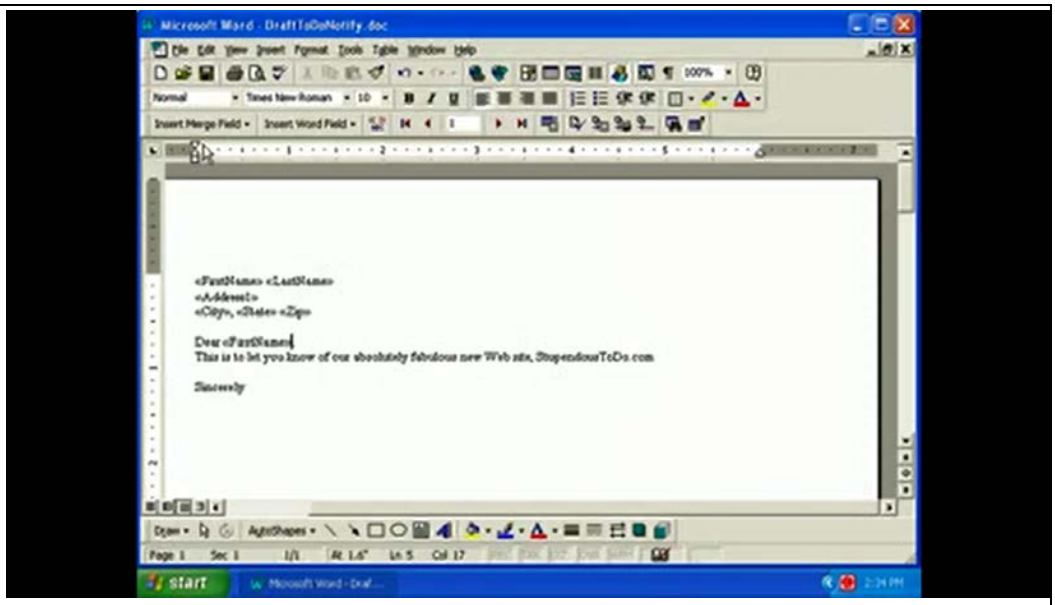
"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

"1. Position the insertion point in the document where you want to past a person's address.

Exhibit L

	2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. Word 97 Core Lesson 16 further discloses:

Exhibit L


Microsoft Word - DraftToDoNotify.doc
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear «FirstName»
Sincerely
start

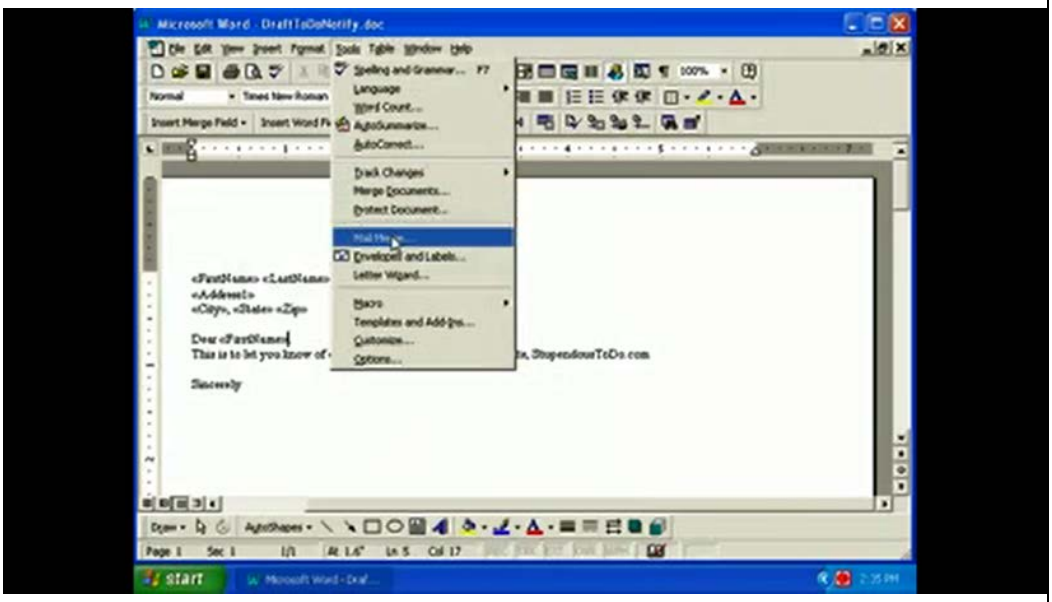

Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar... F7
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Envelopes and Labels...
Letter Wizard...
Macros
Templates and Add-Ins...
Customize...
Options...
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear «FirstName»
Sincerely
start

Exhibit L

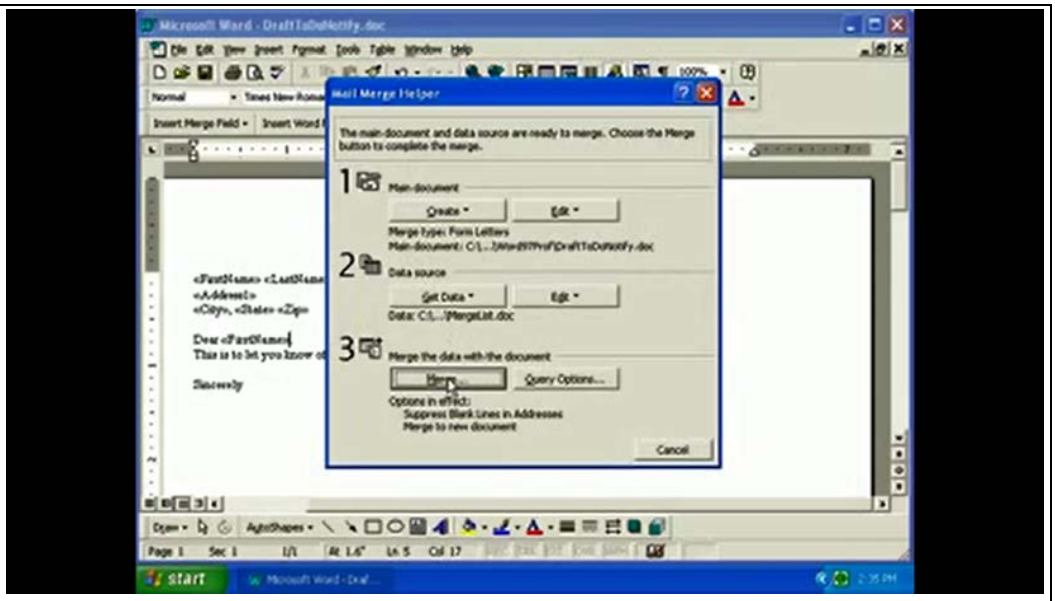
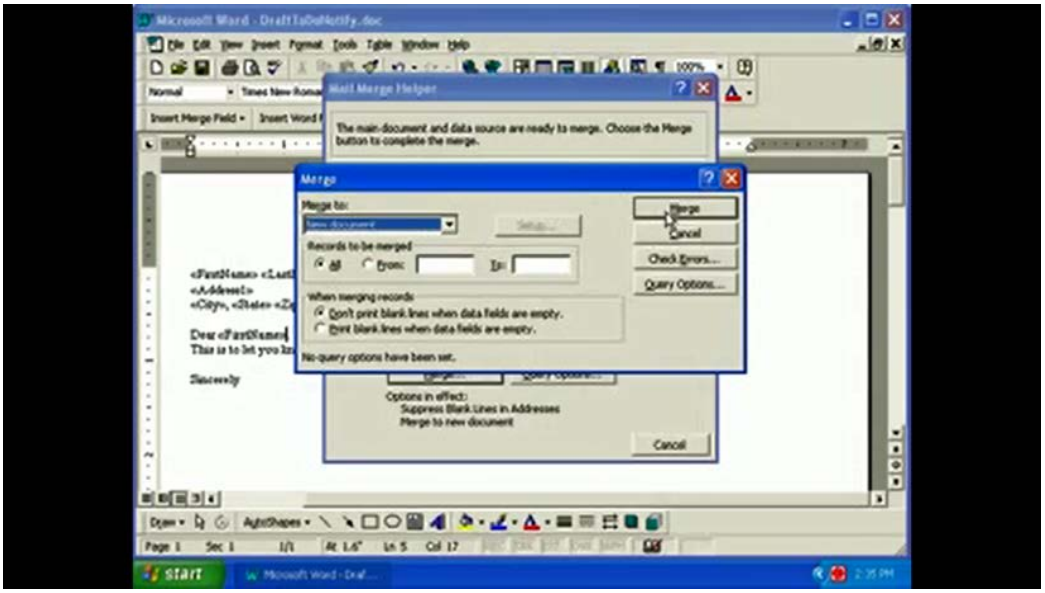
	 Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. 1 Main document Create Edit 2 Data source Get Data Edit 3 Merge the data with the document Merge... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel  Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. Merge Merge to: Records to be merged When merging records Don't print blank lines when data fields are empty. Print blank lines when data fields are empty. No query options have been set. Merge Cancel Check Errors... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel

Exhibit L

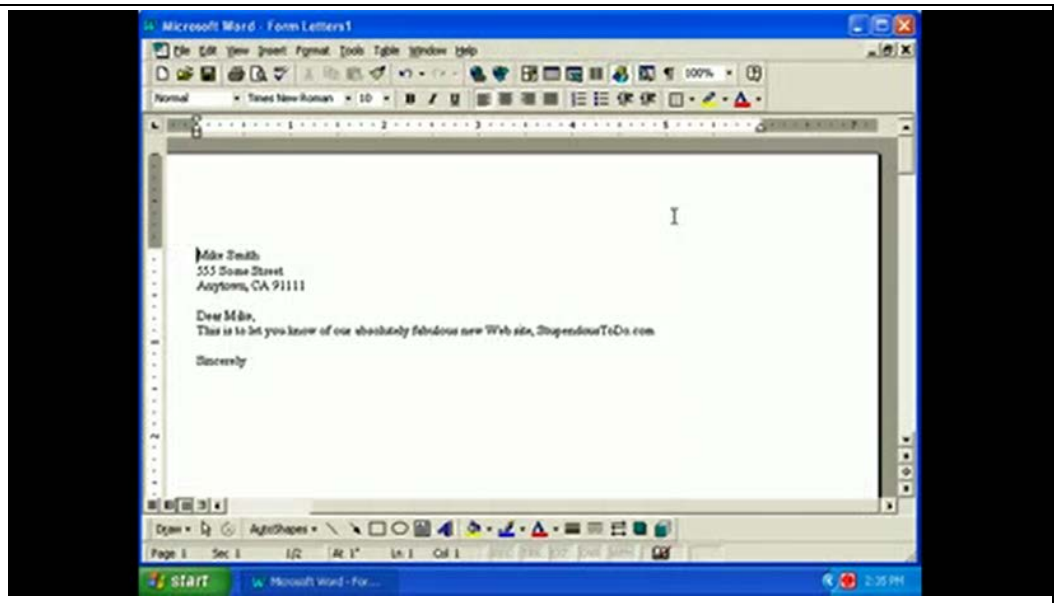
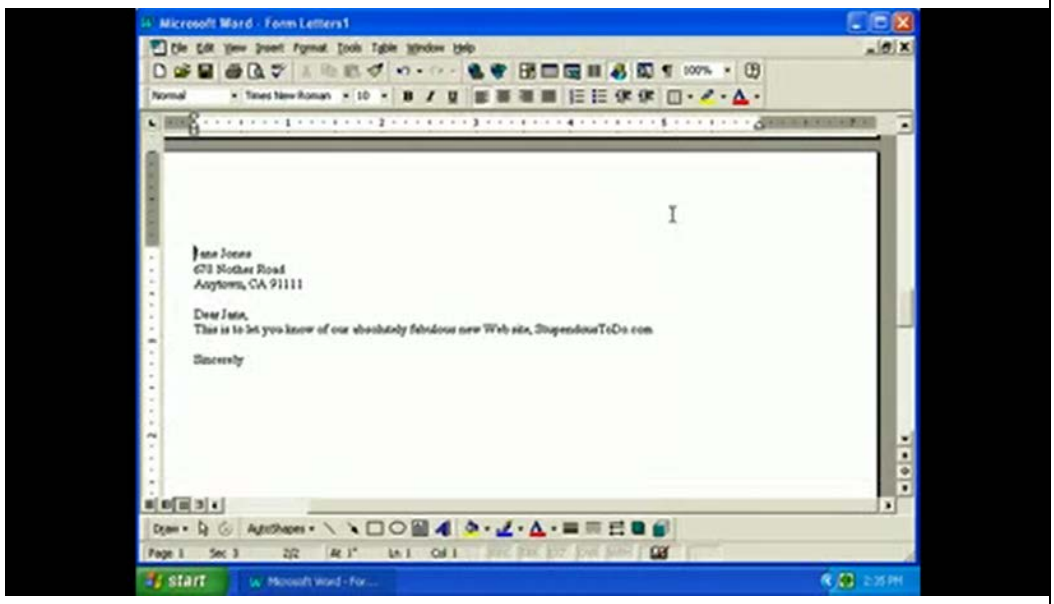
	  For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 12 and 17.
Claim 8	
A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.	Word 97 discloses claim 1. *See* claim 1. Word 97 further discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses providing a prompt for updating the information source to include the first information. Specifically, Word 97 discloses:

Exhibit L

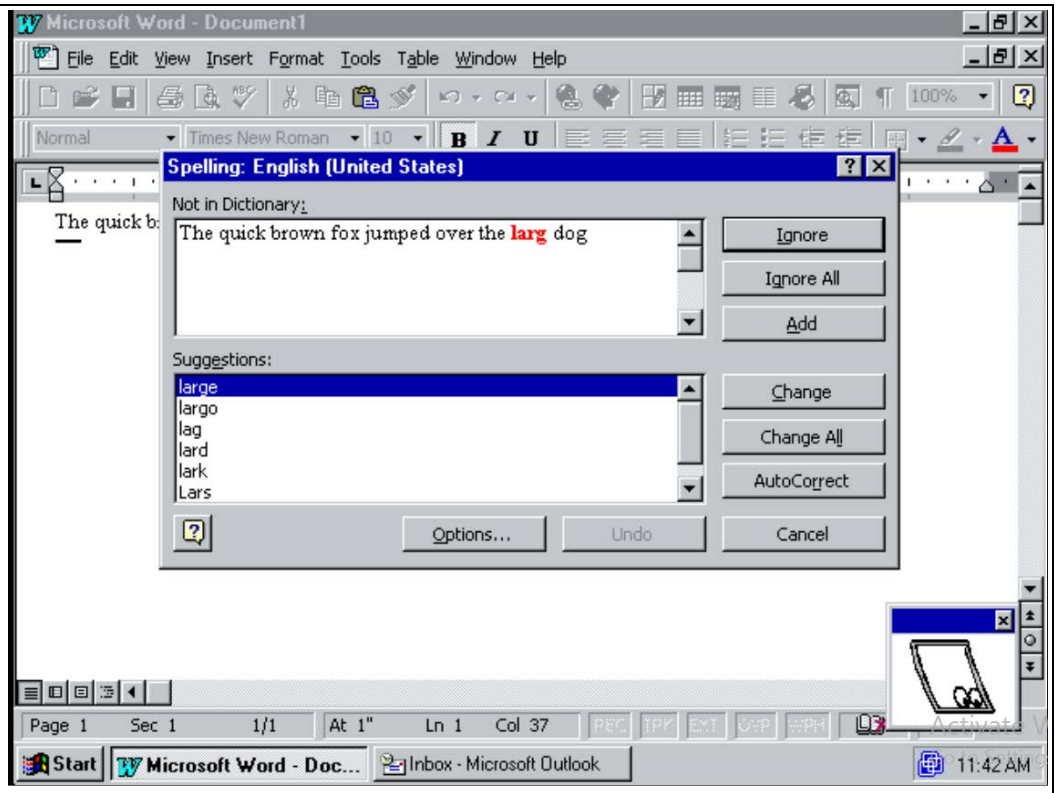
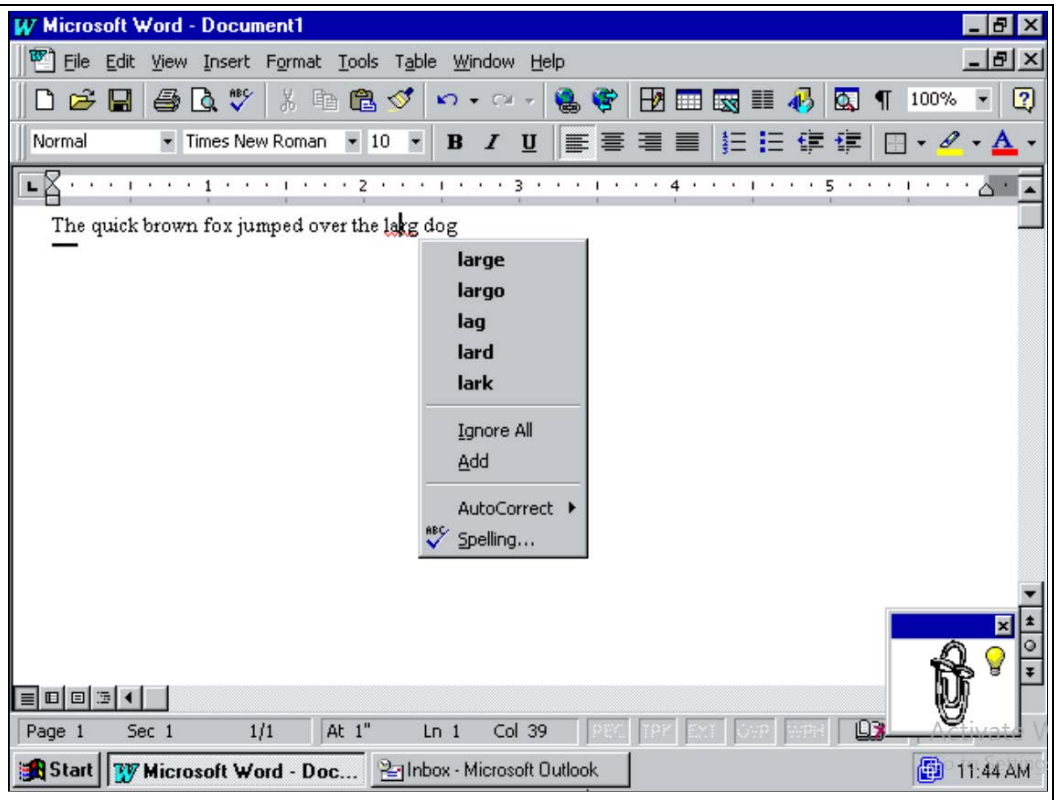
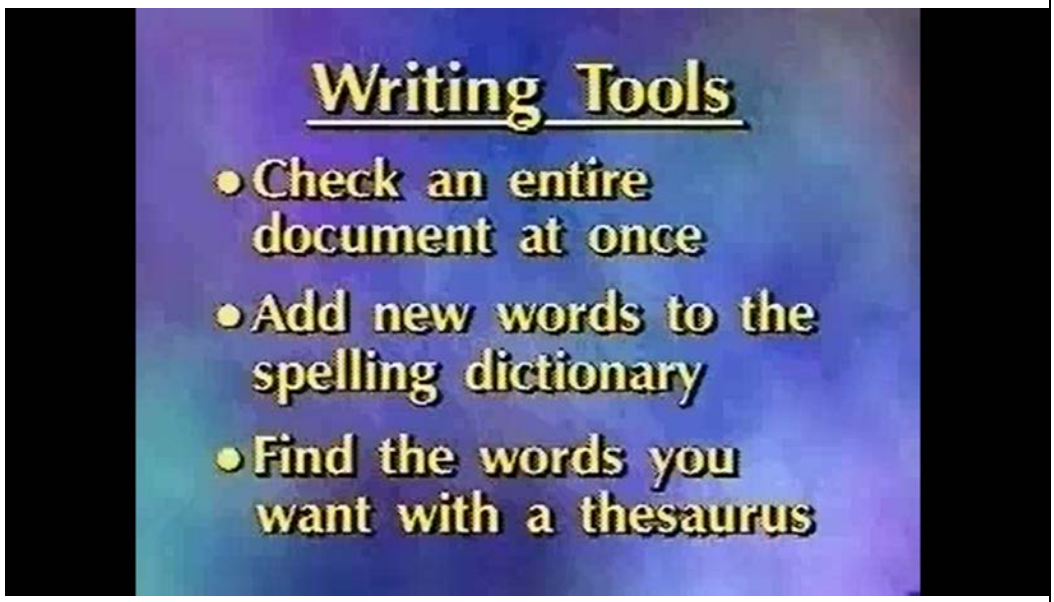
	 Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:



For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 4, 5, and 17.

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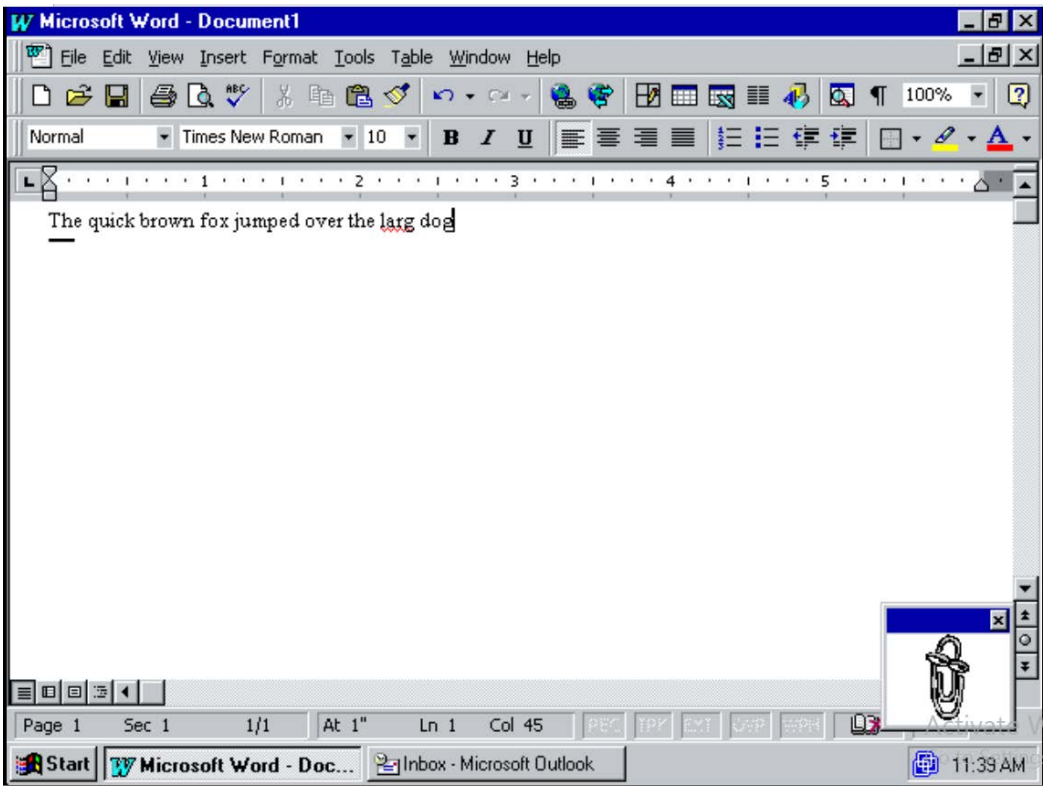
Claim 13	
A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.	Word 97 discloses claim 1. *See* claim 1. Word 97 further discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses wherein the user command is the only command from a user necessary to initiate performing the operation. Specifically, Word 97 discloses:  Word 97. Word 97 further discloses:

Exhibit L

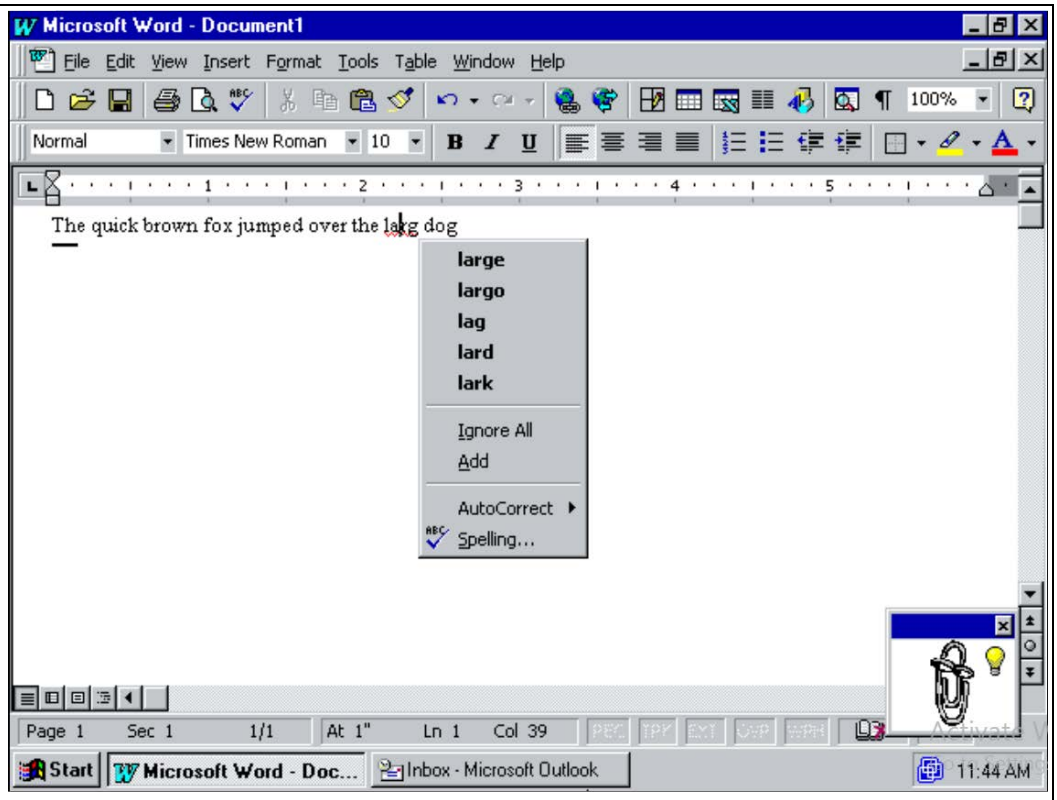
	 Word 97. Word 97 further discloses:

Exhibit L

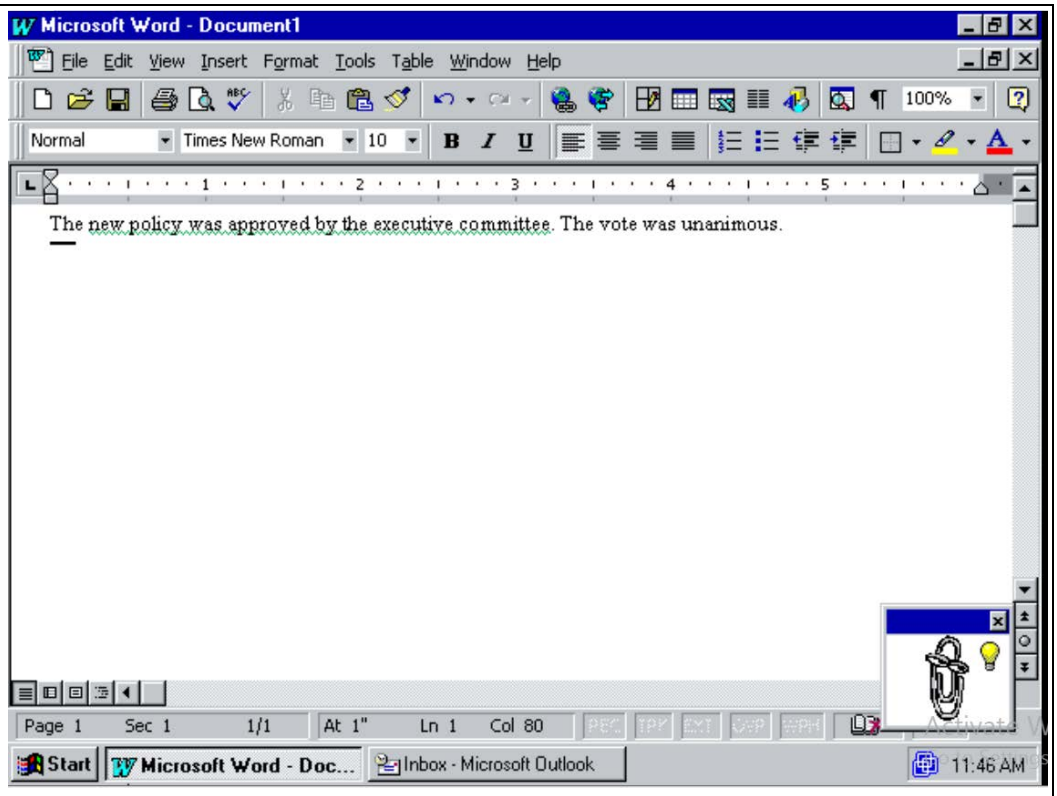
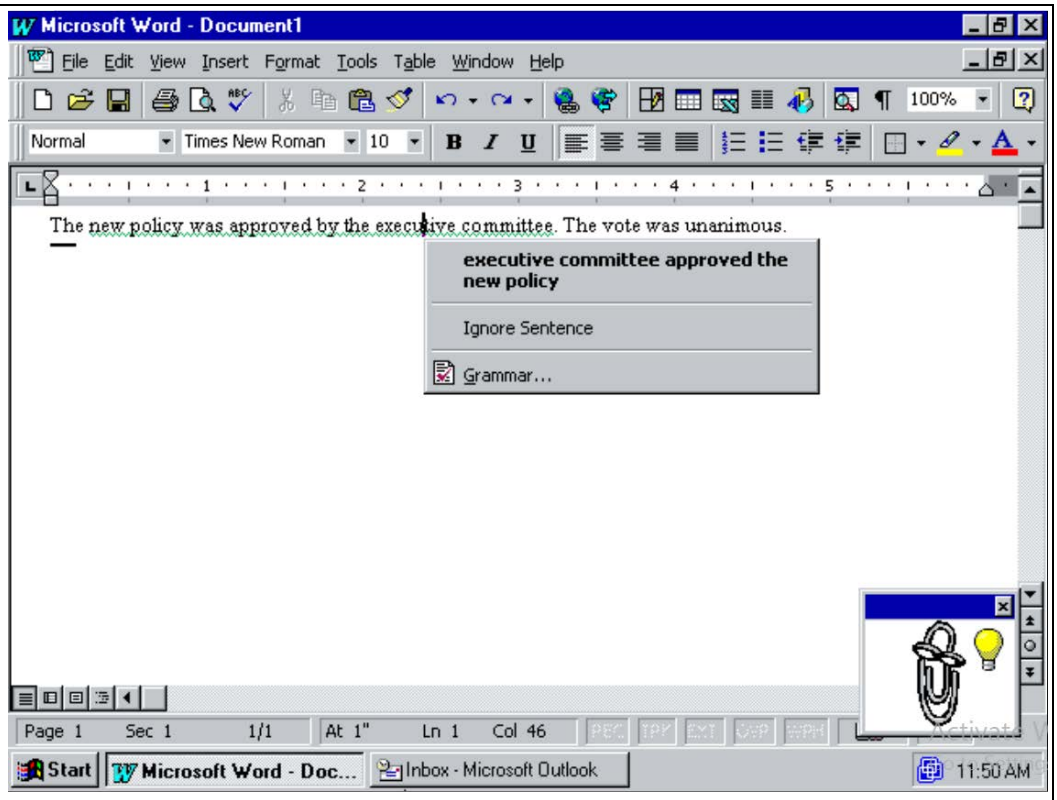
	 Word 97. Word 97 further discloses:

Exhibit L

	 Word 97. Word 97 further discloses:

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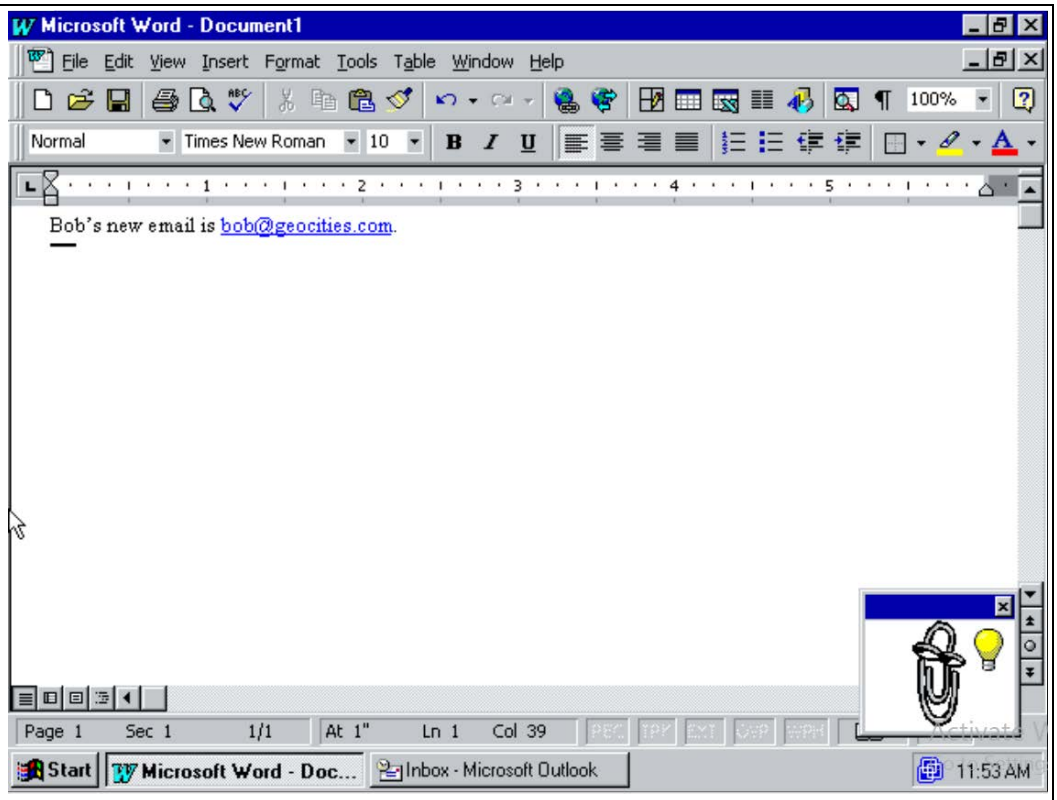
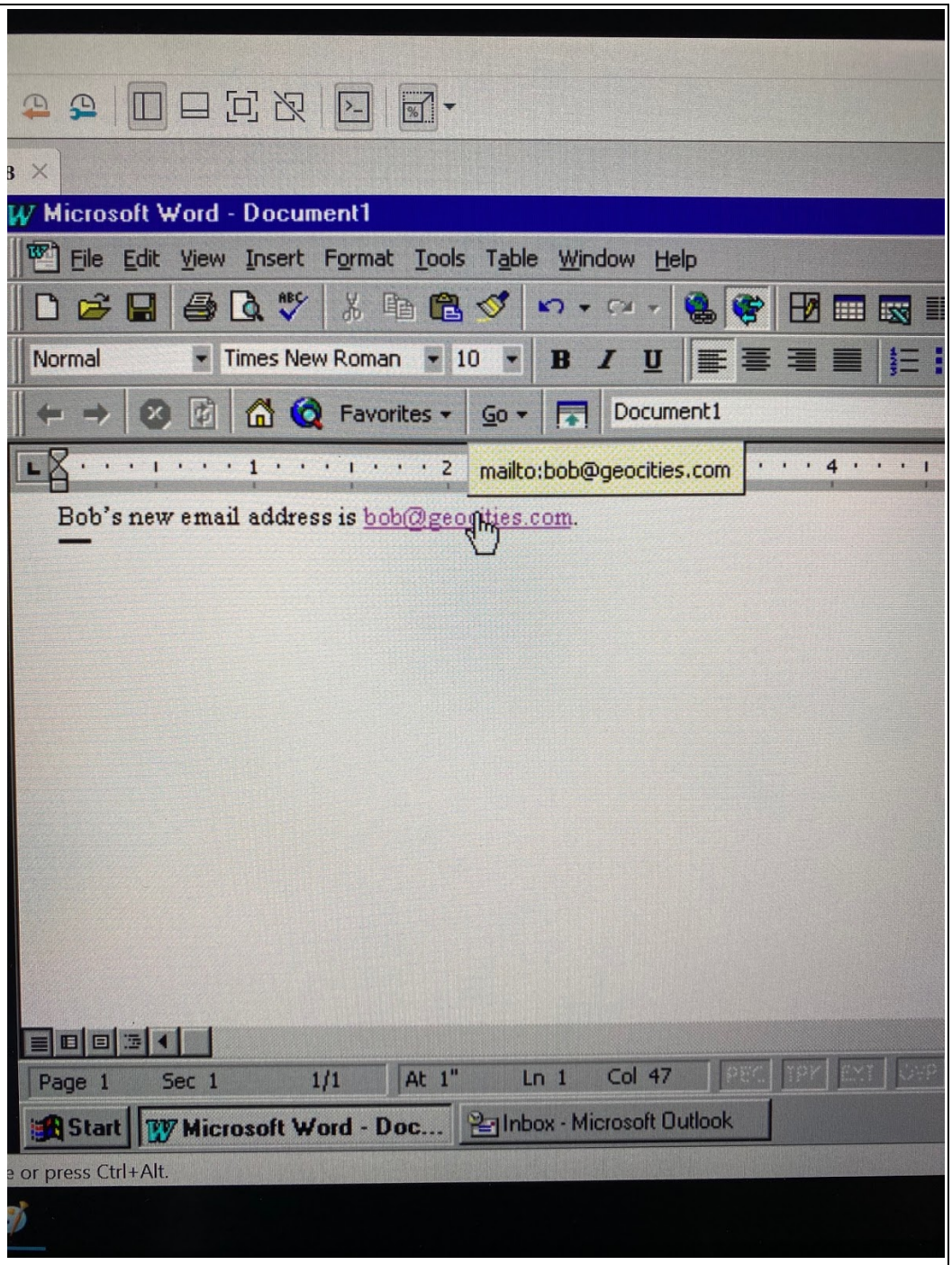
	 Word 97. Word 97 further discloses:

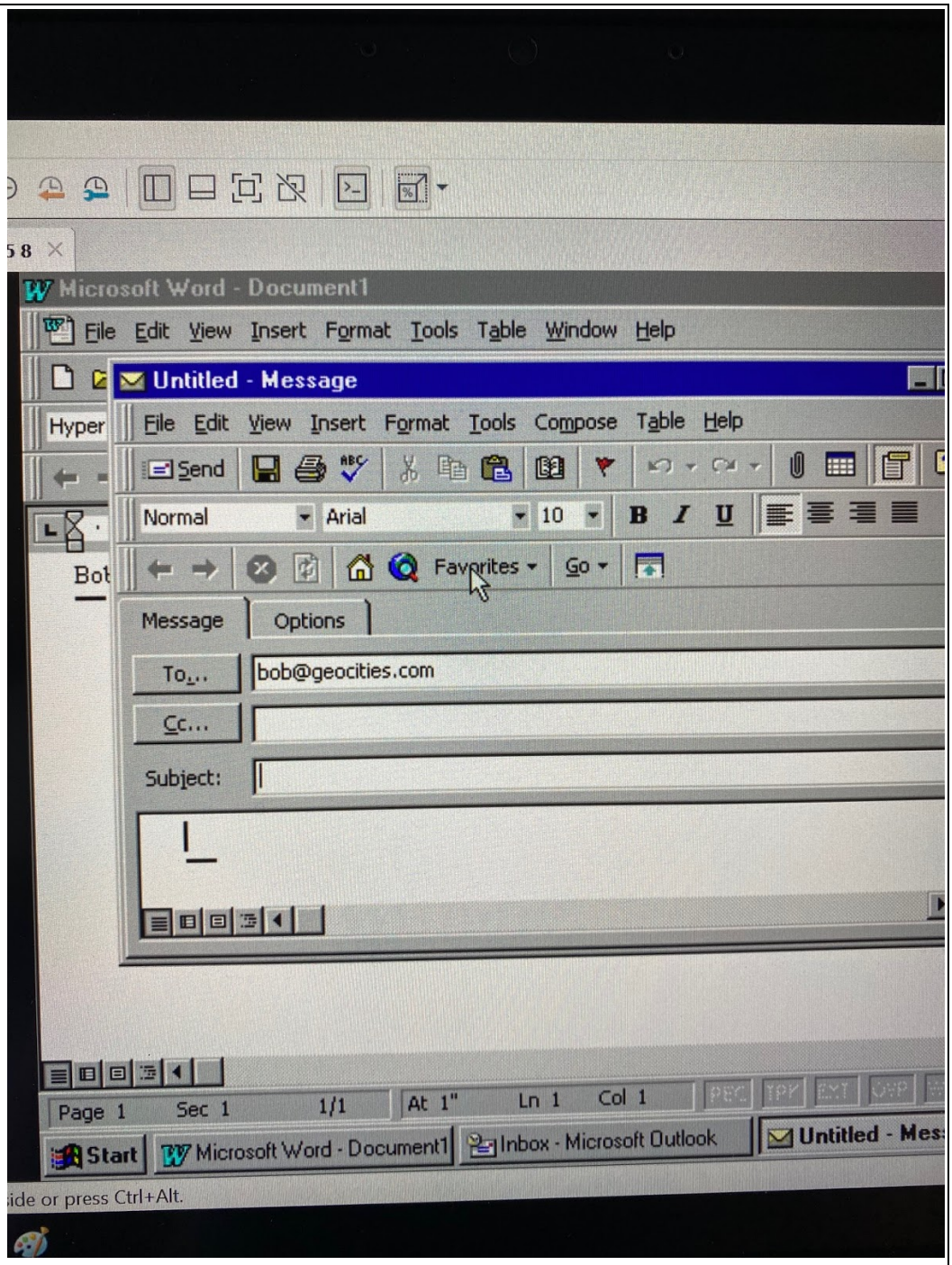
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

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	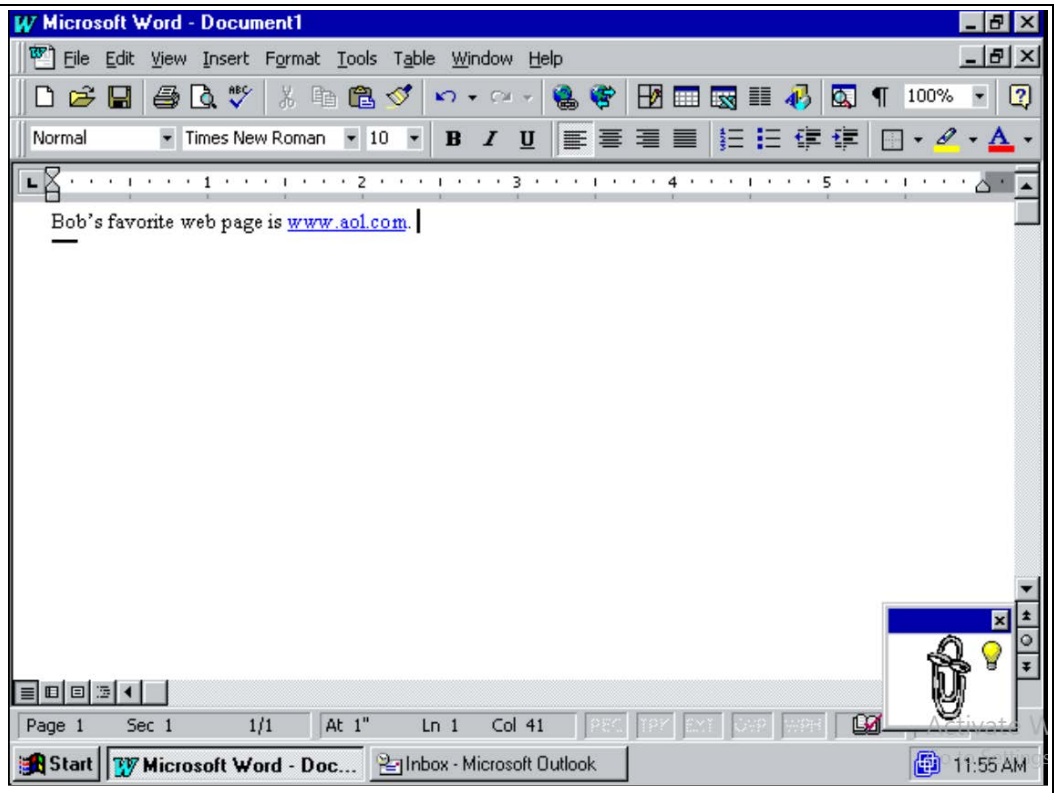 Word 97. Word 97 further discloses:

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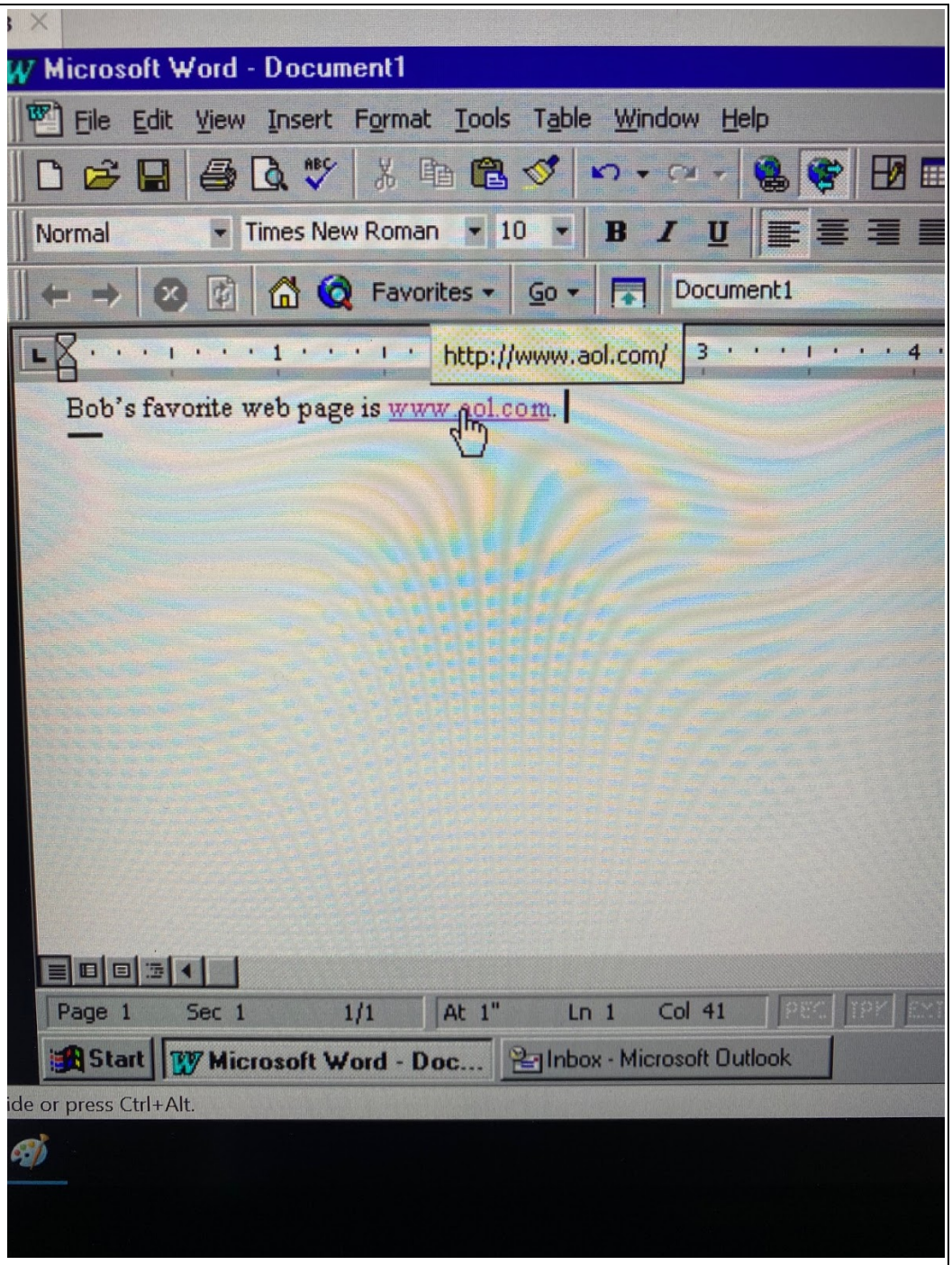
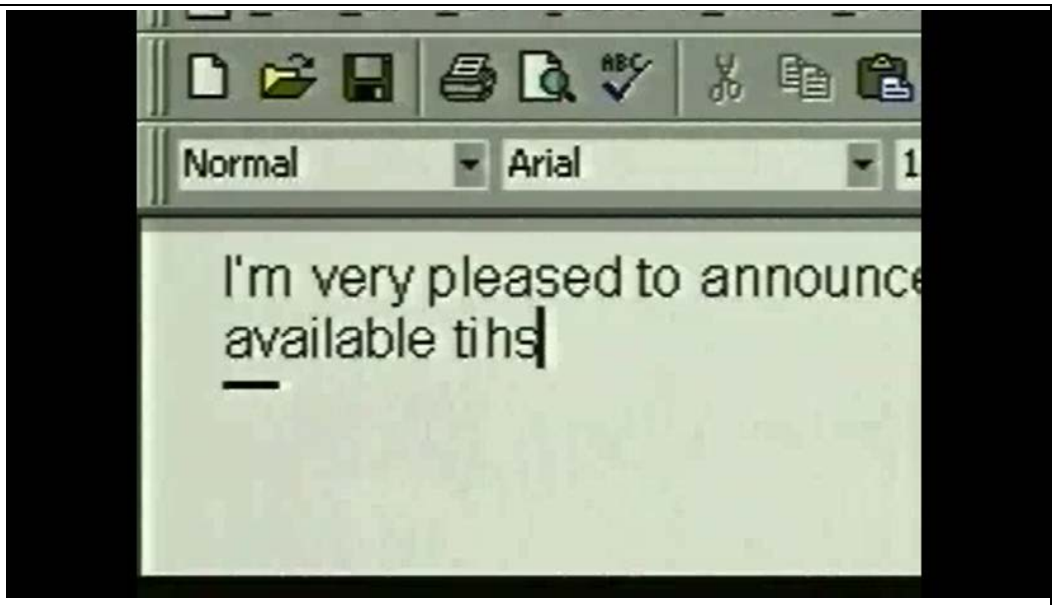


Word 97.

How to use Microsoft Word further discloses:

Exhibit L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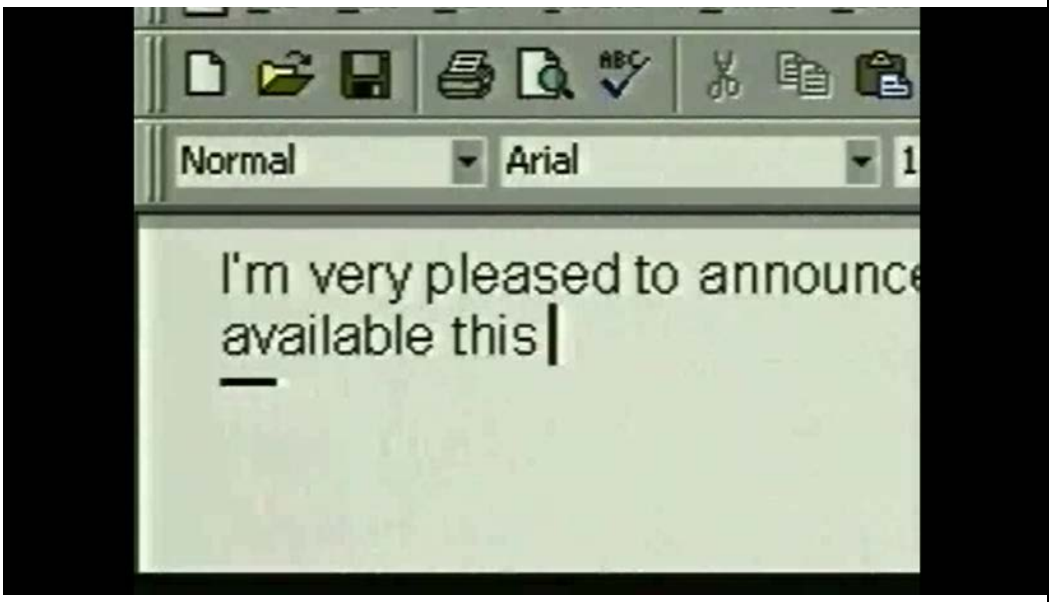
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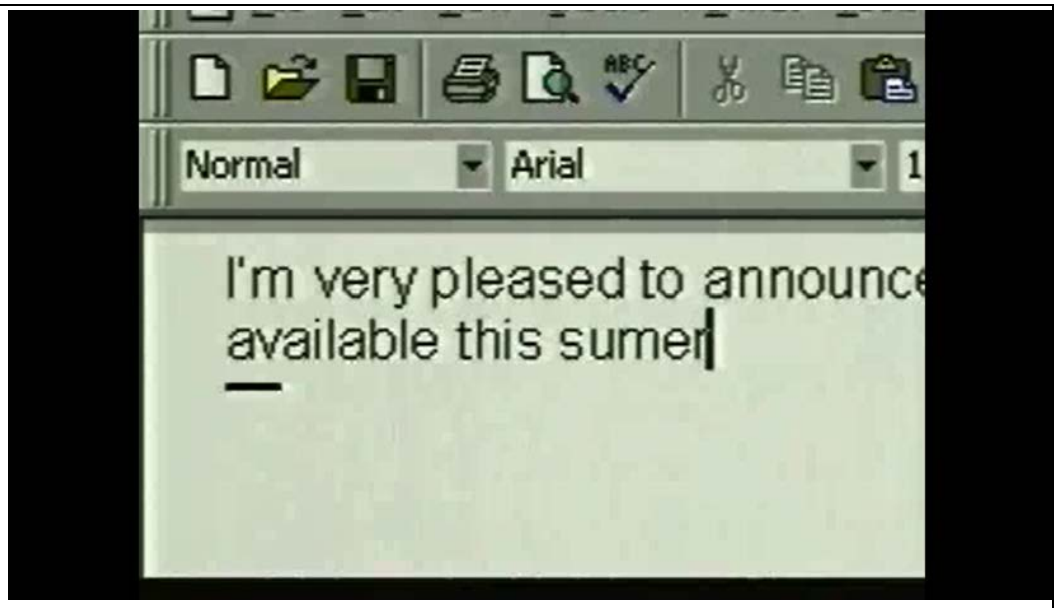
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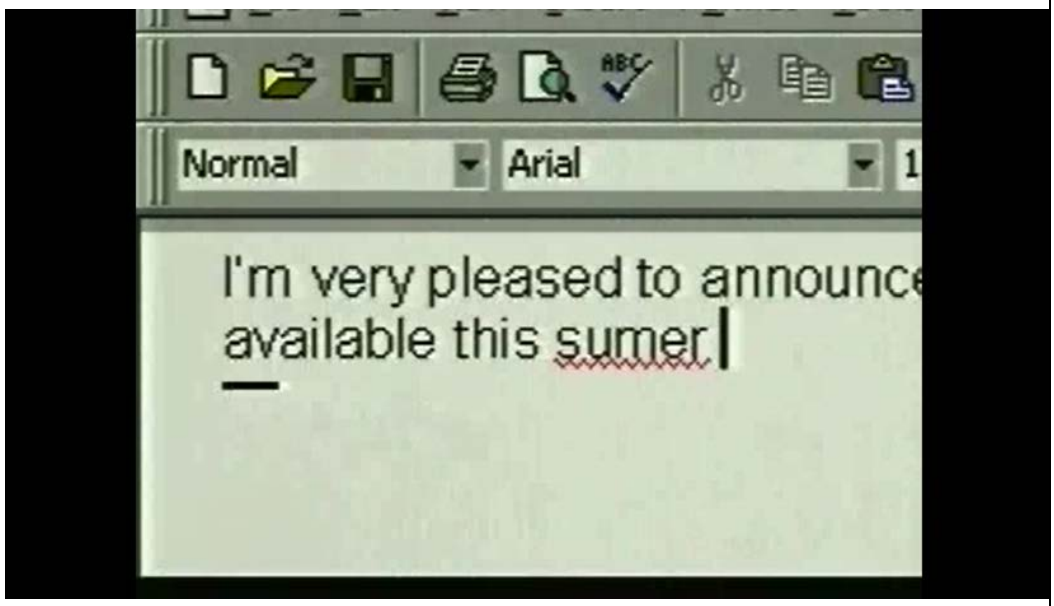
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Exhibit L

"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

"1. Position the insertion point in the document where you want to past a person's address.

2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1

3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document

* * *

4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list

5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79.

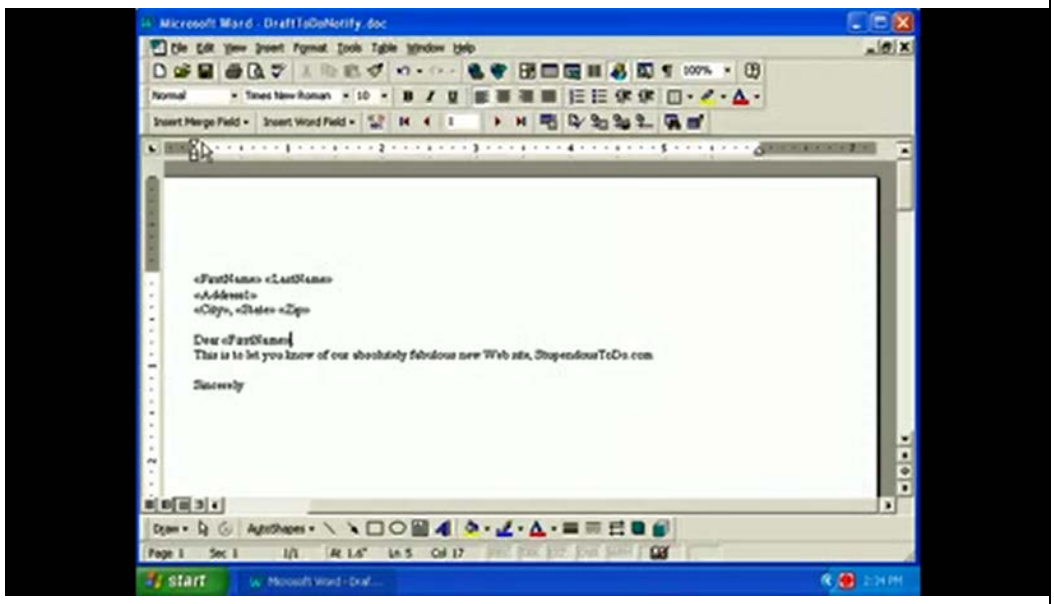
"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can

Exhibit L

paste a person's address into your document by clicking their name." Person at 478.

"To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514.

Word 97 Core Lesson 16 further discloses:



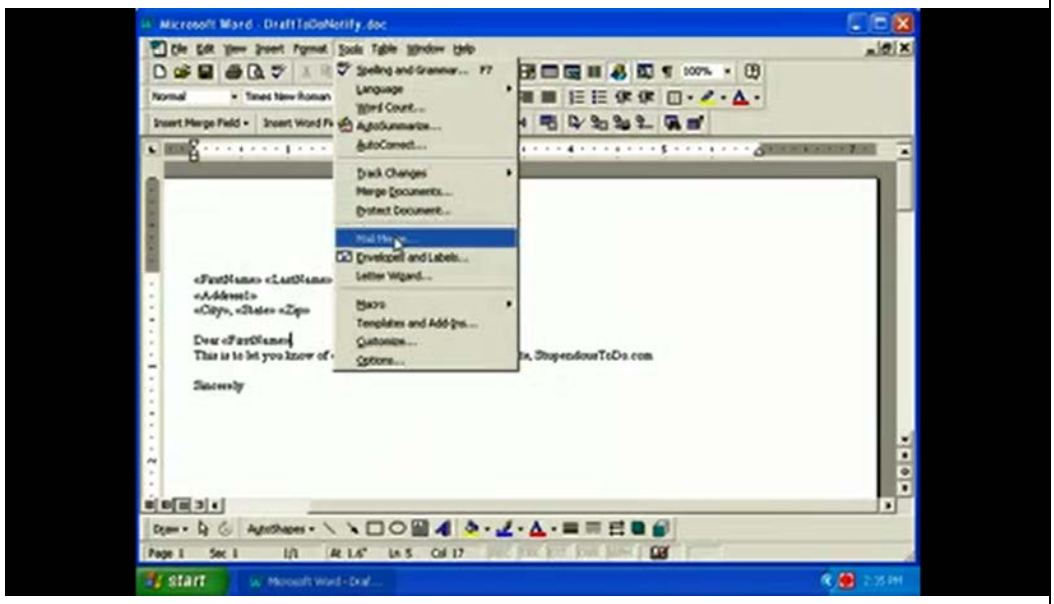
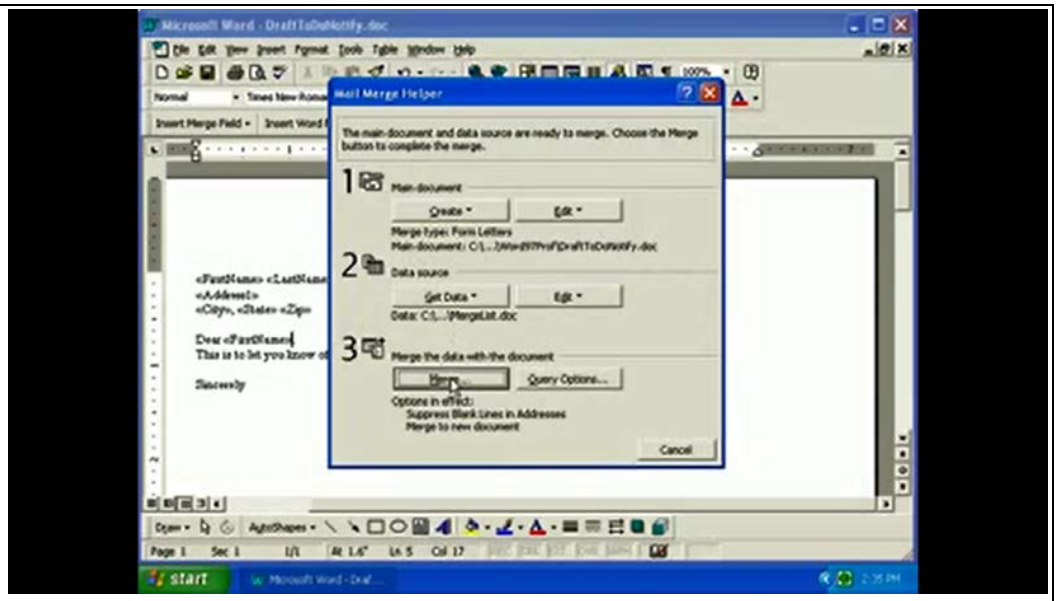
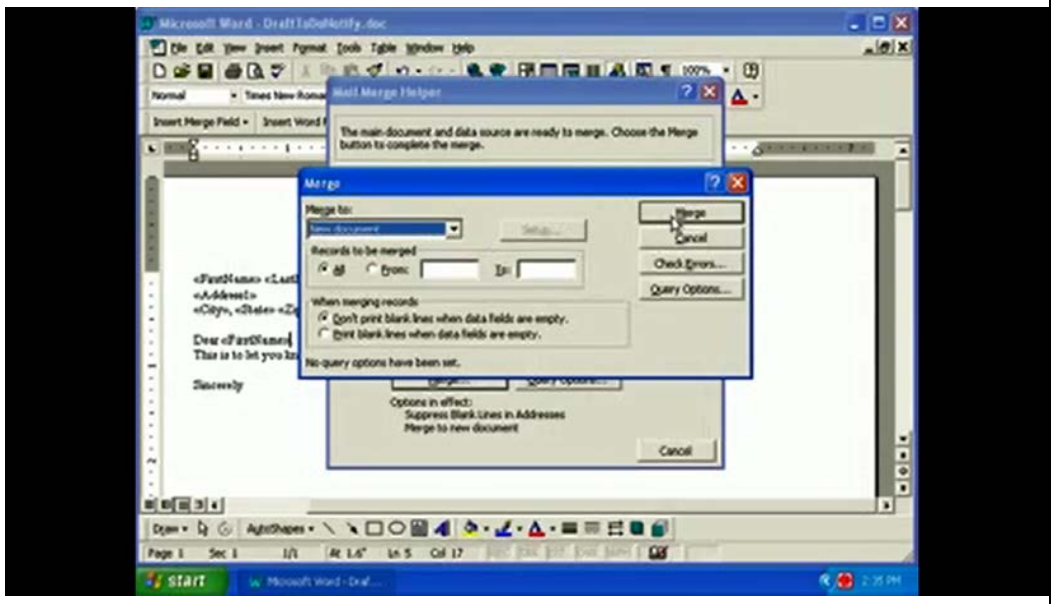


Exhibit L


Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel


Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
Merge
Merge to:
Records to be merged
When merging records
Don't print blank lines when data fields are empty.
Print blank lines when data fields are empty.
No query options have been set.
Merge
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Check Errors...
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Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

Exhibit L

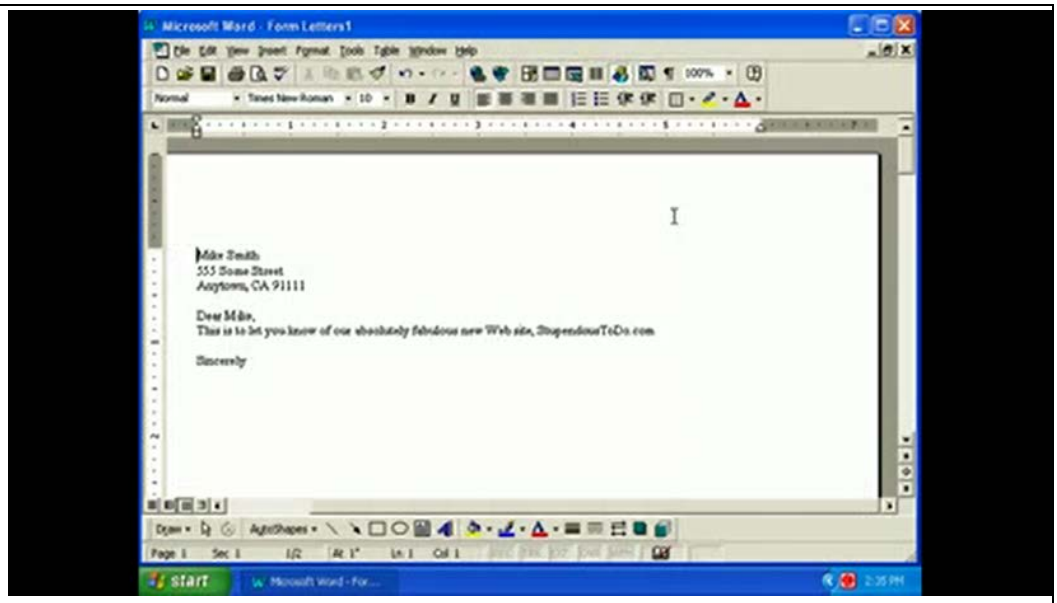
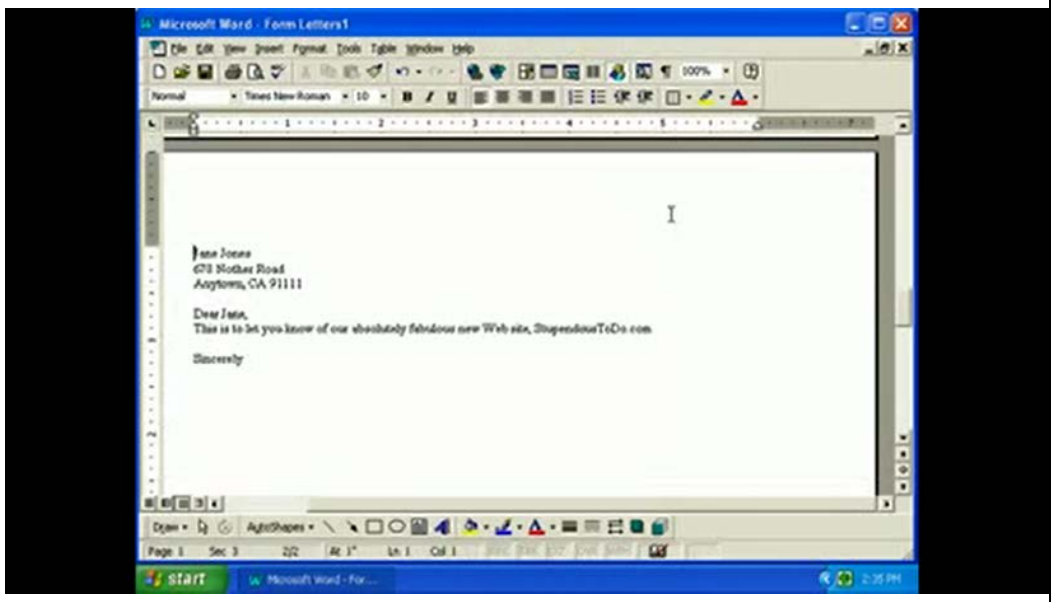
	  For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 2.
Claim 15	
A method according to claim 1, further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for	Word 97 discloses claim 1. *See* claim 1. Word 97 further discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action. Specifically, Word 97 discloses:

Exhibit L

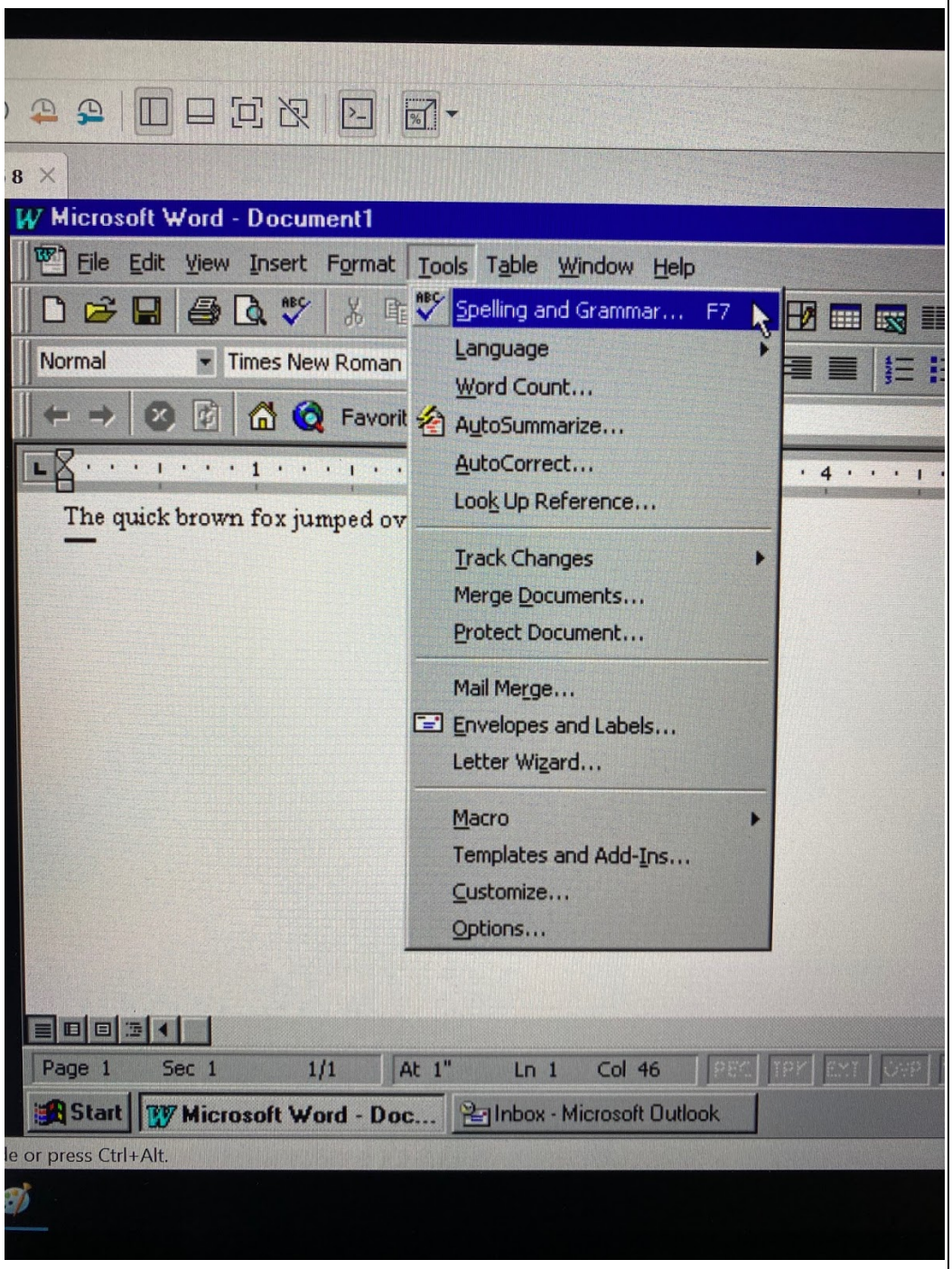
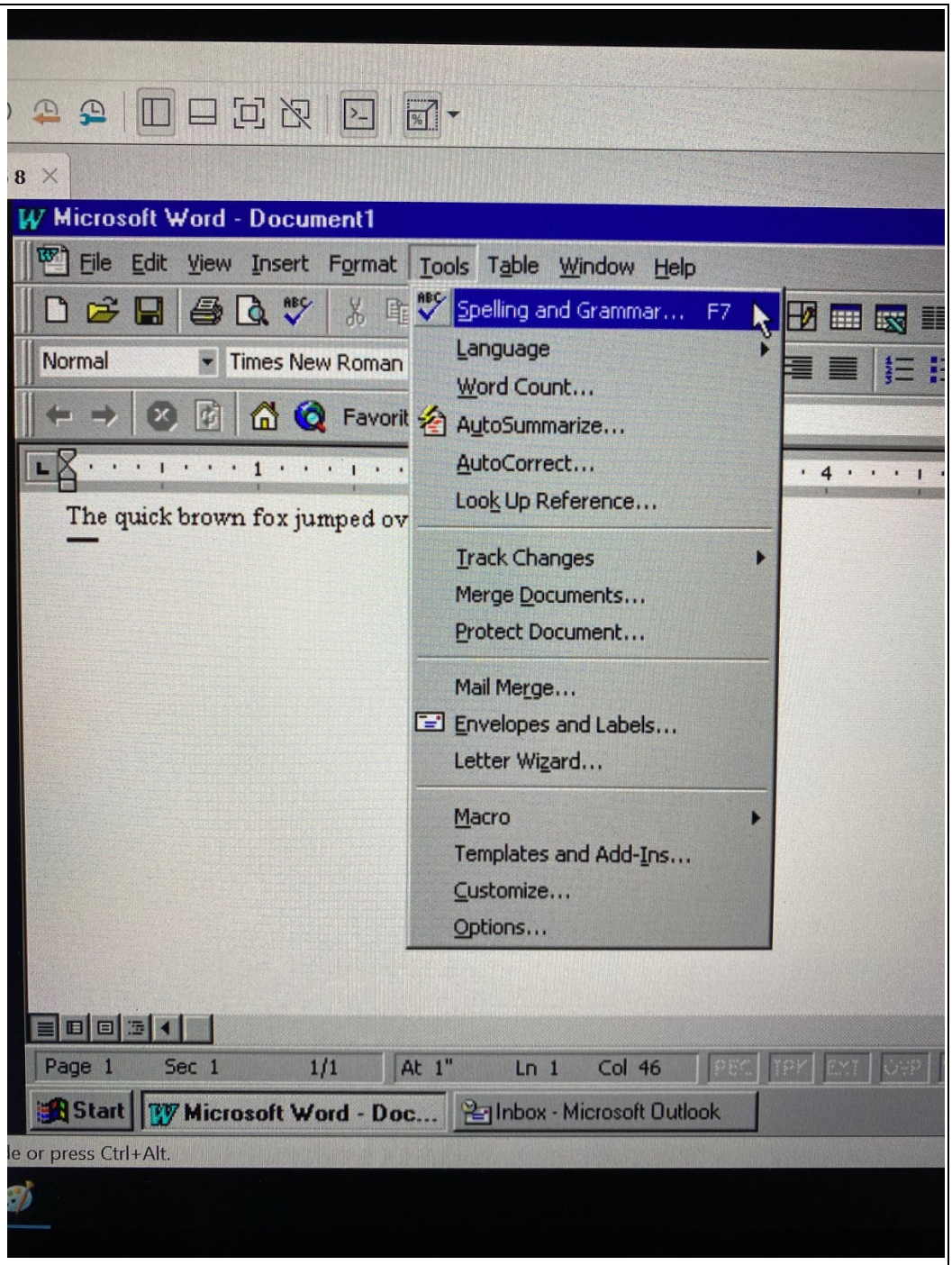
use in performing the action.	 Word 97. Word 97 further discloses:

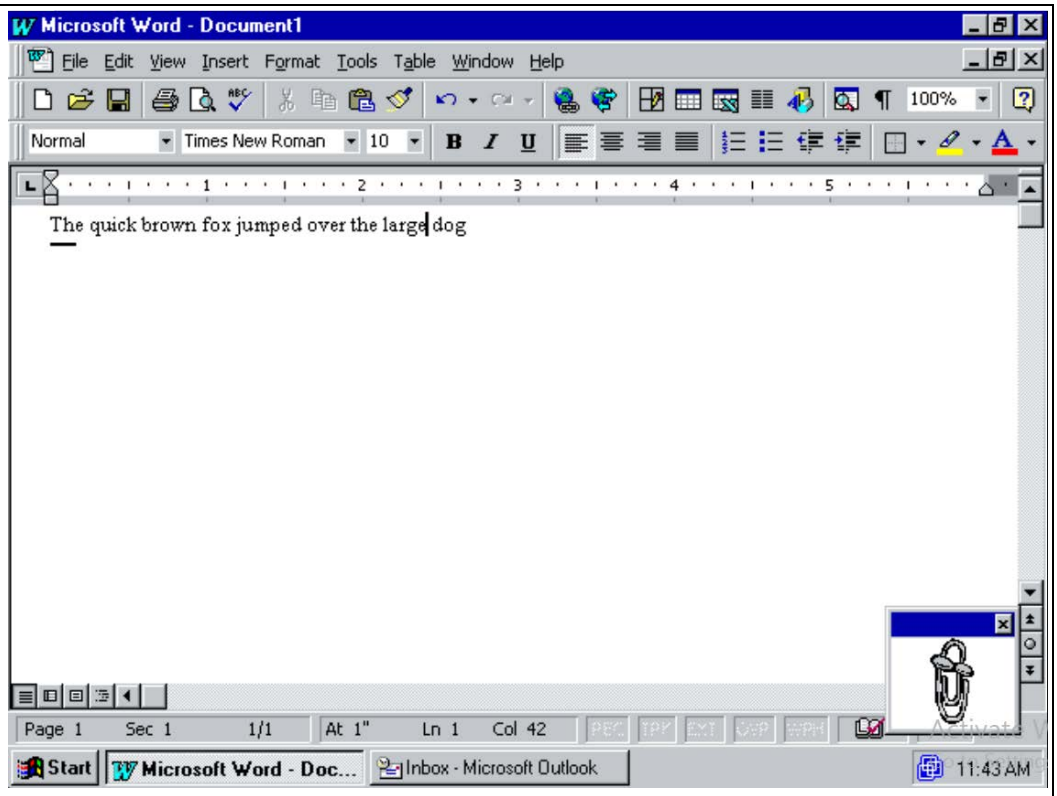
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L

	 Word 97. Word 97 further discloses:

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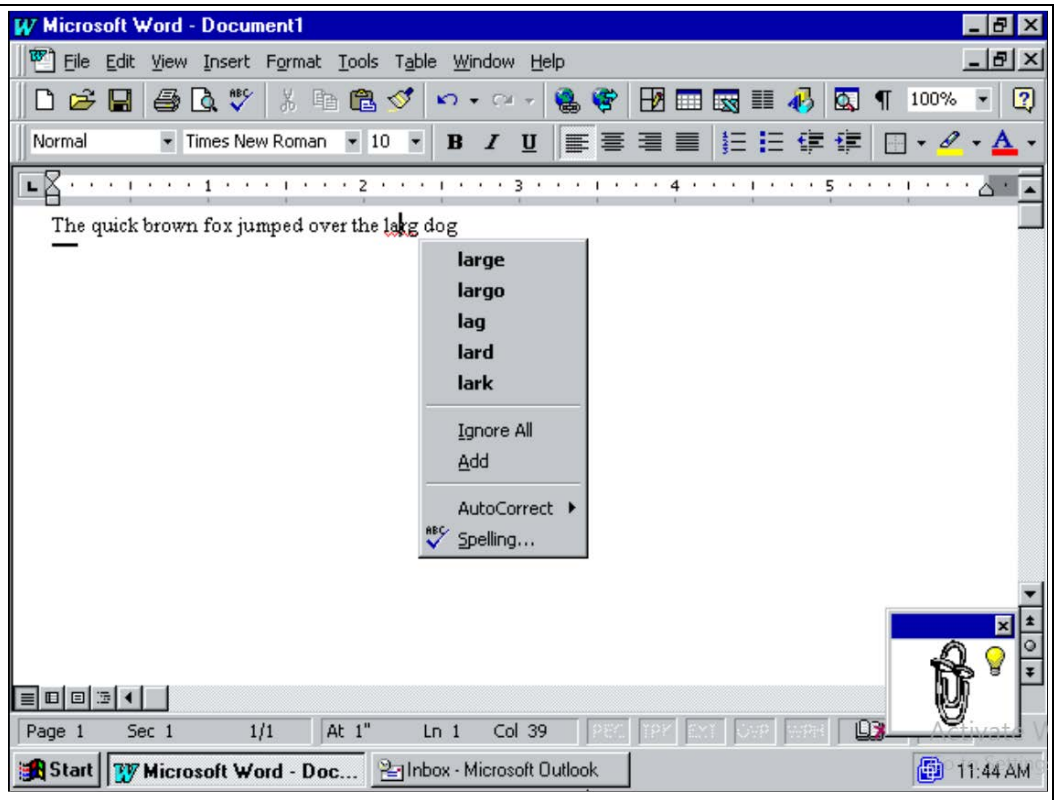
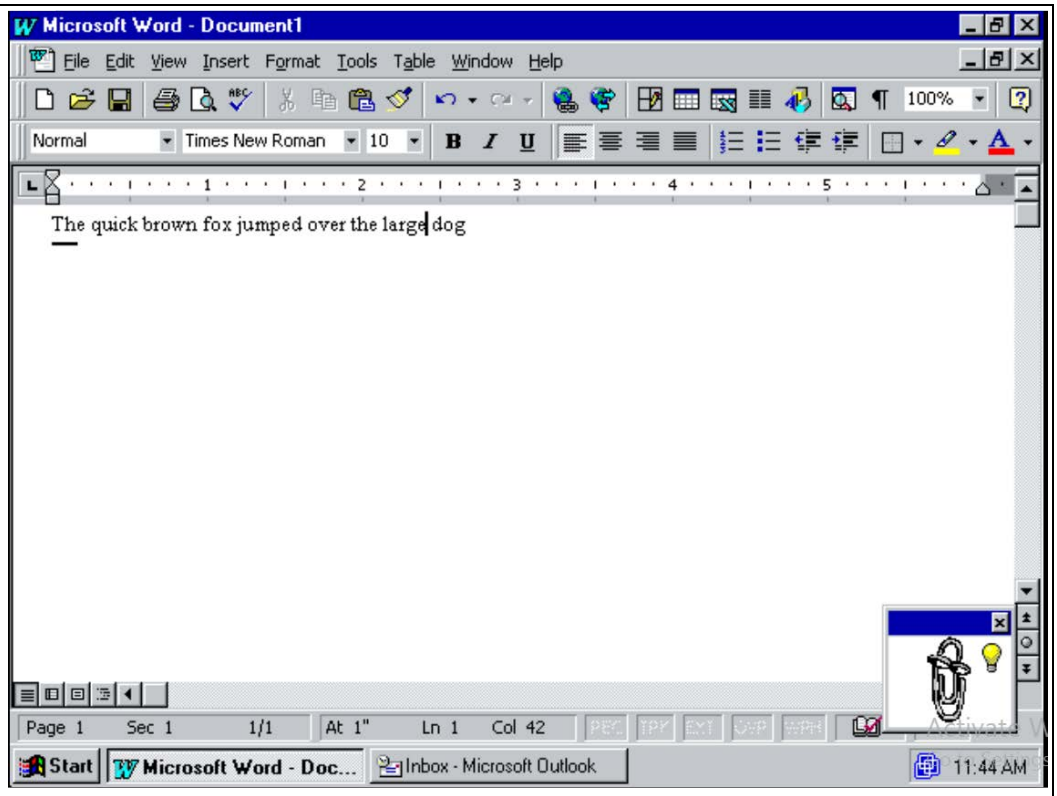
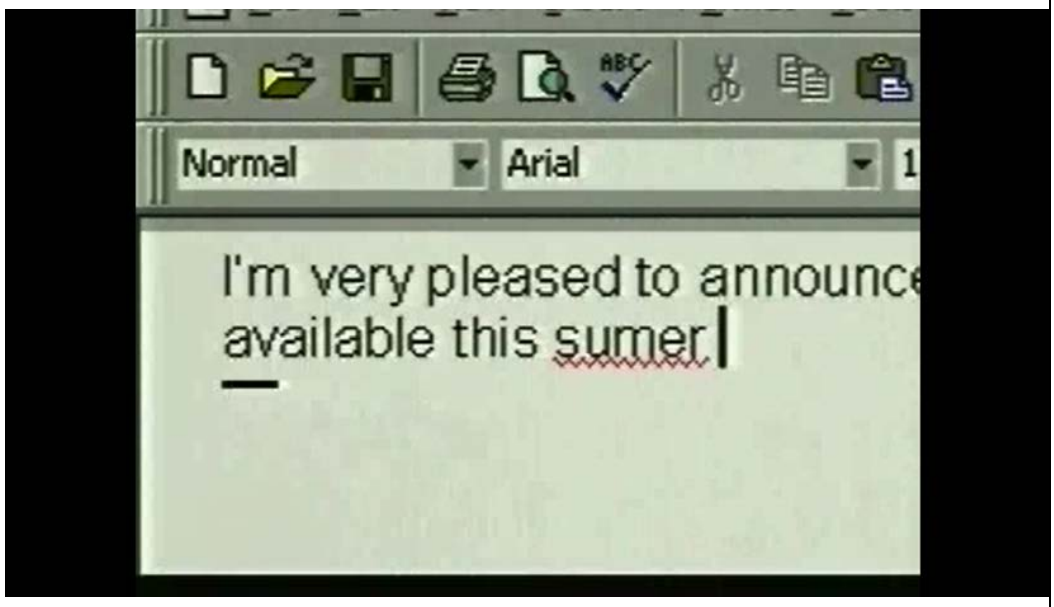
	 Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:



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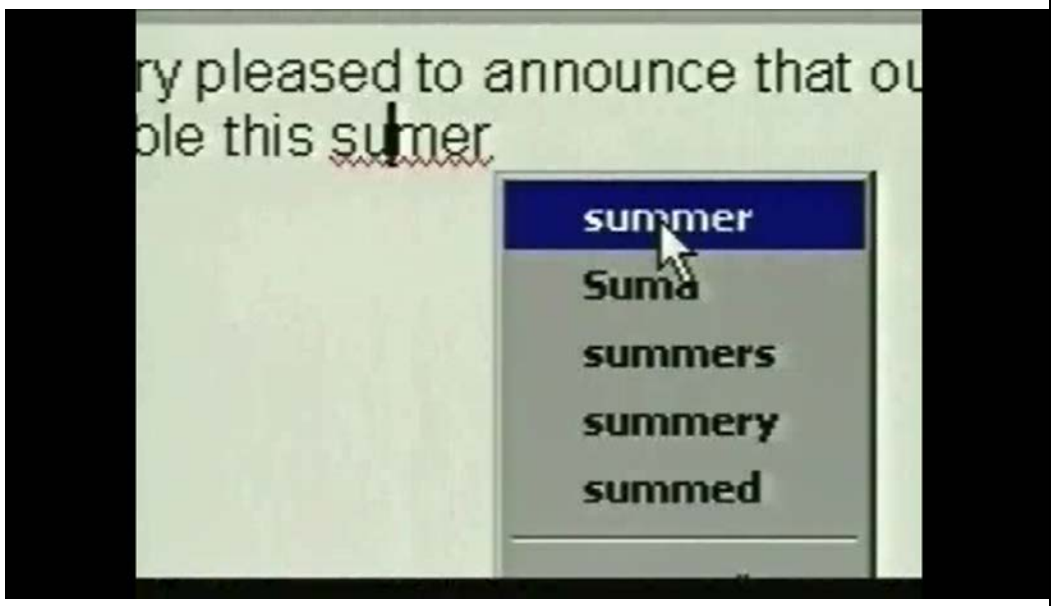
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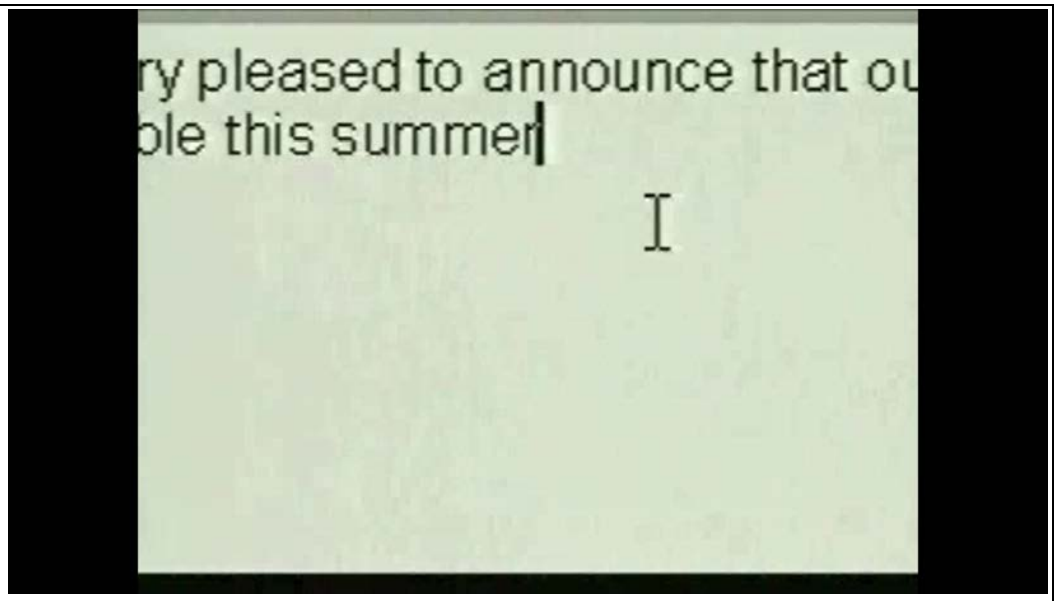
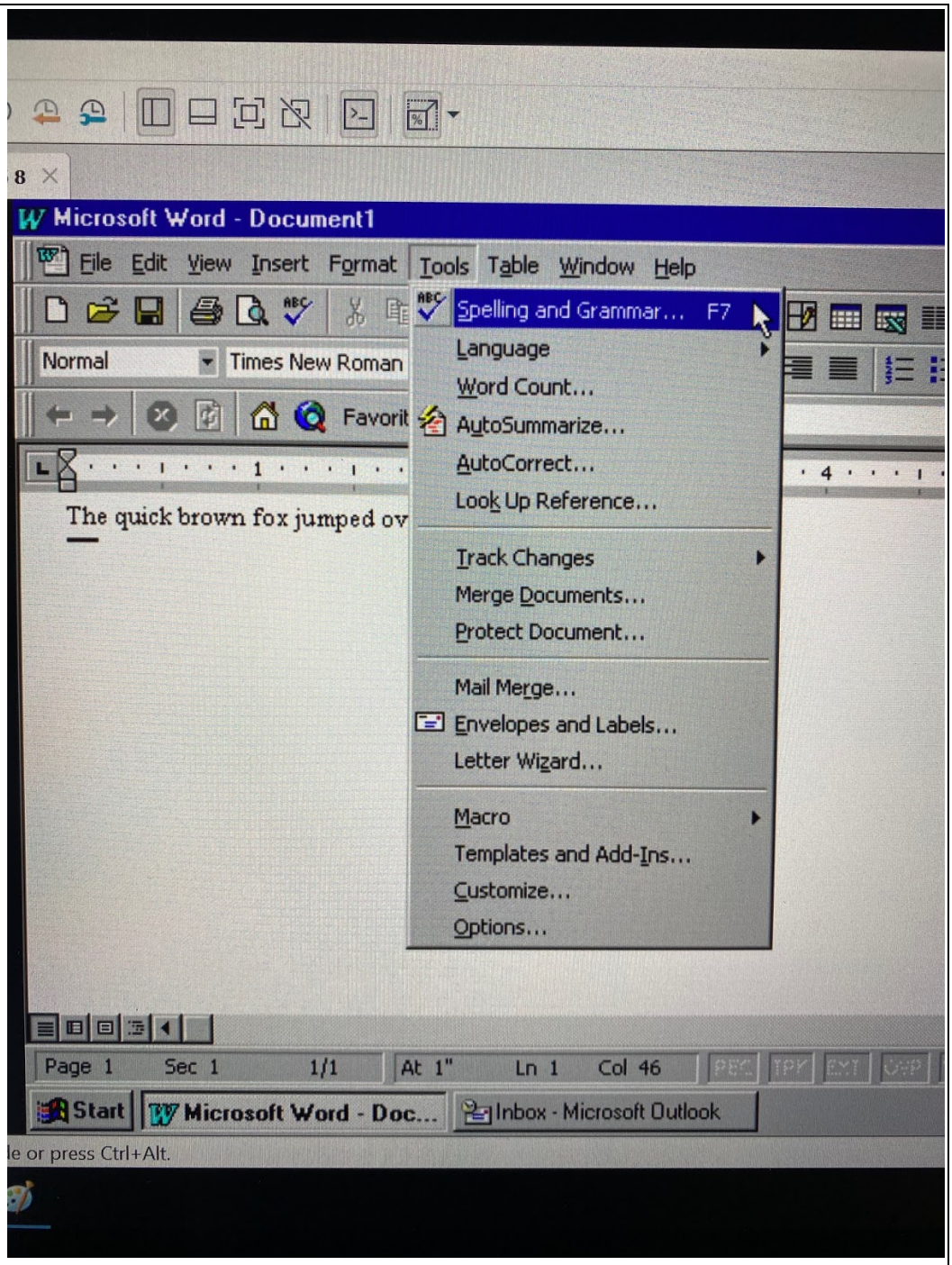
	 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 7, 17, and 20.
Claim 17	
A method according to claim 1, wherein the information source is associated with the second computer program and is available through the computer.	Word 97 discloses claim 1. *See* claim 1. Word 97 further discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses wherein the information source is associated with the second computer program and is available through the computer. Specifically, Word 97 discloses:

Exhibit L



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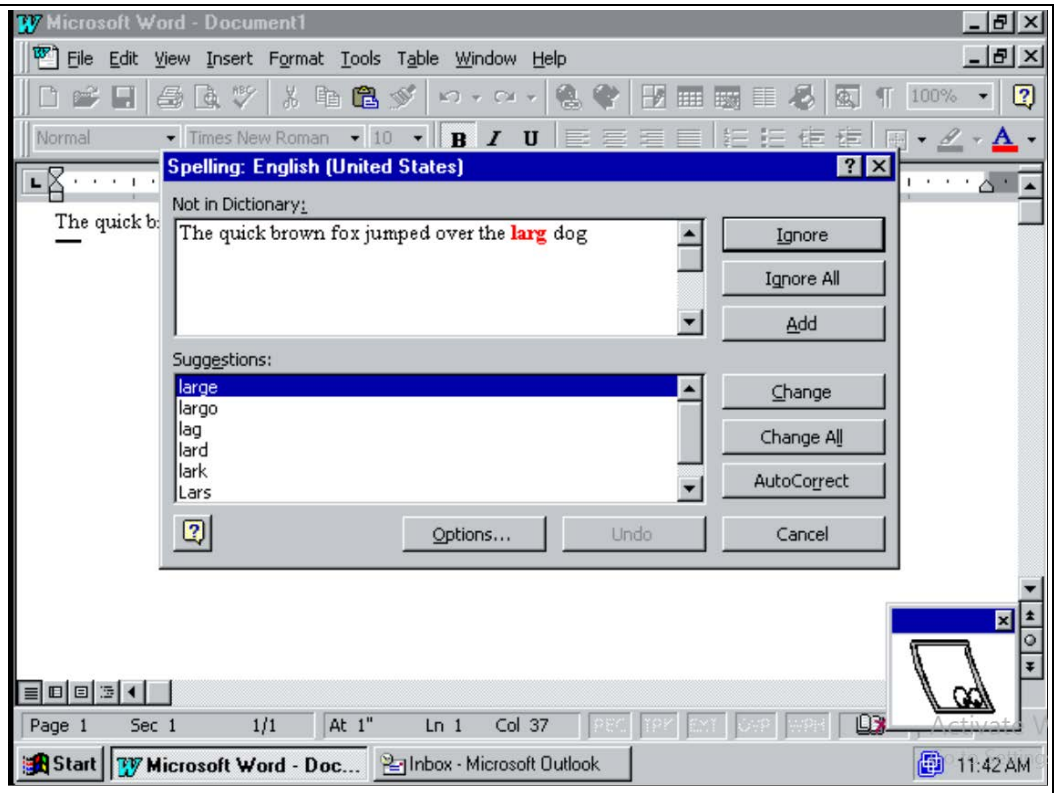
Word 97 further discloses:

Exhibit L



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Word 97 further discloses:

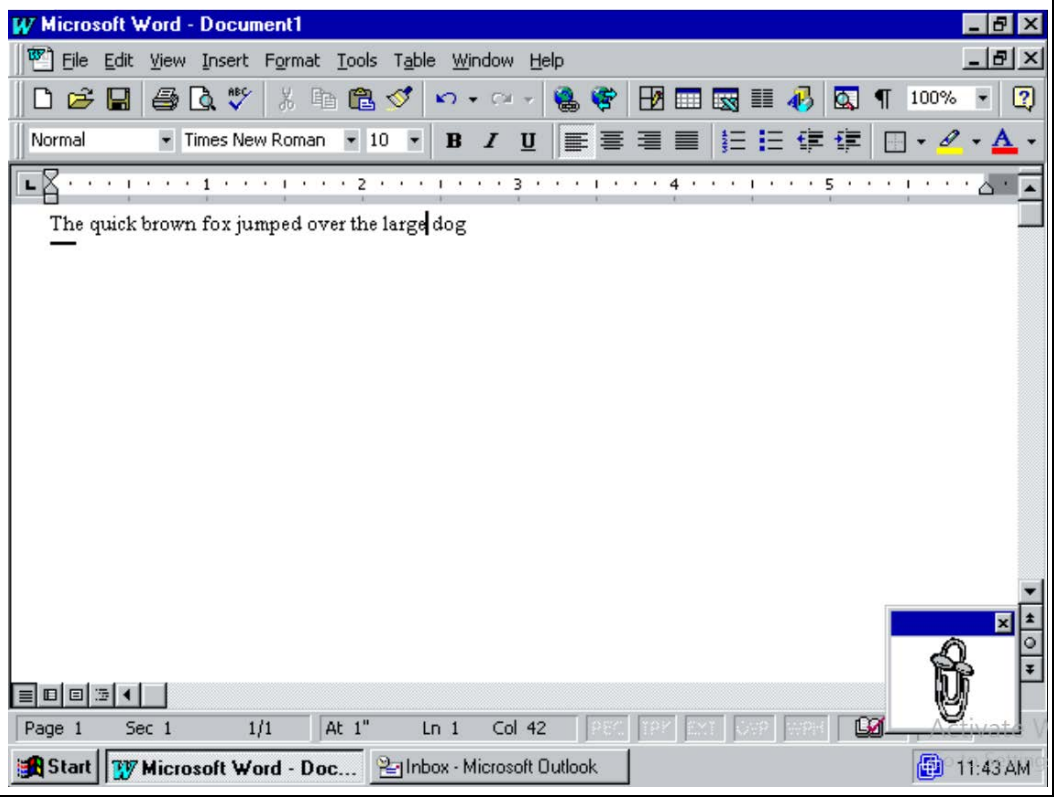


Exhibit L

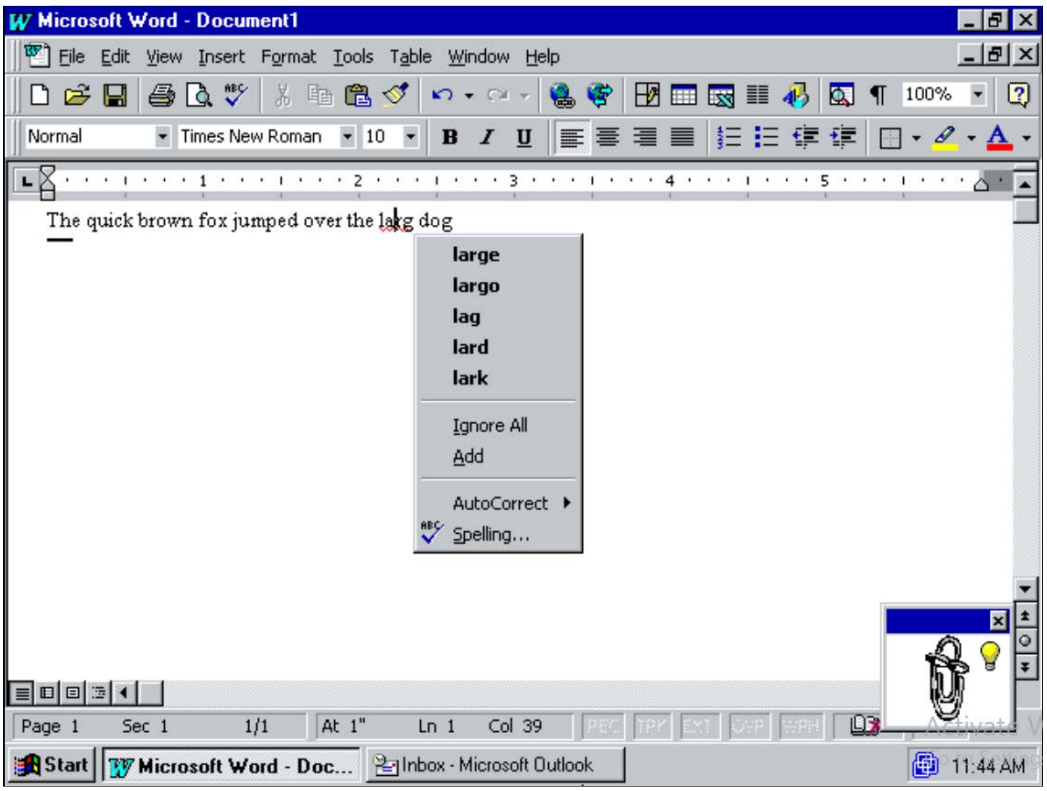
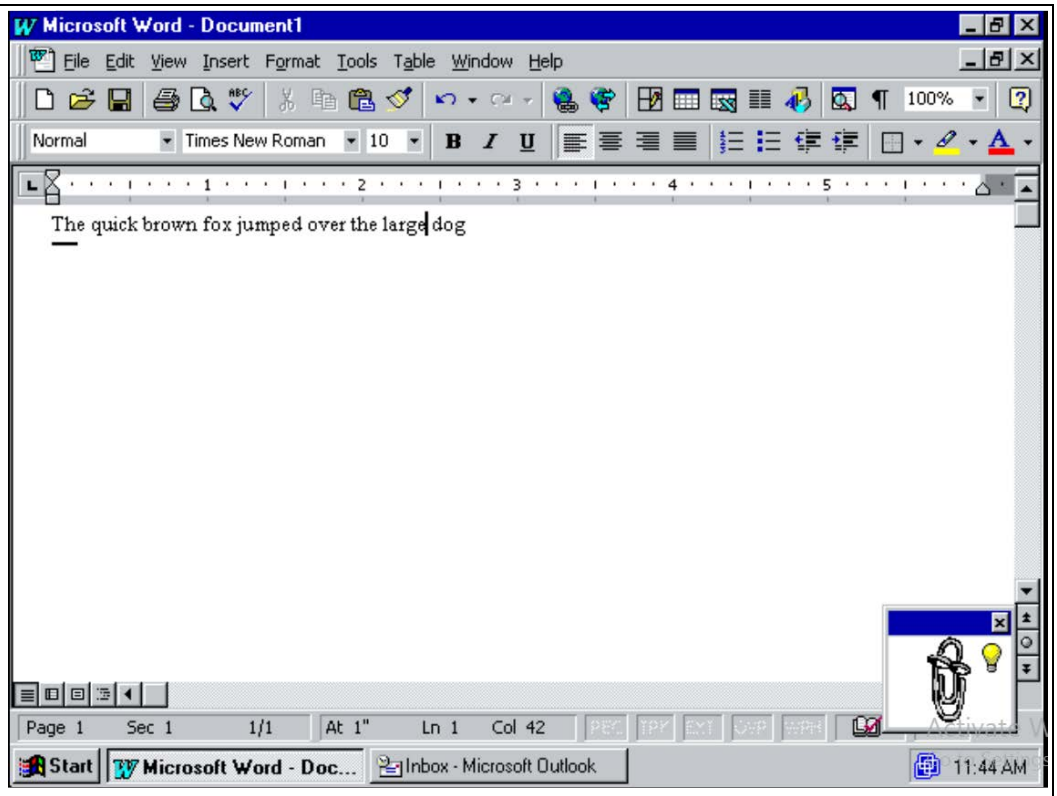
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L

	 Word 97. Word 97 further discloses:

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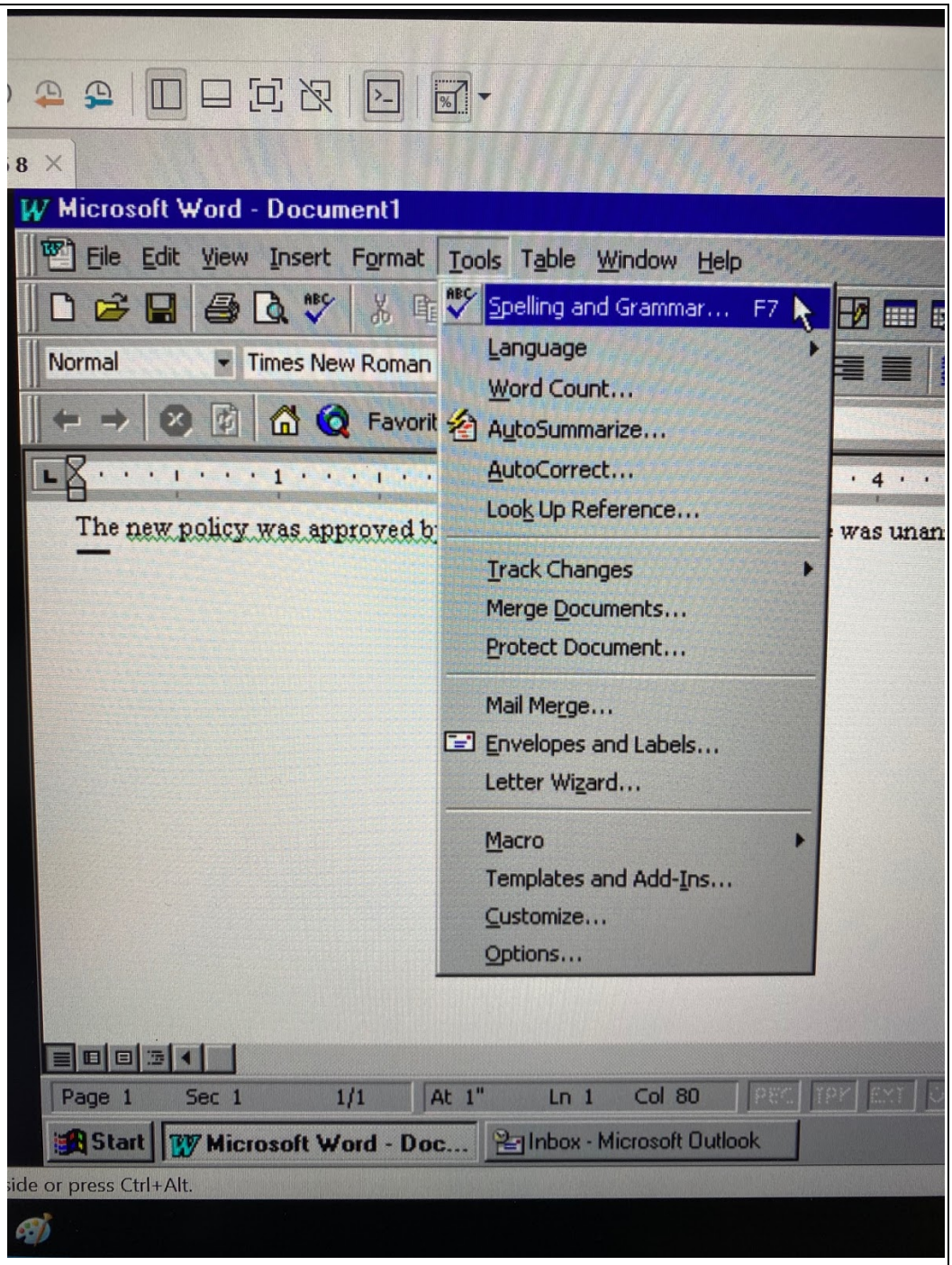
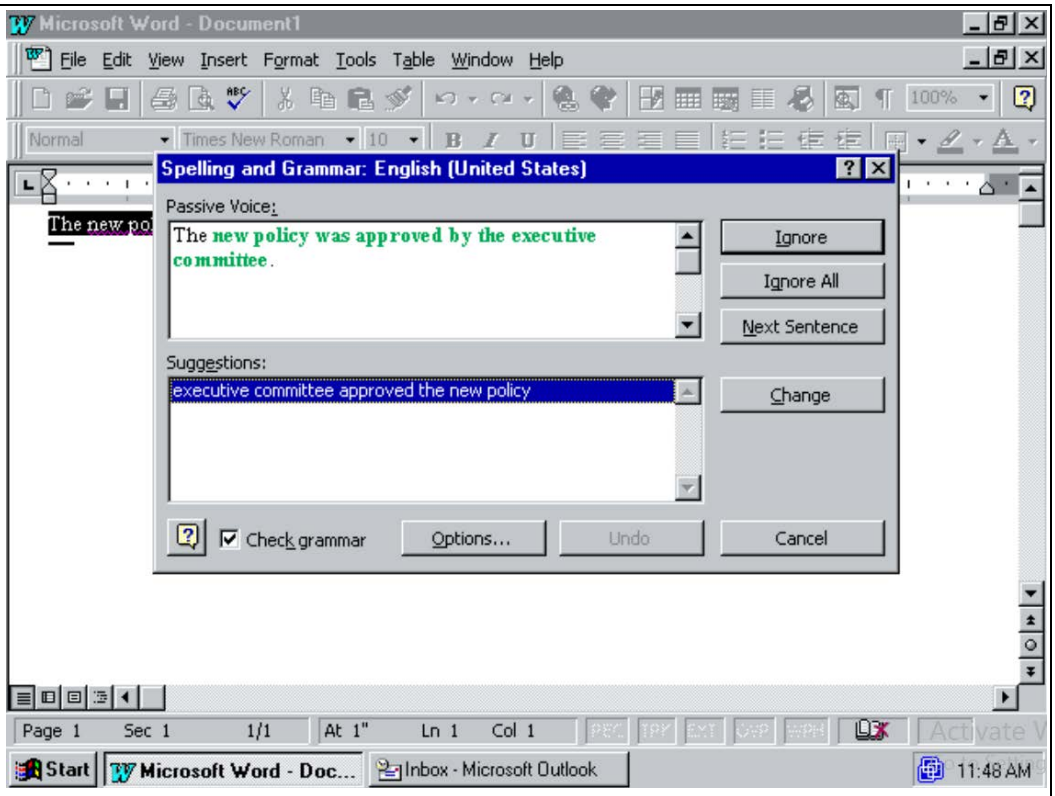


Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

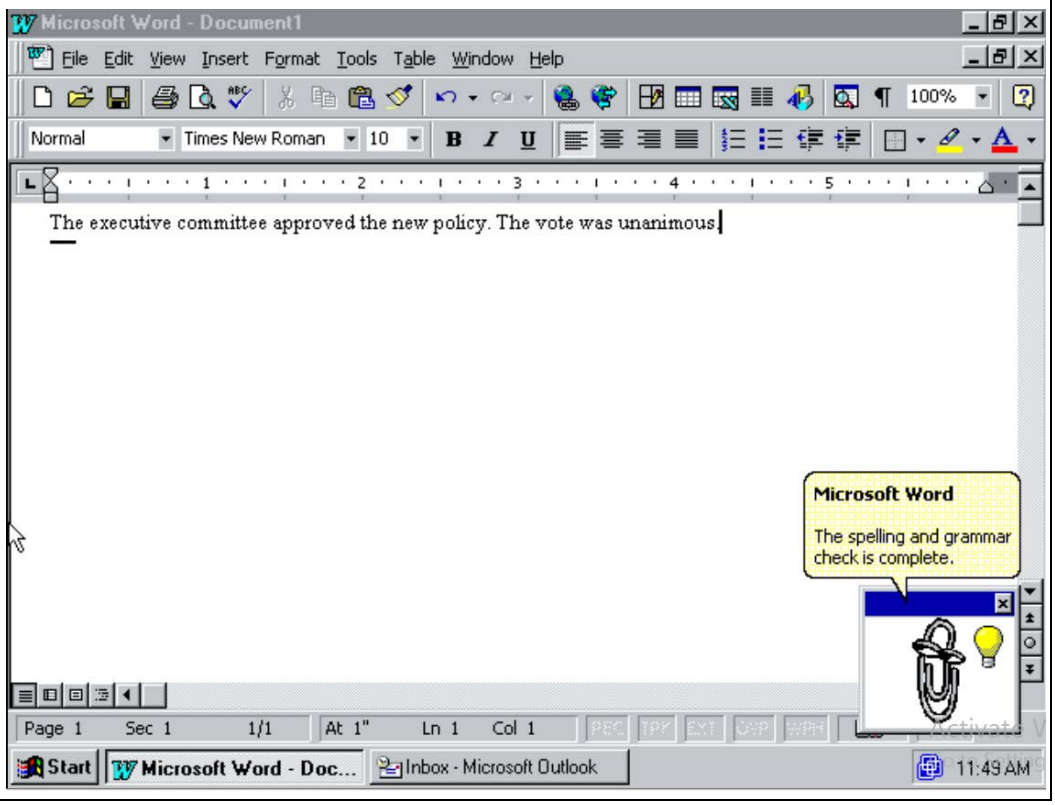


Exhibit L

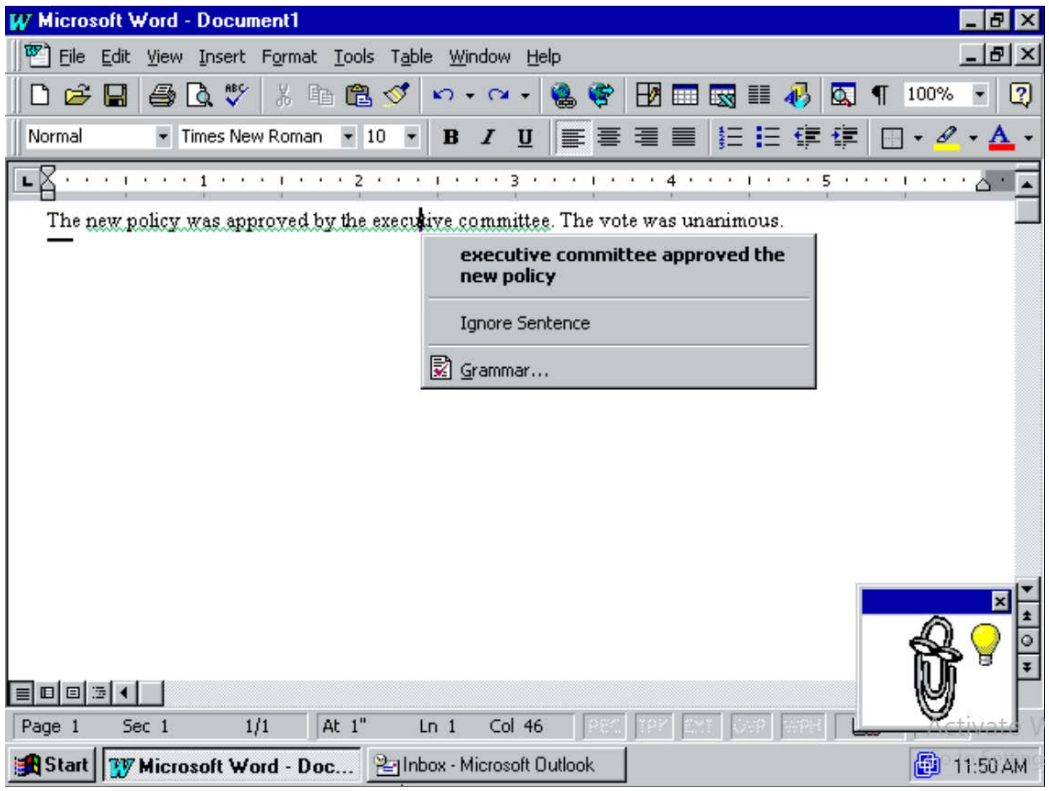
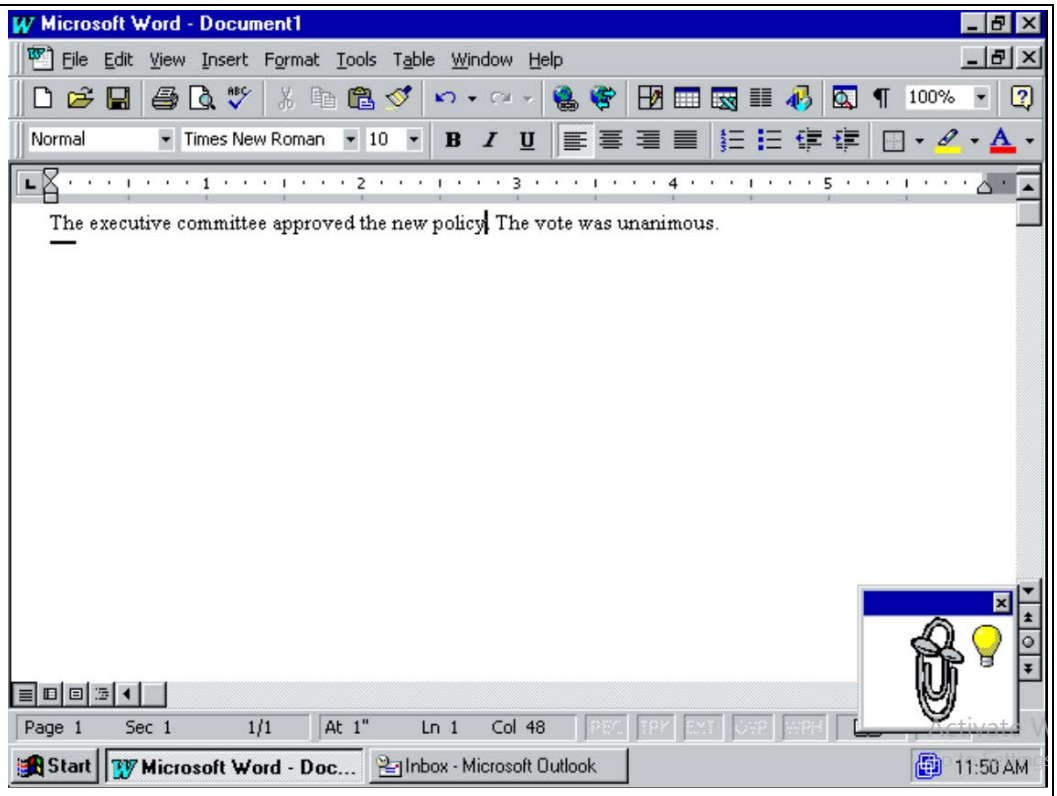
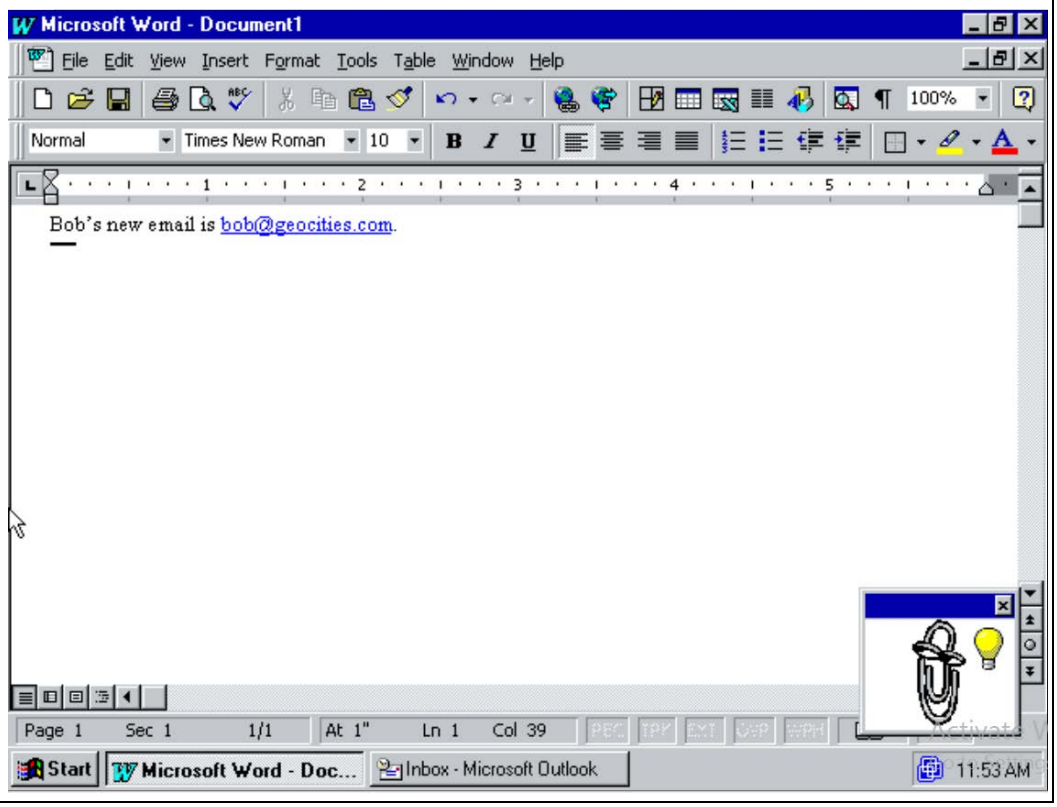
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:



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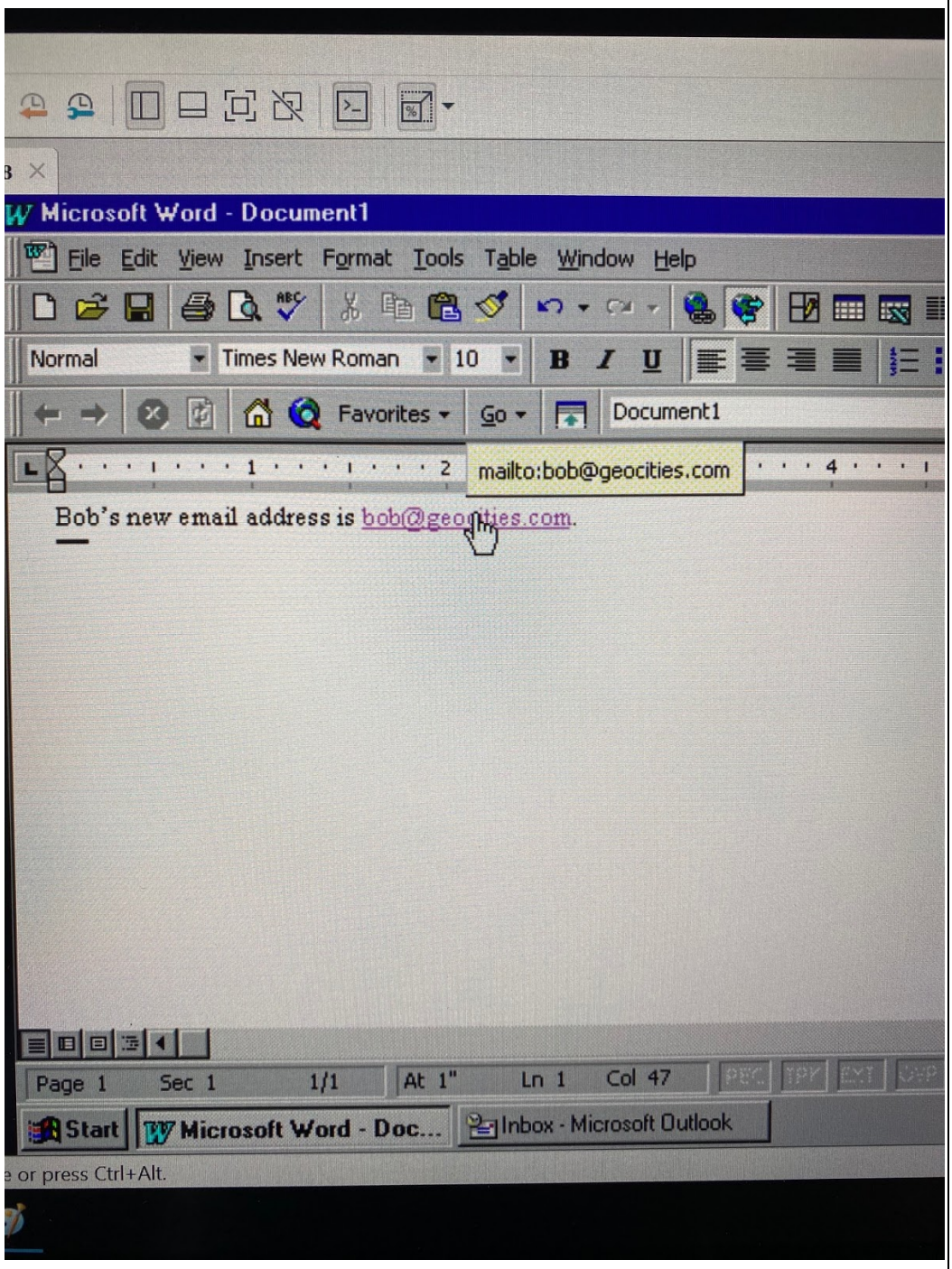
	Word 97. Word 97 further discloses:  Word 97.

Exhibit L

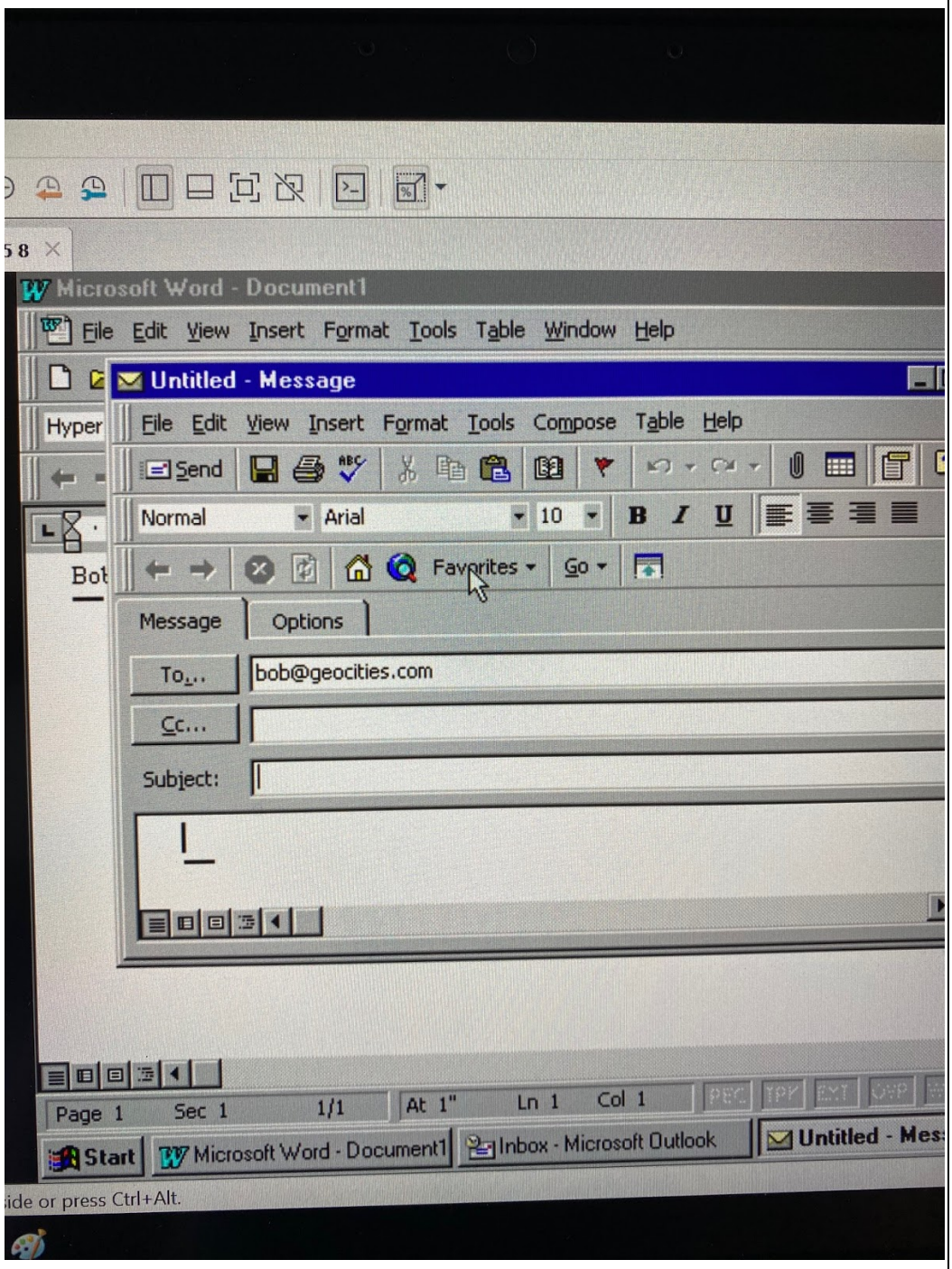
	Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L

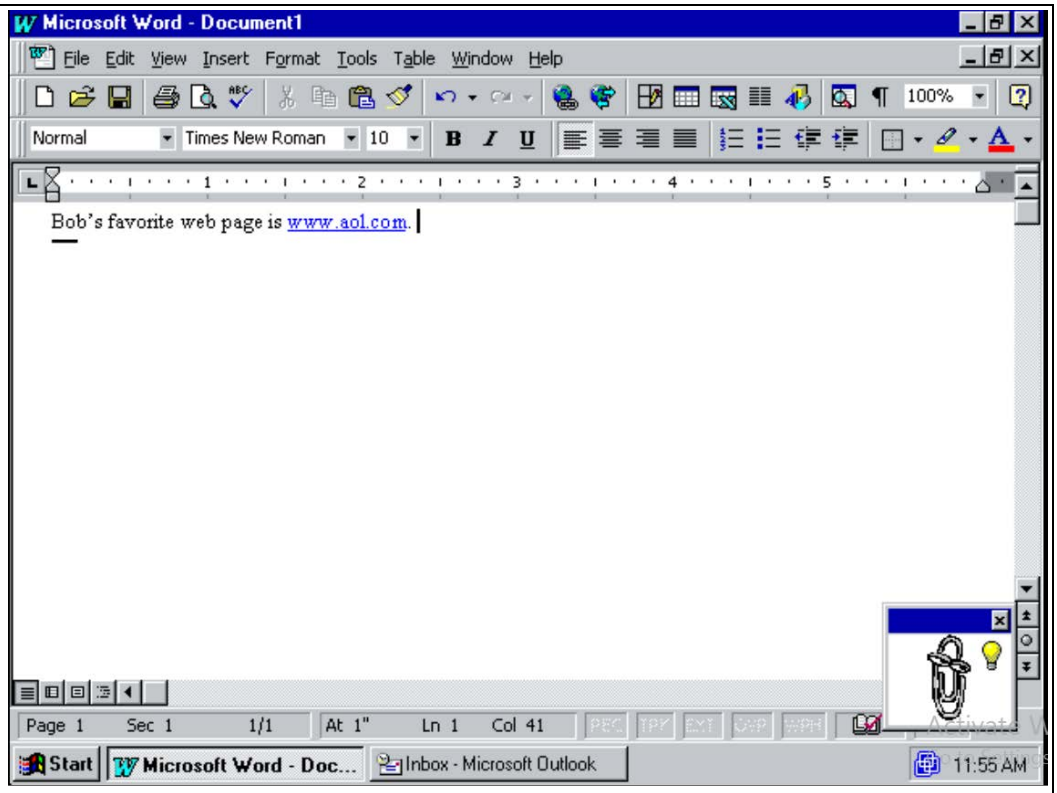
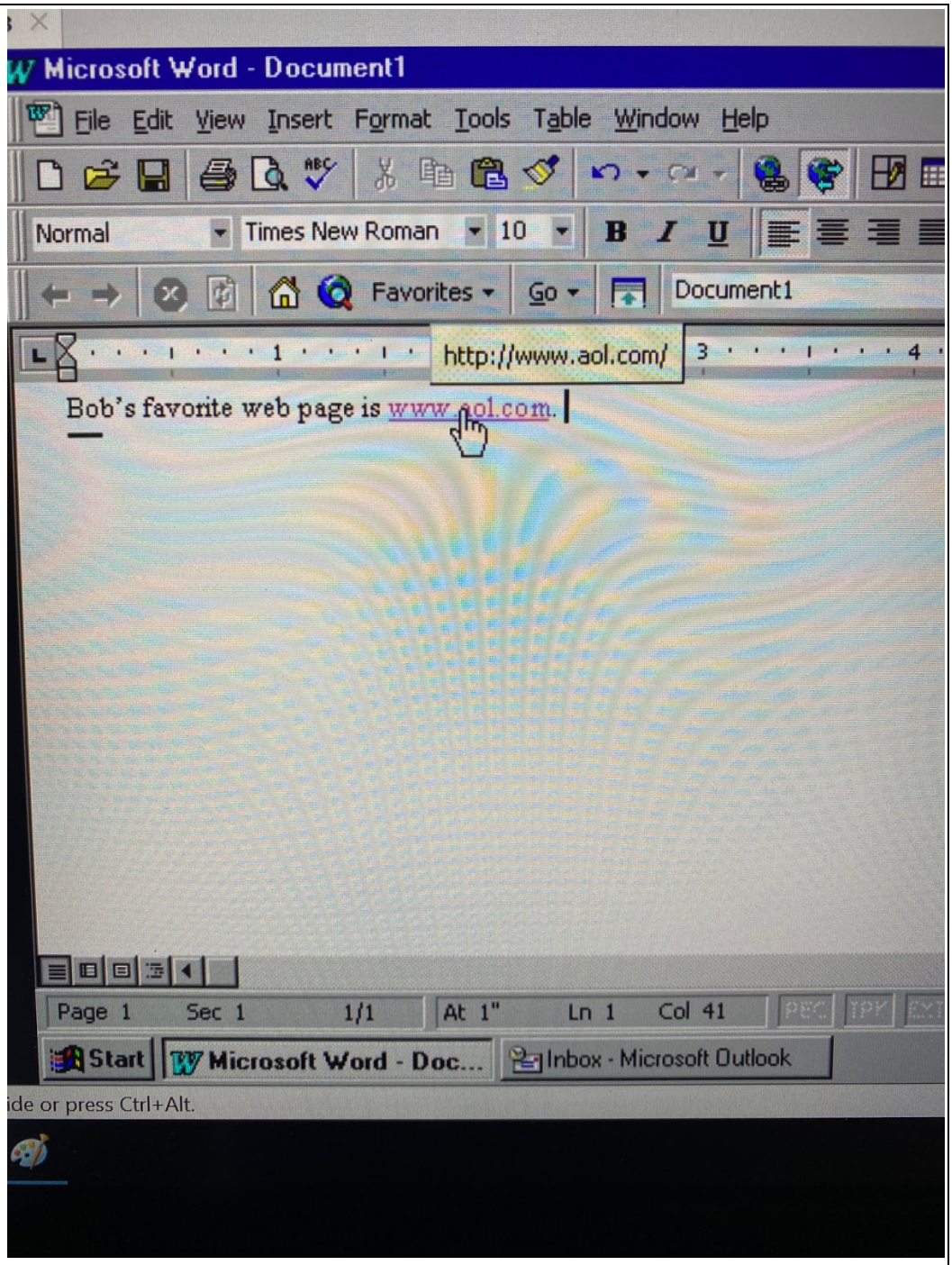
	 Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses this element.

"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can

Exhibit L

	paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. Word 97 Core Lesson 16 further discloses:

Exhibit L

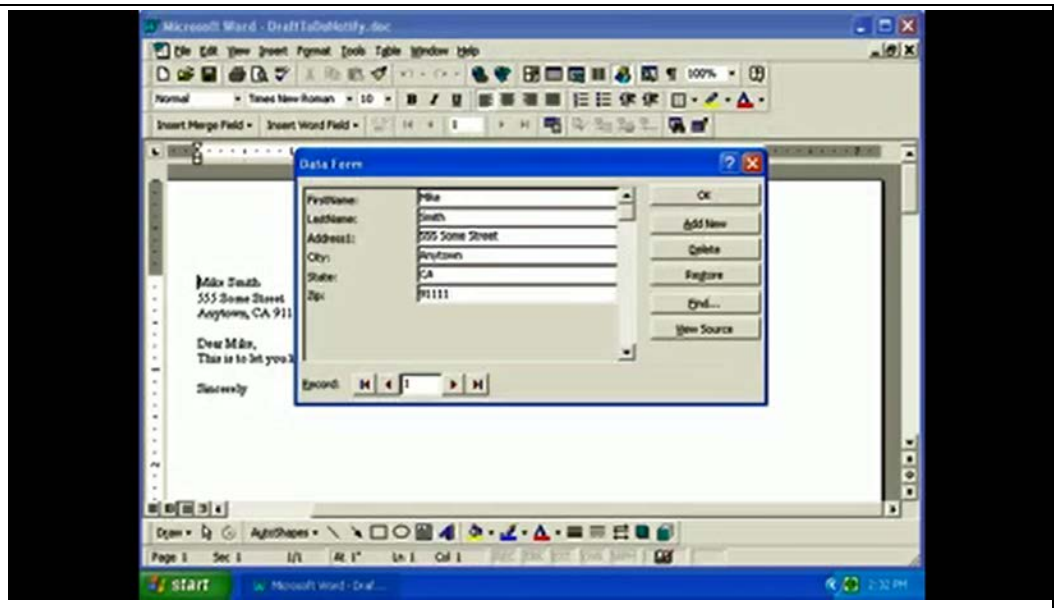
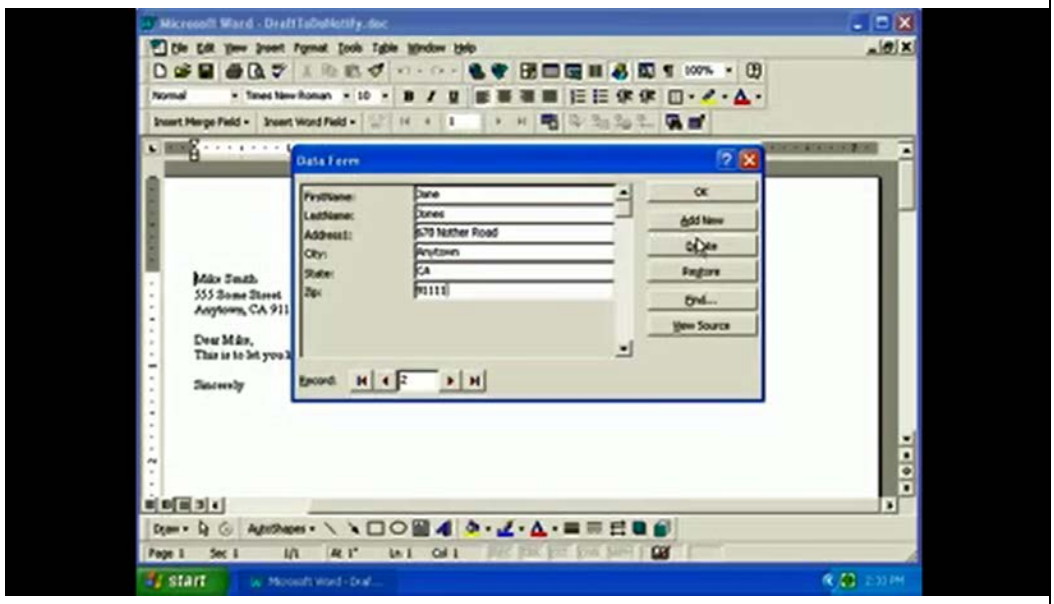
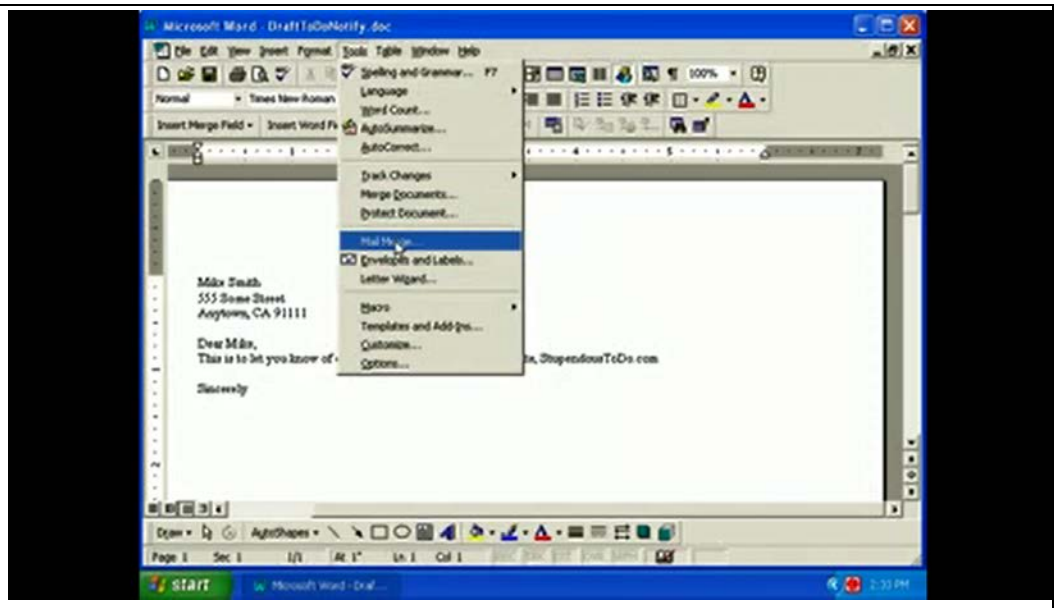
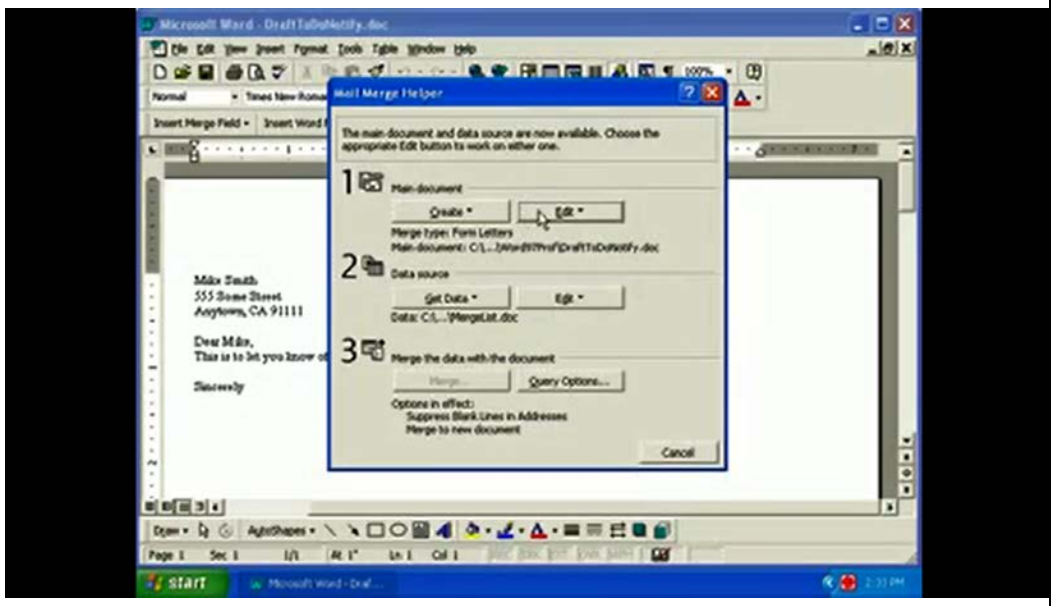
	 Microsoft Word - DraftToDoNotify.doc Data Form FirstName: Mike LastName: Smith Address1: 555 Some Street City: Anytown State: CA Zip: 91111 OK Add New Delete Restore Find... View Source Record: 1 Mike Smith 555 Some Street Anytown, CA 911 Dear Mike, Sincerely start  Microsoft Word - DraftToDoNotify.doc Data Form FirstName: Jane LastName: Jones Address1: 670 Nather Road City: Anytown State: CA Zip: 91111 OK Add New Delete Restore Find... View Source Record: 2 Mike Smith 555 Some Street Anytown, CA 911 Dear Mike, Sincerely start

Exhibit L





"When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.*

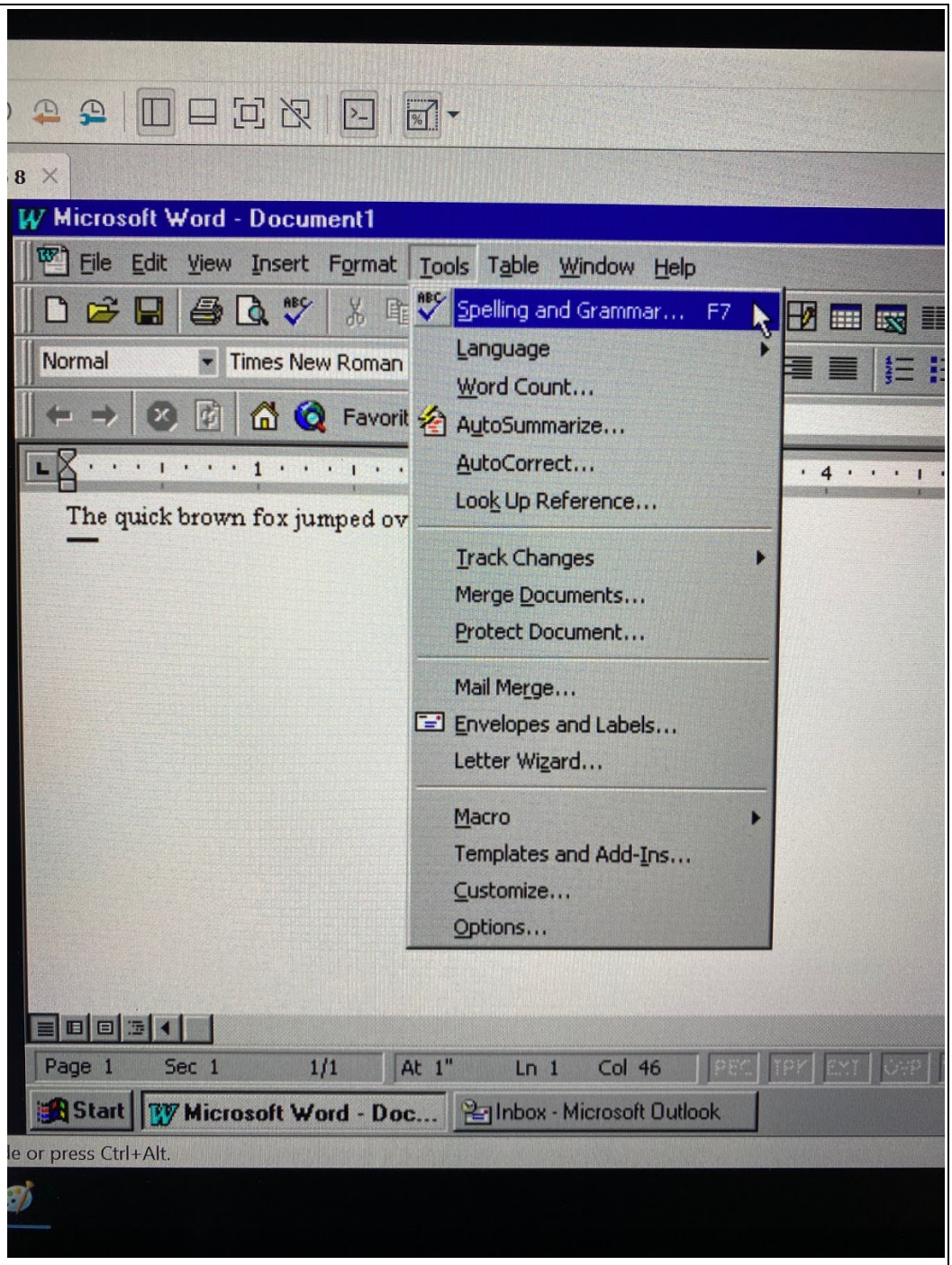
"To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514.

For example (and without limitation to the Obviousness Statement that is

Exhibit L

	incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.	Word 97 discloses claim 1. *See* claim 1. Word 97 further discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses wherein performing the action includes causing insertion of at least part of the second information into the document. Specifically, Word 97 discloses:

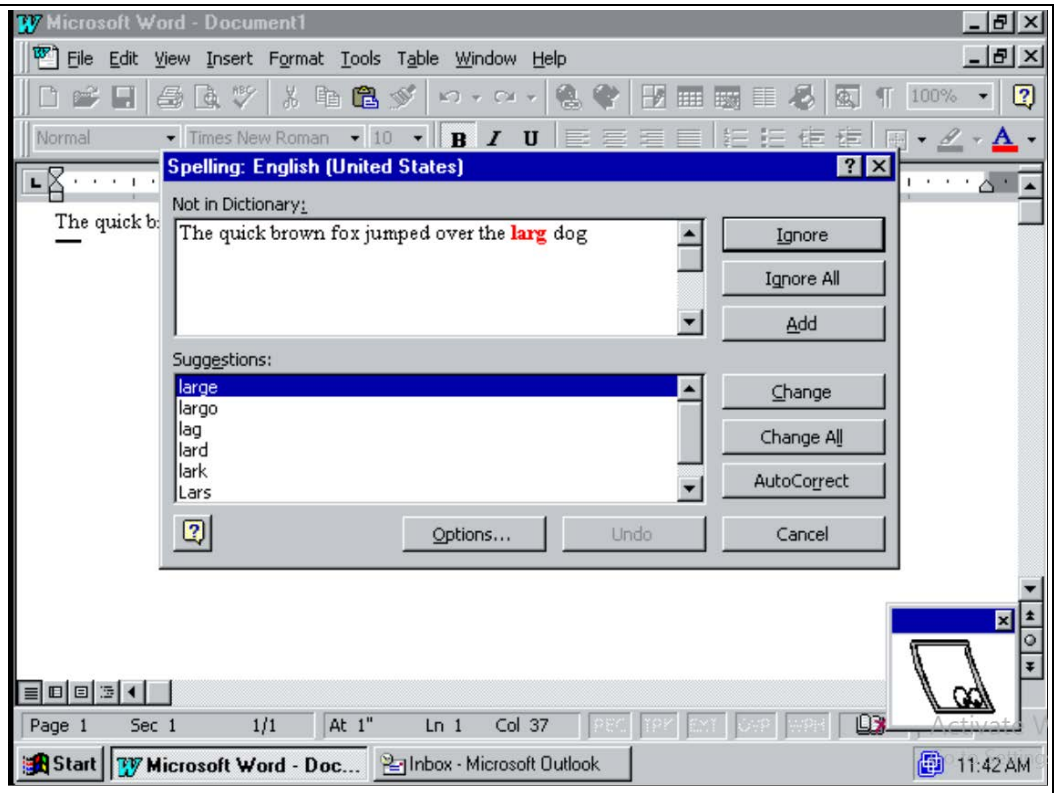
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

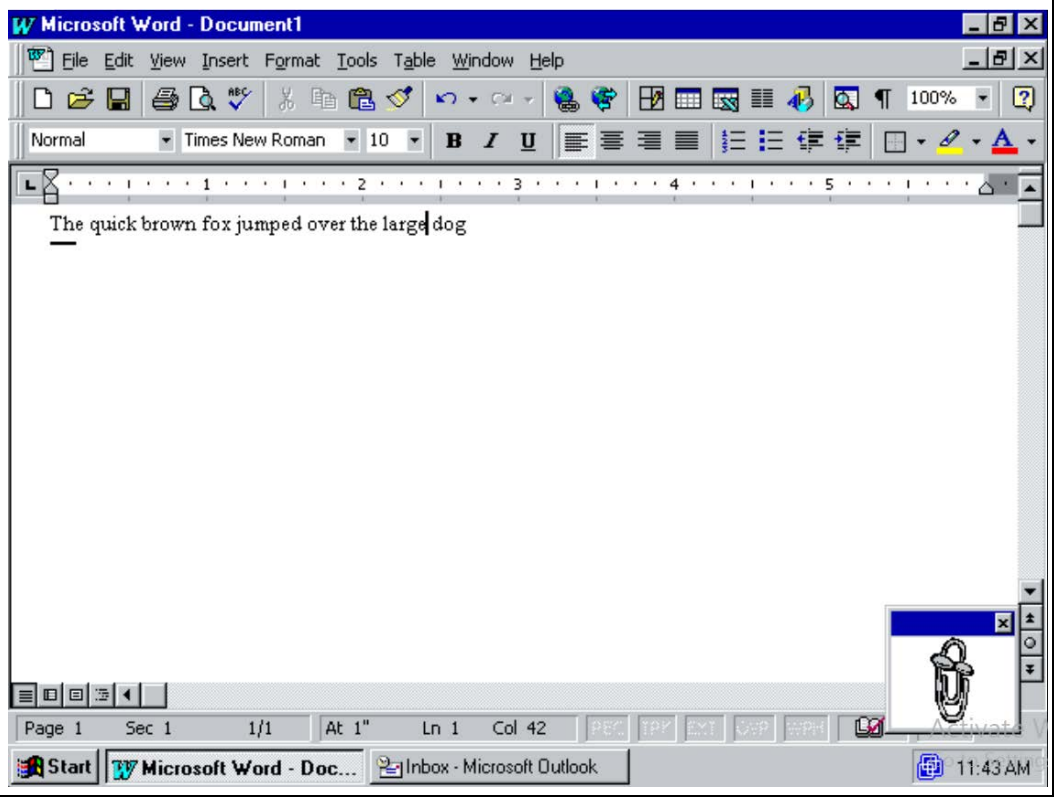
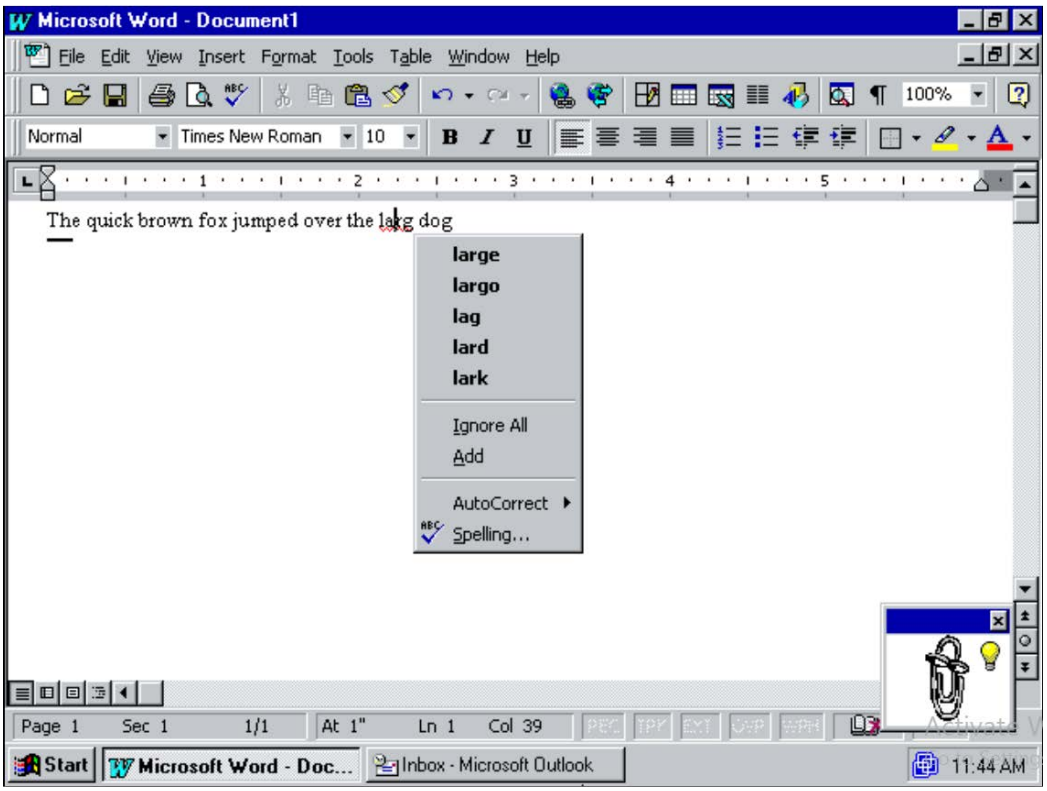


Exhibit L

	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

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	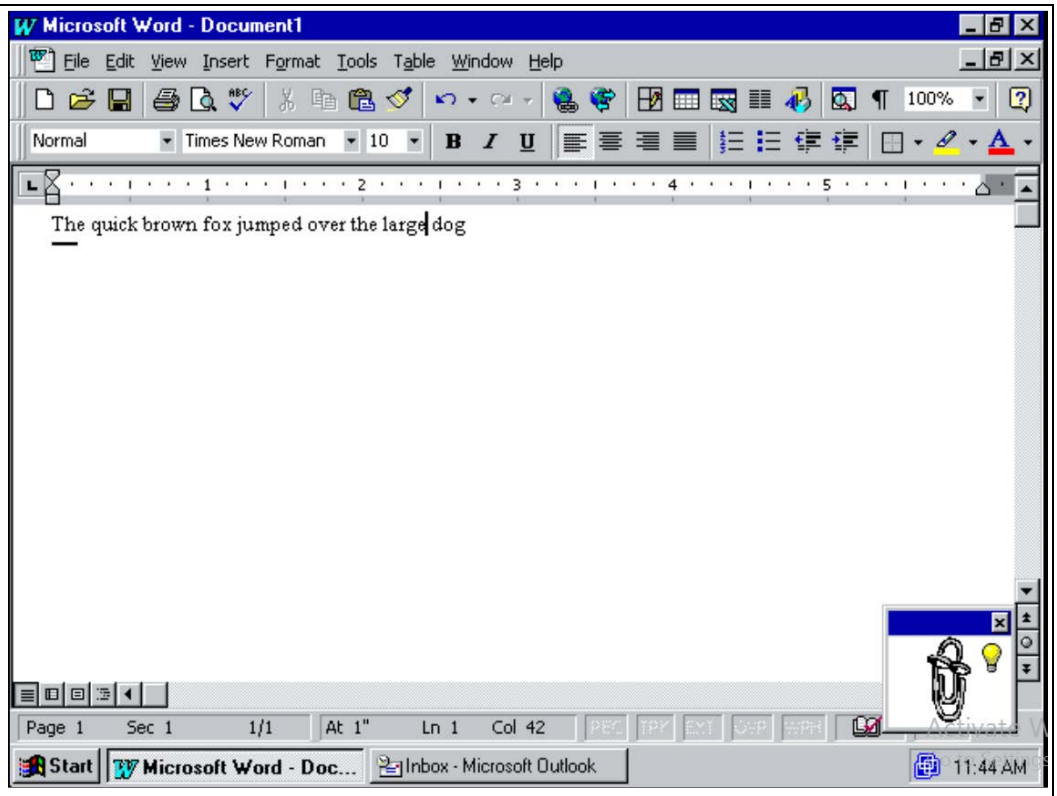 Word 97. Word 97 further discloses:

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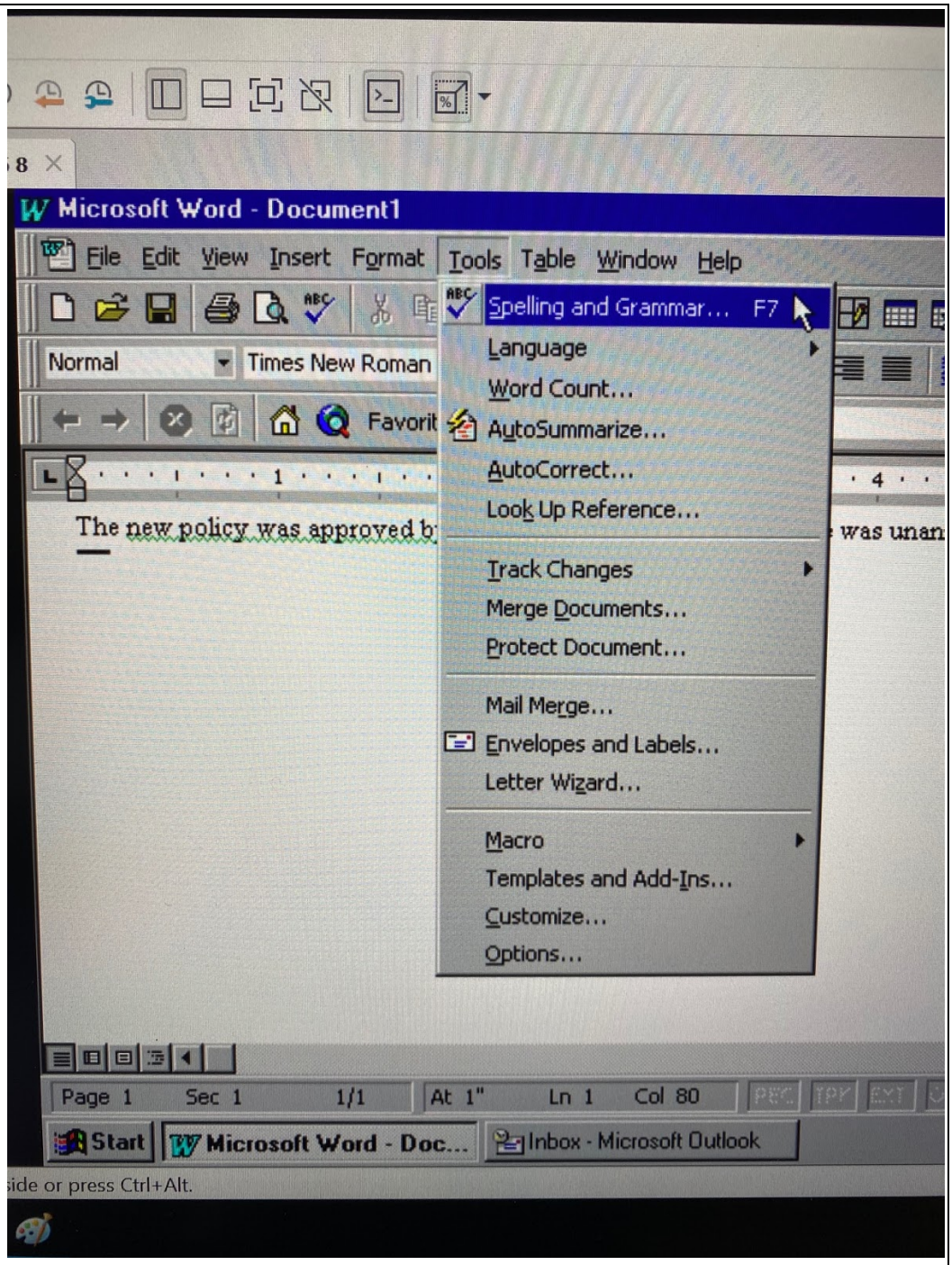
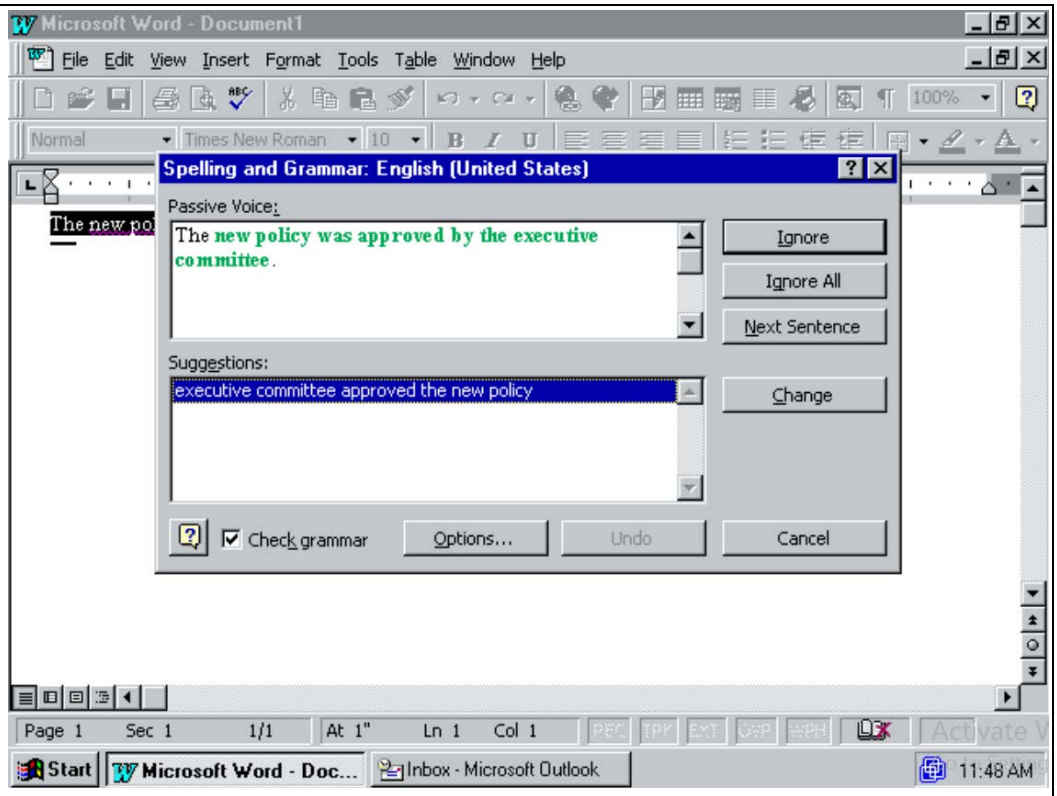


Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

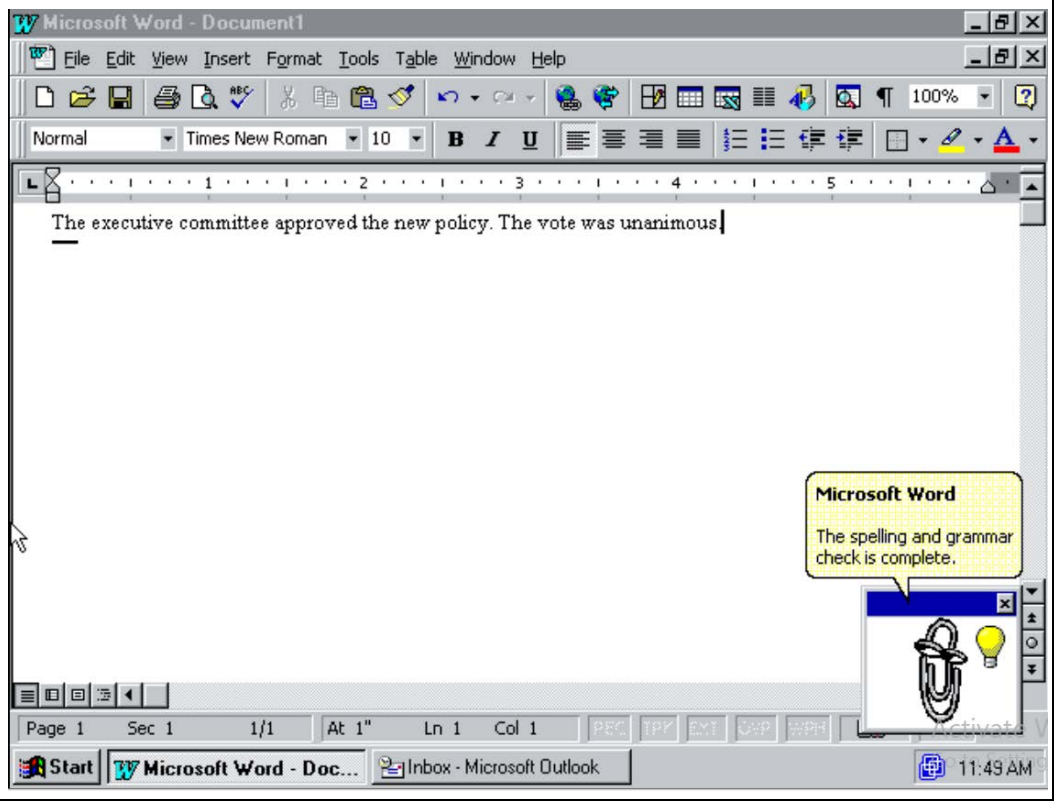


Exhibit L

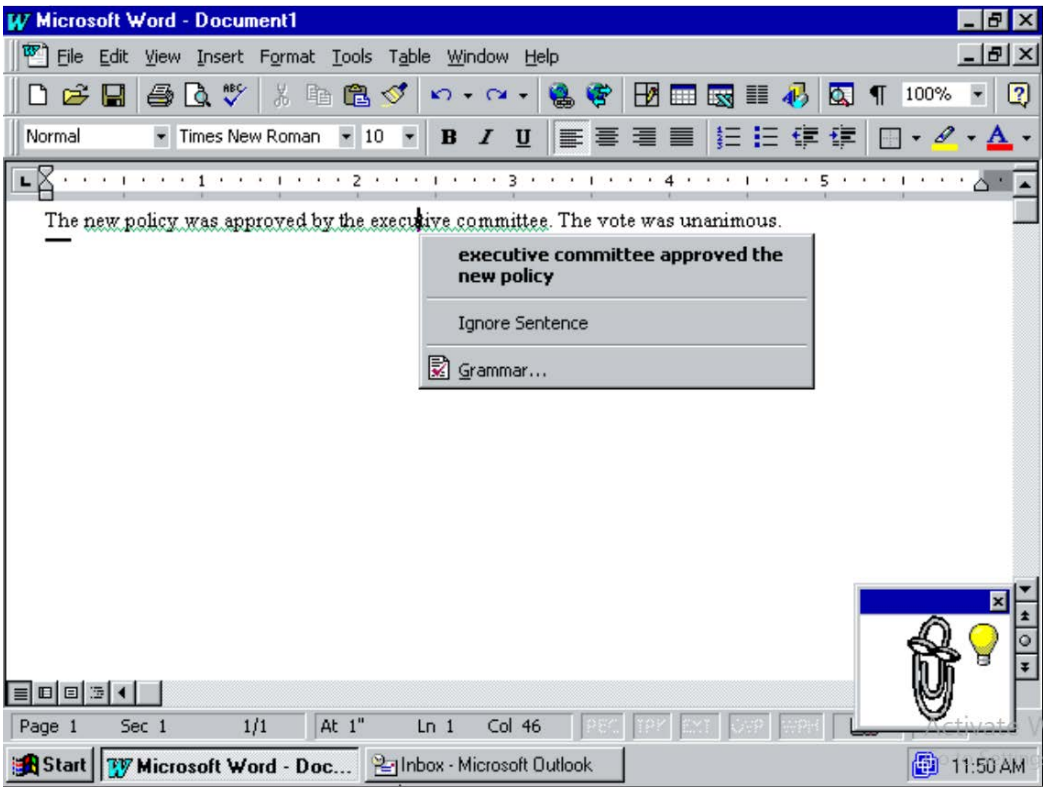
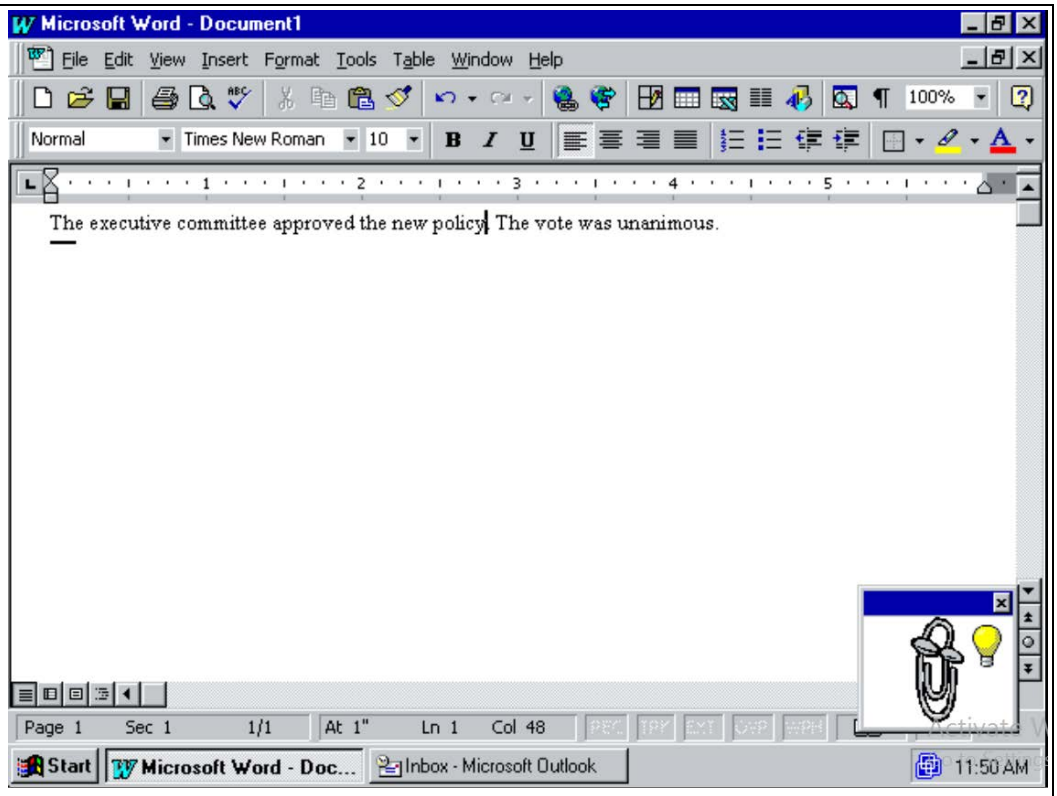
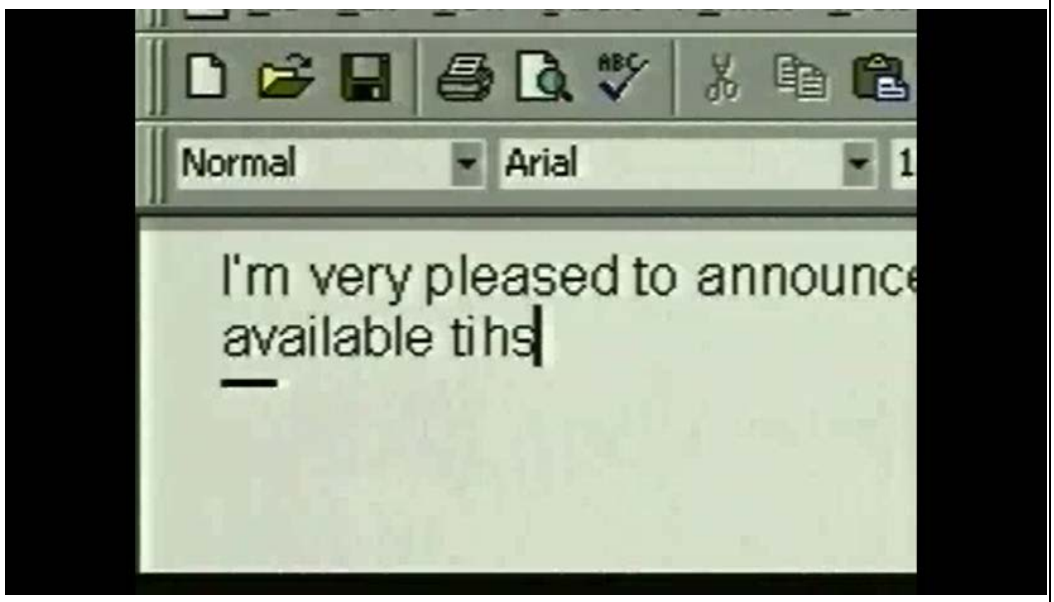
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:



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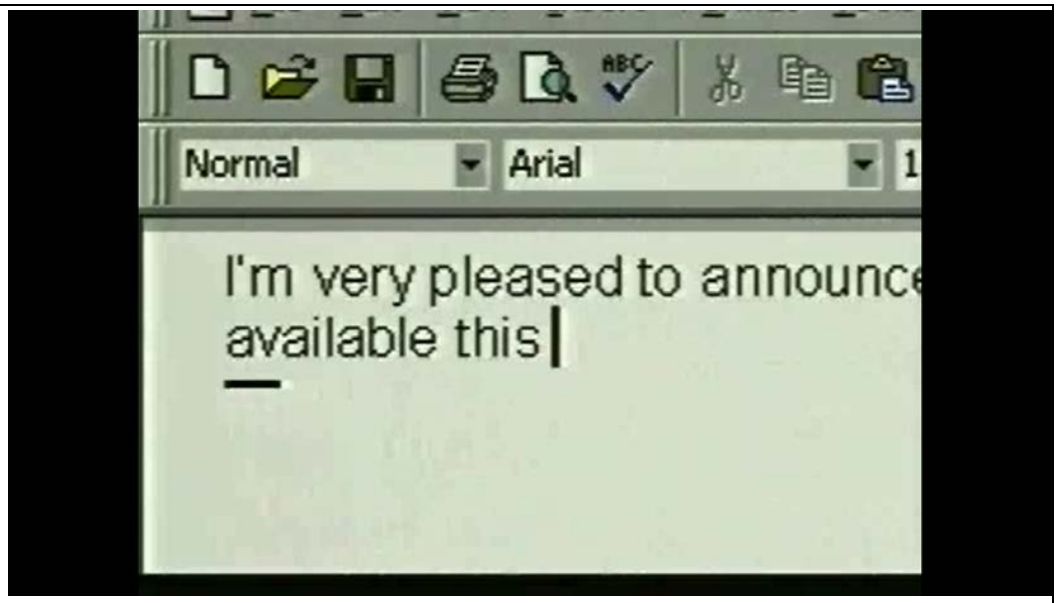
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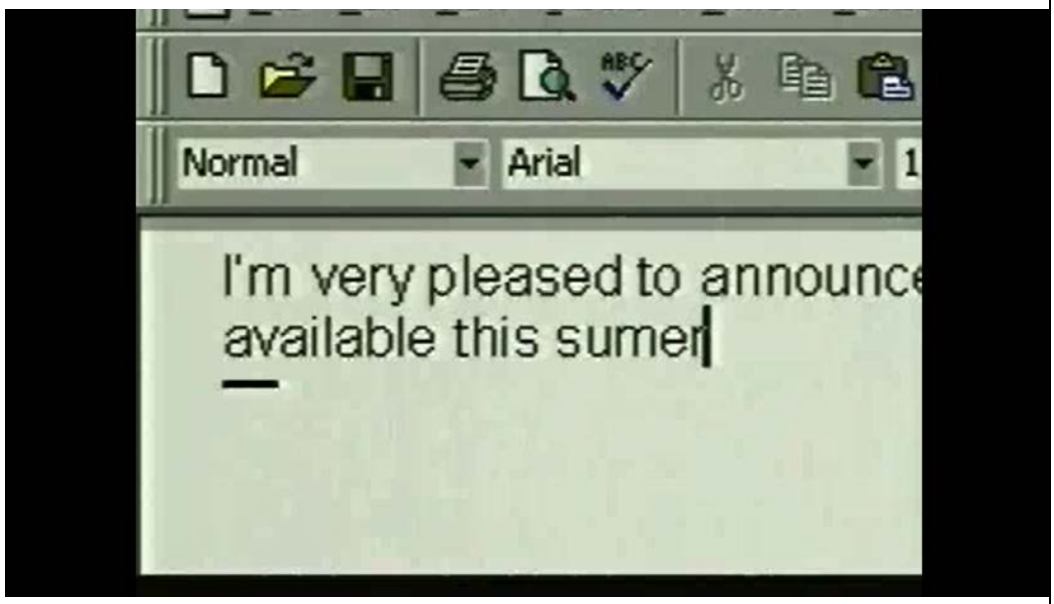
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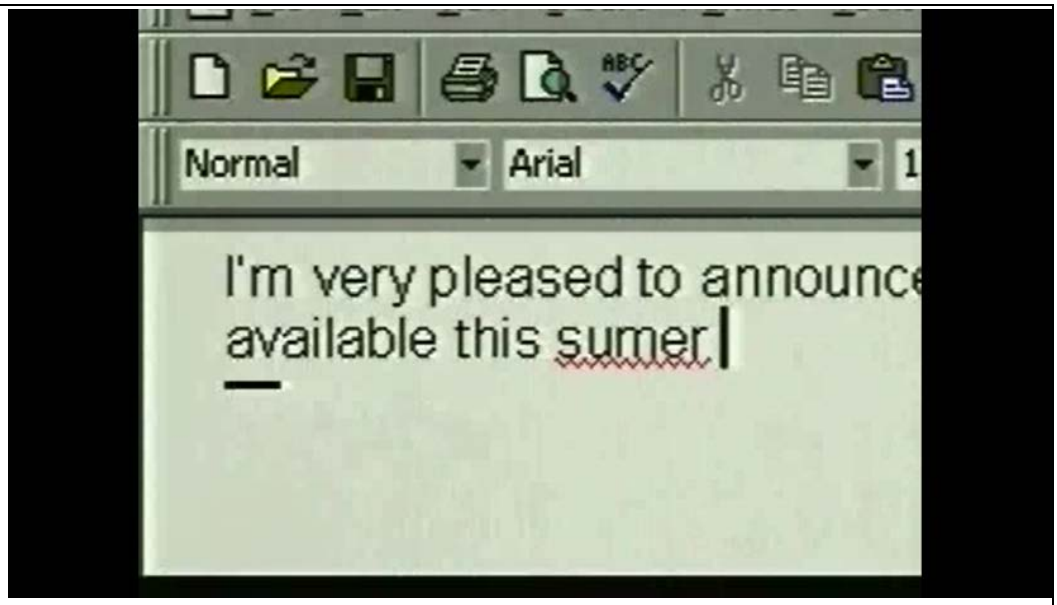
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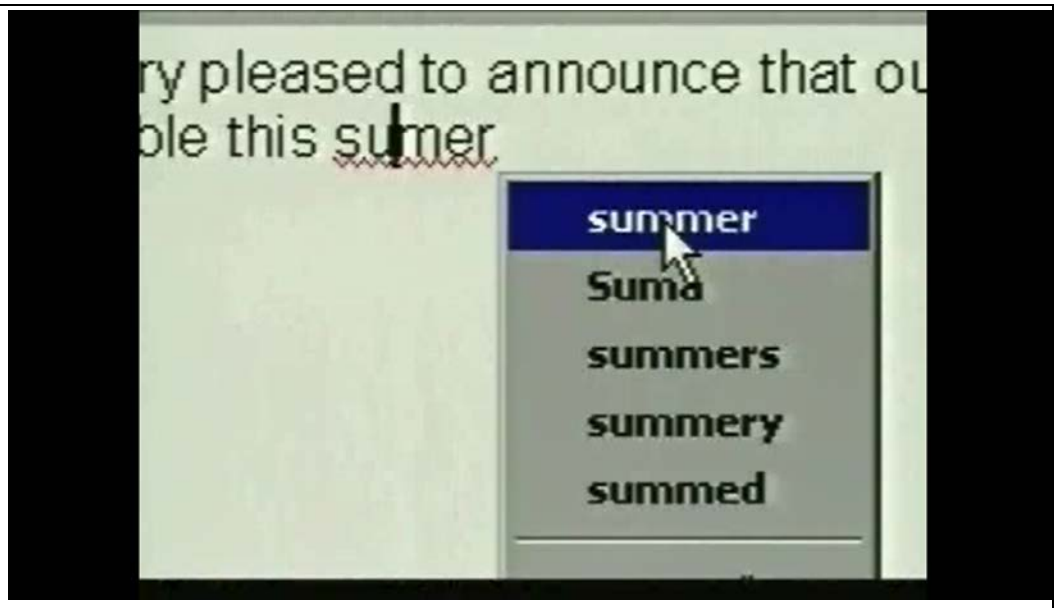
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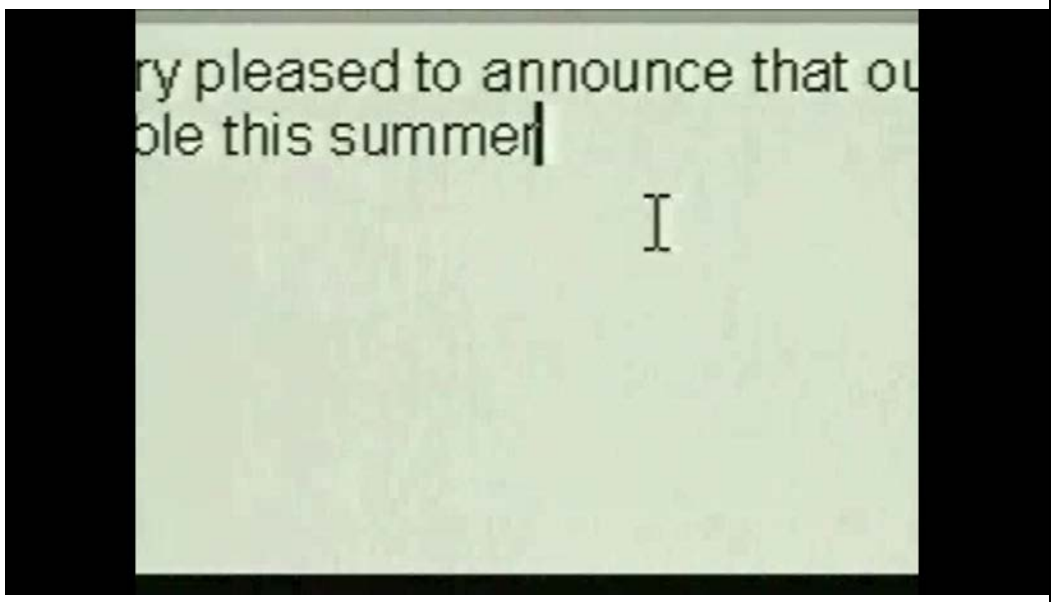
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Exhibit L

"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

"1. Position the insertion point in the document where you want to past a person's address.

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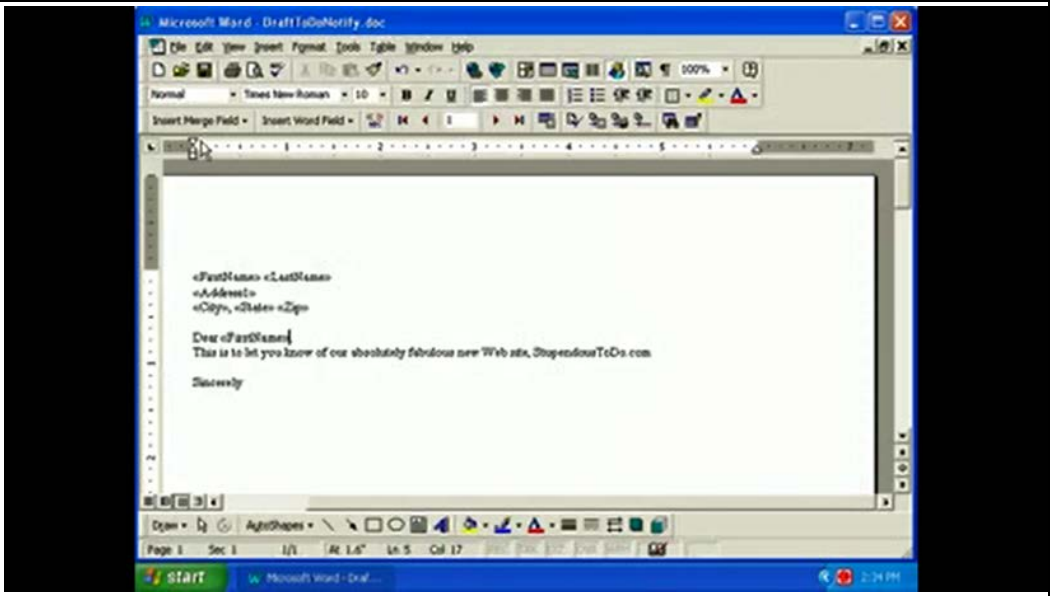
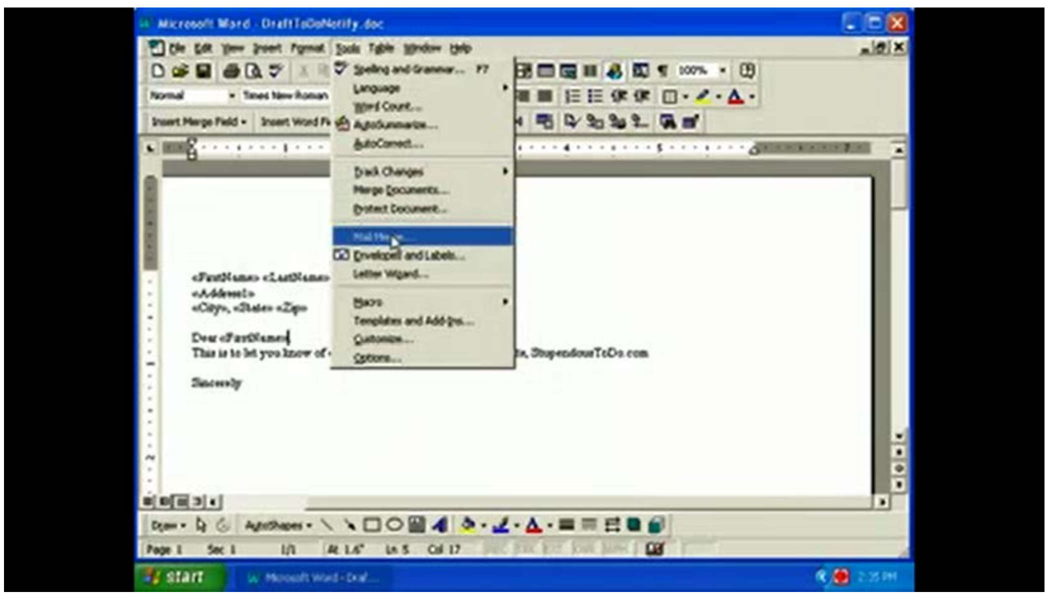
	2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. Word 97 Core Lesson 16 further discloses:

Exhibit L


Microsoft Word - DraftToDoNotify.doc
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear «FirstName»
This is to let you know of our absolutely fabulous new Web site, StupendousToDo.com
Sincerely
start


Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar...
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Envelopes and Labels...
Letter Wizard...
Macro
Templates and Add-Ins...
Customize...
Options...
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«Address1»
«City», «State» «Zip»
Dear «FirstName»
Sincerely
start

Exhibit L

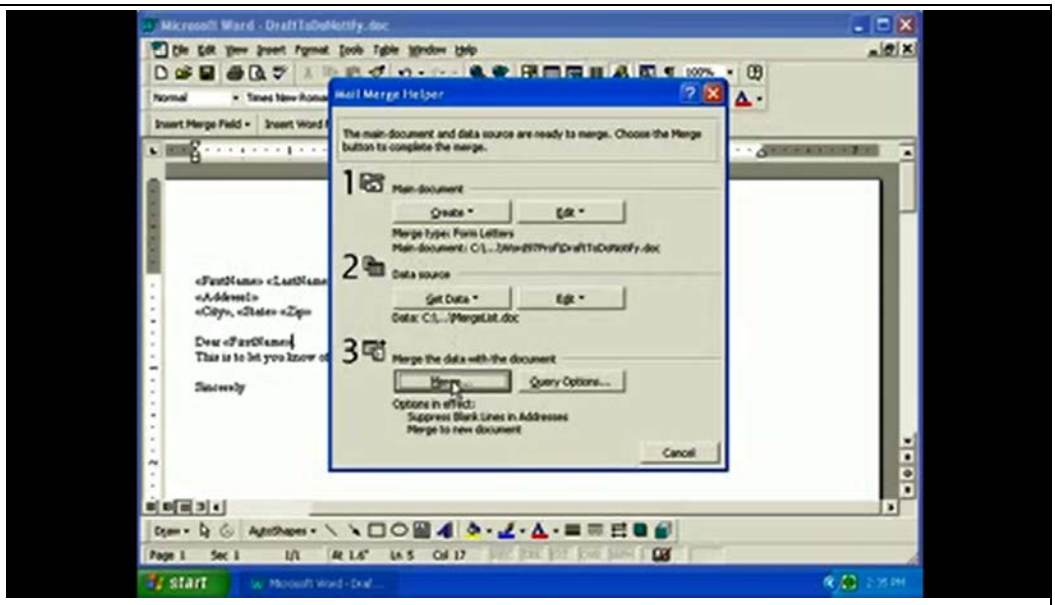
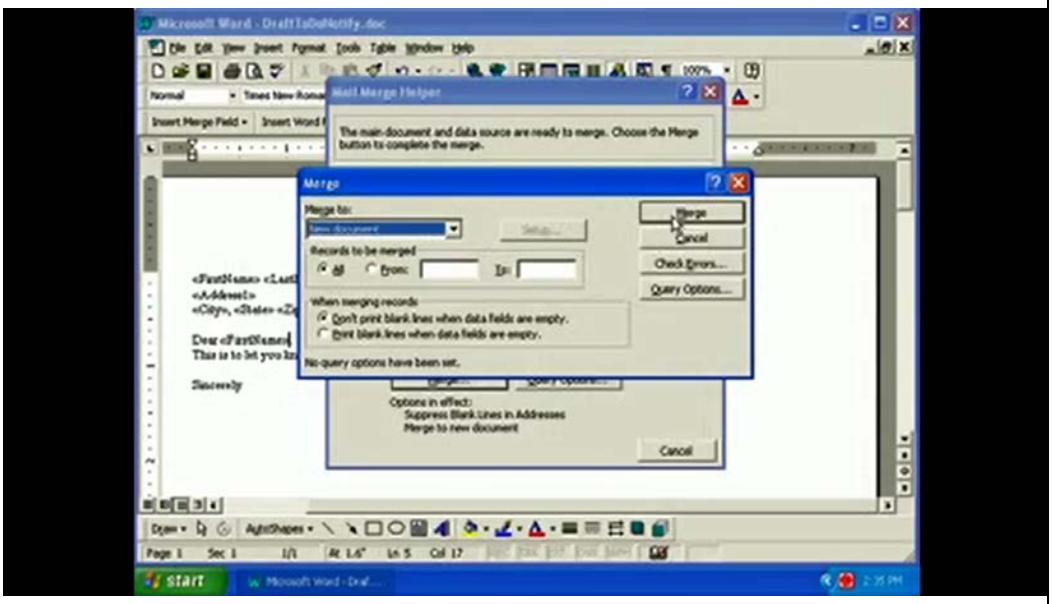
	 Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. 1 Main document Create Edit 2 Data source Get Data Edit 3 Merge the data with the document Merge... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel  Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. Merge Merge to: Records to be merged All From: To: When merging records Don't print blank lines when data fields are empty. Print blank lines when data fields are empty. No query options have been set. Merge Cancel Check Errors... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel

Exhibit L

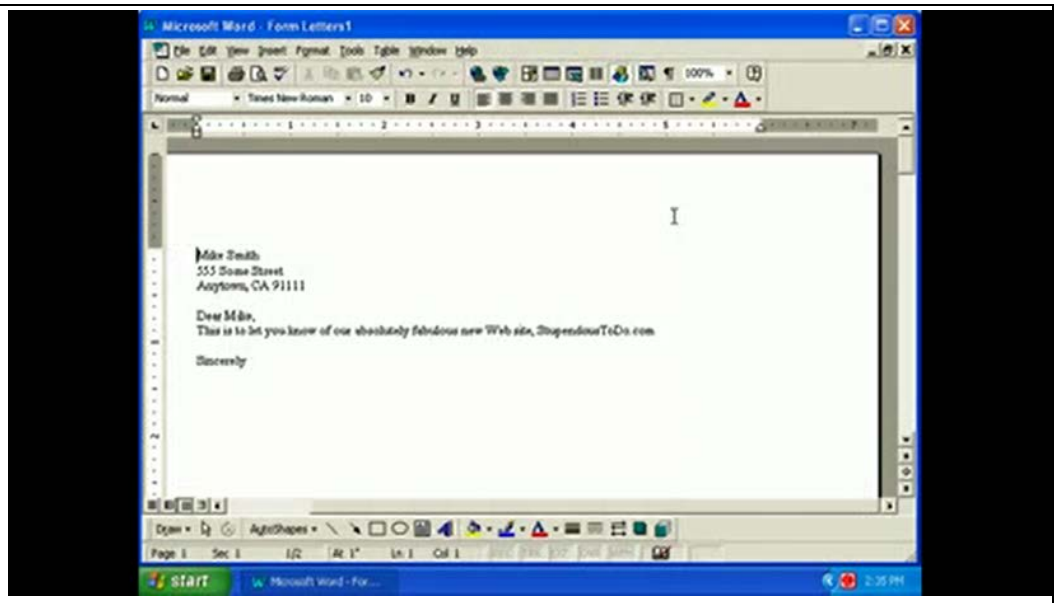
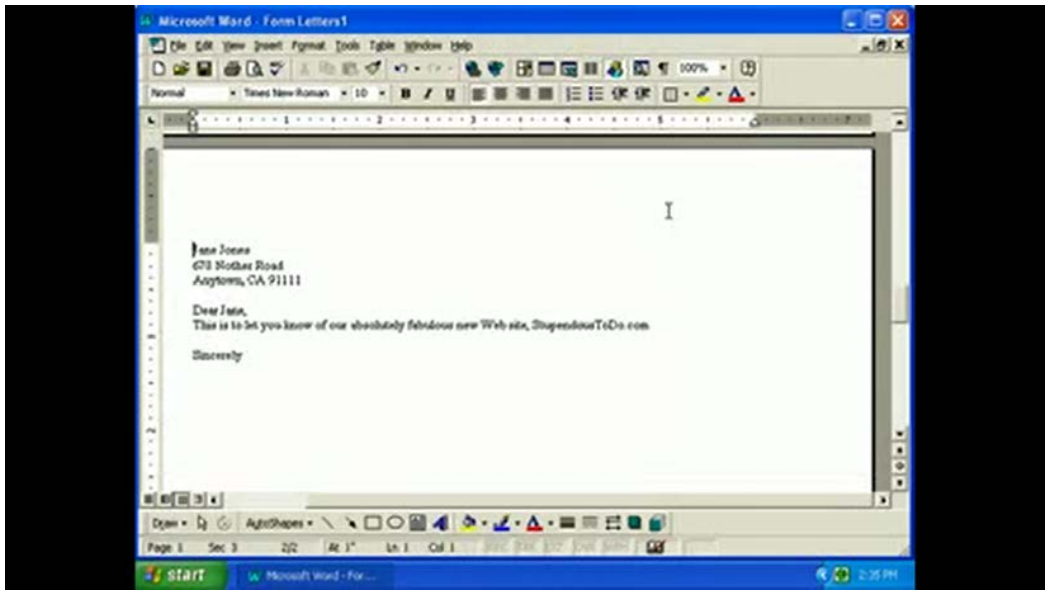
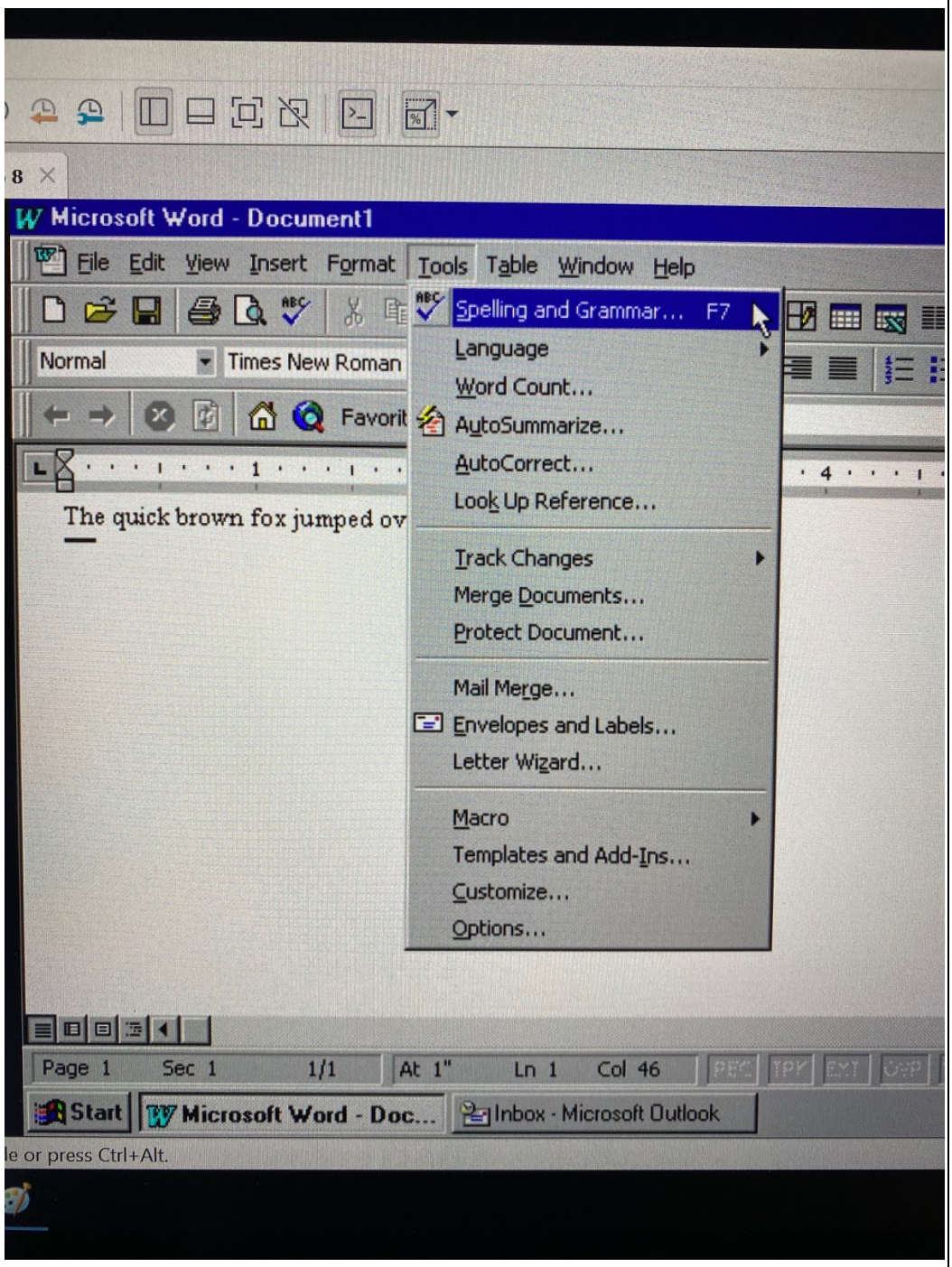
	  For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21. See also '843 patent at 1:17-42; My Report at paragraphs 187-189.
Claim 19	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.	Word 97 discloses claim 1. *See* claim 1. Word 97 further discloses this element. For example, the following screenshots highlight aspects of Word 97 functionality that discloses wherein performing the action includes causing insertion of at least part of the second information into the document by the first

Exhibit L

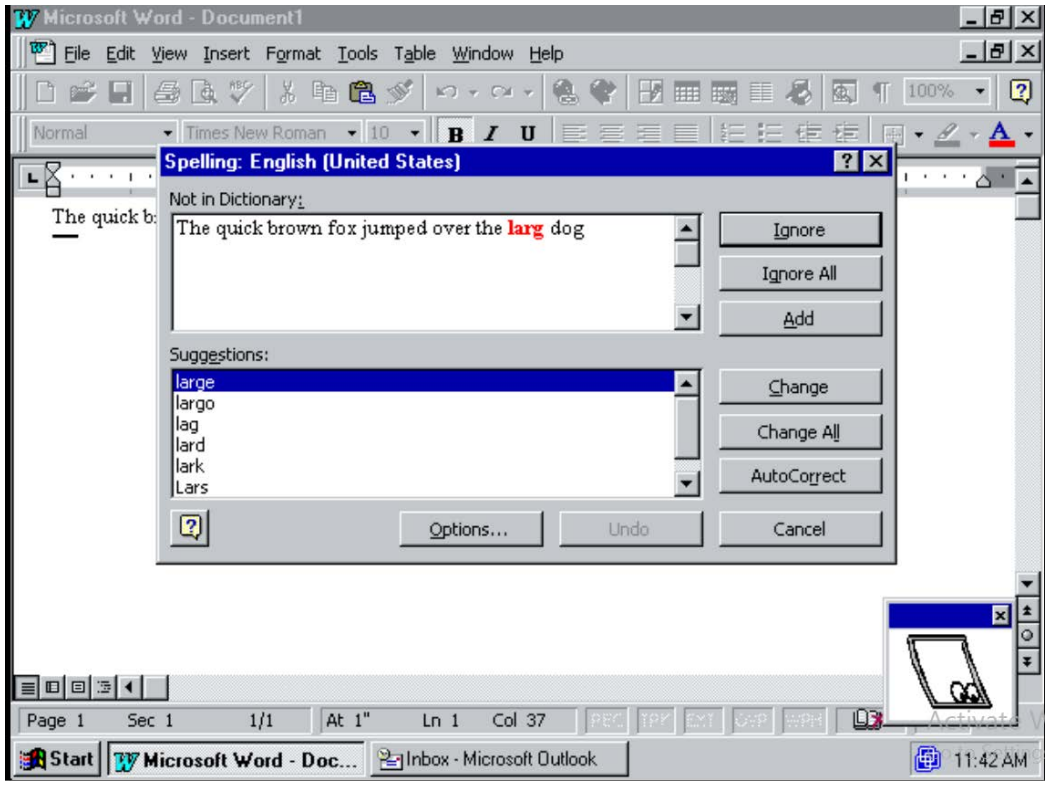
	computer program. Specifically, Word 97 discloses:



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L

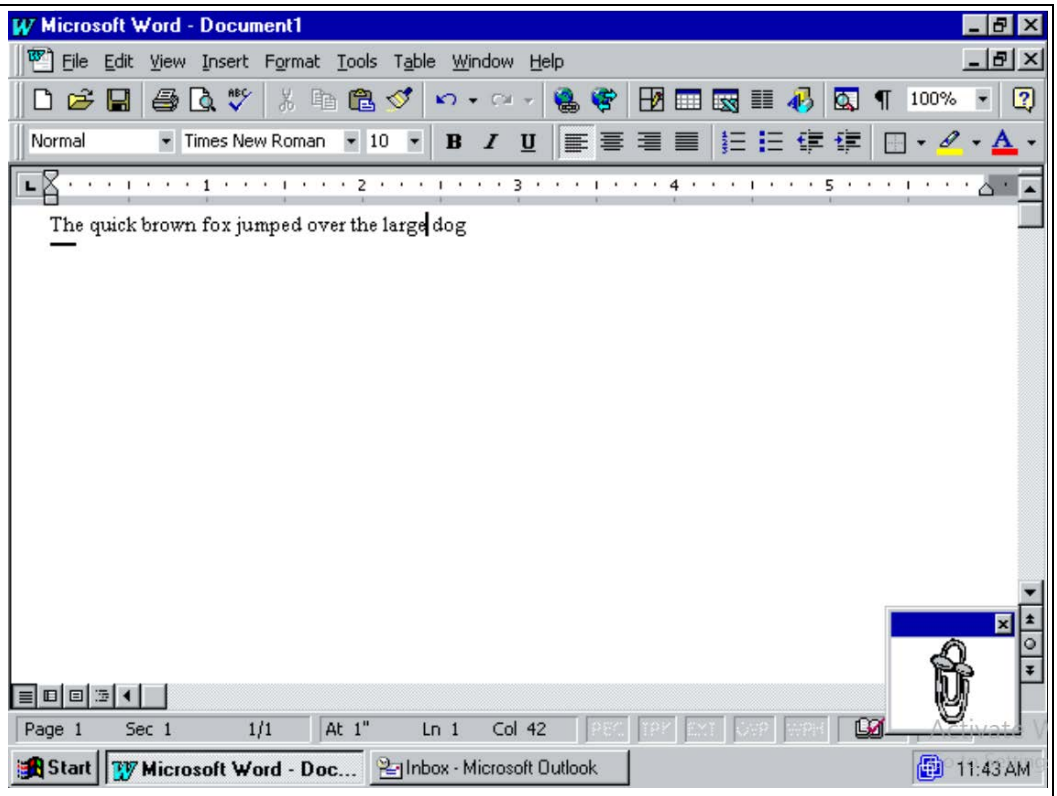
	 Word 97. Word 97 further discloses:

Exhibit L

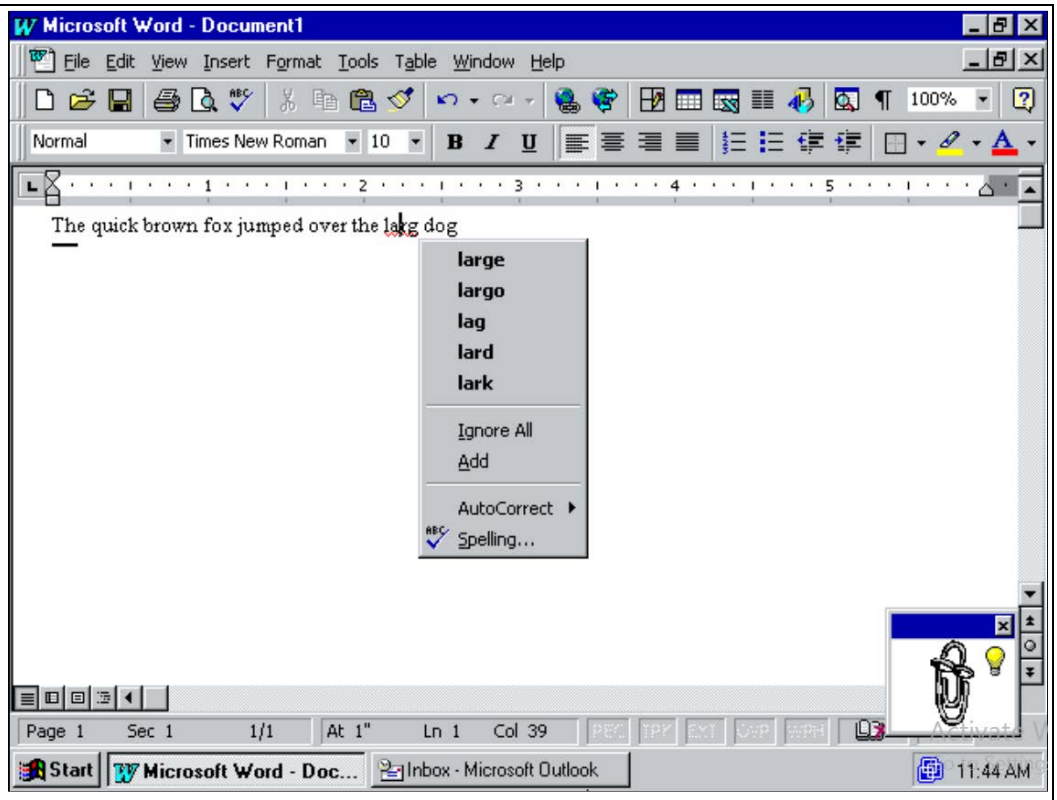
	 Word 97. Word 97 further discloses:

Exhibit L

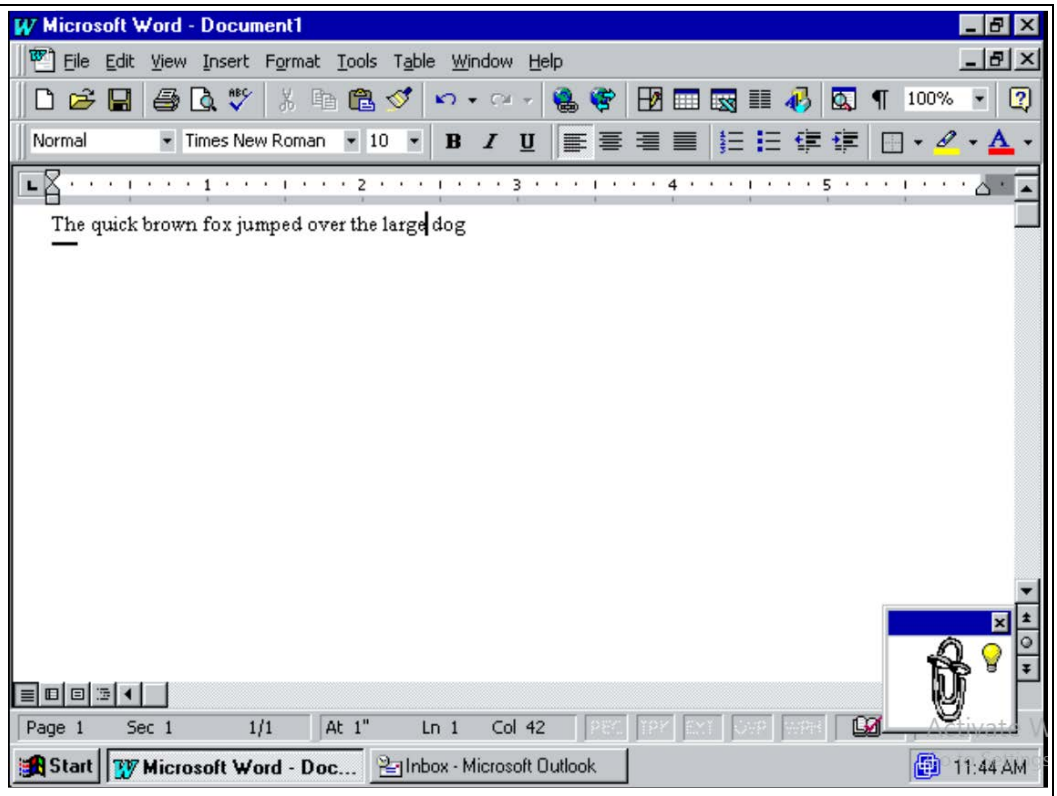
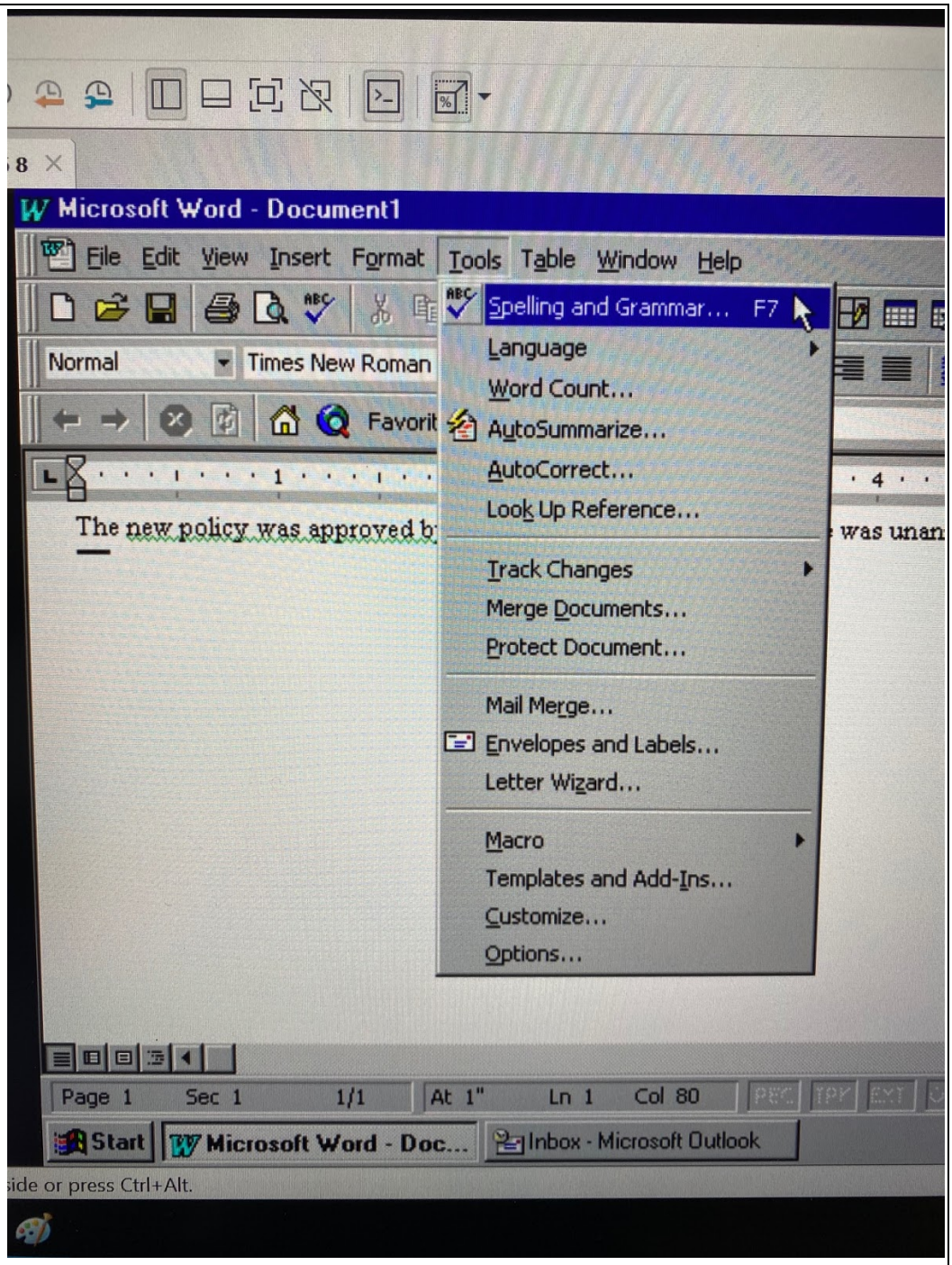
	 Word 97. Word 97 further discloses:

Exhibit L



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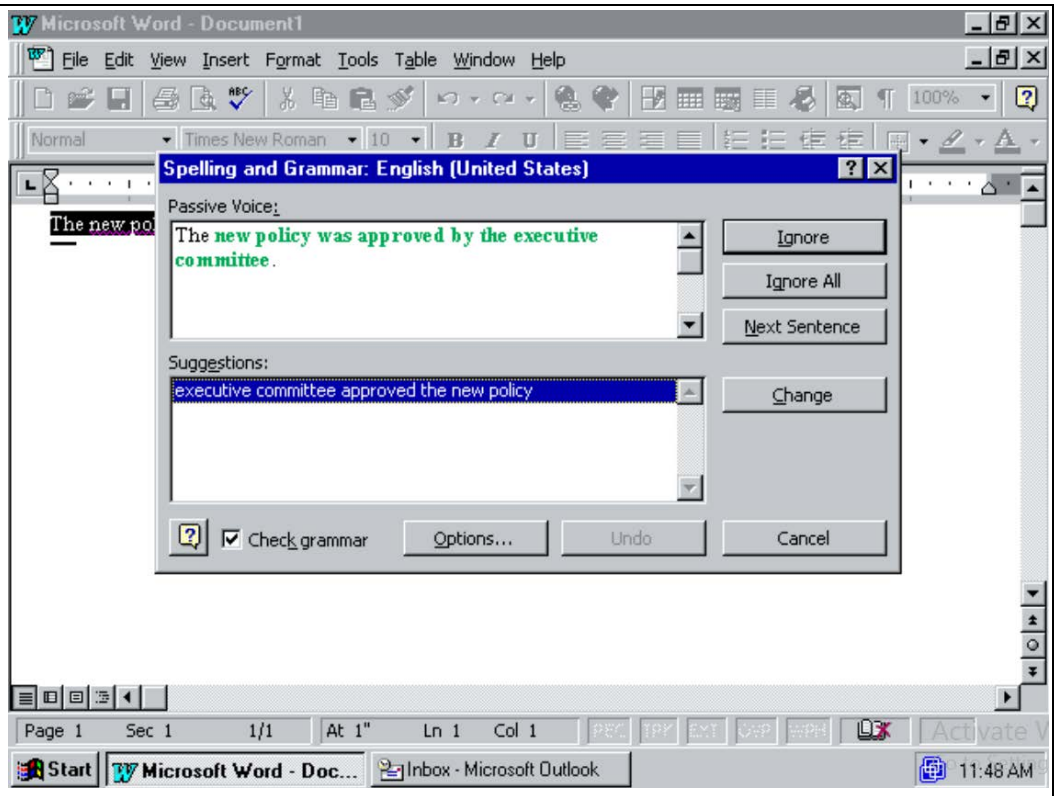
Word 97 further discloses:

Exhibit L



Word 97.

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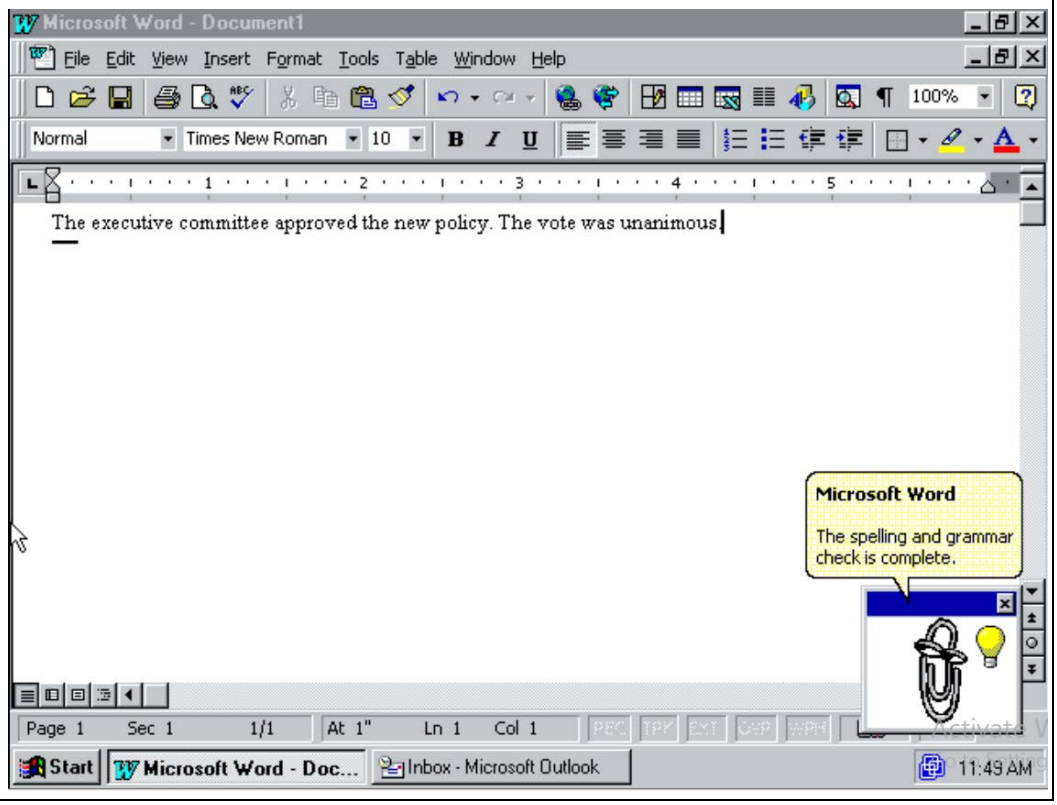


Exhibit L

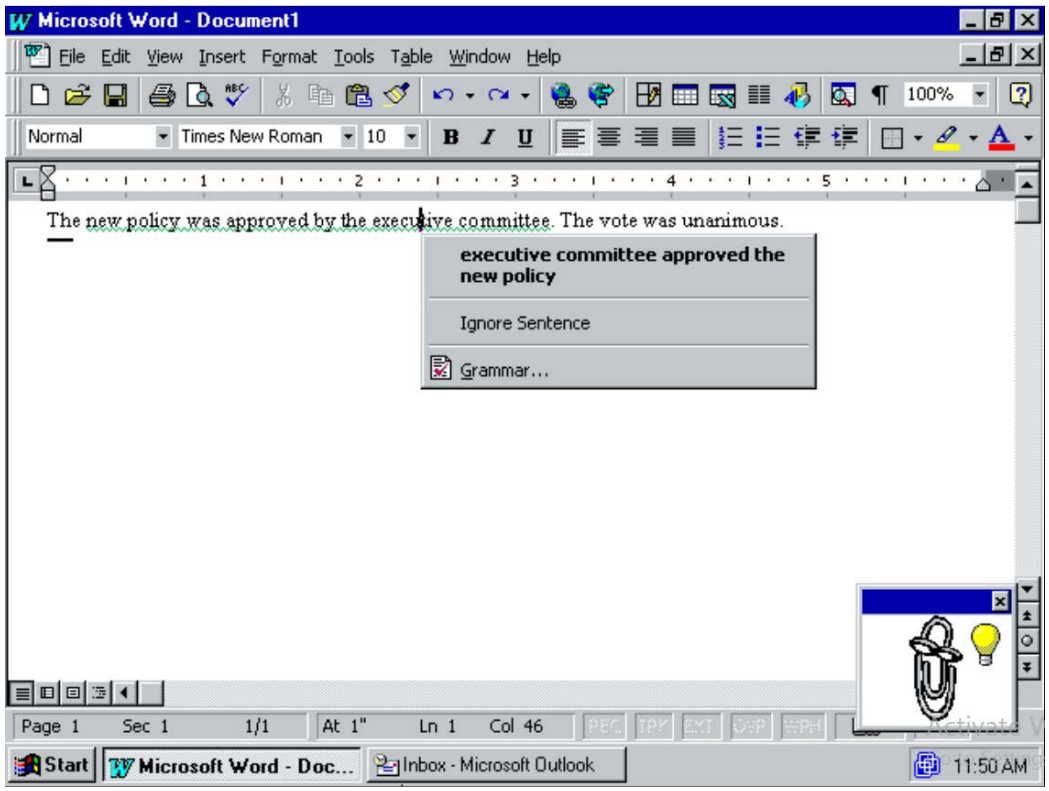
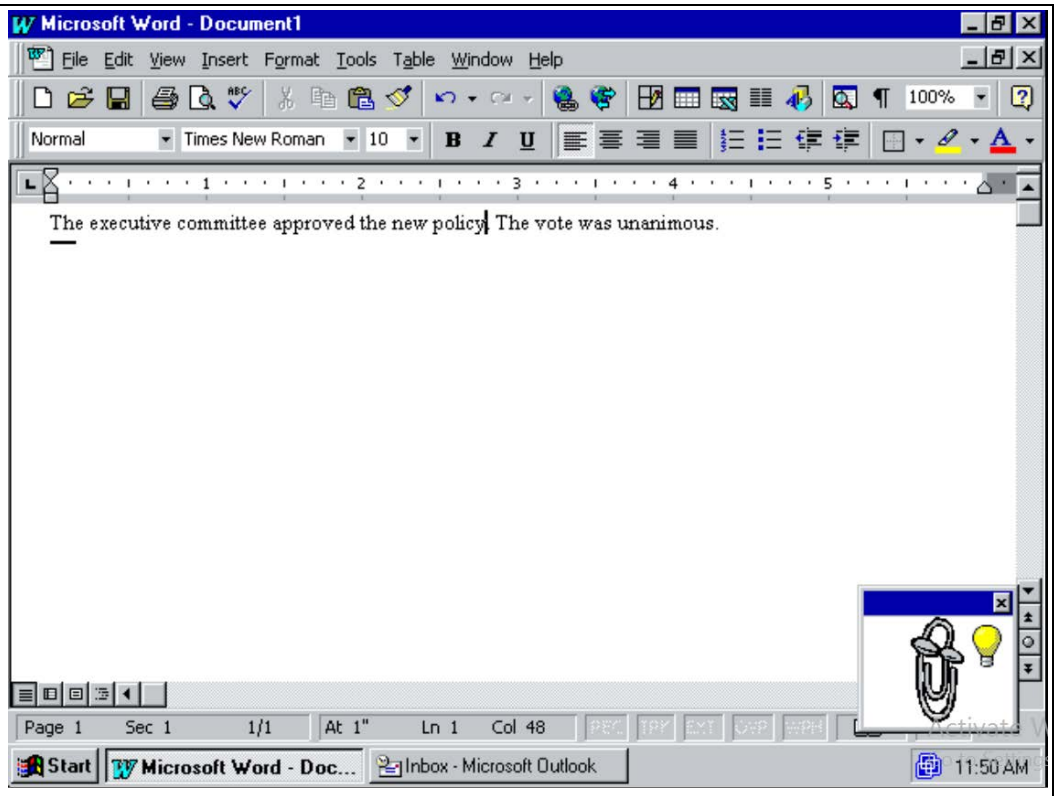
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:

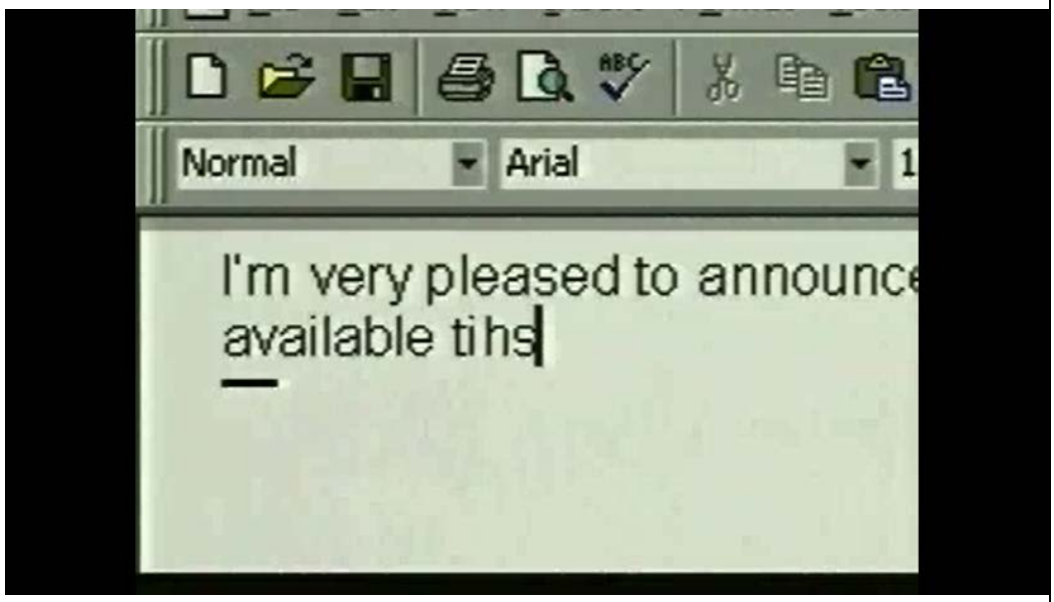
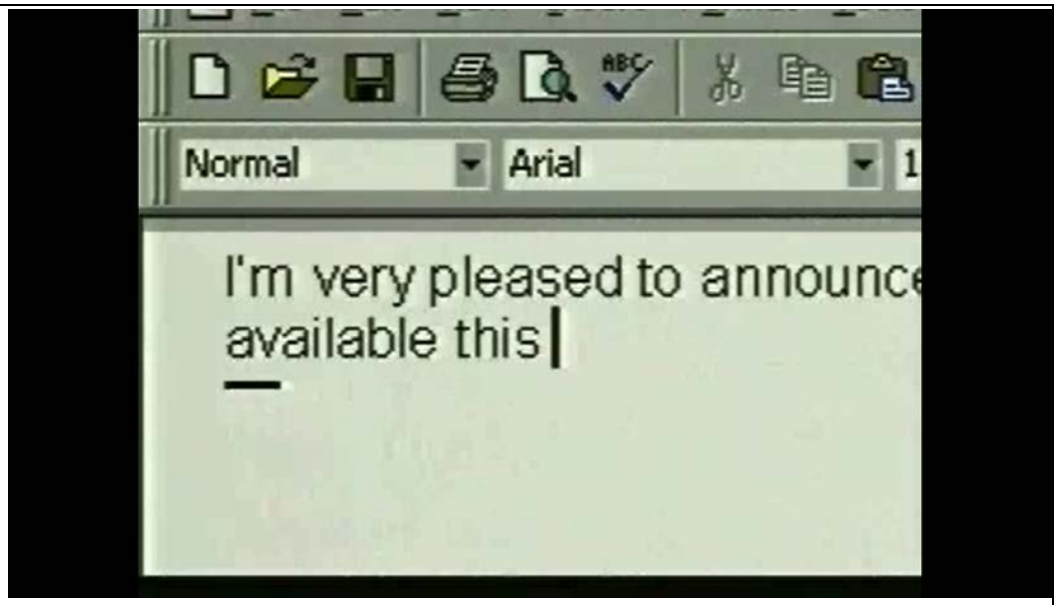


Exhibit L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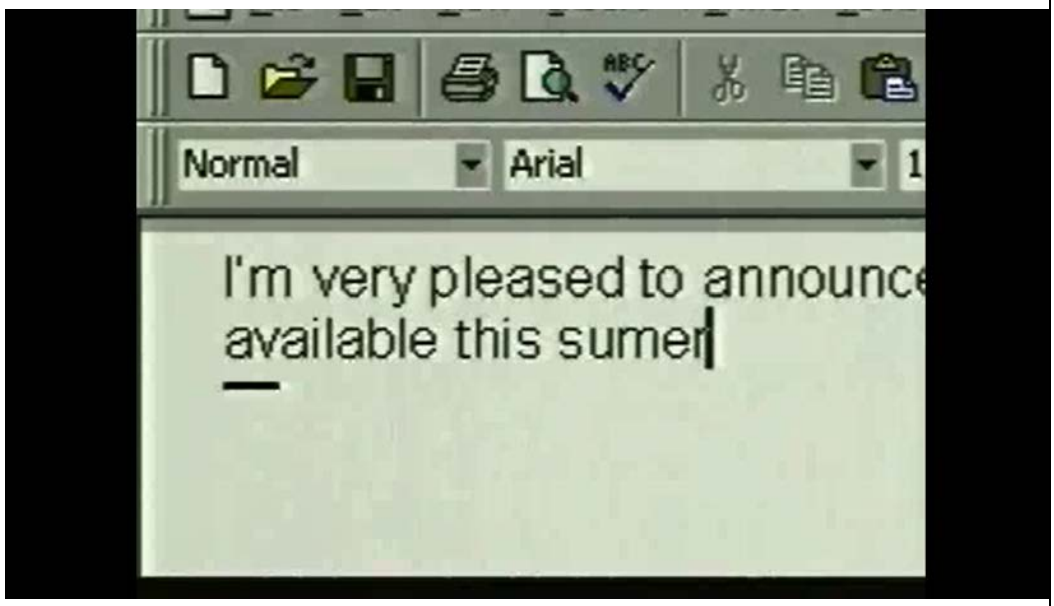
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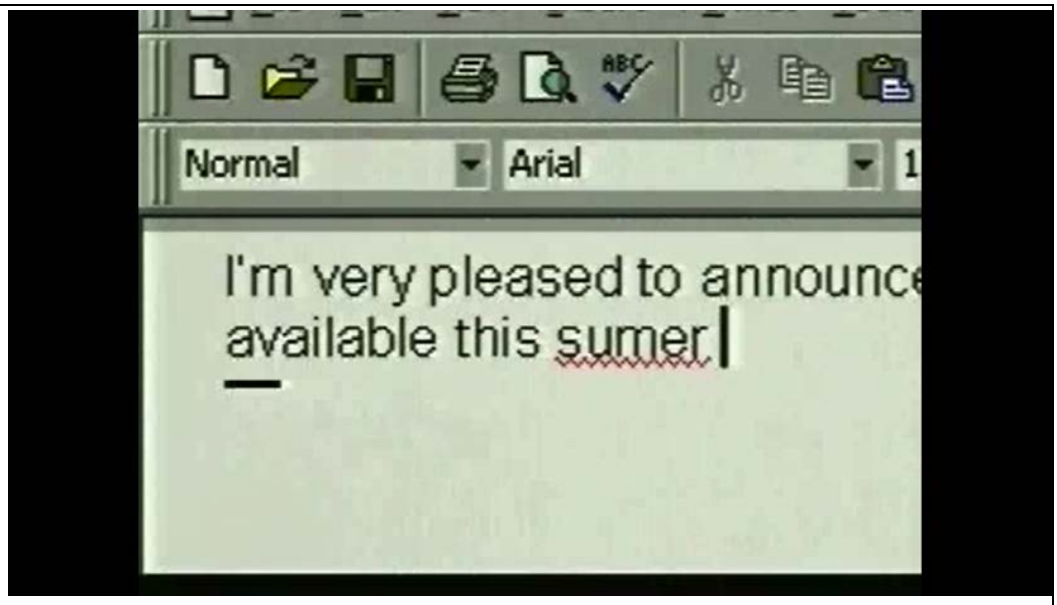
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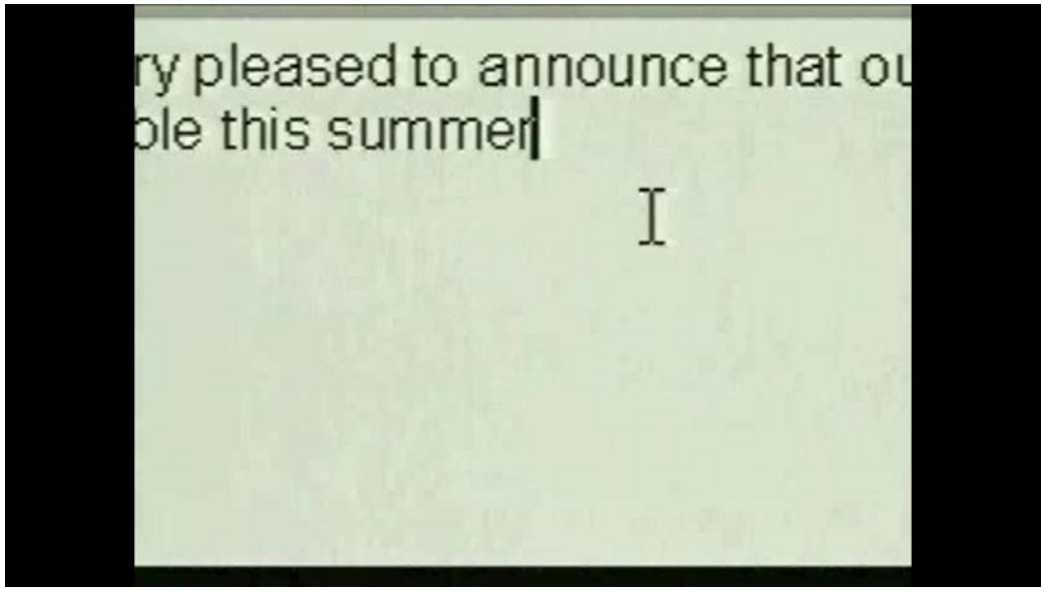
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Exhibit L

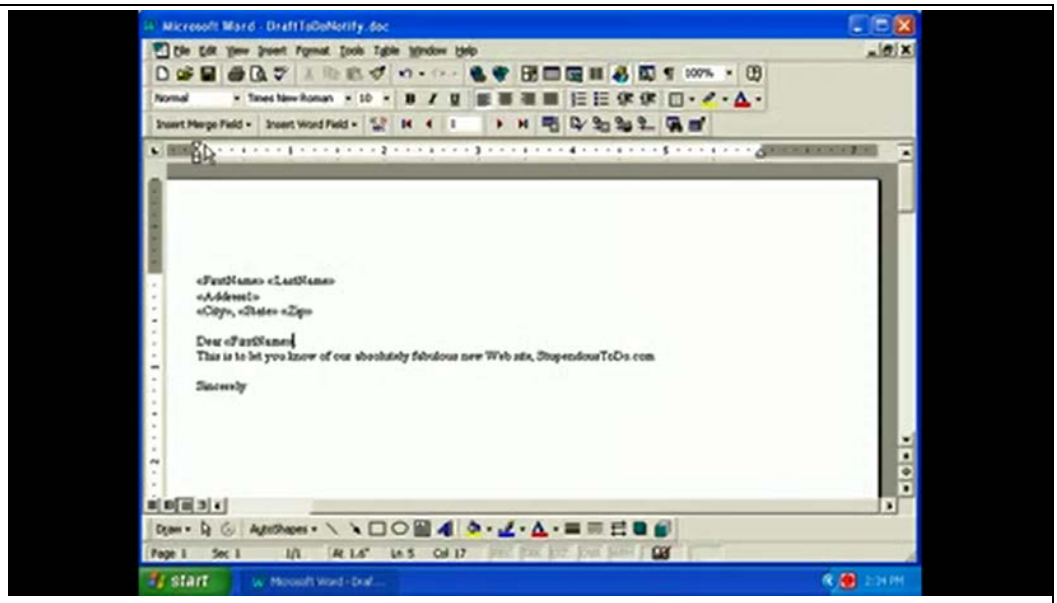
"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

"1. Position the insertion point in the document where you want to past a person's address.

Exhibit L

	2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. Word 97 Core Lesson 16 further discloses:

Exhibit L


Microsoft Word - DraftToDoNotify.doc
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear «FirstName»
Sincerely
start

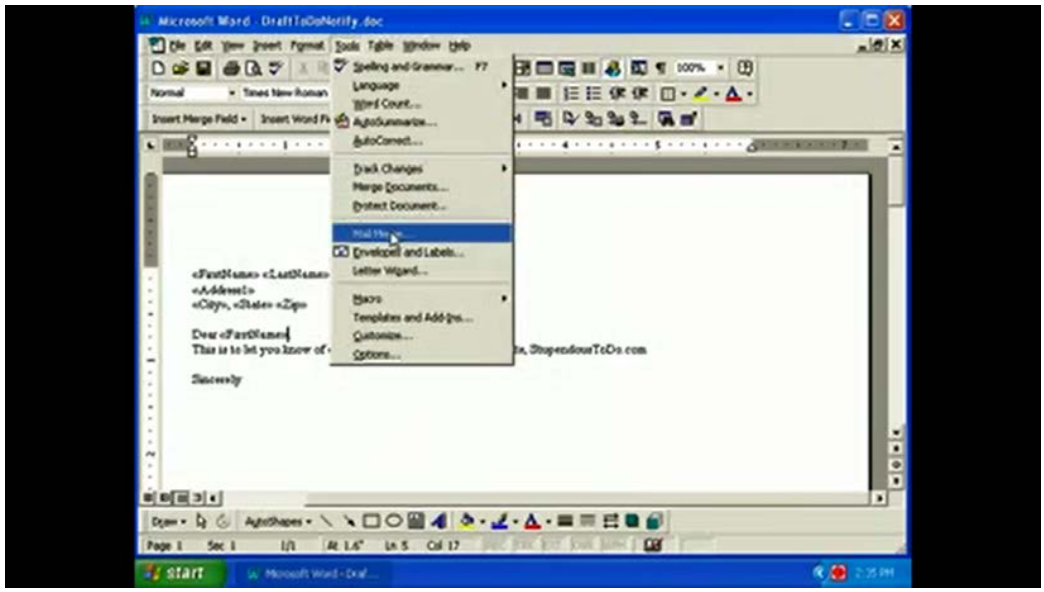
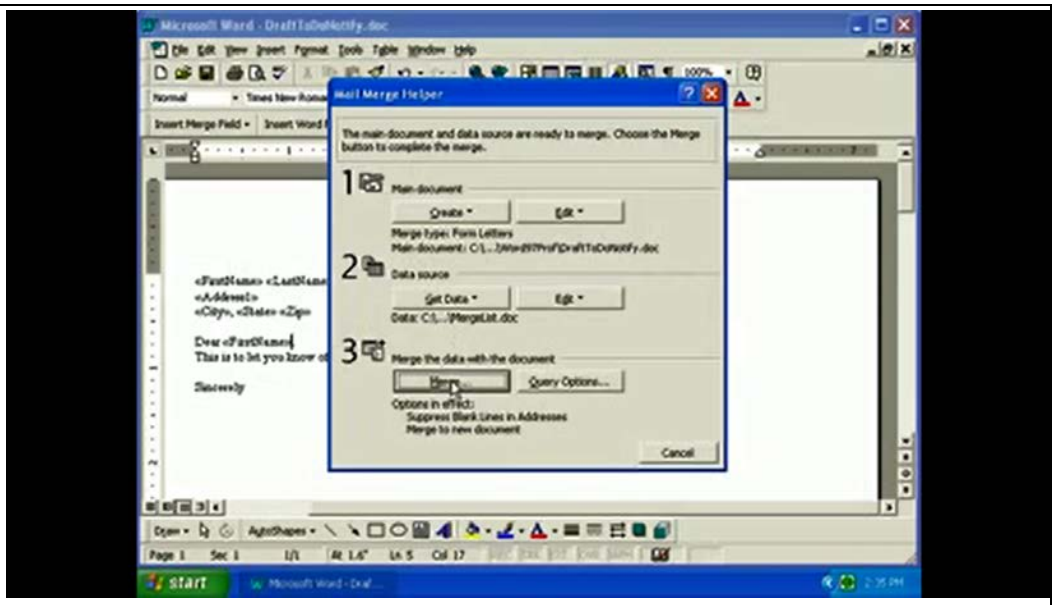

Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar... F7
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Envelopes and Labels...
Letter Wizard...
Macros
Templates and Add-Ins...
Customize...
Options...
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear «FirstName»
Sincerely
start

Exhibit L


Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

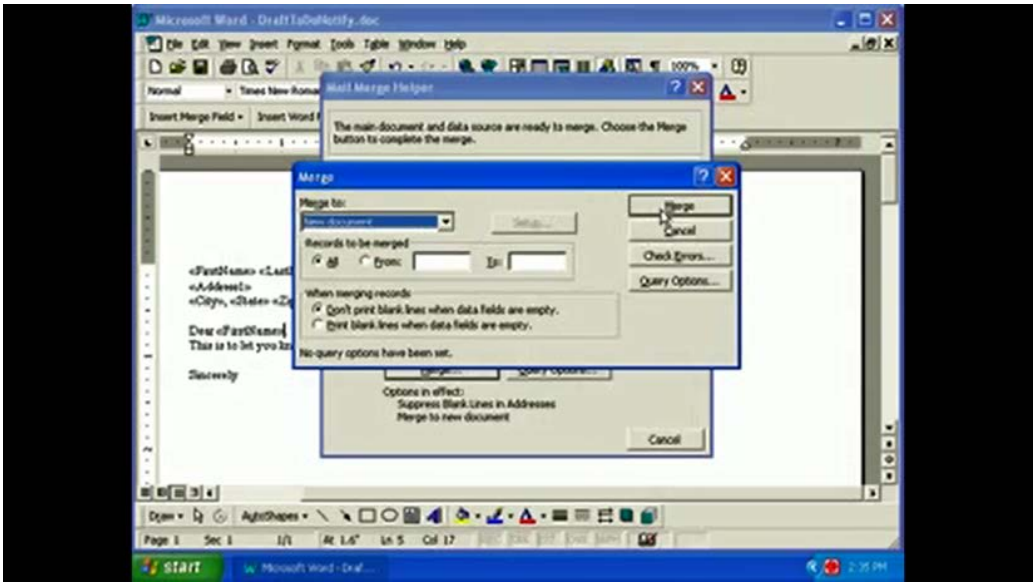

Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
Merge
Merge to:
Records to be merged
When merging records
Don't print blank lines when data fields are empty.
Print blank lines when data fields are empty.
No query options have been set.
Merge...
Cancel
Check Errors...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

Exhibit L

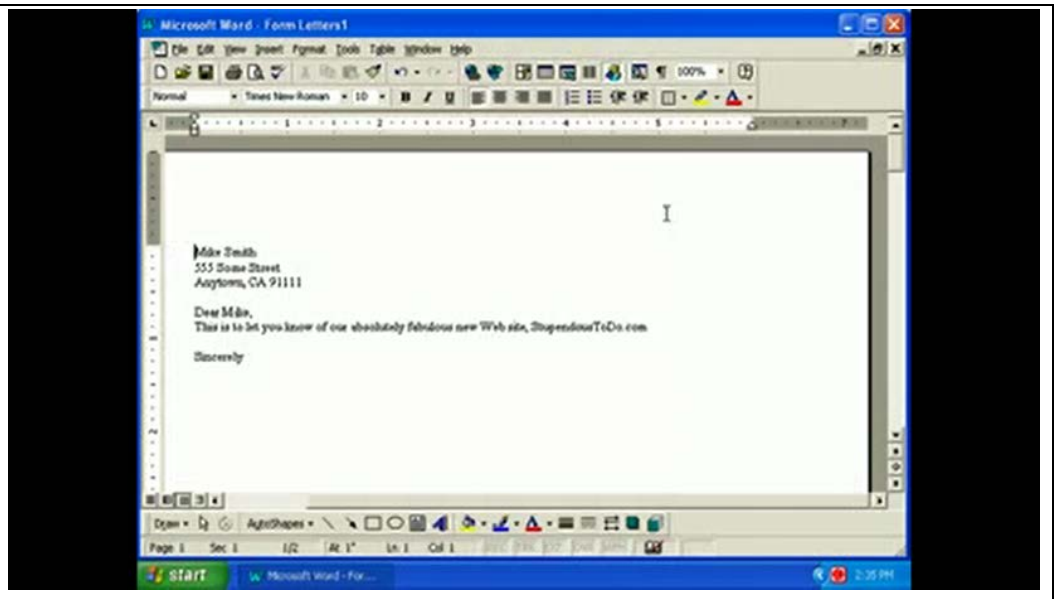
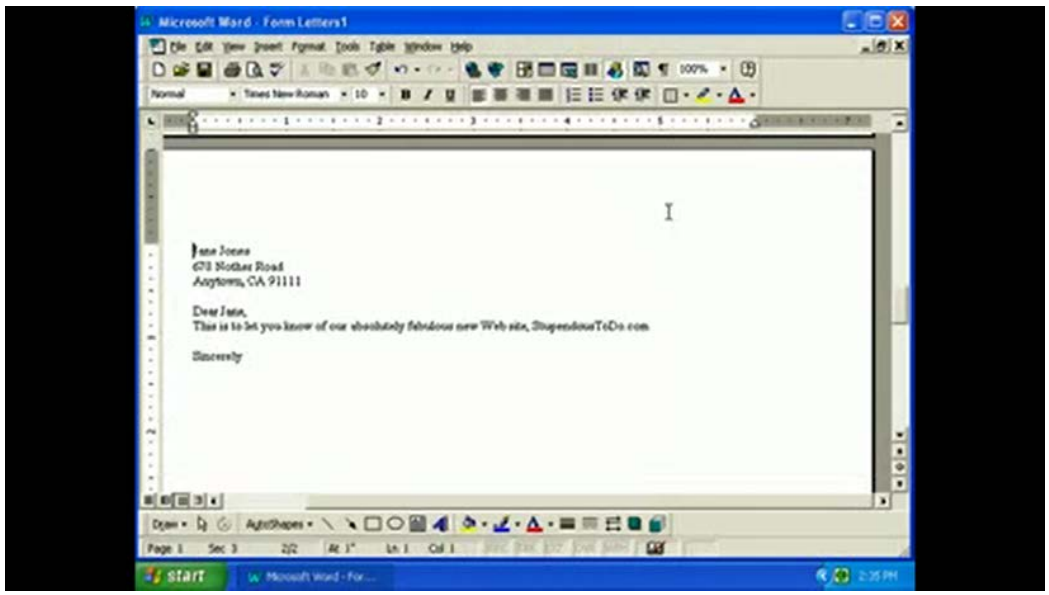
	  For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21. See also '843 patent at 1:17-42; My Report at paragraphs 187-189.
Claim 23	
At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data related to the contents of a document using a first	Word 97 discloses this element. See claim 1 above. For example, the following screenshots highlight aspects of Word 97 functionality that disclose the preamble. Specifically, Word 97 discloses:

Exhibit L

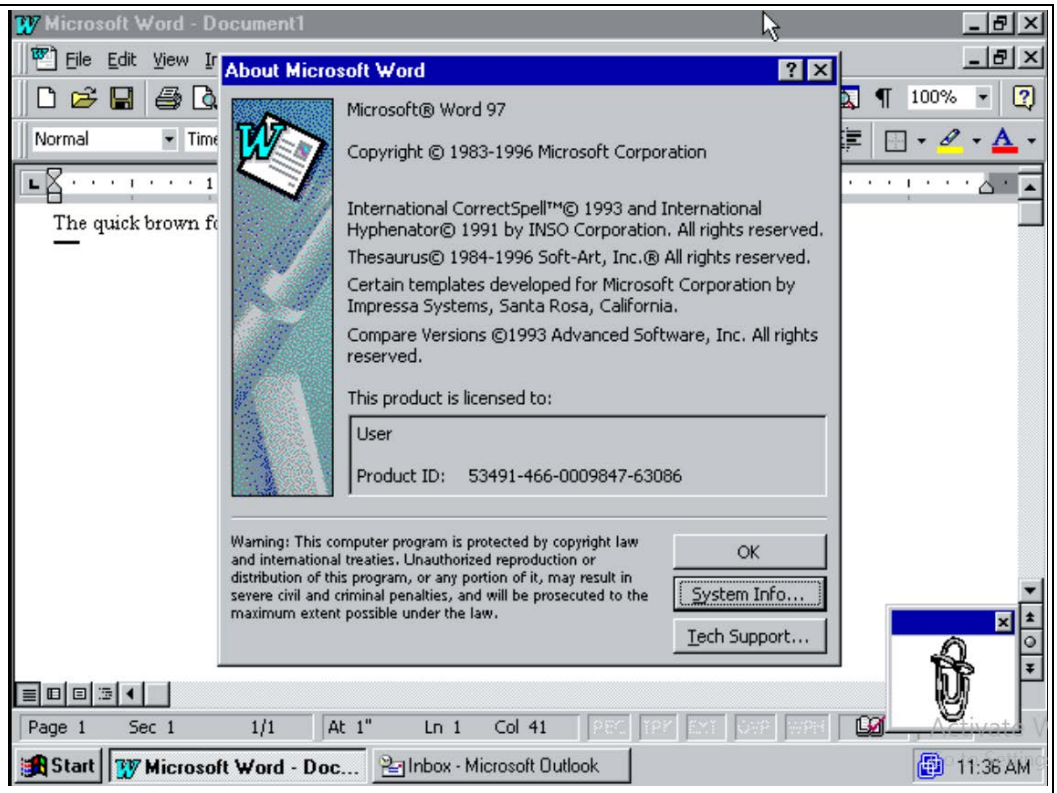
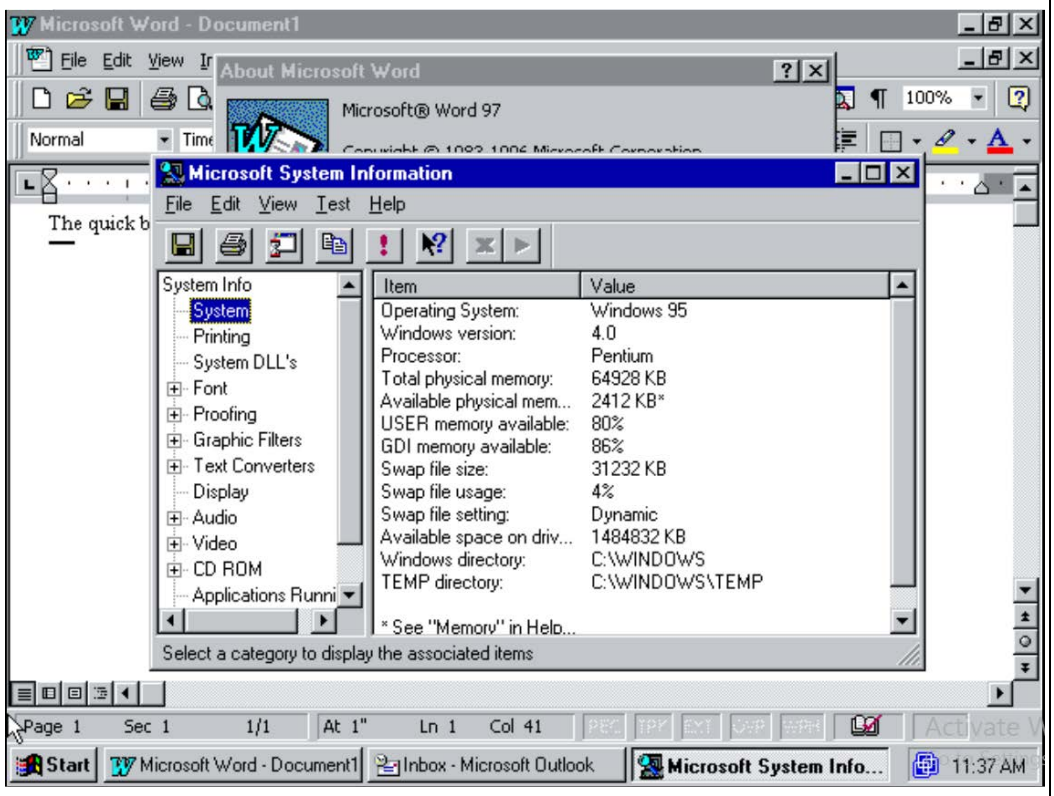
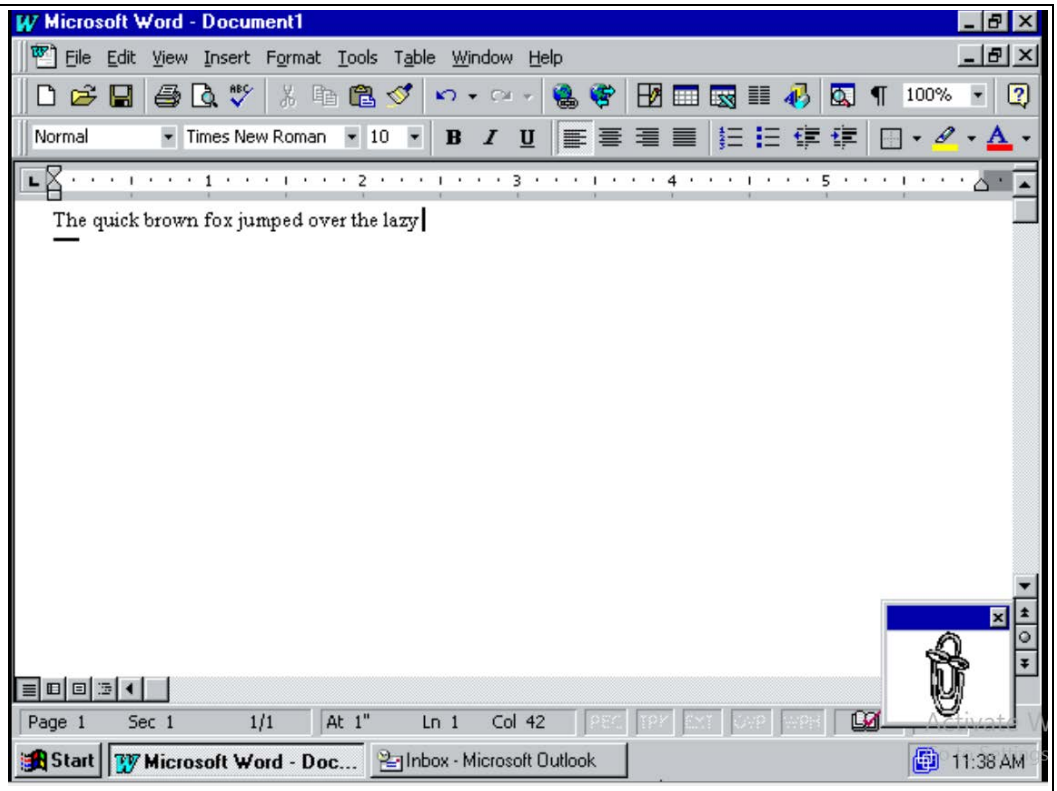
computer program running on a computer, the processes comprising:	 

Exhibit L



Word 97.

Word 97 further discloses:

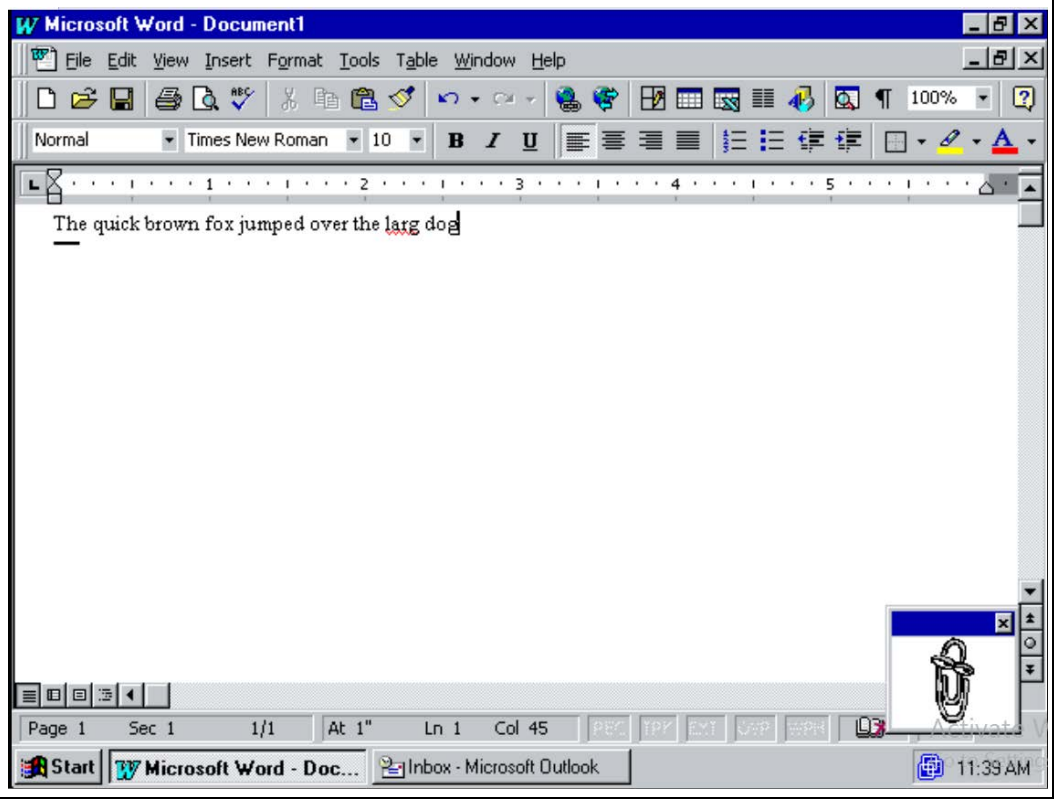


Exhibit L

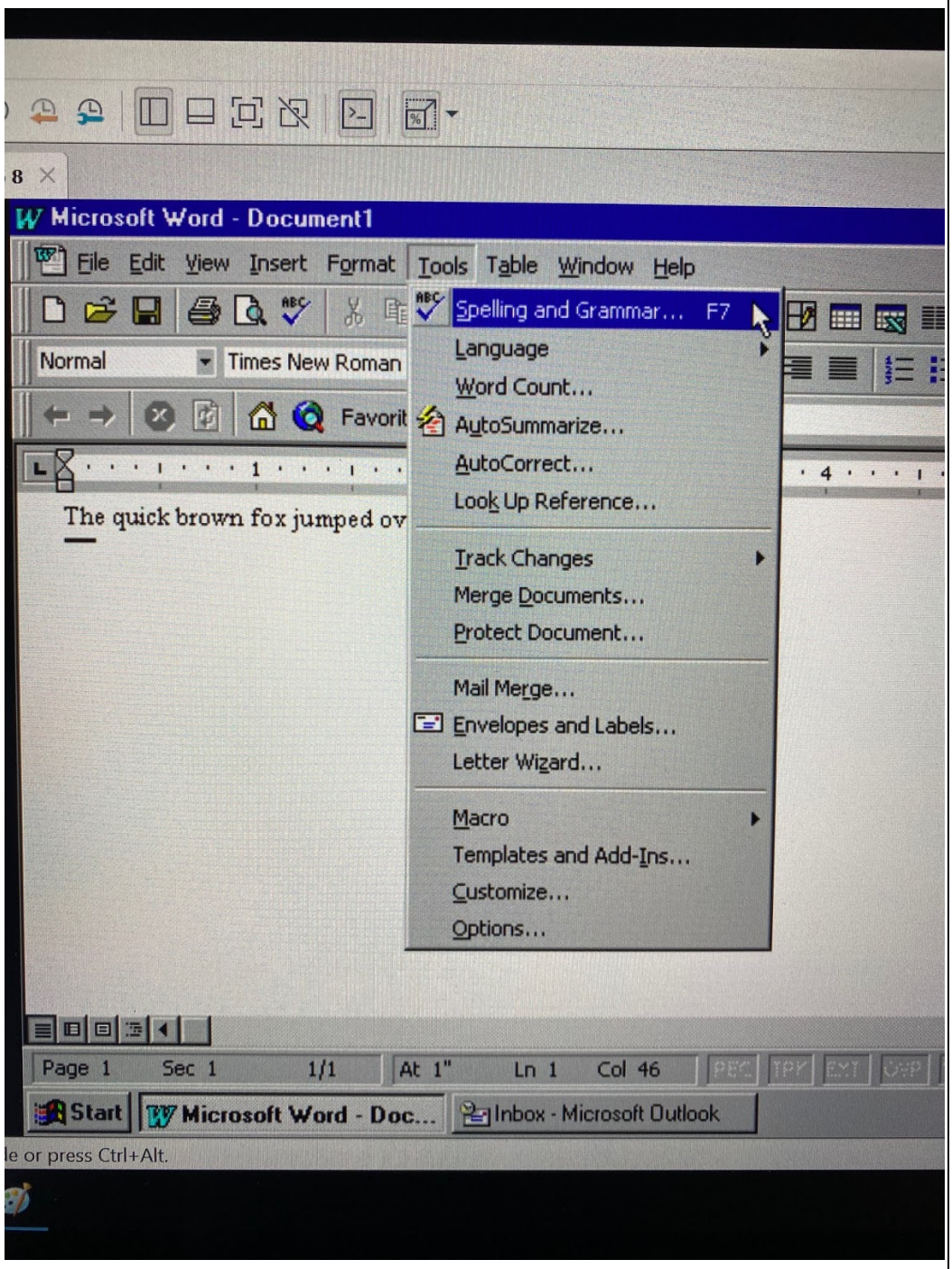
	Word 97. Word 97 further discloses:  Word 97.

Exhibit L

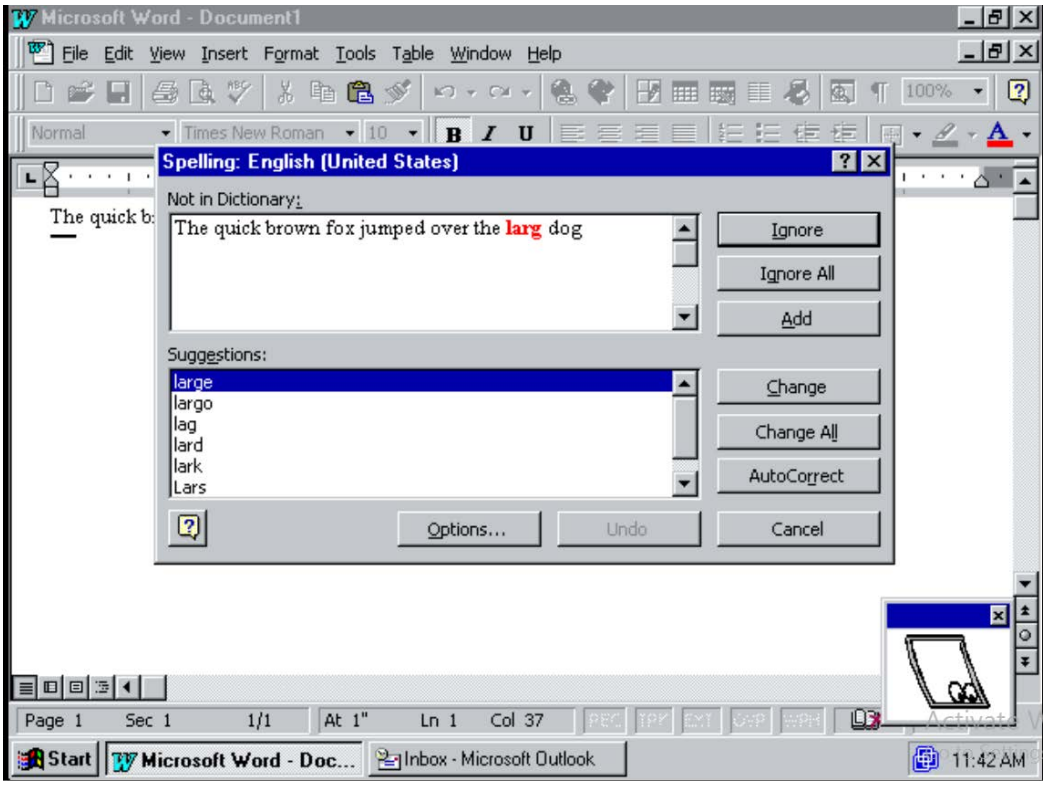
	Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L

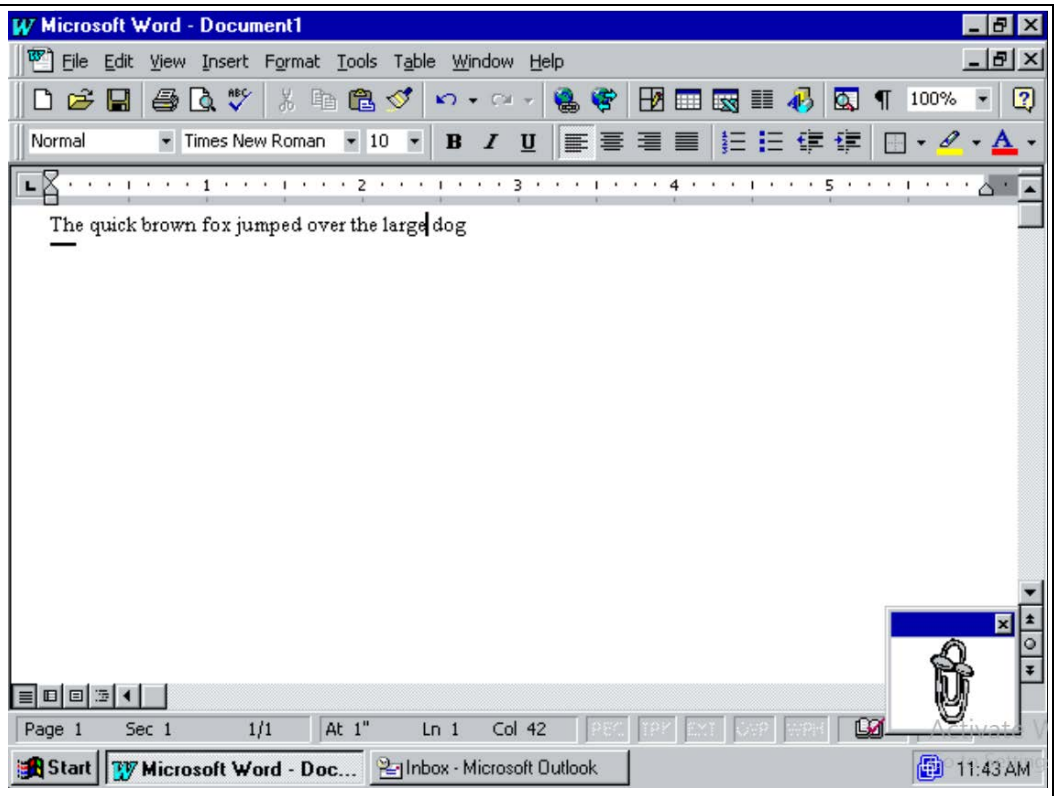
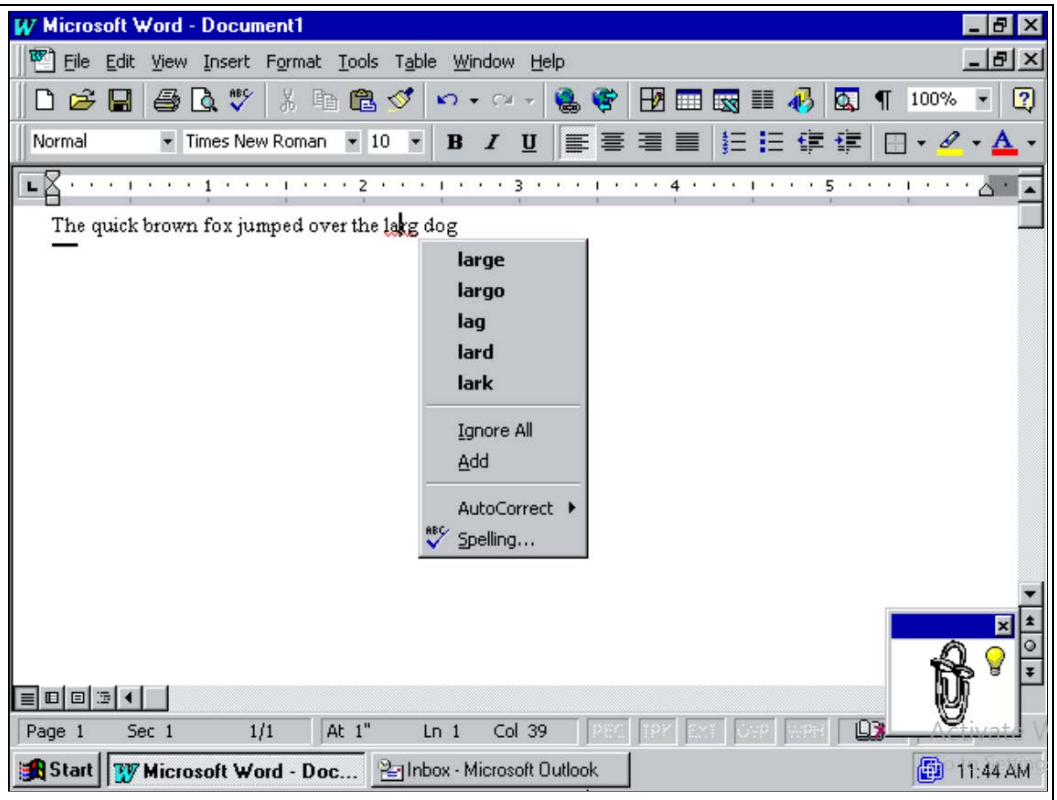
	 Word 97. Word 97 further discloses:

Exhibit L

	 Word 97. Word 97 further discloses:

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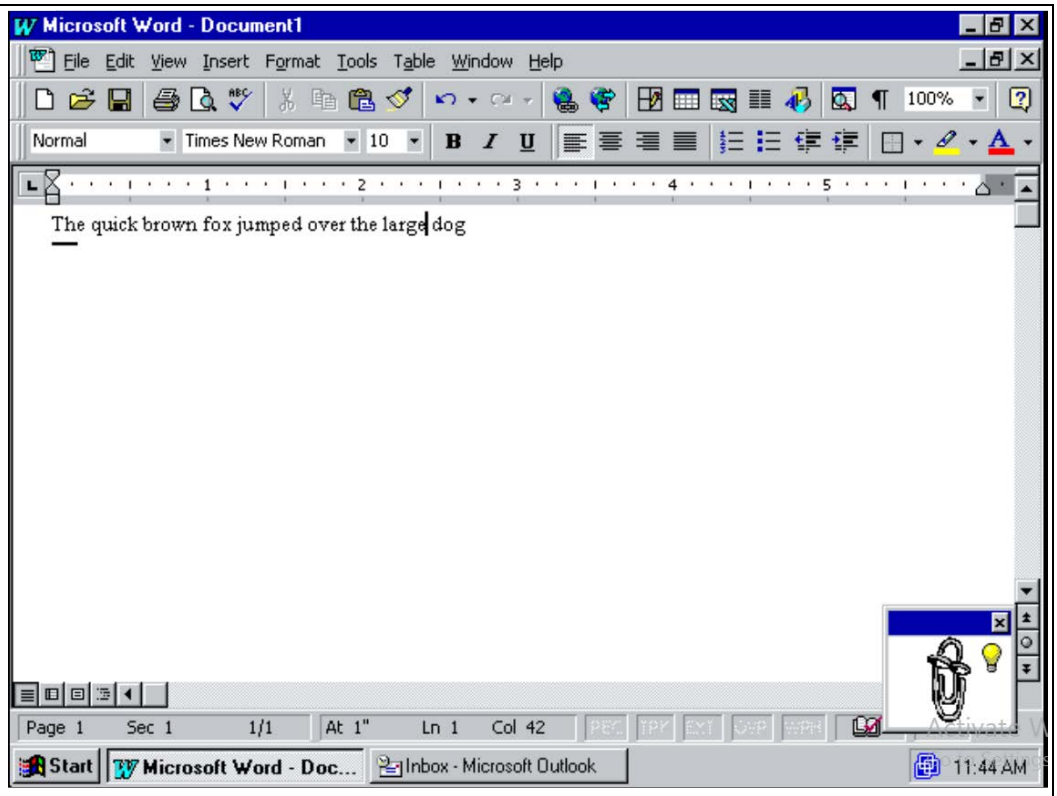
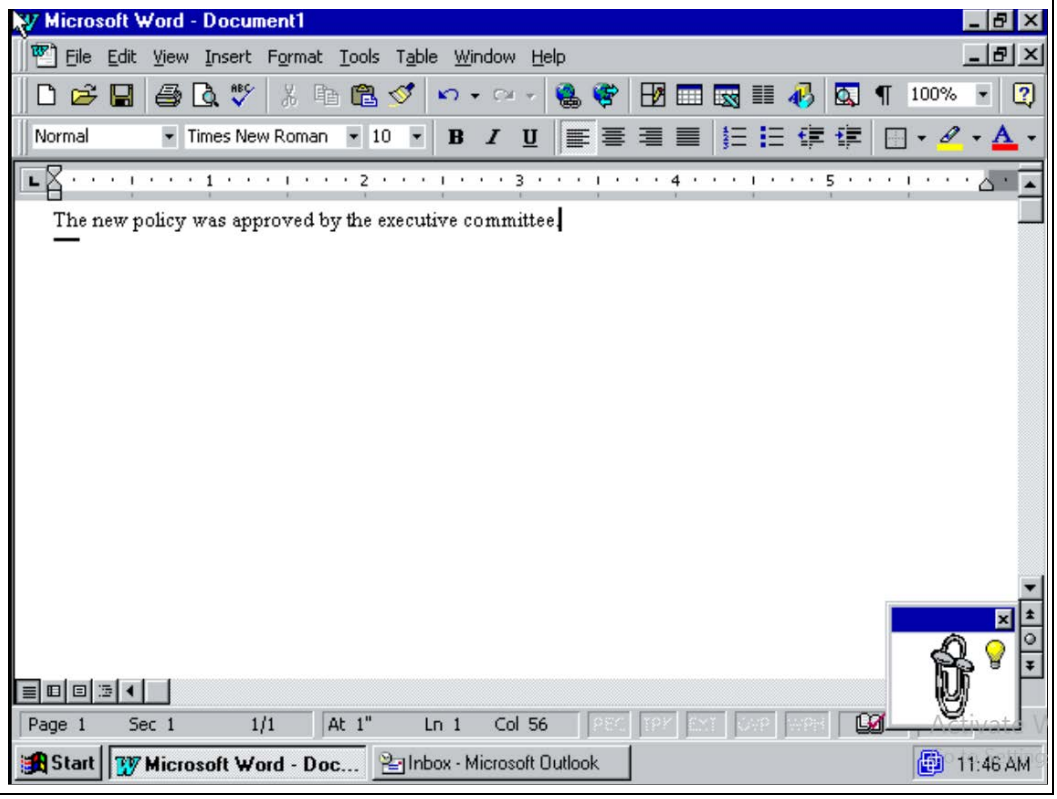


Word 97.

Word 97 further discloses:



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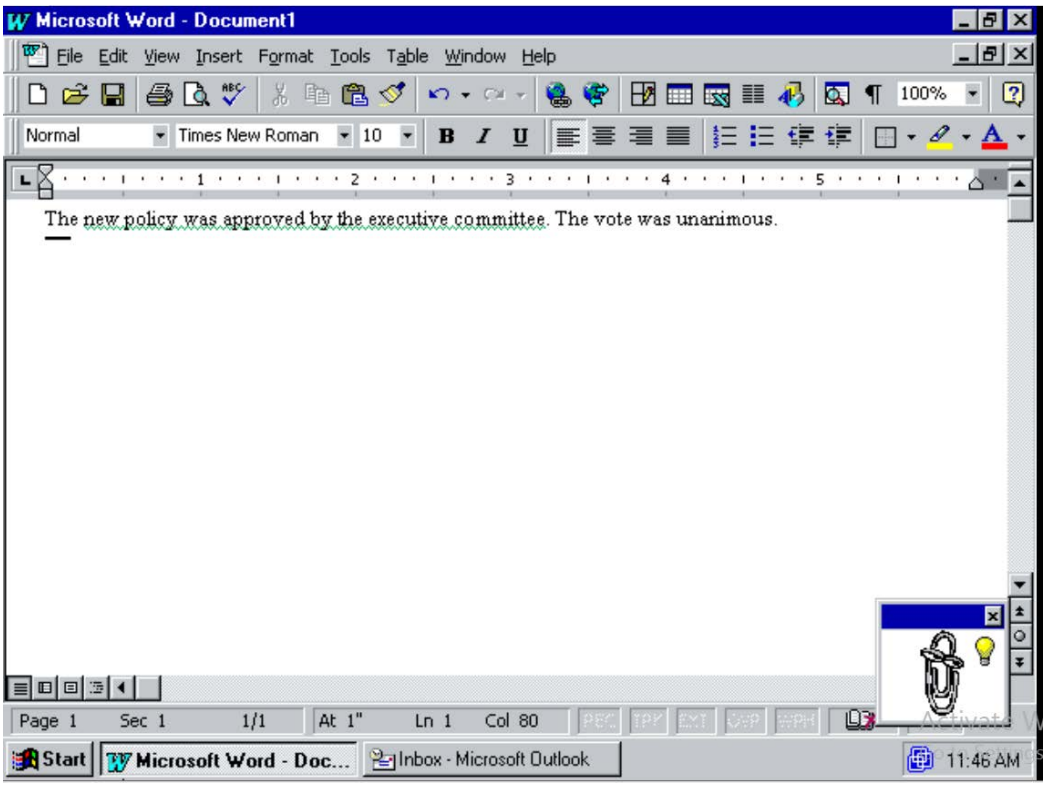
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

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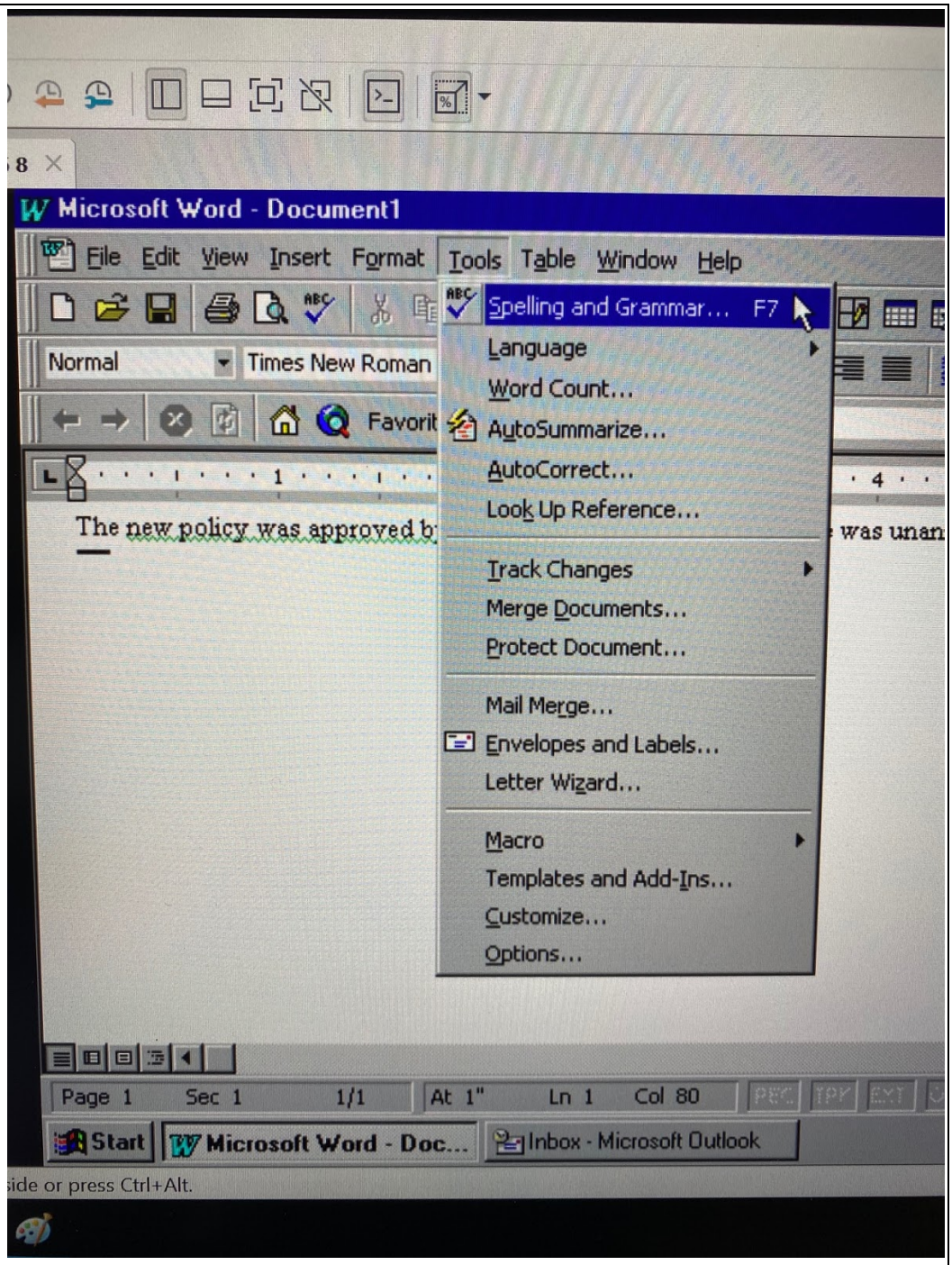
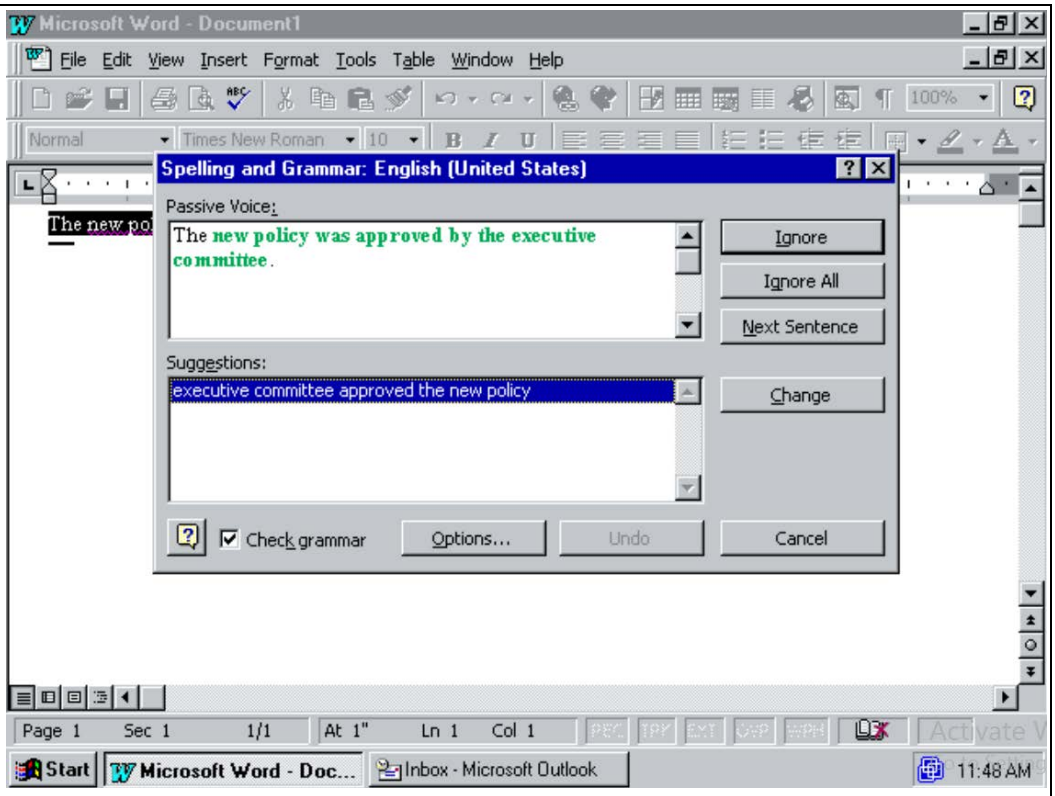


Word 97.

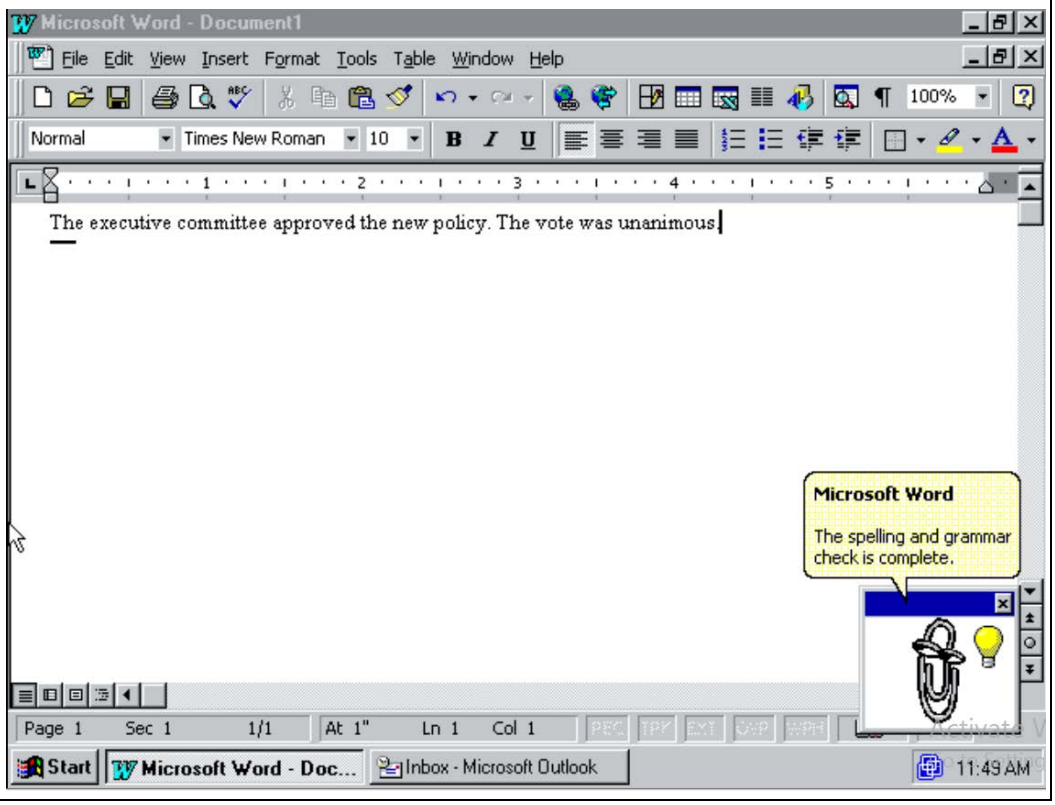
Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:



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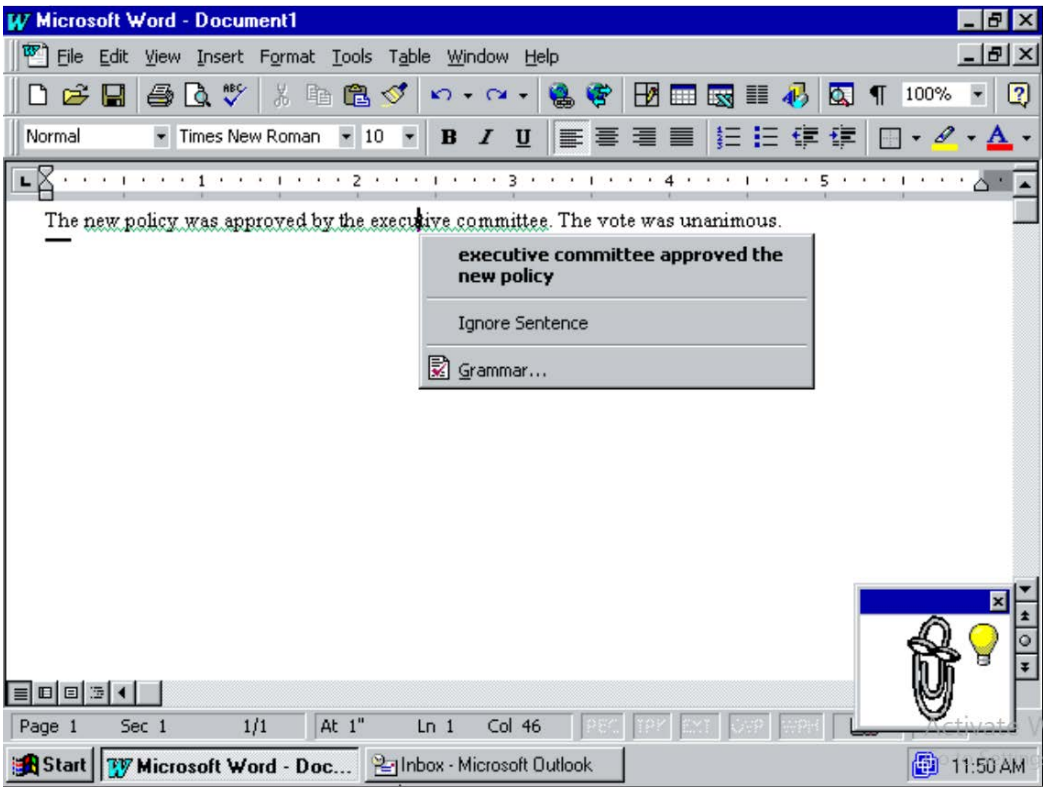
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

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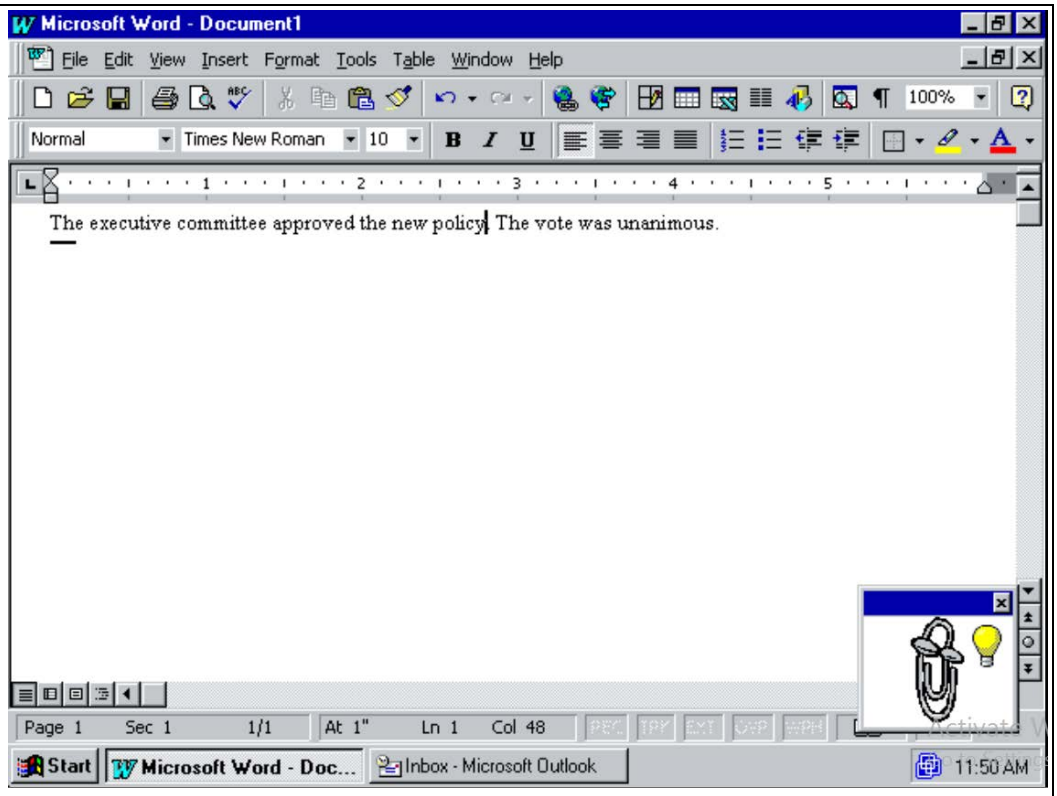
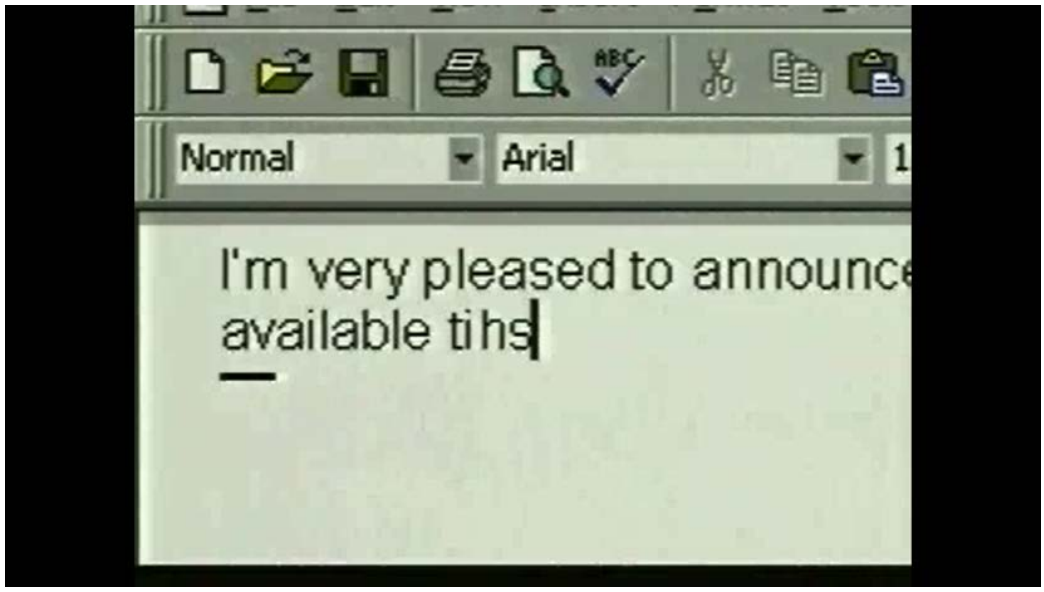


Word 97.

How to use Microsoft Word further discloses:



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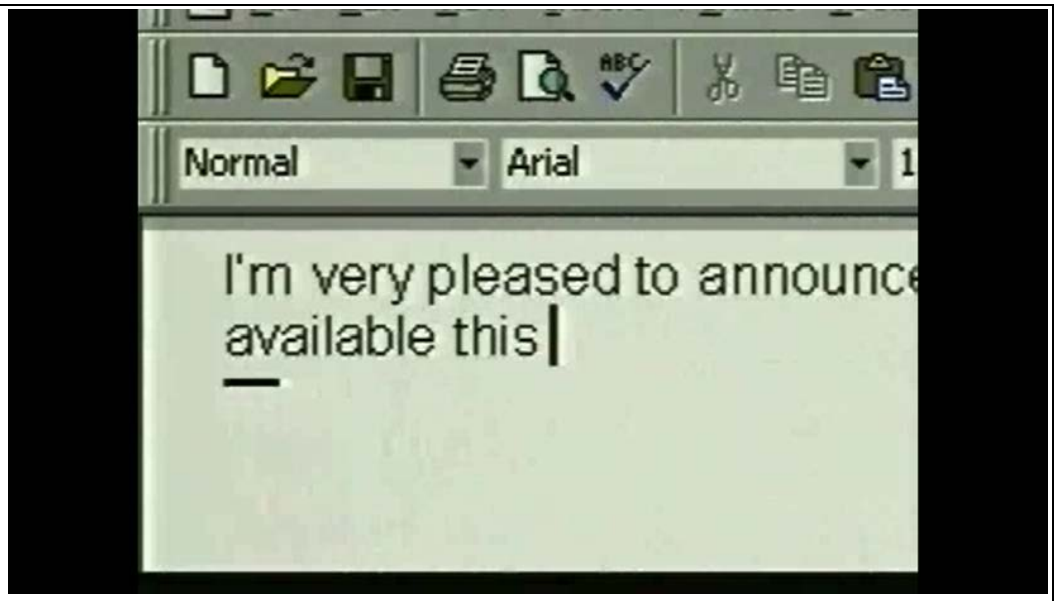
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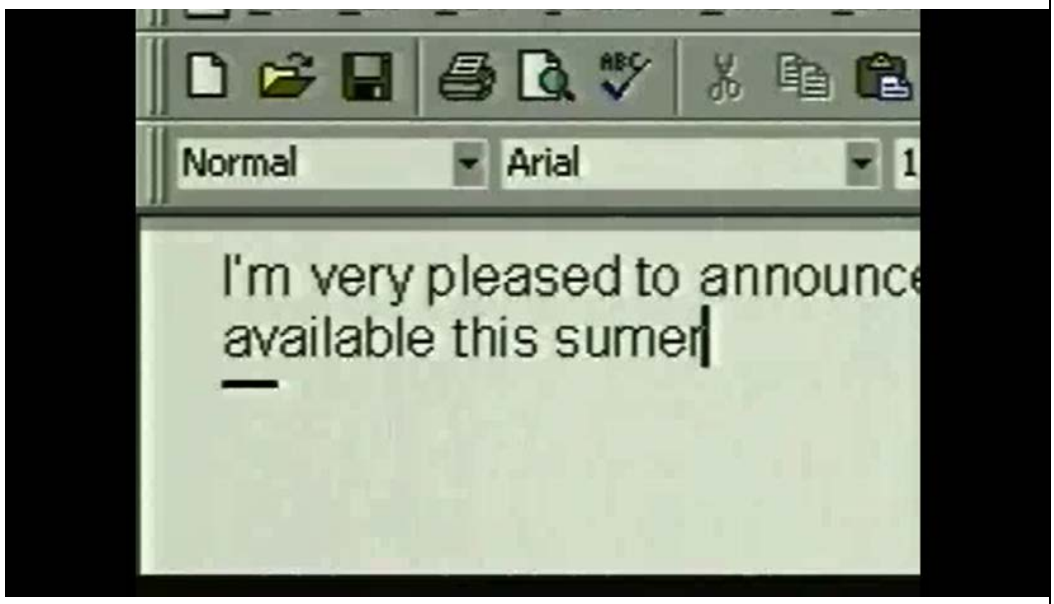
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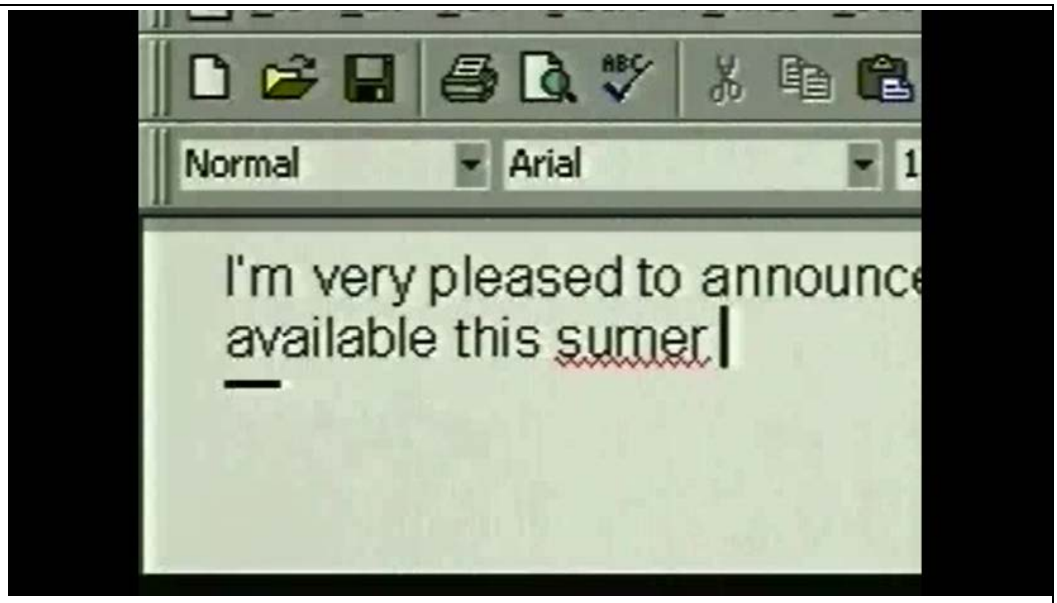
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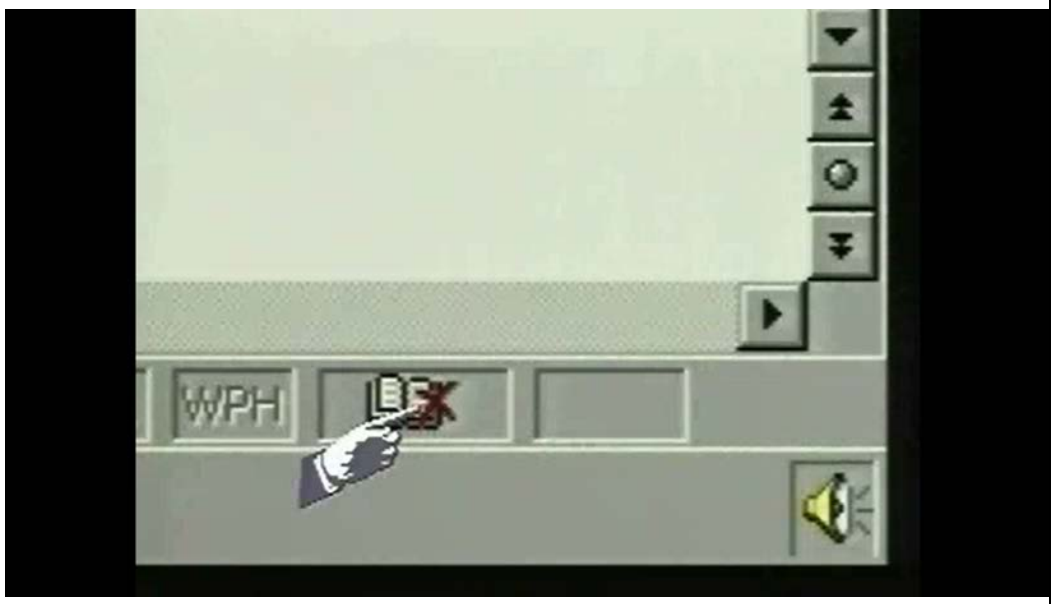
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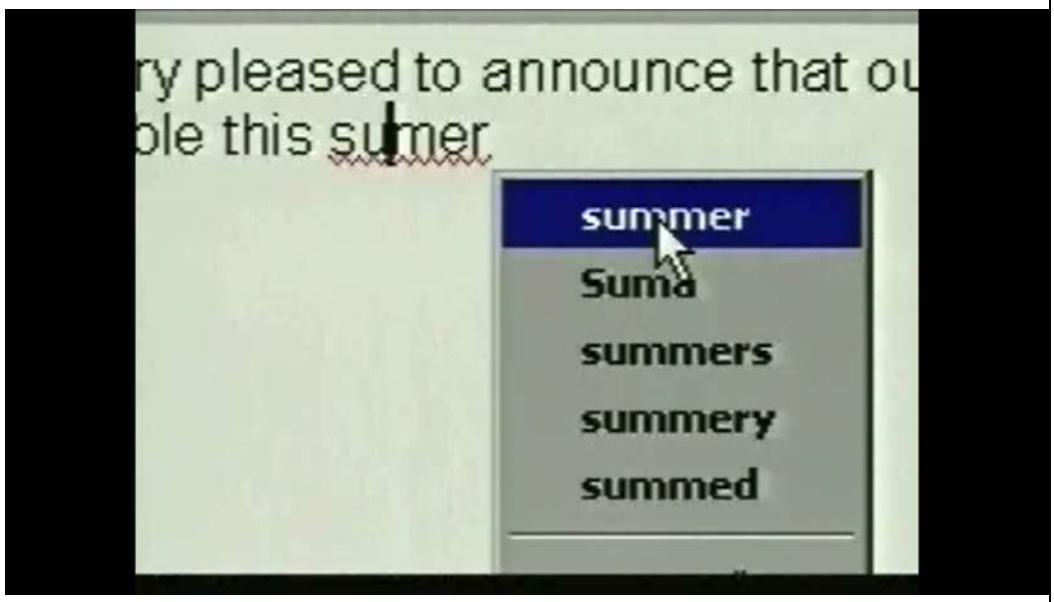
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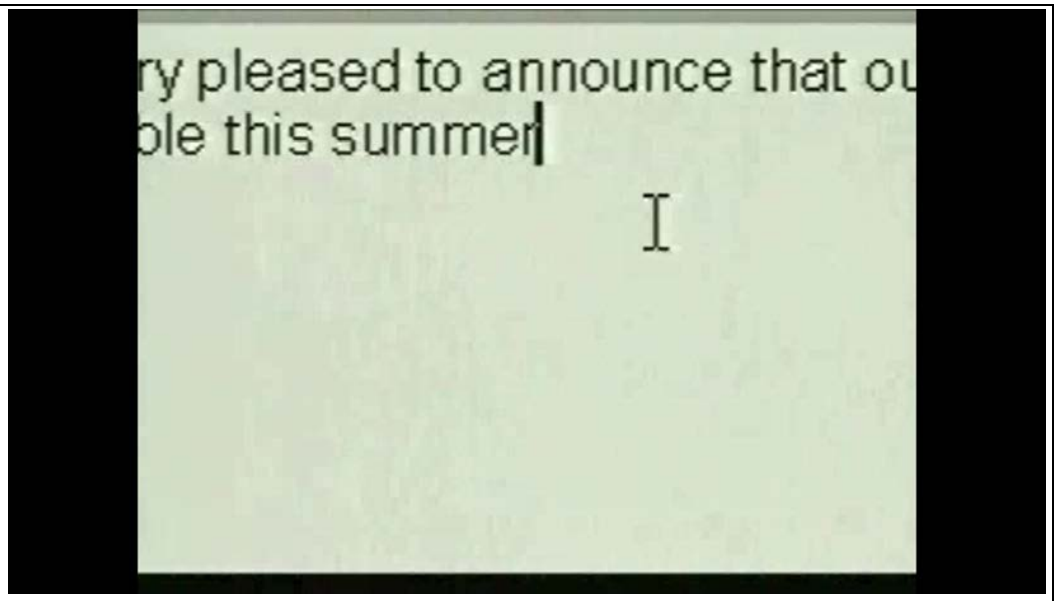
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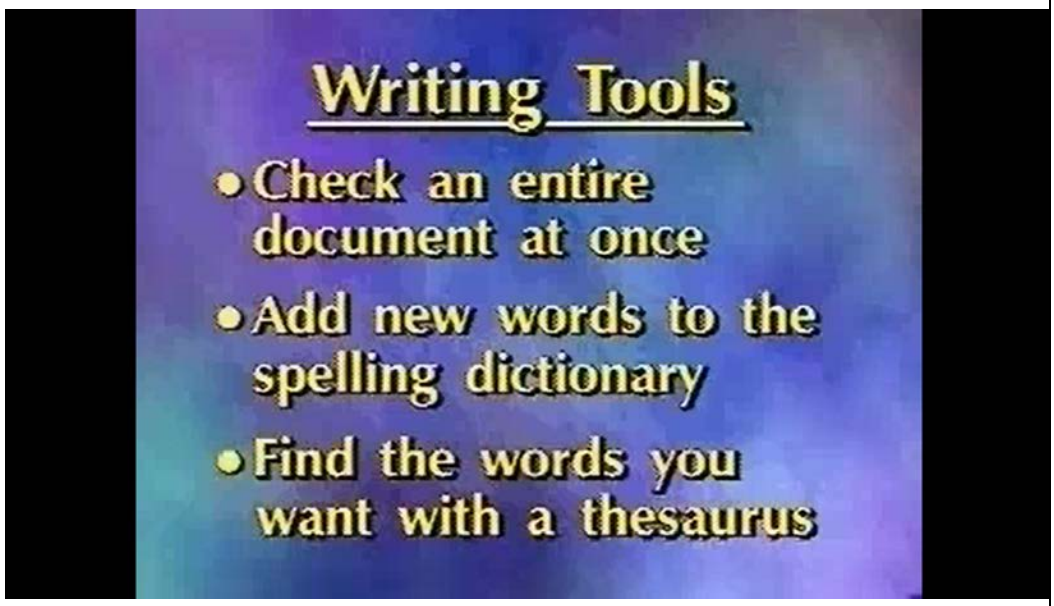
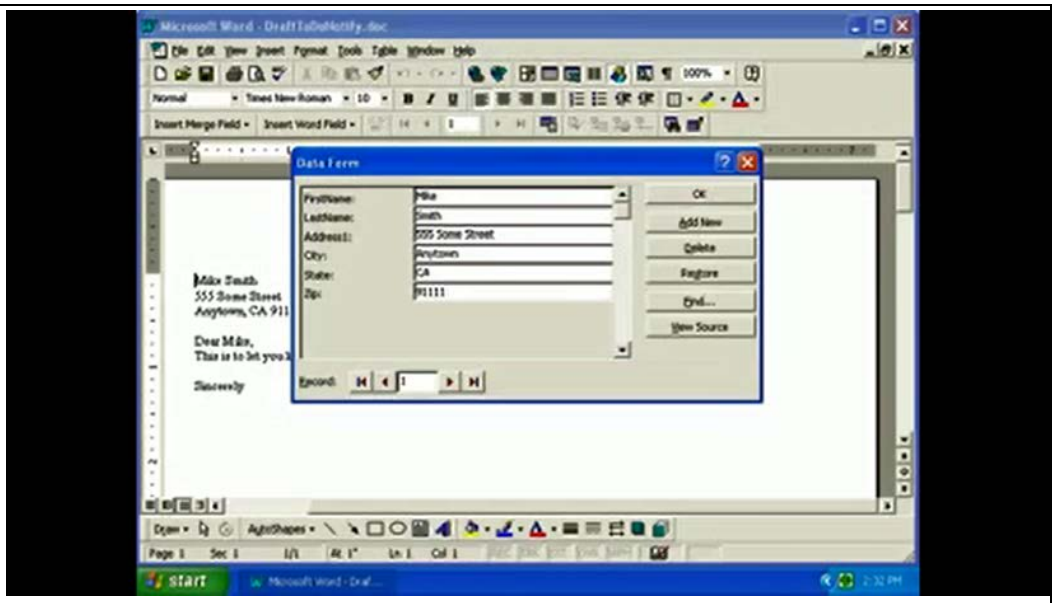

Writing Tools
• Check an entire document at once
• Add new words to the spelling dictionary
• Find the words you want with a thesaurus

Exhibit L

Word 97 Core Lesson 16 further discloses:

Exhibit L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LastName:
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City:
State:
Zip:
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91111
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Delete
Restore
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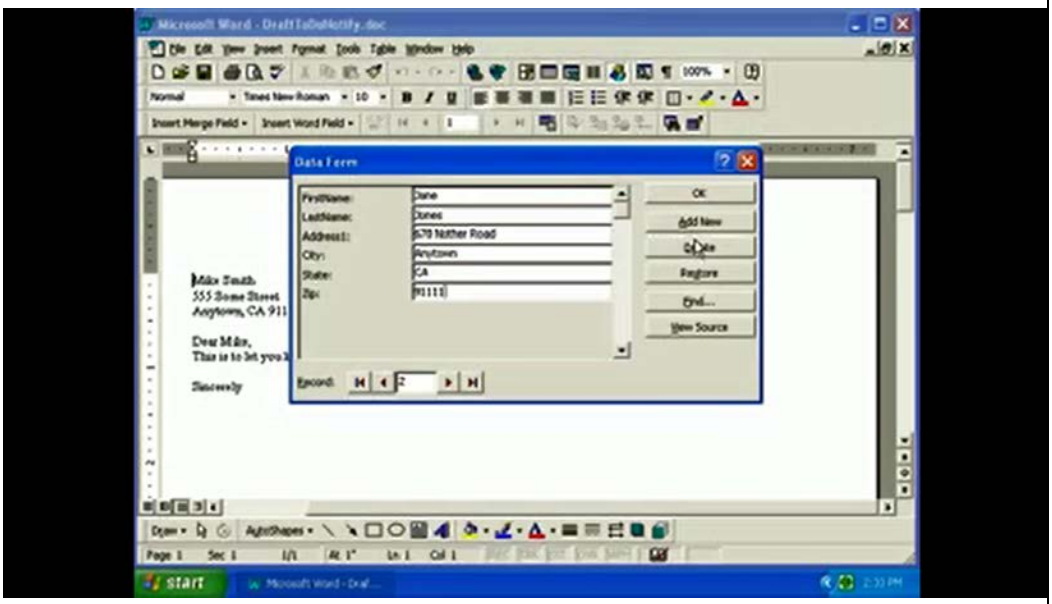
New Source
Record:
Mike Smith
555 Some Street
Anytown, CA 911
Dear Mike,
Sincerely
start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LastName:
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State:
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CA
91111
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New Source
Record:
Mike Smith
555 Some Street
Anytown, CA 911
Dear Mike,
Sincerely
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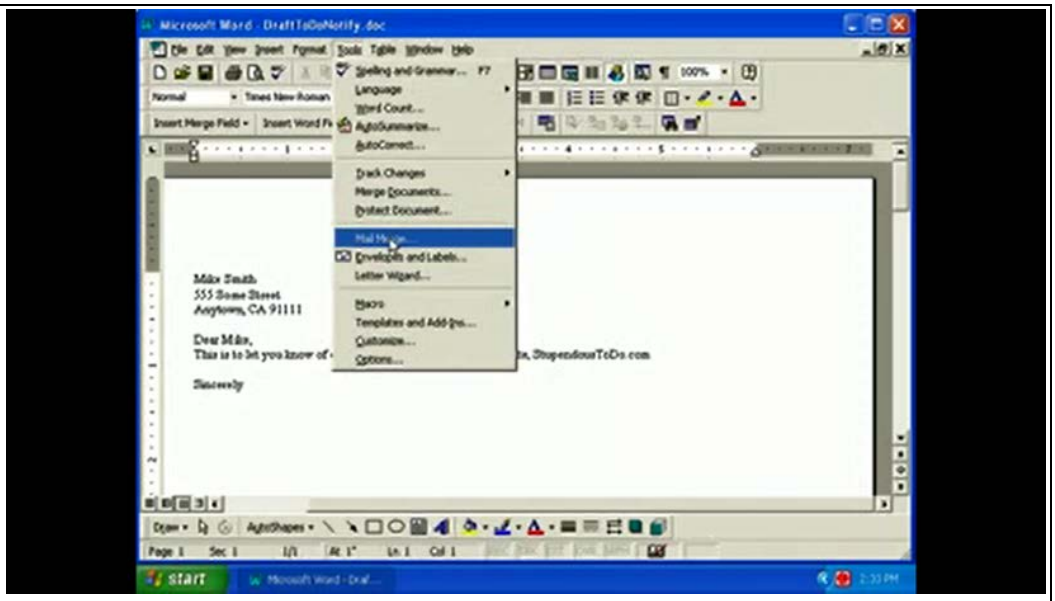
Exhibit L


Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar... F7
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AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Mail Merge...
Envelopes and Labels...
Letter Wizard...
Macros
Templates and Add-Ins...
Customize...
Options...
Mike Smith
555 Some Street
Anytown, CA 91111
Dear Mike,
Sincerely
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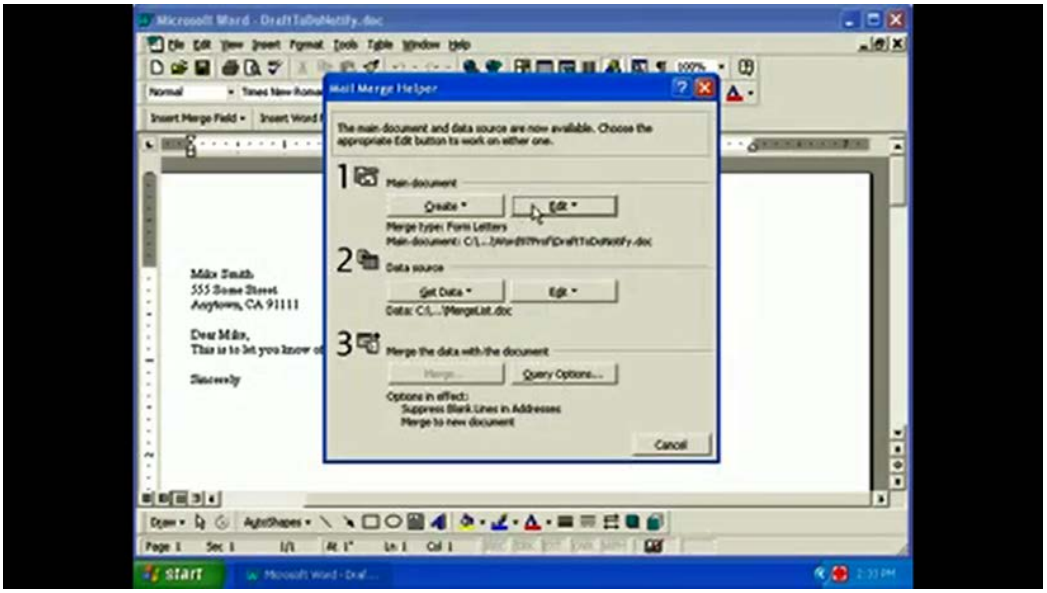

Mail Merge Helper
The main document and data source are now available. Choose the appropriate Edit button to work on either one.
1 Main document
Create
Edit
Merge type: Form Letters
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel
Mike Smith
555 Some Street
Anytown, CA 91111
Dear Mike,
Sincerely
start

Exhibit L

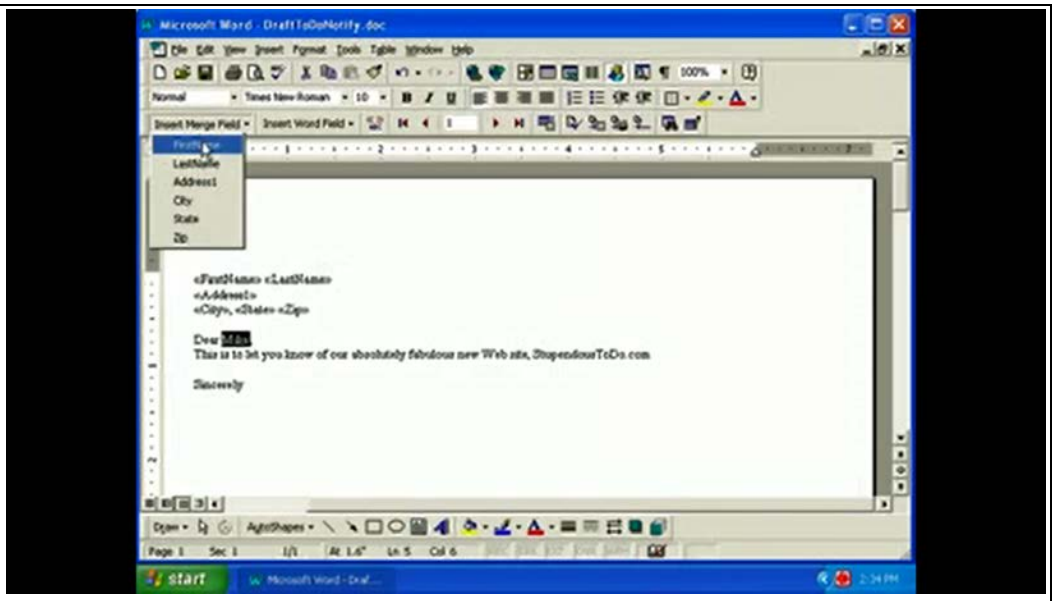
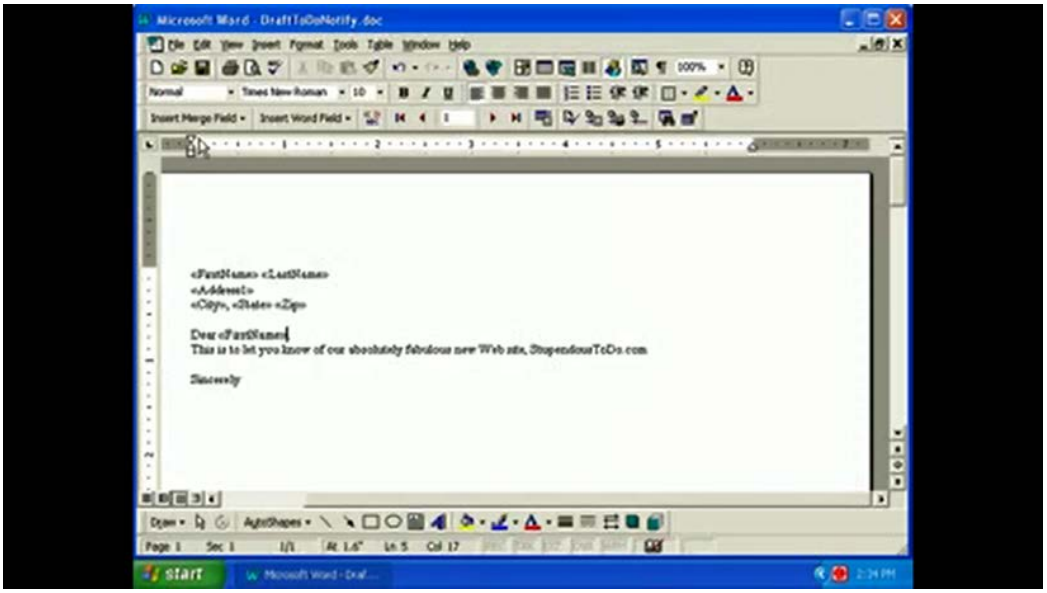
	 Microsoft Word - DraftToDoNotify.doc LastName Address1 City State Zip «FirstName» «LastName» «Address1» «City», «State» «Zip» Dear This is to let you know of our absolutely fabulous new Web site, StupendousToDo.com Sincerely start  Microsoft Word - DraftToDoNotify.doc «FirstName» «LastName» «Address1» «City», «State» «Zip» Dear «FirstName» This is to let you know of our absolutely fabulous new Web site, StupendousToDo.com Sincerely start

Exhibit L

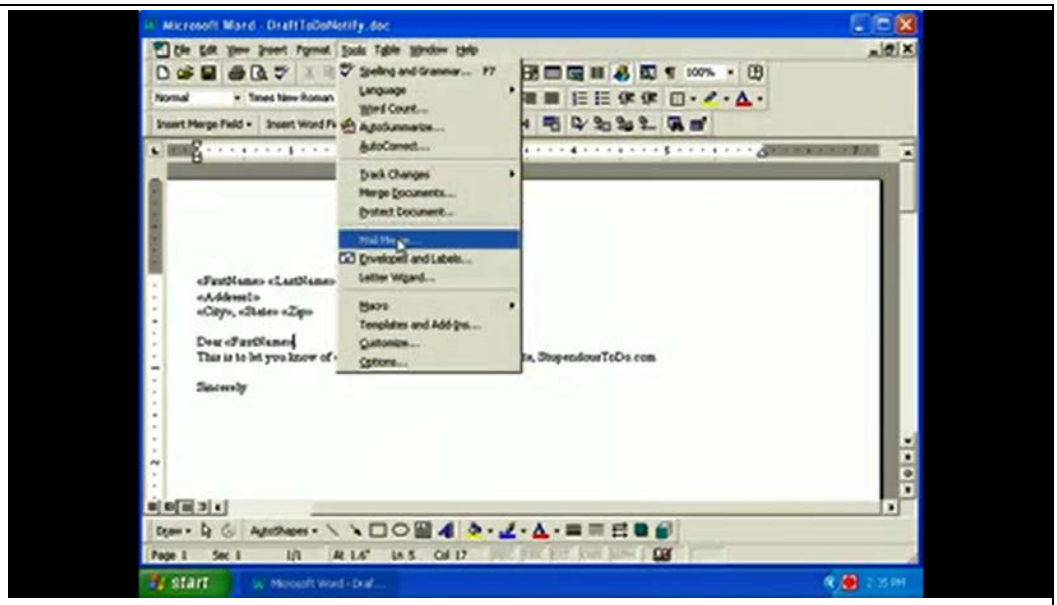
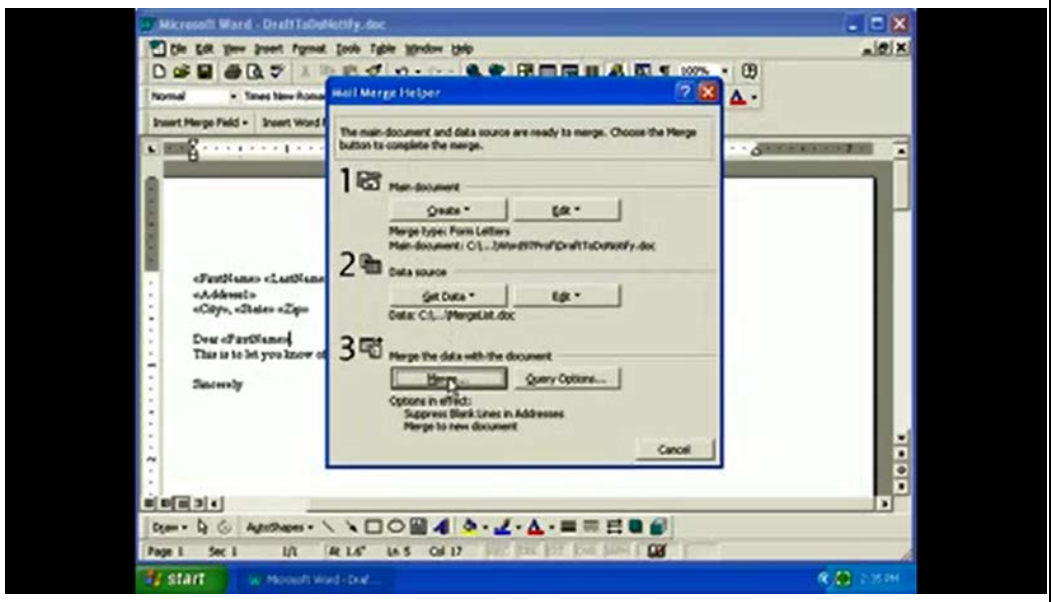
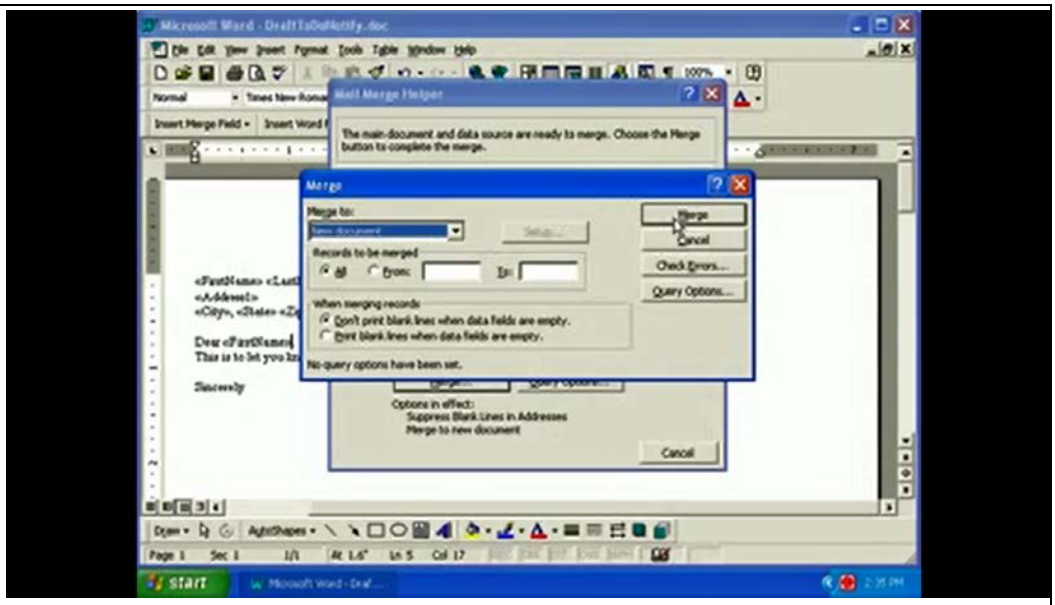
	 Microsoft Word - DraftToDoNotify.doc Spelling and Grammar... F7 Language Word Count... AutoSummarize... AutoCorrect... Track Changes Merge Documents... Protect Document... Mail Merge... Envelopes and Labels... Letter Wizard... Macros Templates and Add-Ins... Customize... Options... «FirstName» «LastName» «AddressL» «City», «State» «Zip» Dear «FirstName» Sincerely AutoShapes start  Microsoft Word - DraftToDoNotify.doc Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. 1 Main document Create Edit Merge type: Form Letters 2 Data source Get Data Edit Data: C:\...\MergeList.doc 3 Merge the data with the document Merge... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel «FirstName» «LastName» «AddressL» «City», «State» «Zip» Dear «FirstName» Sincerely AutoShapes start

Exhibit L


Microsoft Word - DraftToDoNotify.doc
Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
Merge
Merge to:
Records to be merged
When merging records:
Don't print blank lines when data fields are empty.
Print blank lines when data fields are empty.
No query options have been set.
Check Errors...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel
start

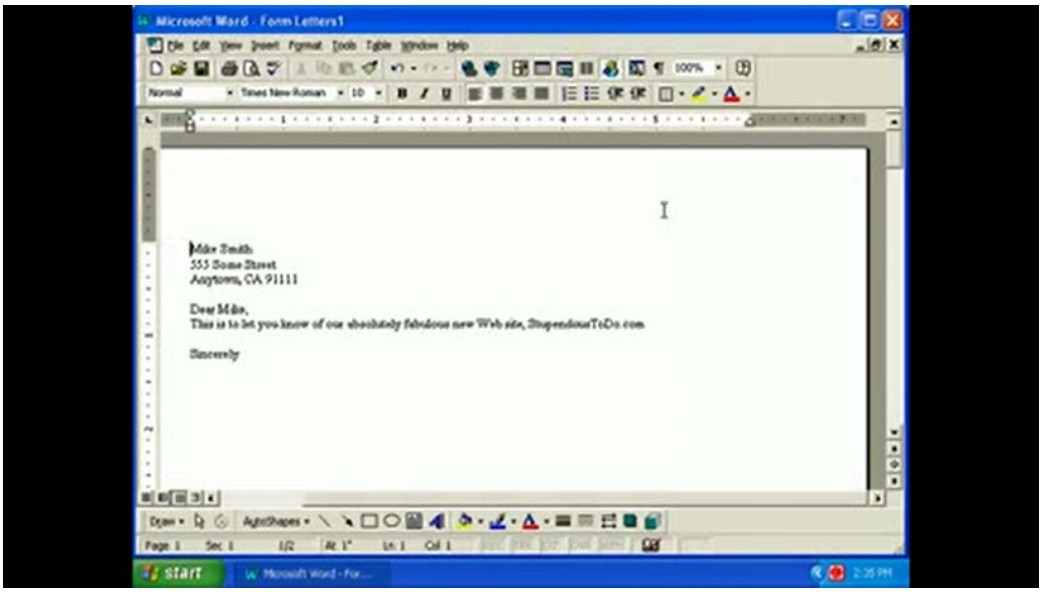

Microsoft Word - FormLetters1
Mike Smith
555 Some Street
Anytown, CA 91111
Dear Mike,
Sincerely
start

Exhibit L

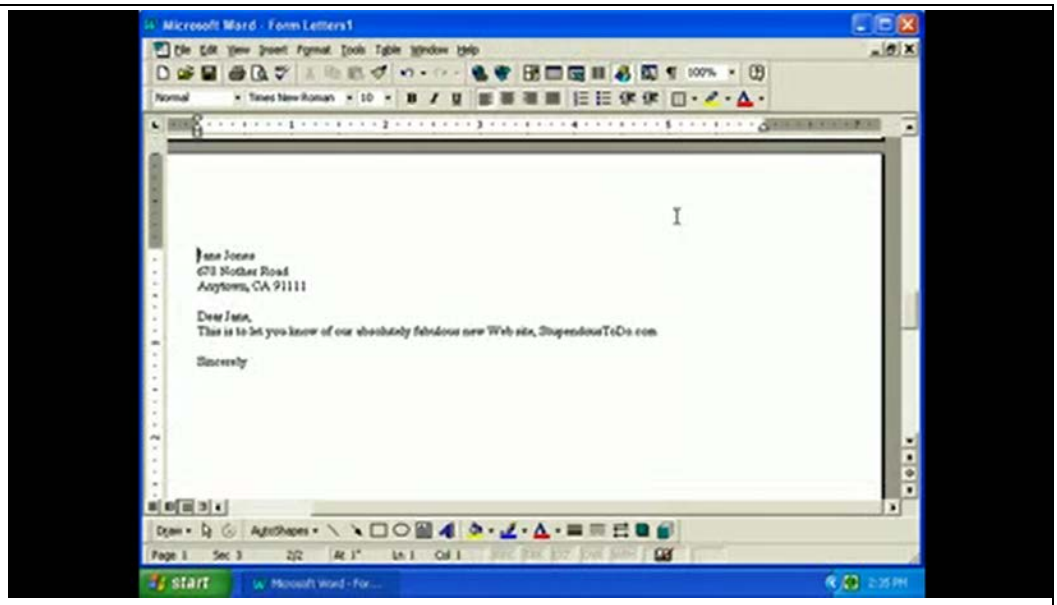
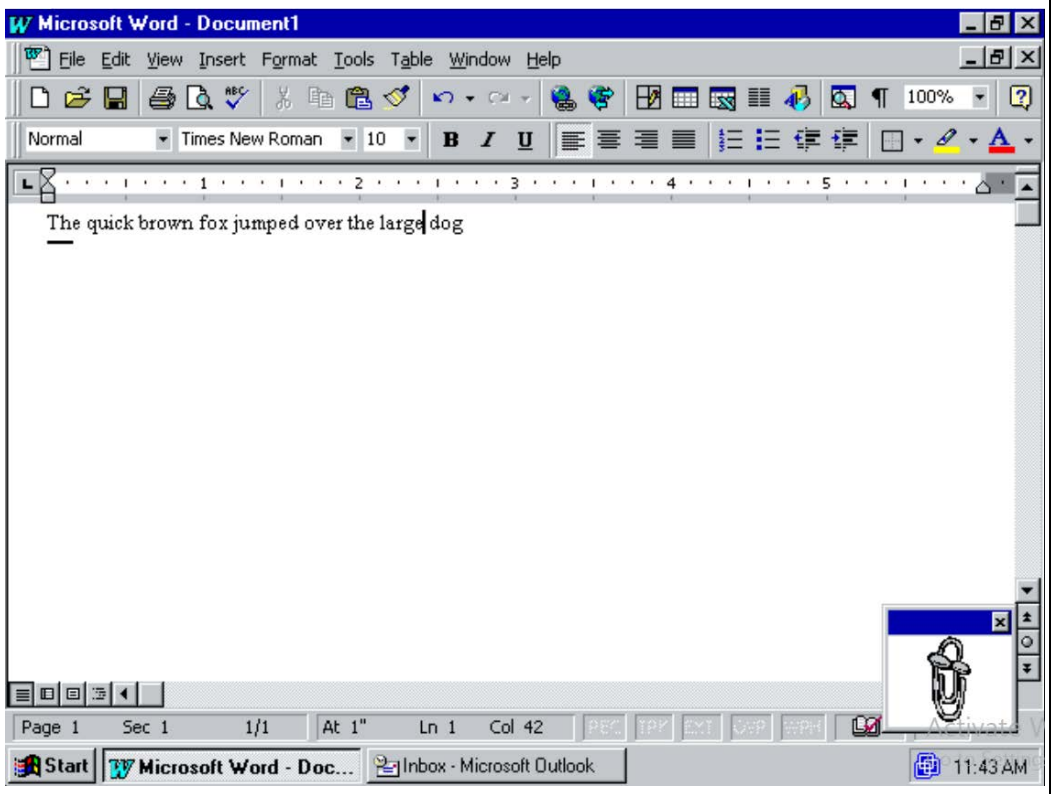
	
displaying the document electronically using the first computer program;	Word 97 discloses this element. See claim 1 above. For example, the following screenshots highlight aspects of Word 97 functionality that discloses displaying the document electronically using the first computer program. Specifically, Word 97 discloses:  Word 97.

Exhibit L

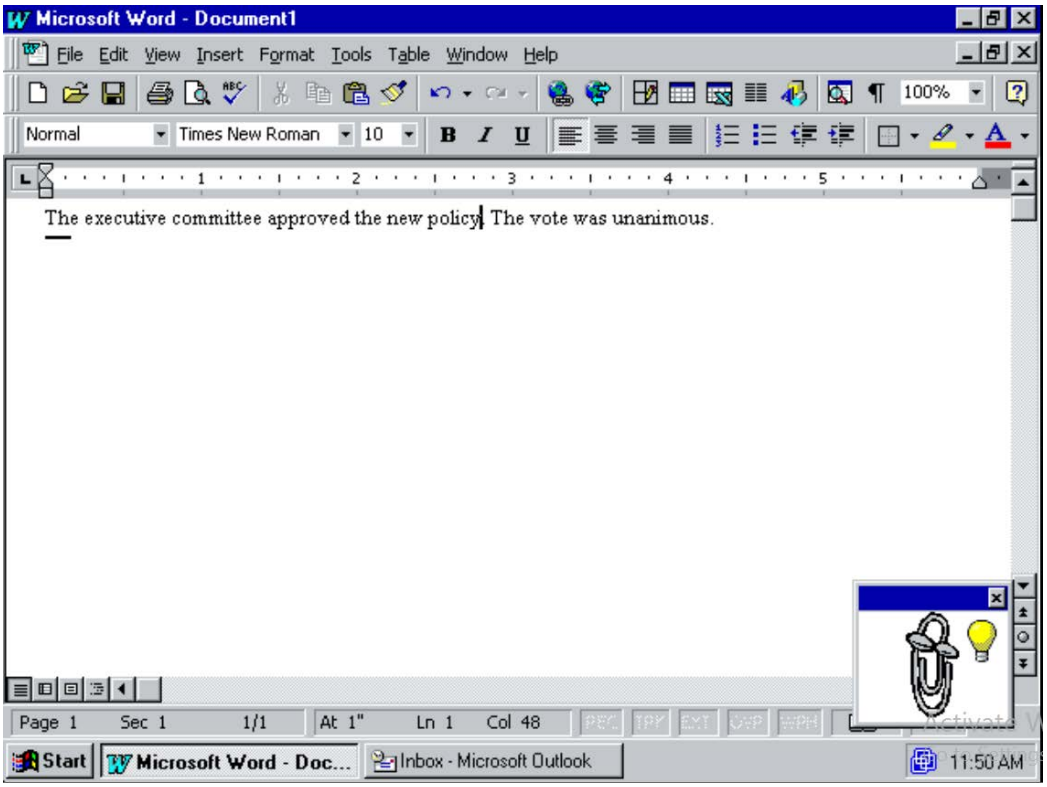
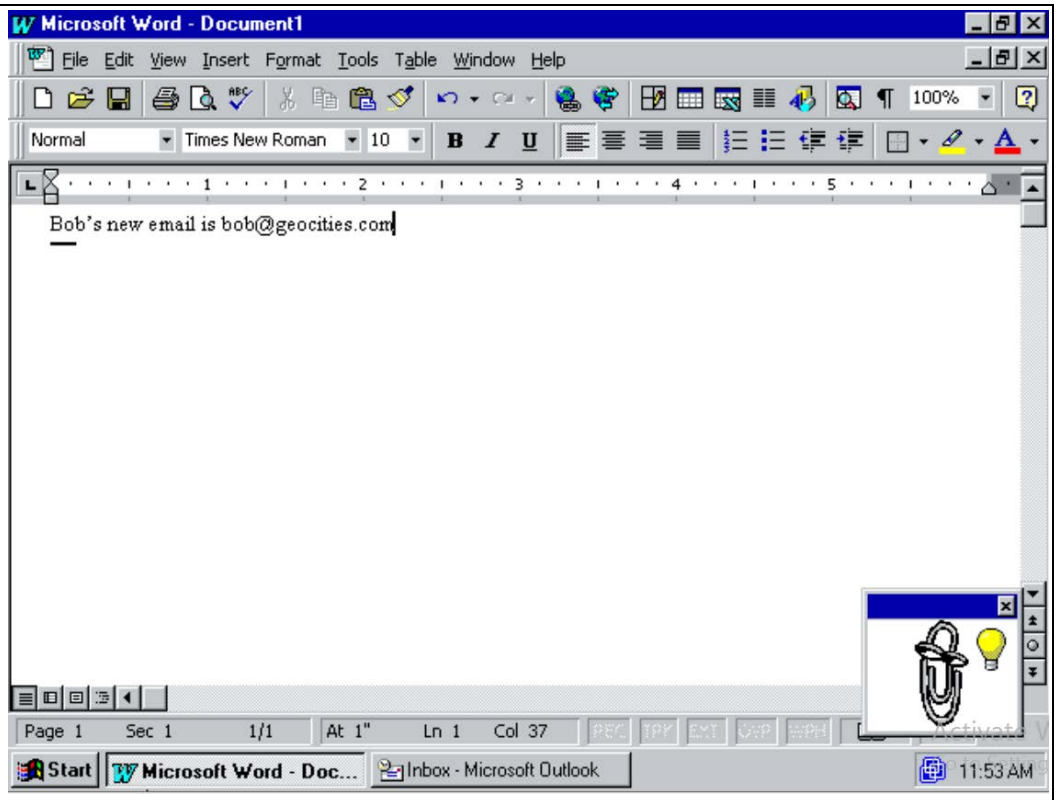
	Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

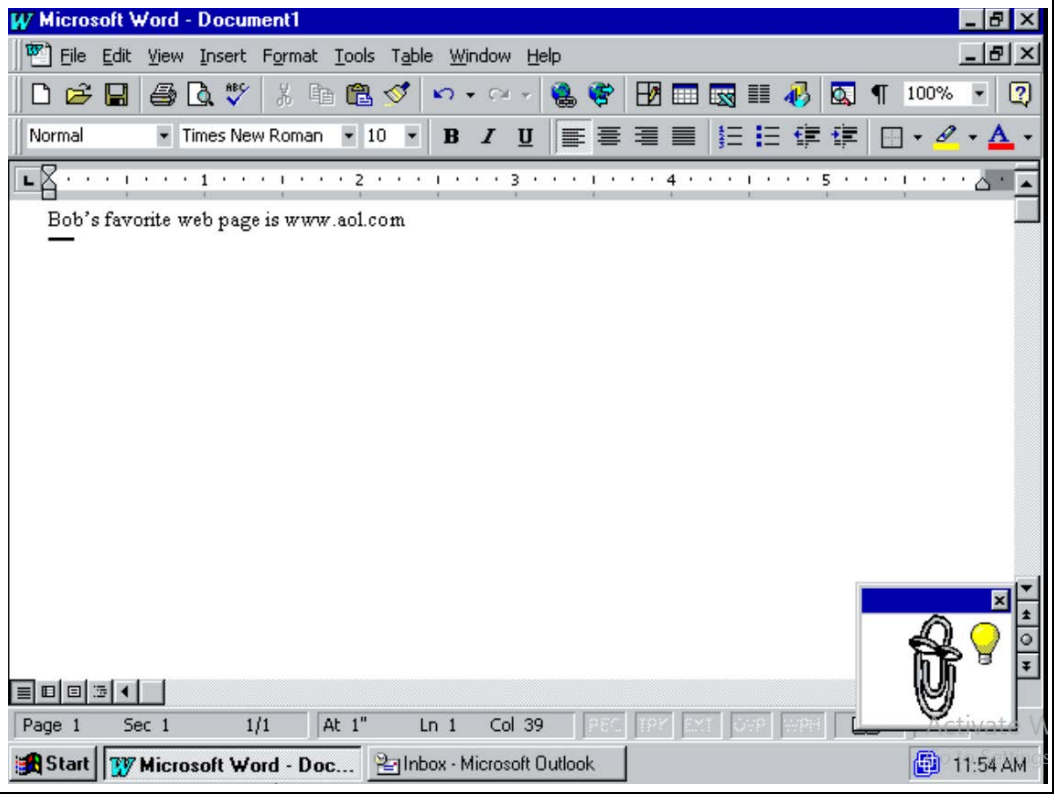


Exhibit L

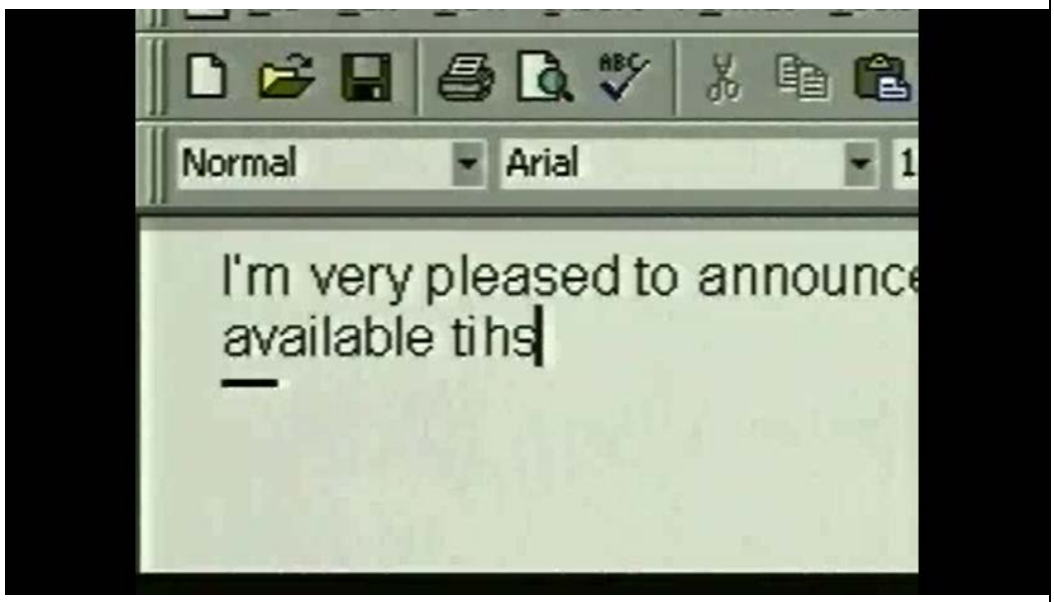
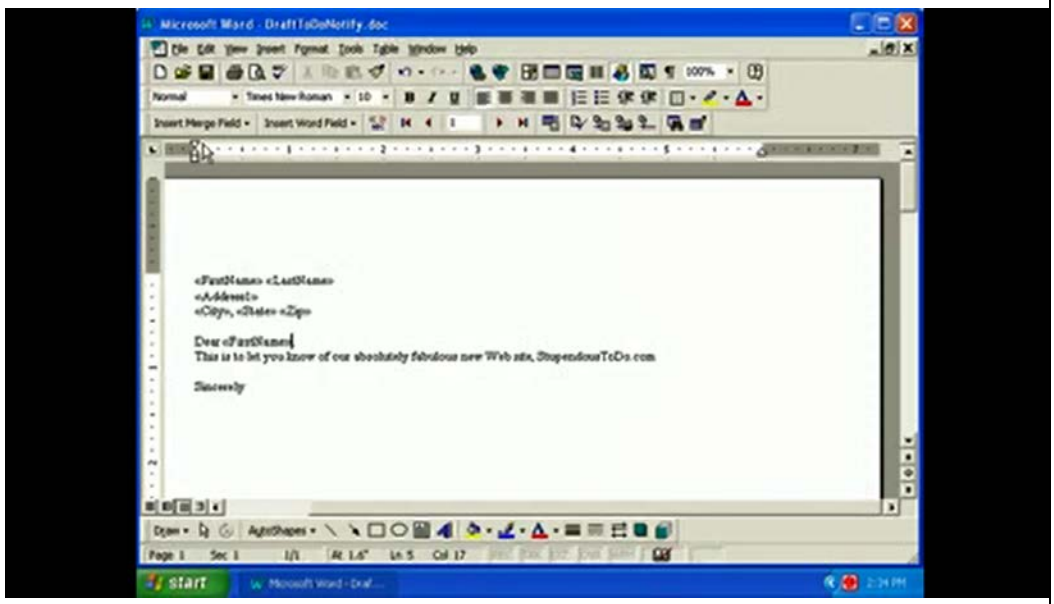
	Word 97. How to use Microsoft Word further discloses:  Word 97 Core Lesson 16 further discloses: 
while the document is being displayed, analyzing, in a computer process, first information from the	Word 97 discloses this element. See claim 1 above.

Exhibit L

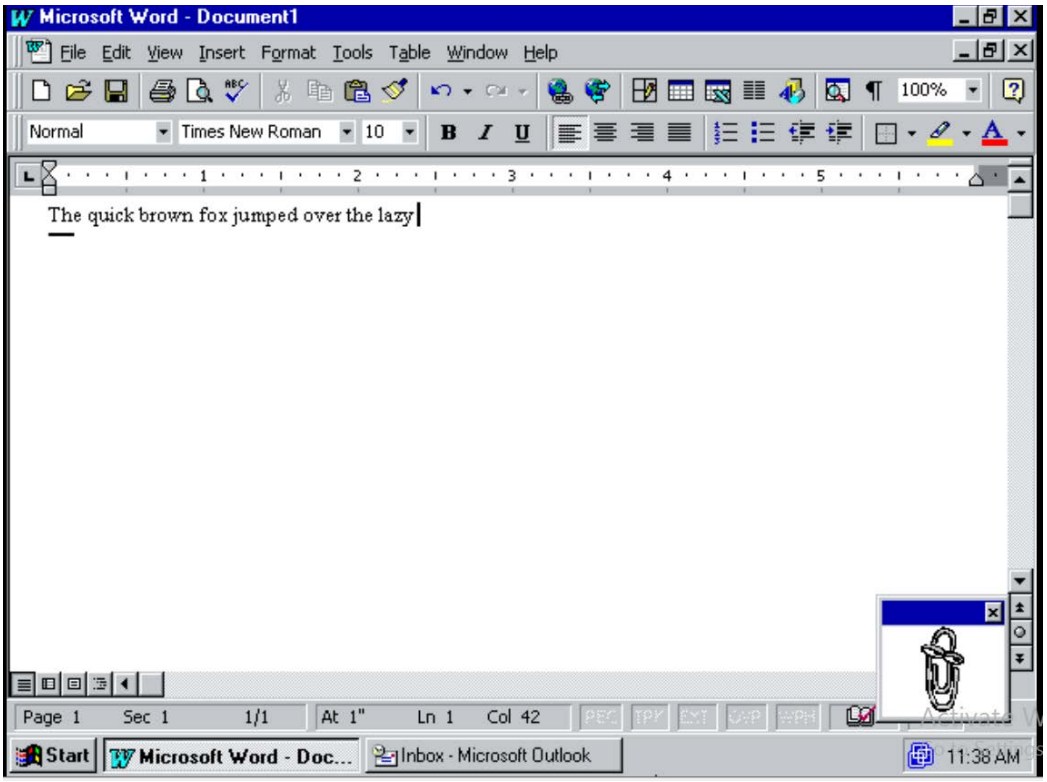
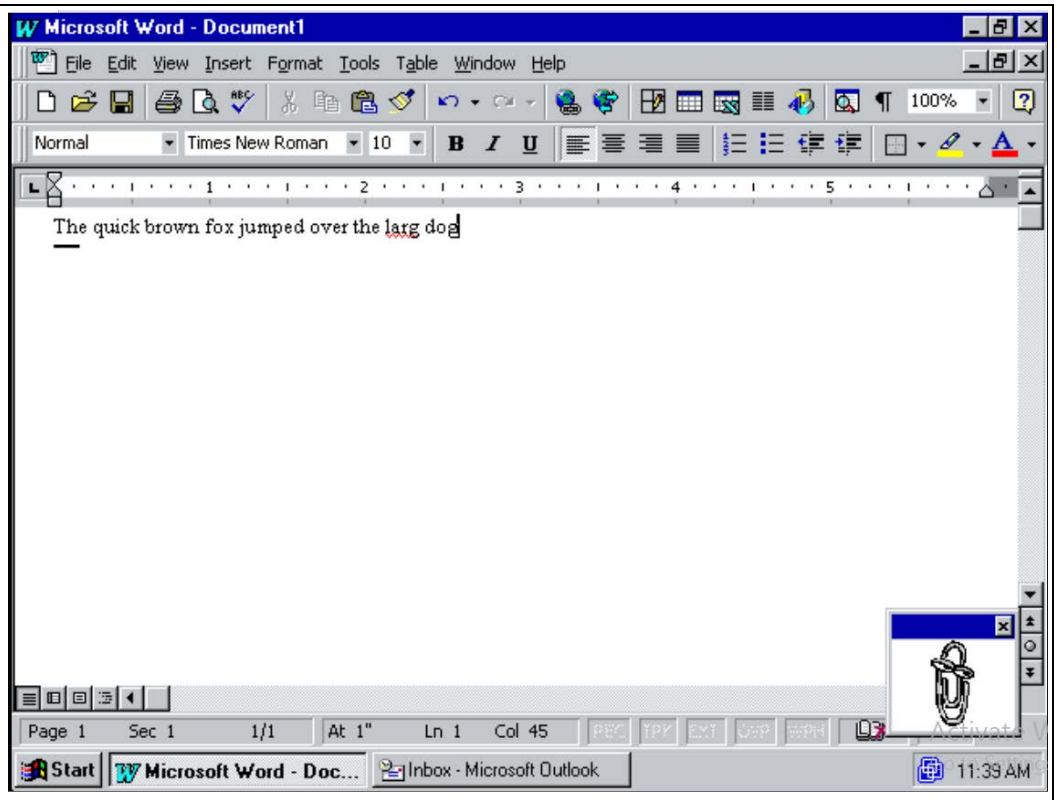
document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	For example, the following screenshots highlight aspects of Word 97 functionality that discloses while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information. Specifically, Word 97 discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

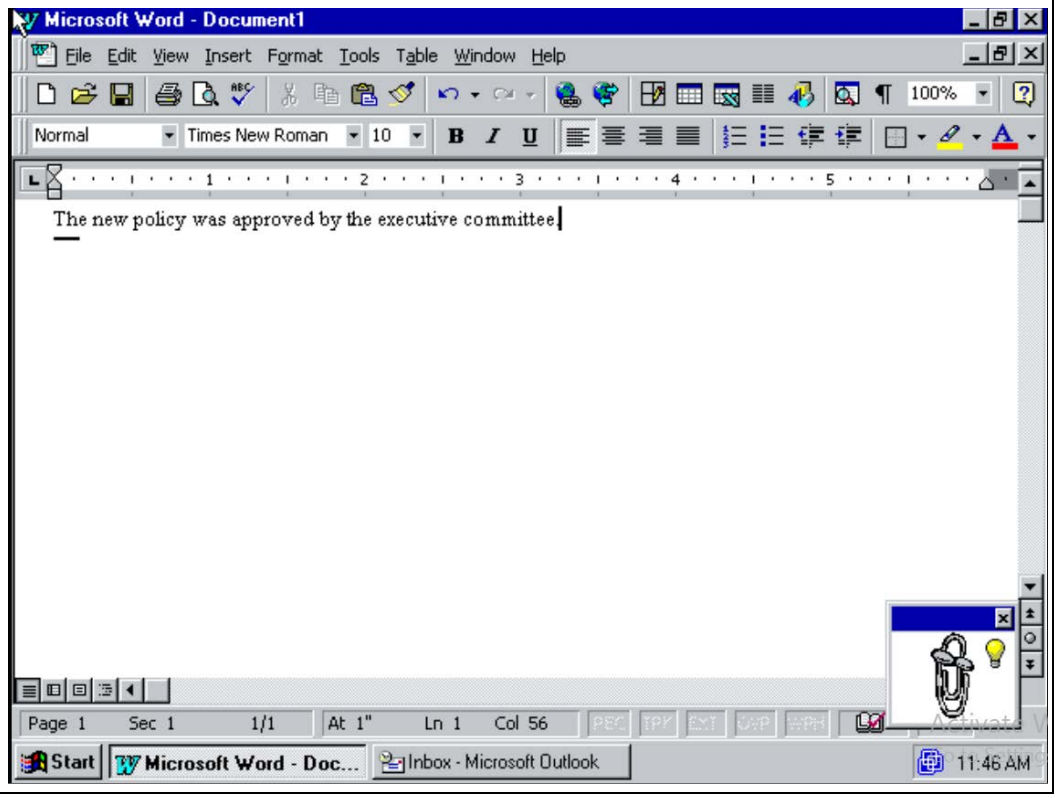


Exhibit L

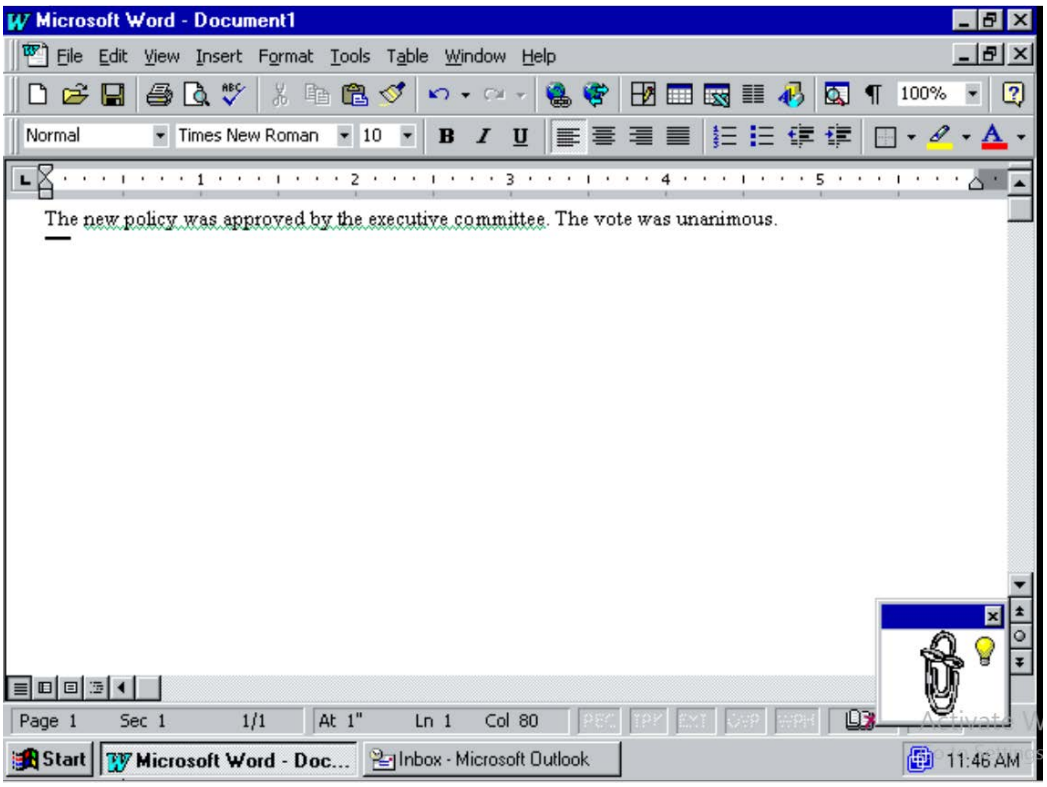
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L

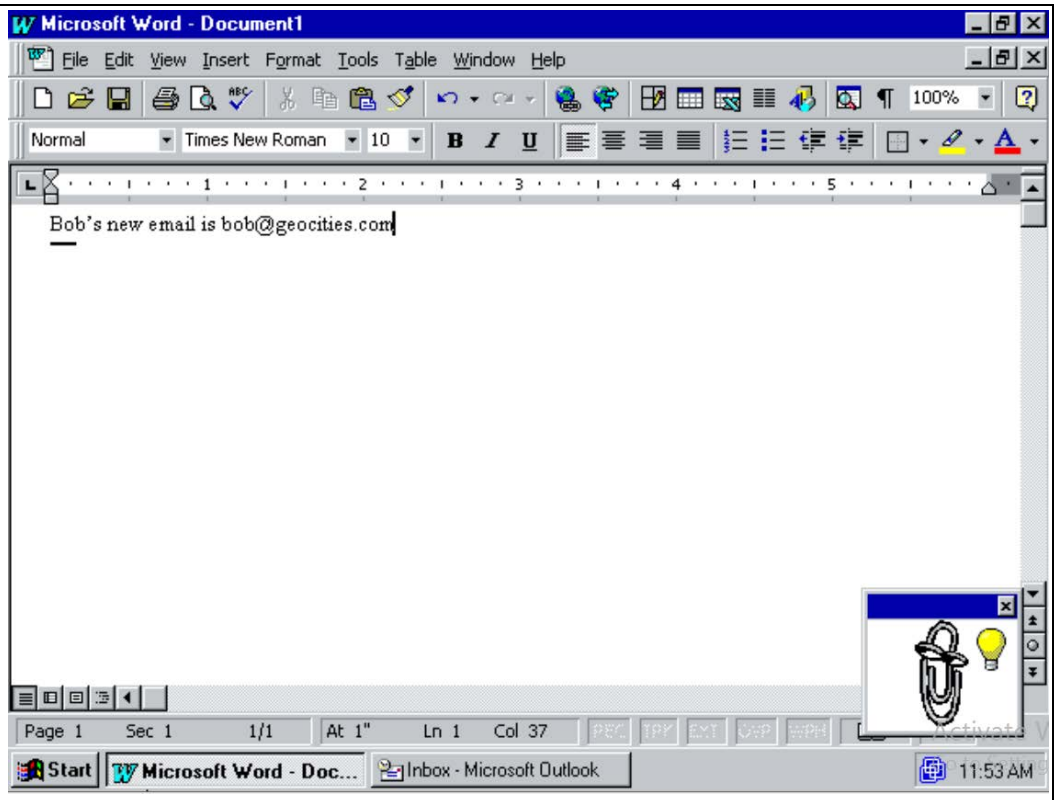
	 Word 97. Word 97 further discloses:

Exhibit L

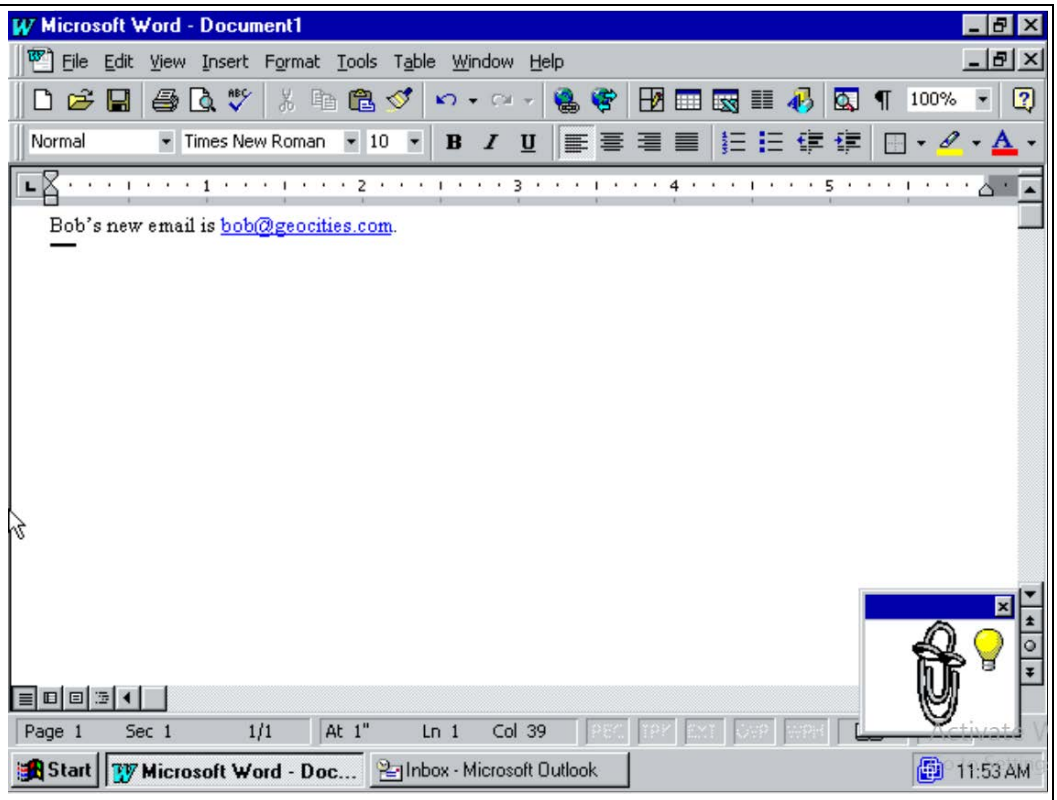
	 Word 97. Word 97 further discloses:

Exhibit L

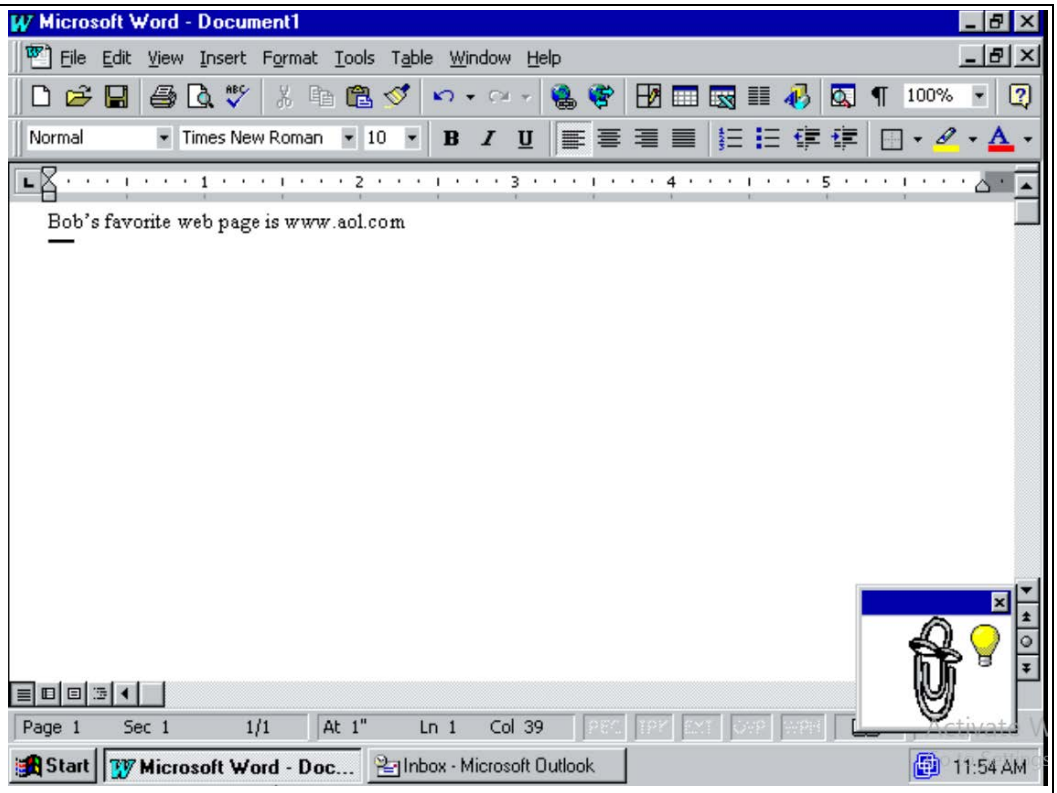
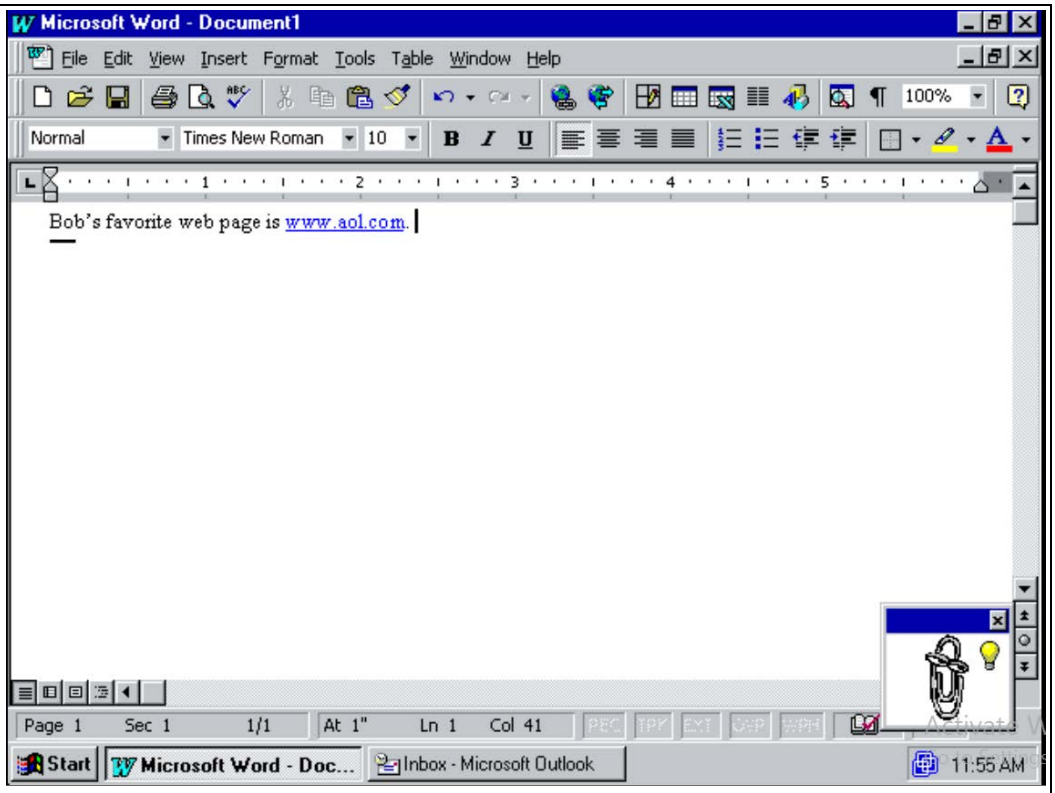
	 Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:

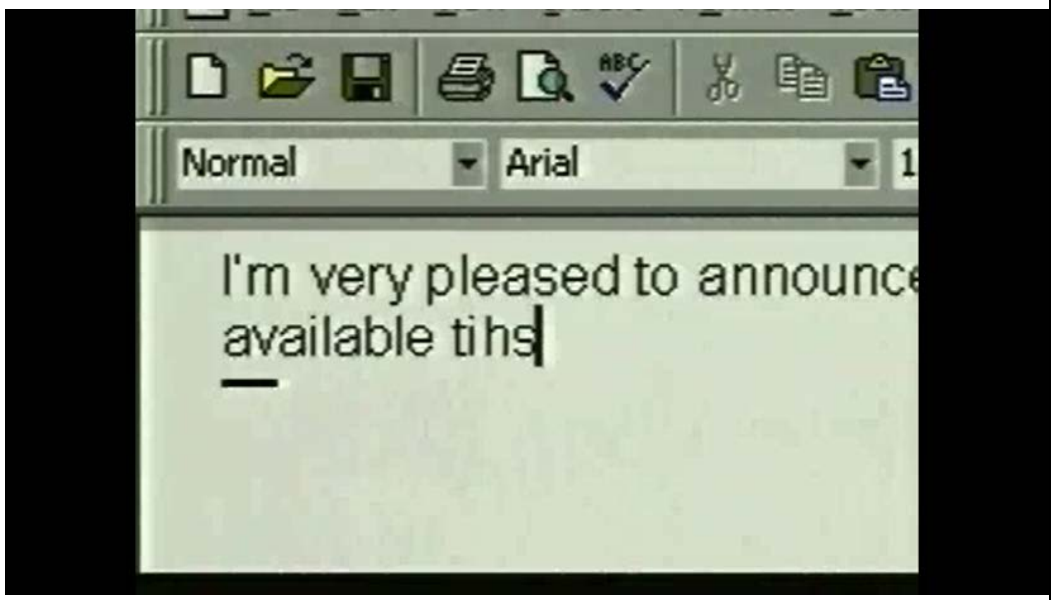
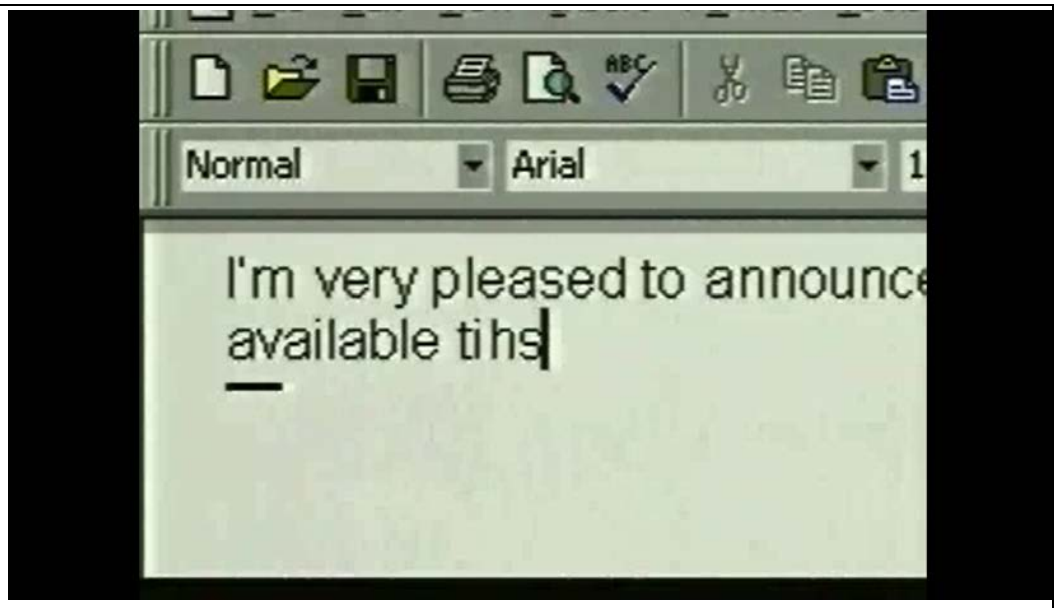


Exhibit L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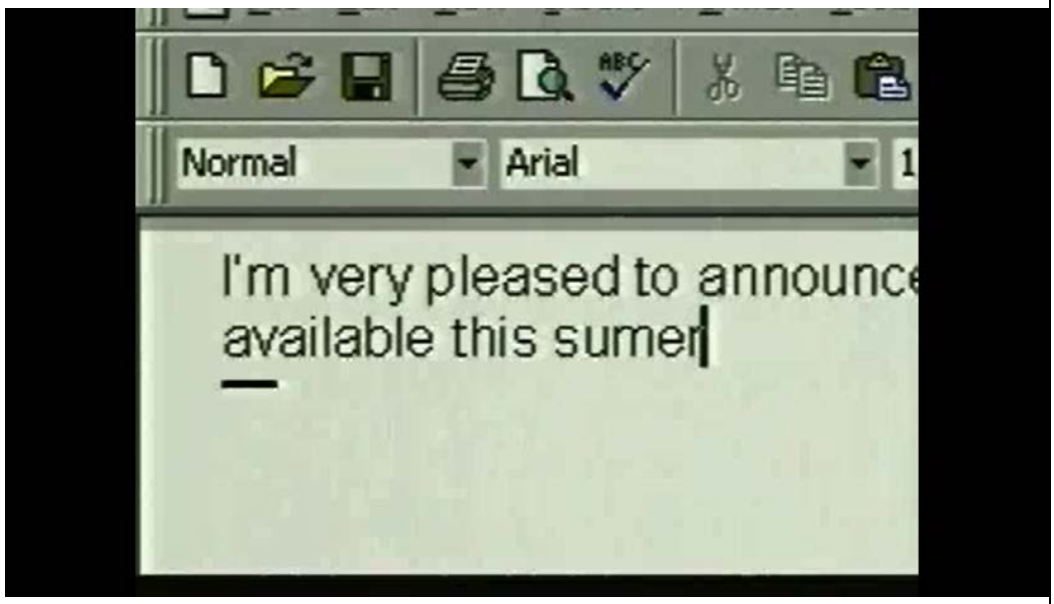
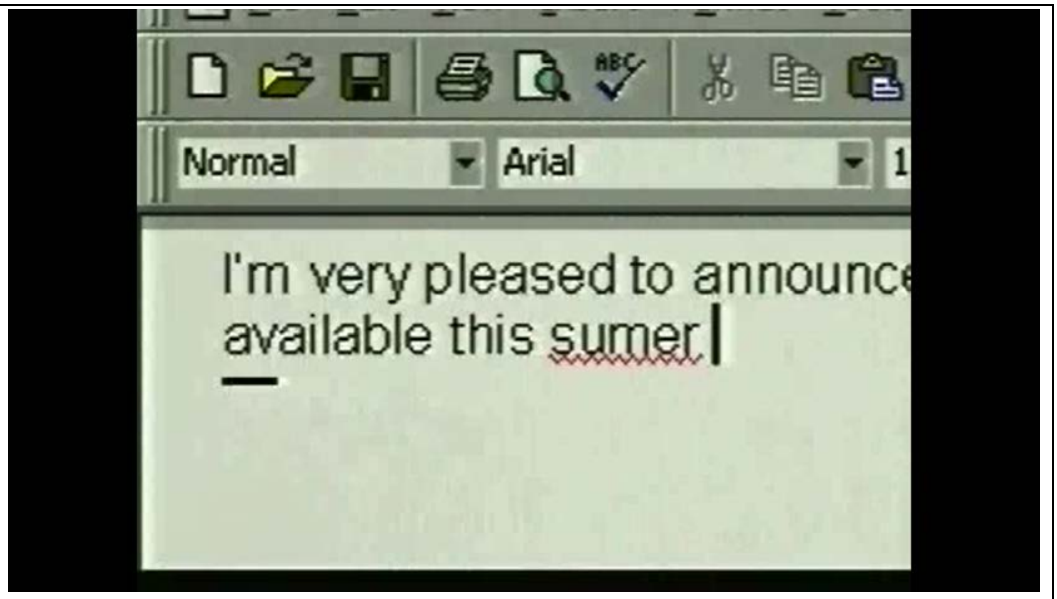

Normal
Arial
I'm very pleased to announce
available this sumer

Exhibit L



Word 97 Core Lesson 16 further discloses:

Exhibit L

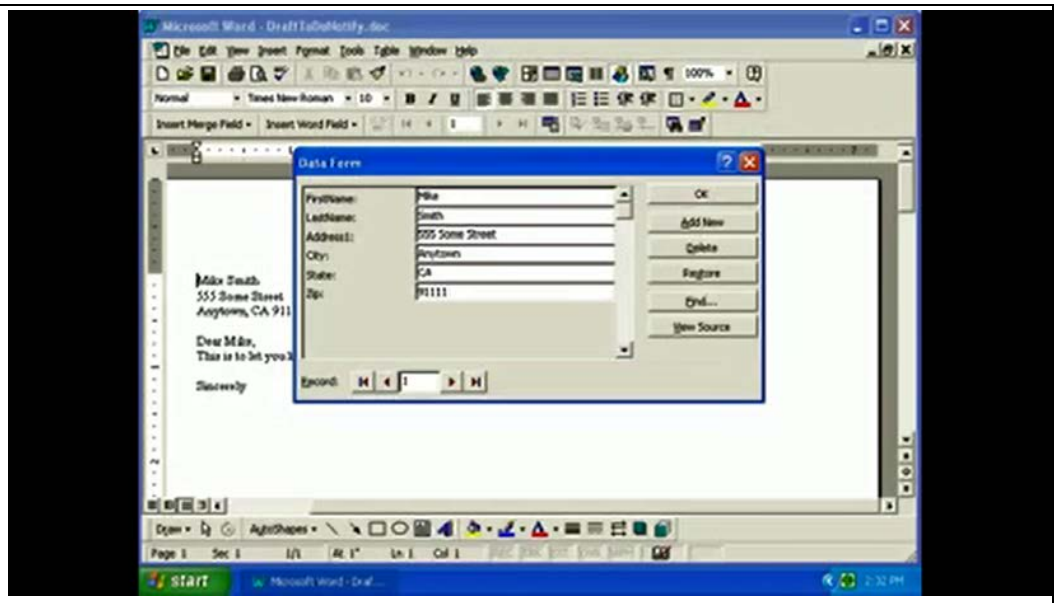
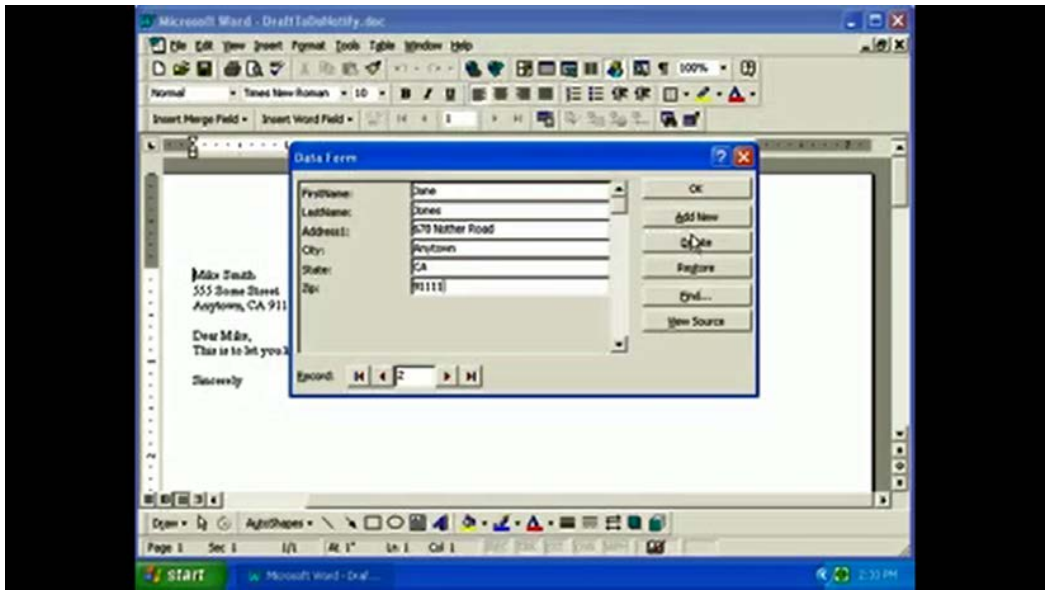
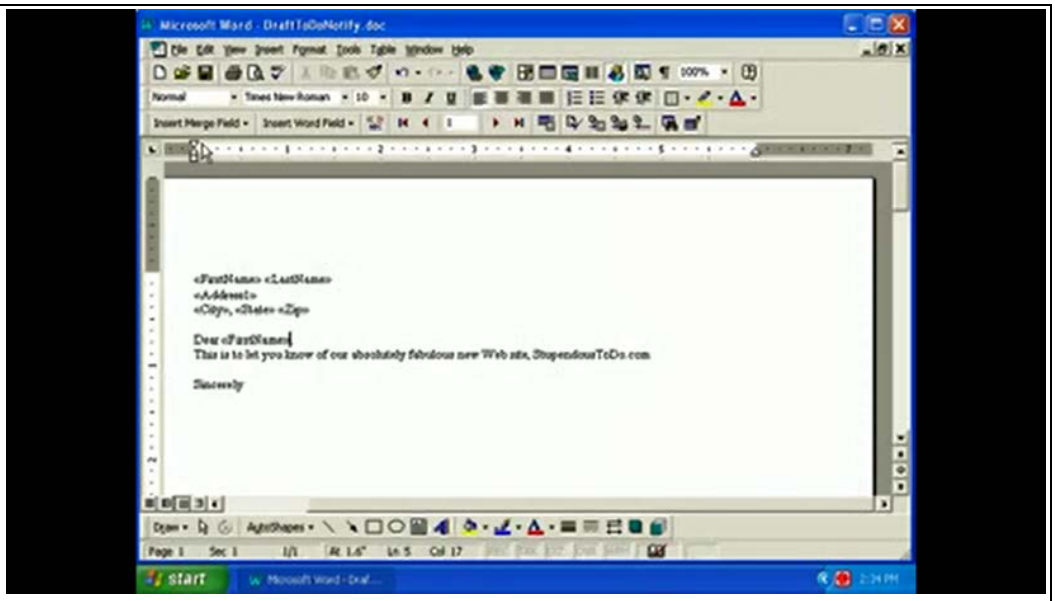
	 Microsoft Word - DraftToDoNotify.doc Data Form FirstName: LastName: Address1: City: State: Zip: OK Add New Delete Restore Find... View Source Record: Mike Smith 555 Some Street Anytown, CA 911 Dear Mike, Sincerely start  Microsoft Word - DraftToDoNotify.doc Data Form FirstName: LastName: Address1: City: State: Zip: OK Add New Delete Restore Find... View Source Record: Mike Smith 555 Some Street Anytown, CA 911 Dear Mike, Sincerely start

Exhibit L


Microsoft Word - DraftToDoNotify.doc
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear «FirstName»
This is to let you know of our absolutely fabulous new Web site, StupendousToDo.com
Sincerely
start

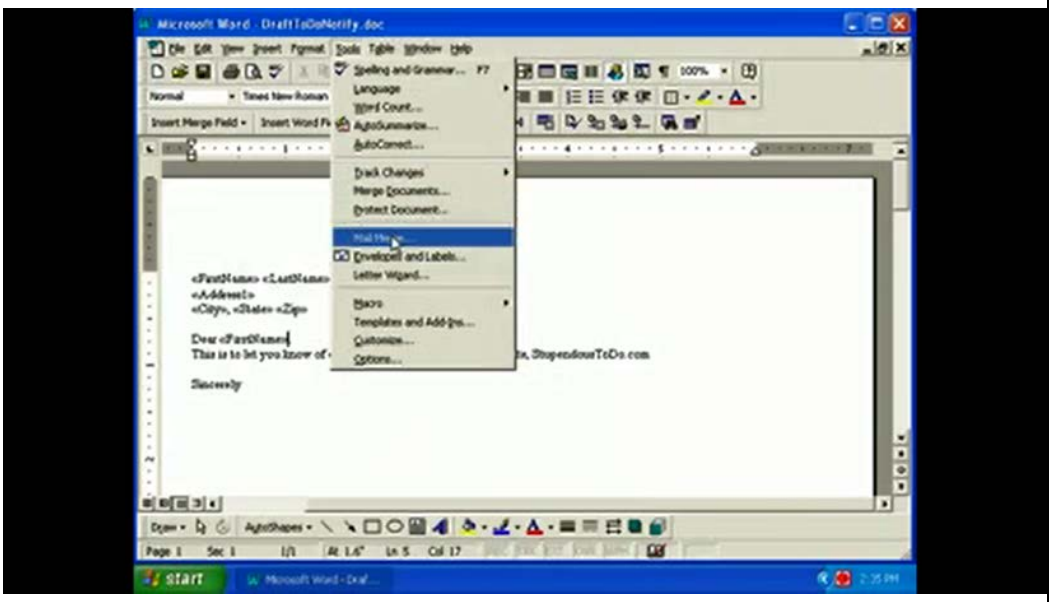

Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar... F7
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Envelopes and Labels...
Letter Wizard...
Macro
Templates and Add-Ins...
Customize...
Options...
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear «FirstName»
Sincerely
start

Exhibit L

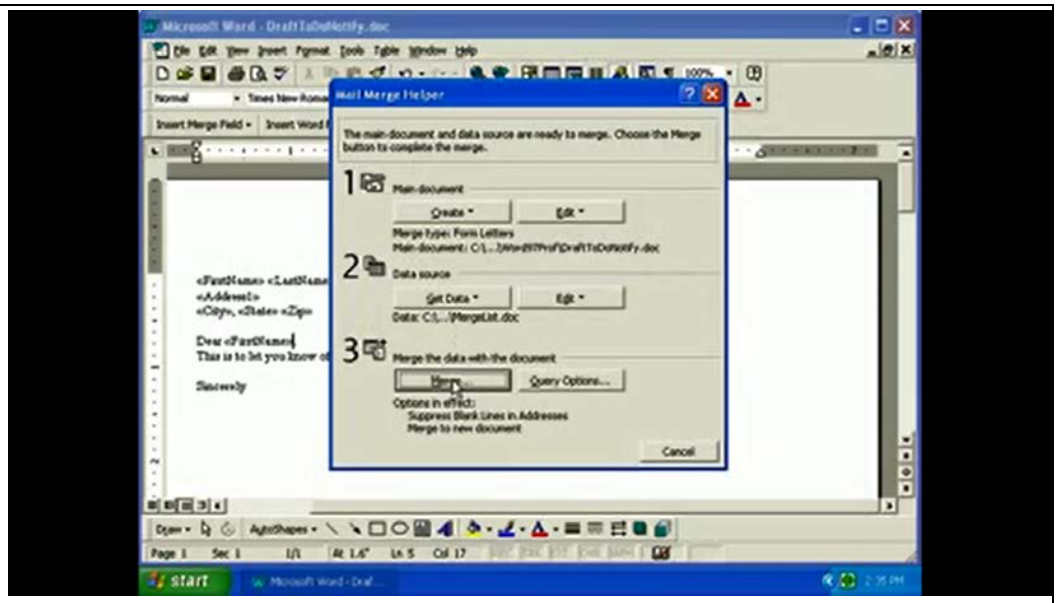
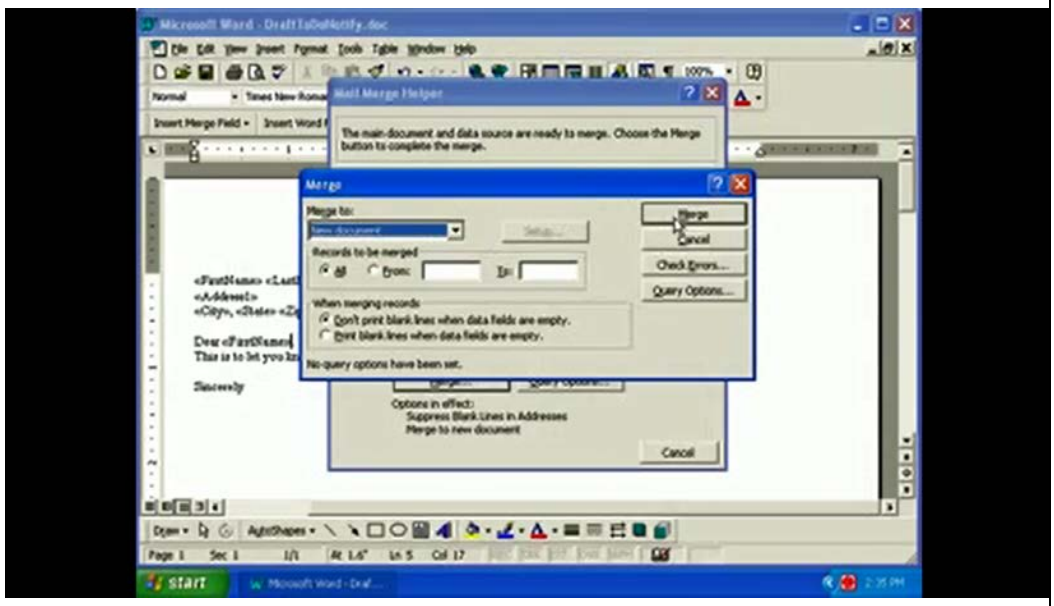
	 Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. 1 Main document Create Edit 2 Data source Get Data Edit 3 Merge the data with the document Merge... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel  Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. Merge Merge to: Records to be merged All From: To: When merging records Don't print blank lines when data fields are empty. Print blank lines when data fields are empty. No query options have been set. Merge Cancel Check Errors... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel

Exhibit L

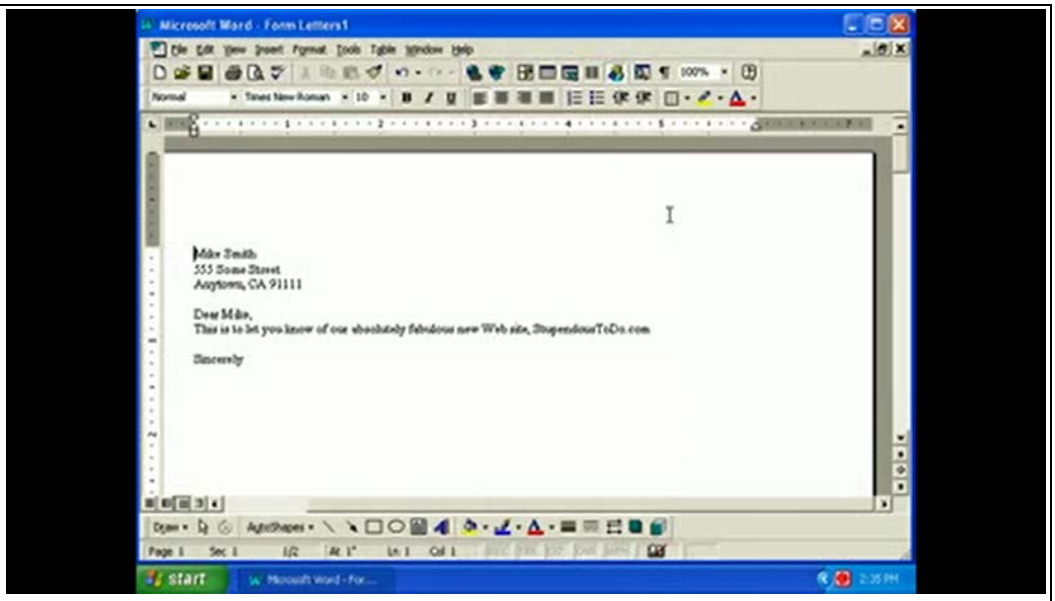
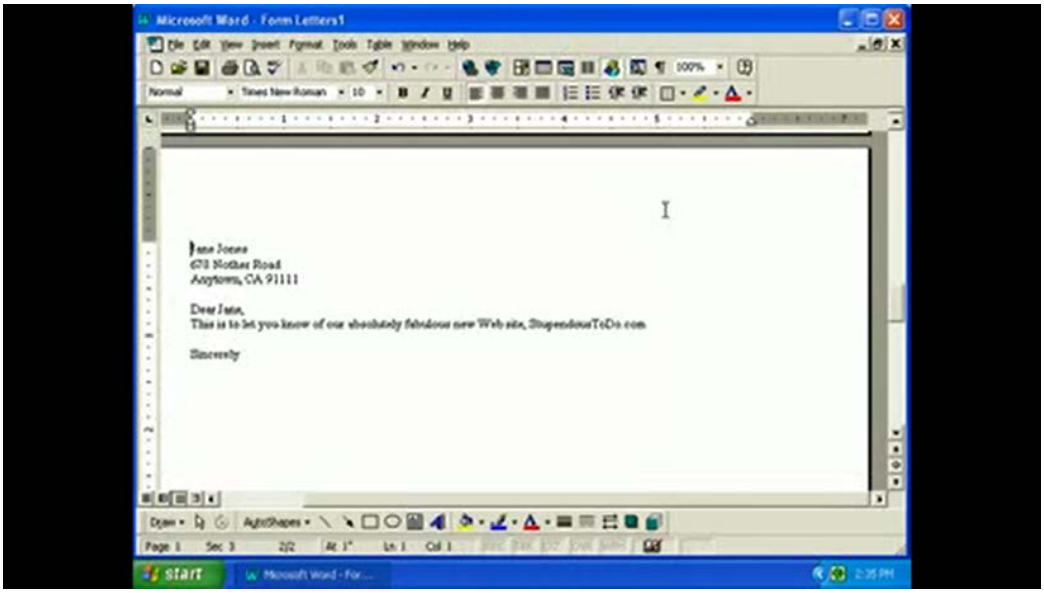
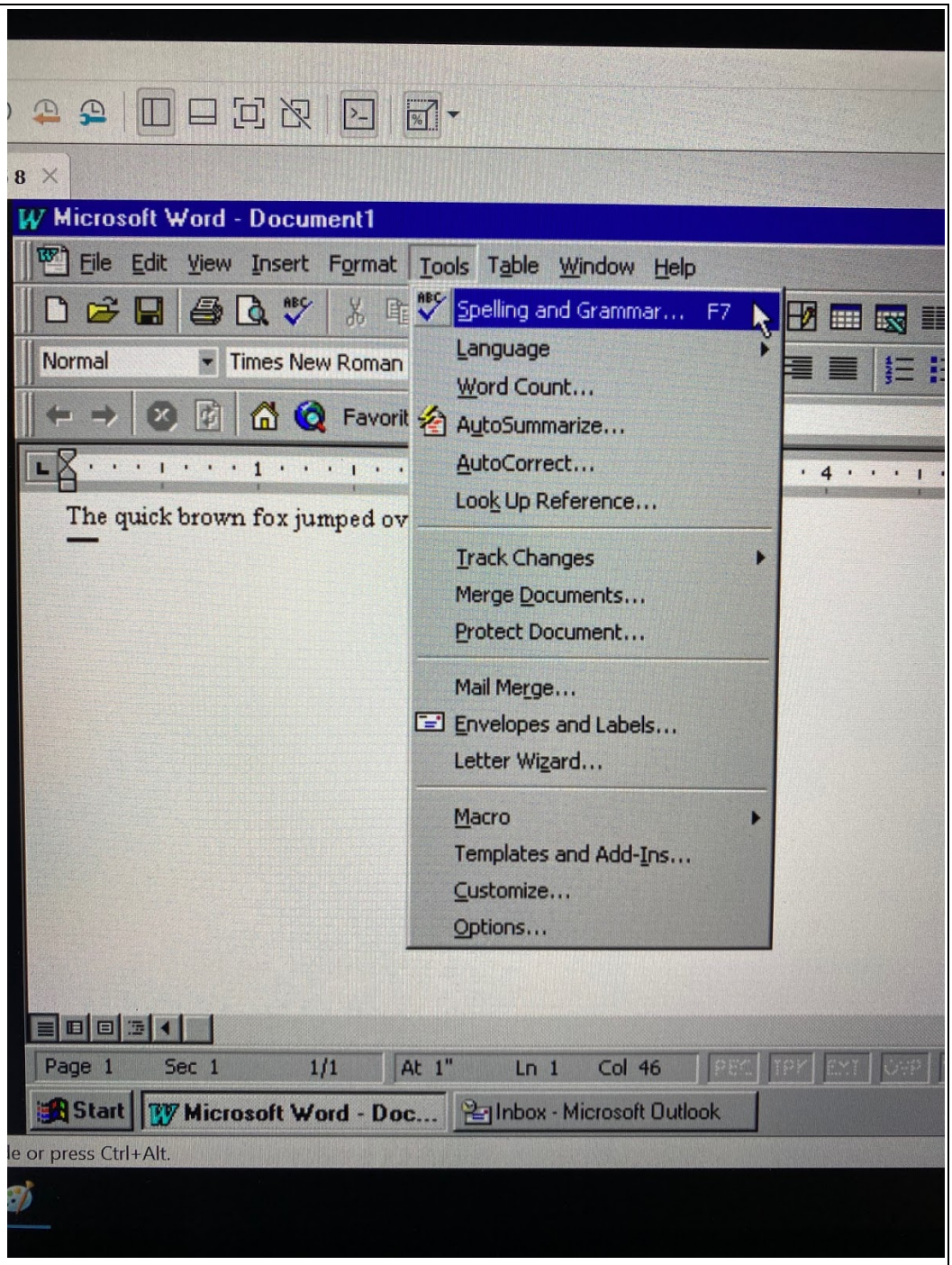
	 
retrieving the first information;	Word 97 discloses this element. See claim 1 above. For example, the following screenshots highlight aspects of Word 97 functionality that discloses retrieving the first information. Specifically, Word 97 discloses:

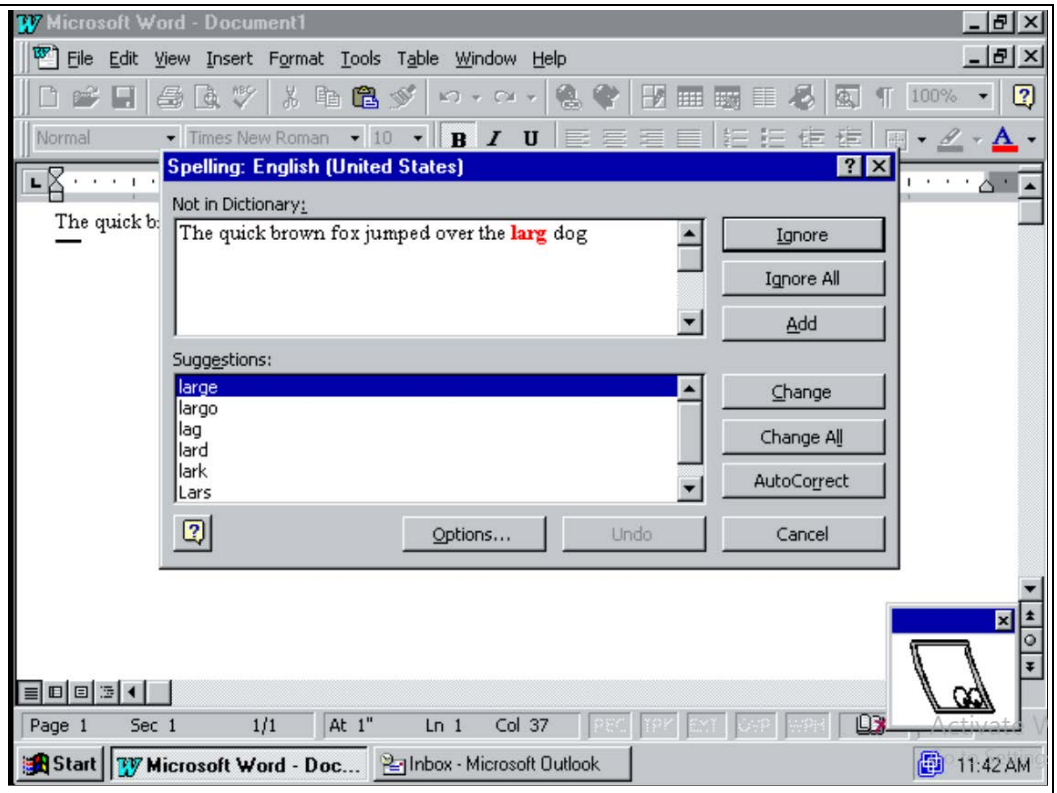
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

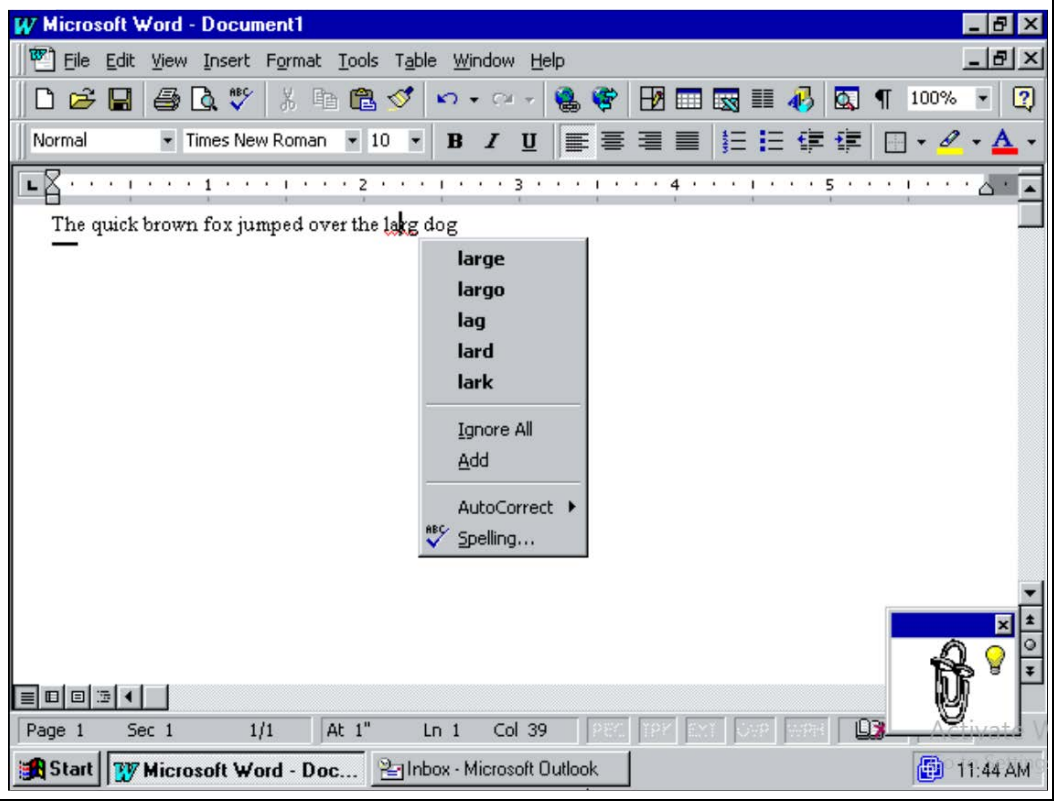


Exhibit L

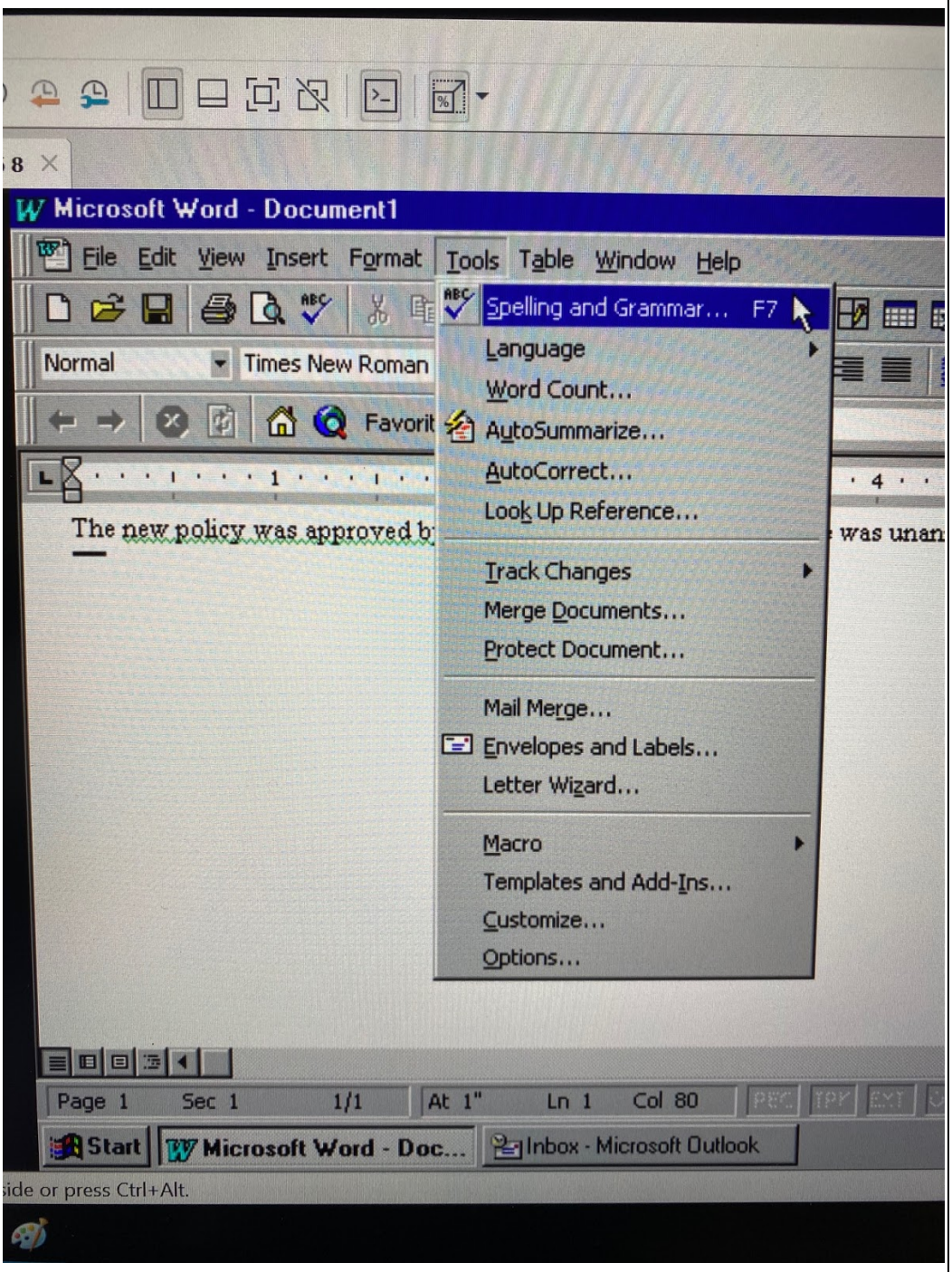
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L

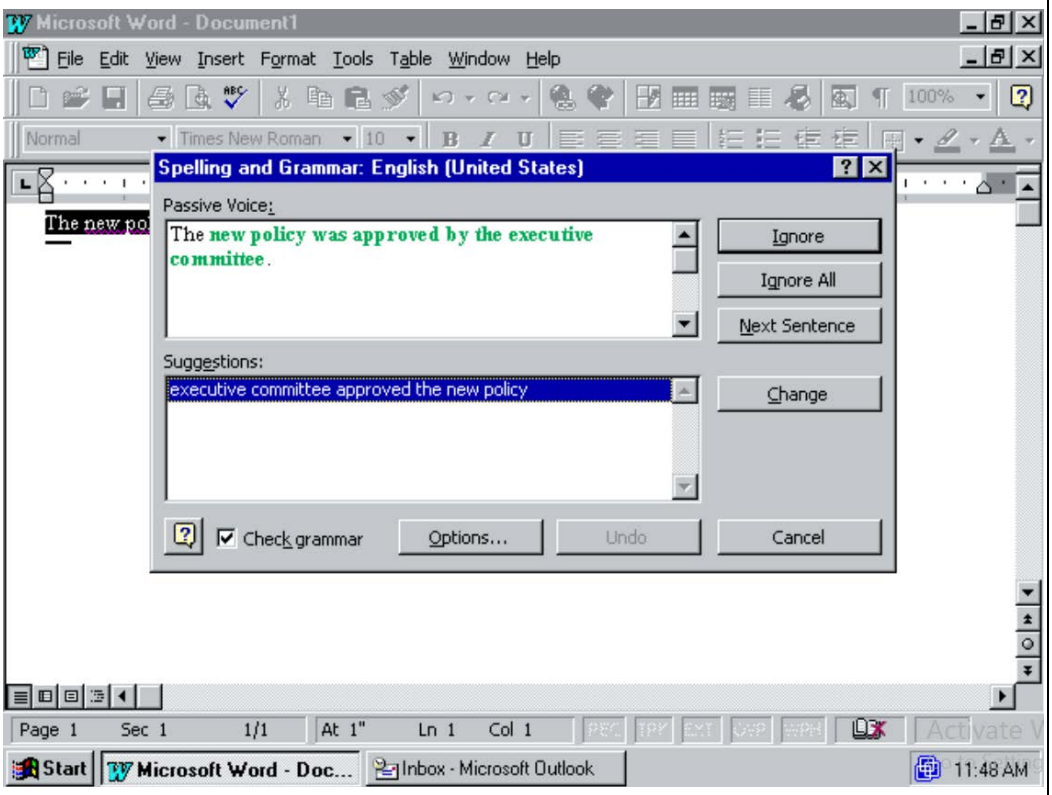
	 Word 97. Word 97 further discloses:

Exhibit L

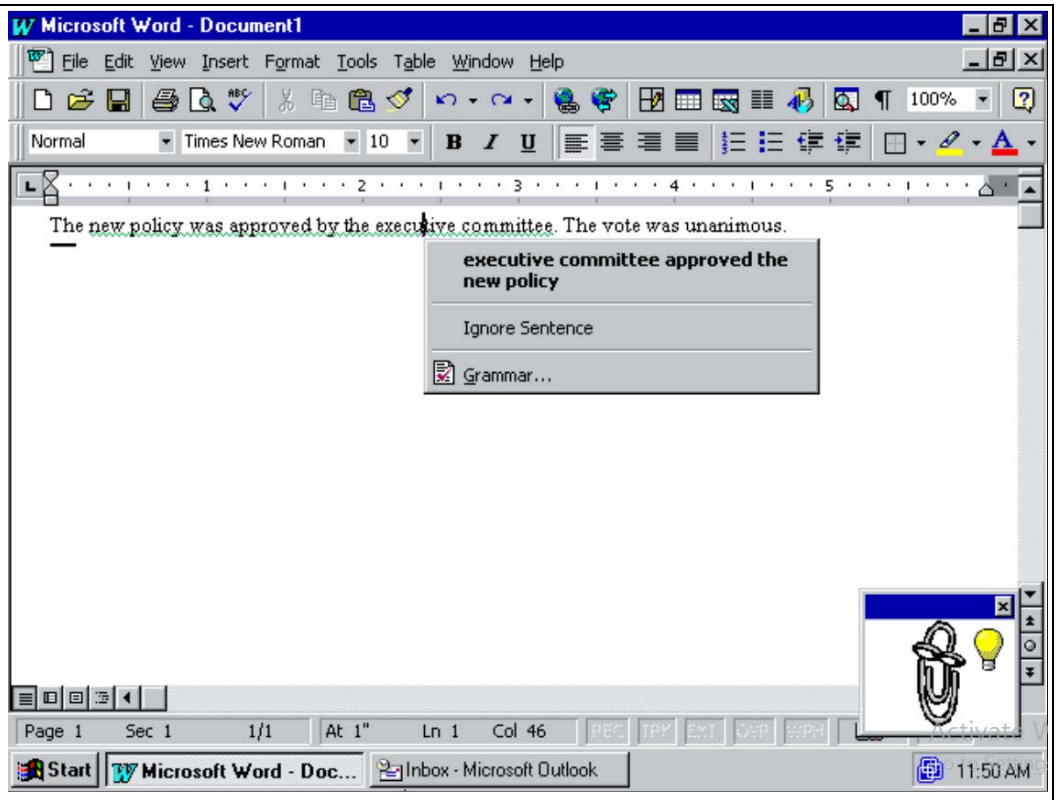
	 Word 97. Word 97 further discloses:

Exhibit L

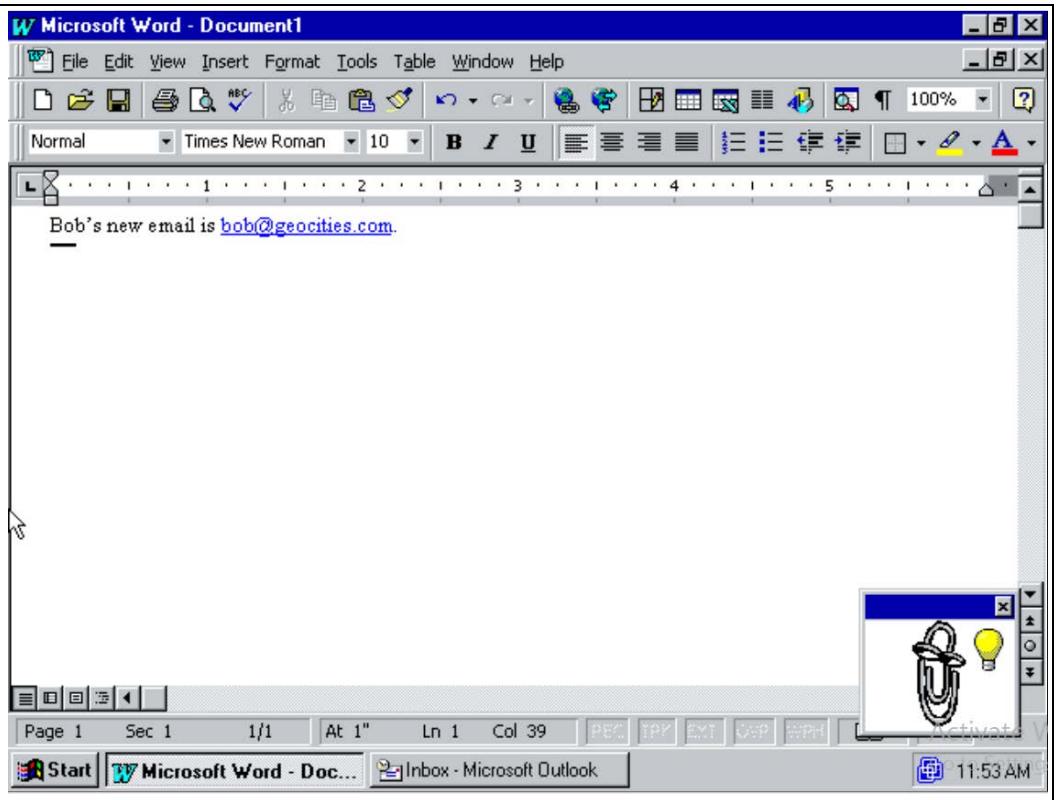
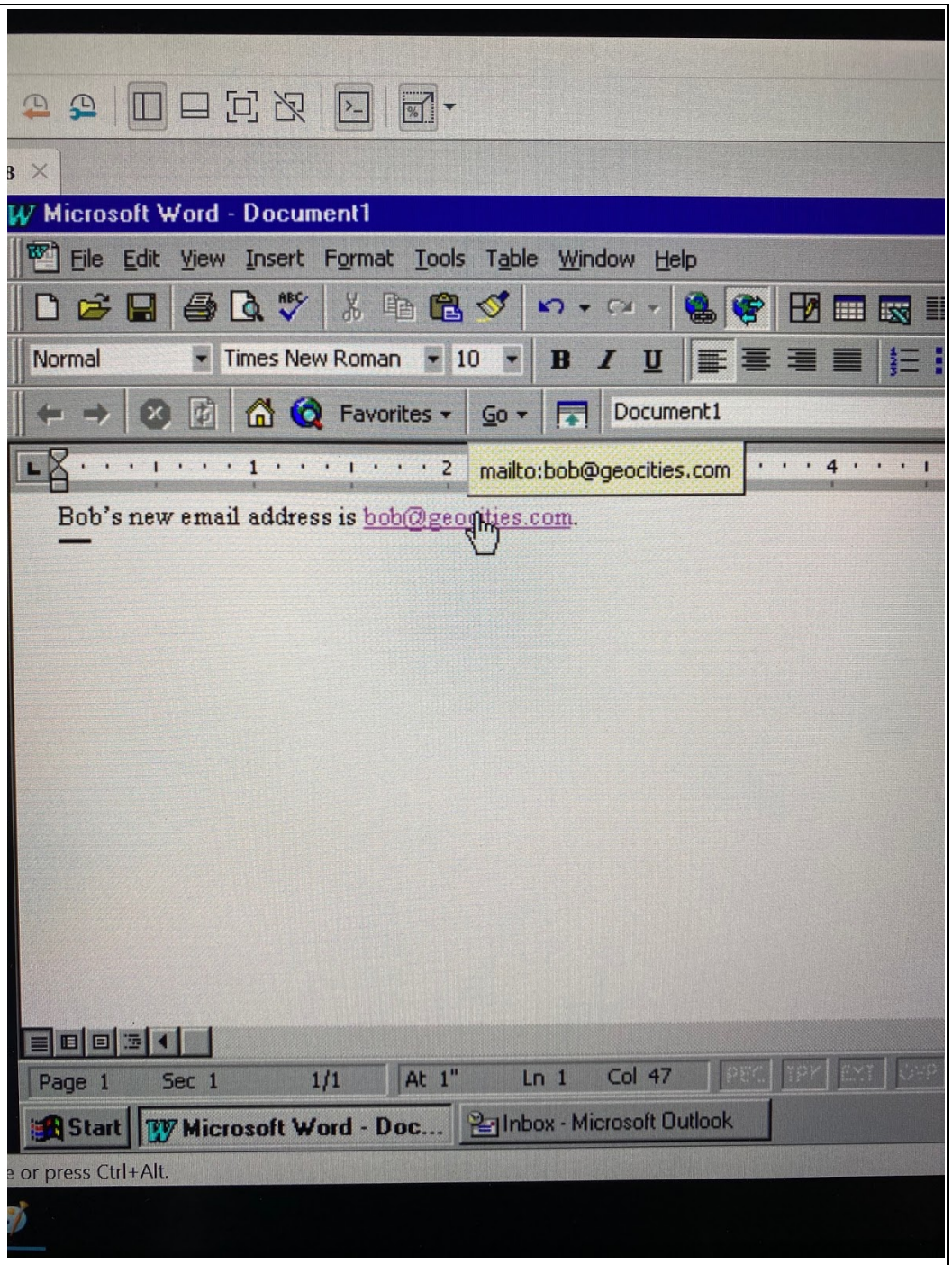
	 Word 97. Word 97 further discloses:

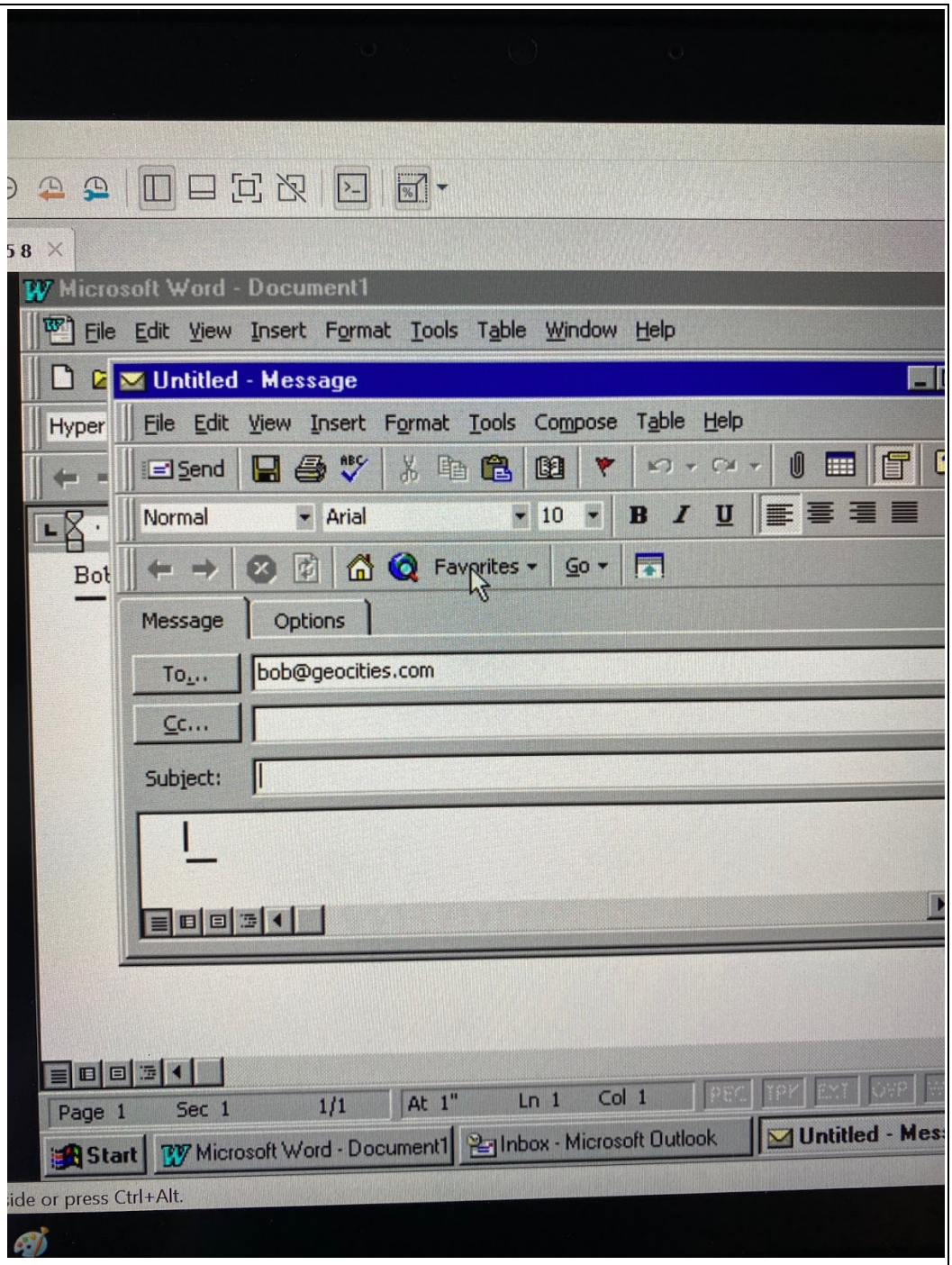
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L

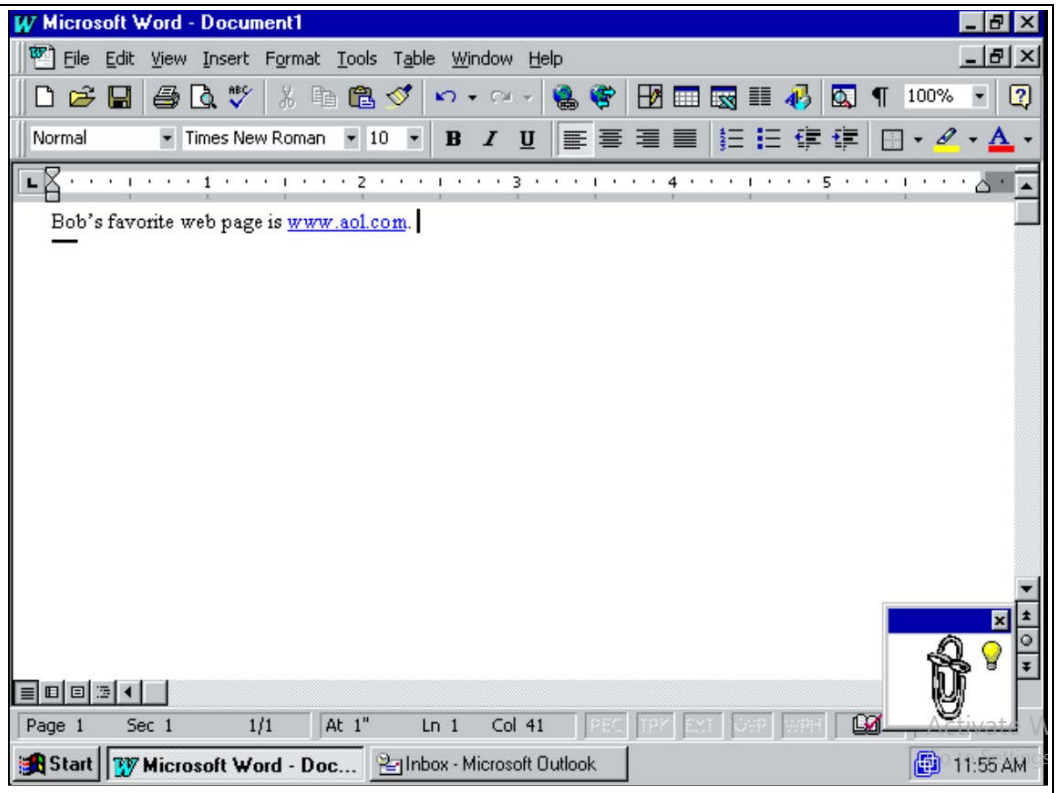
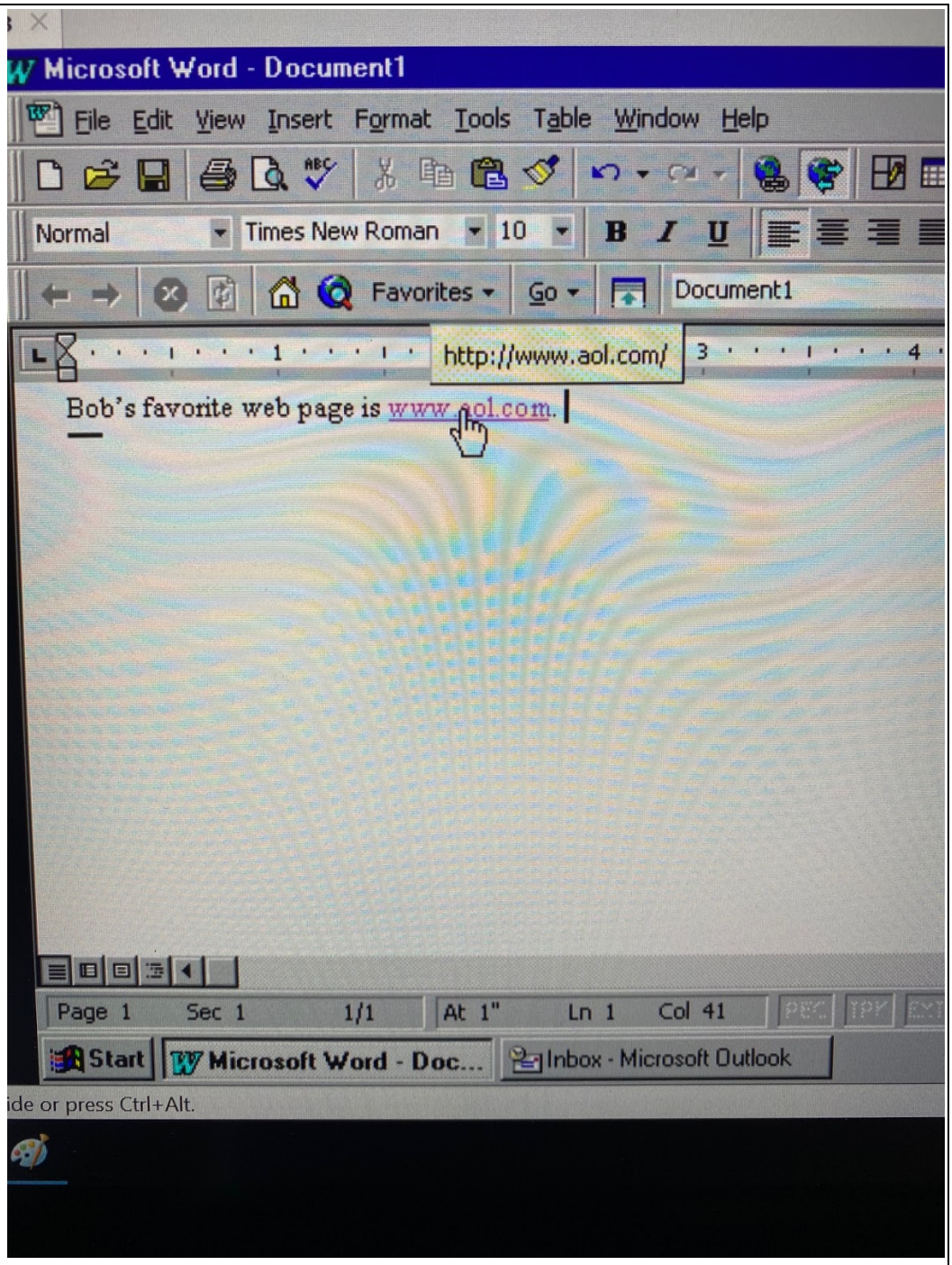
	 Word 97. Word 97 further discloses:

Exhibit L



Word 97.

How to use Microsoft Word further discloses:

Exhibit L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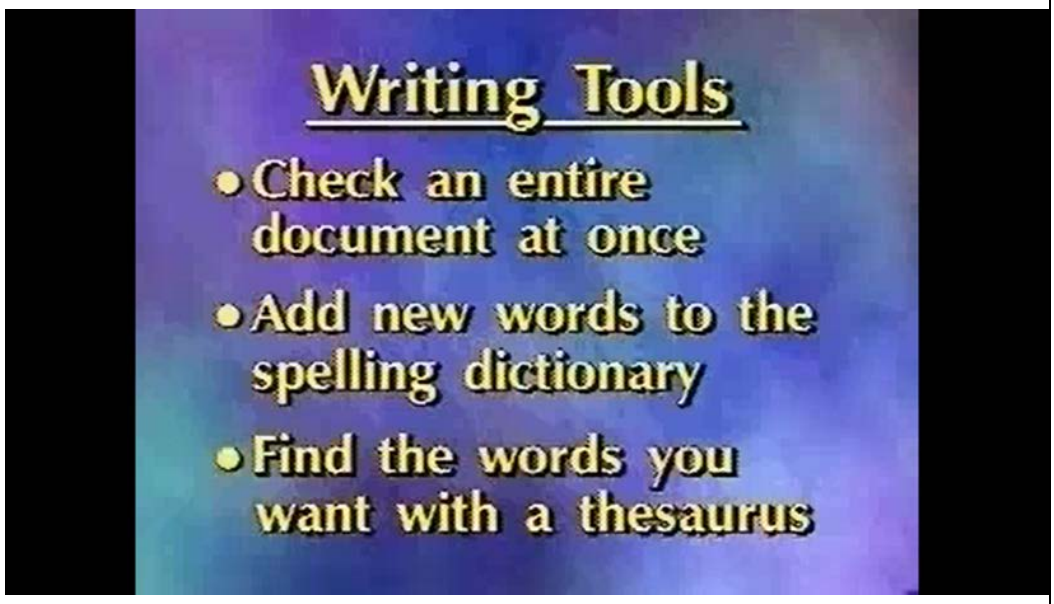

Writing Tools
• Check an entire document at once
• Add new words to the spelling dictionary
• Find the words you want with a thesaurus

Exhibit L

Word 97 Core Lesson 16 further discloses:

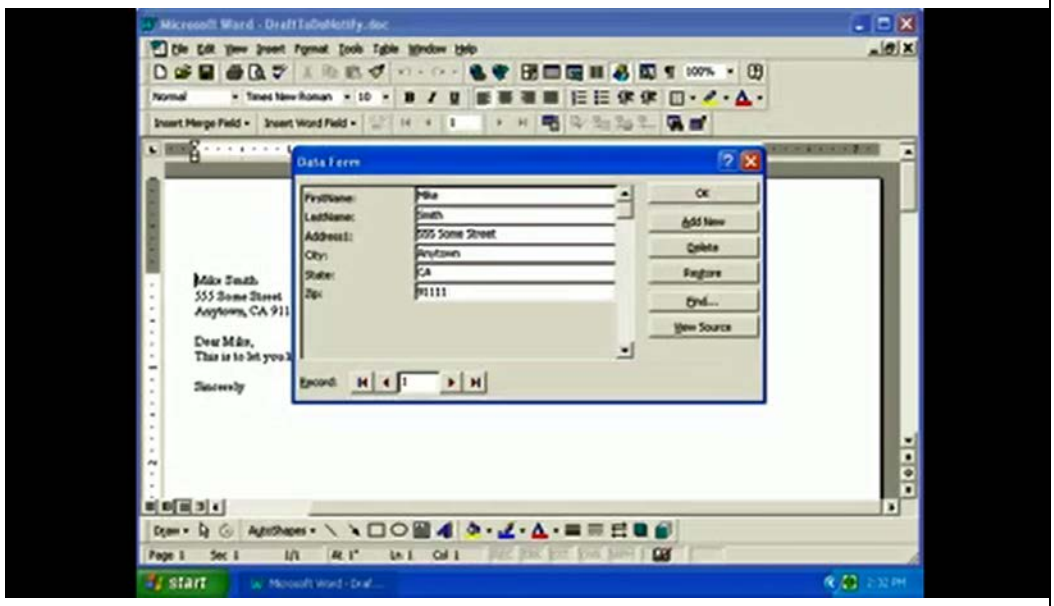


Exhibit L

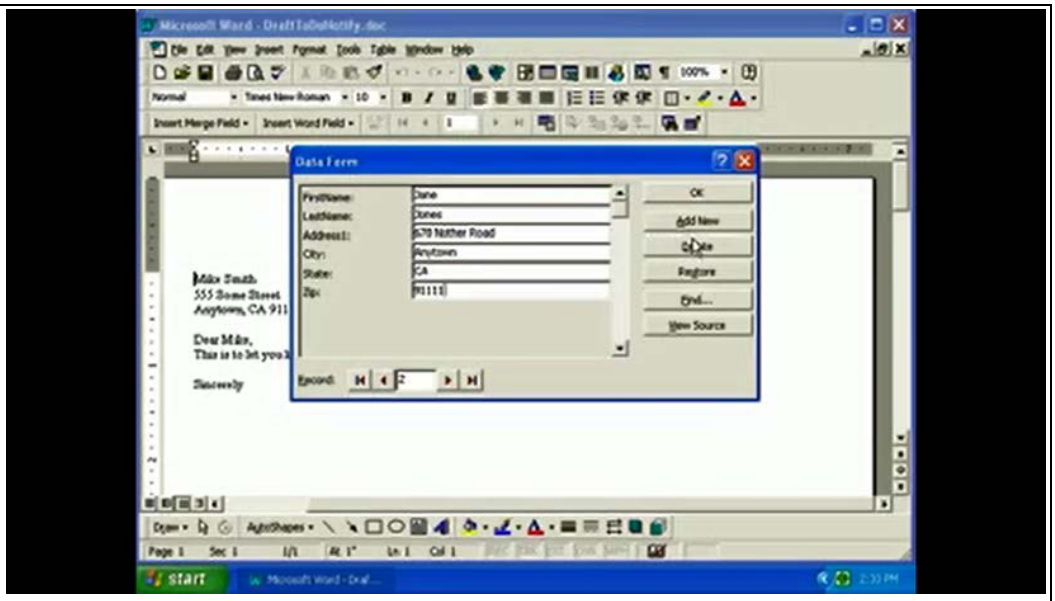
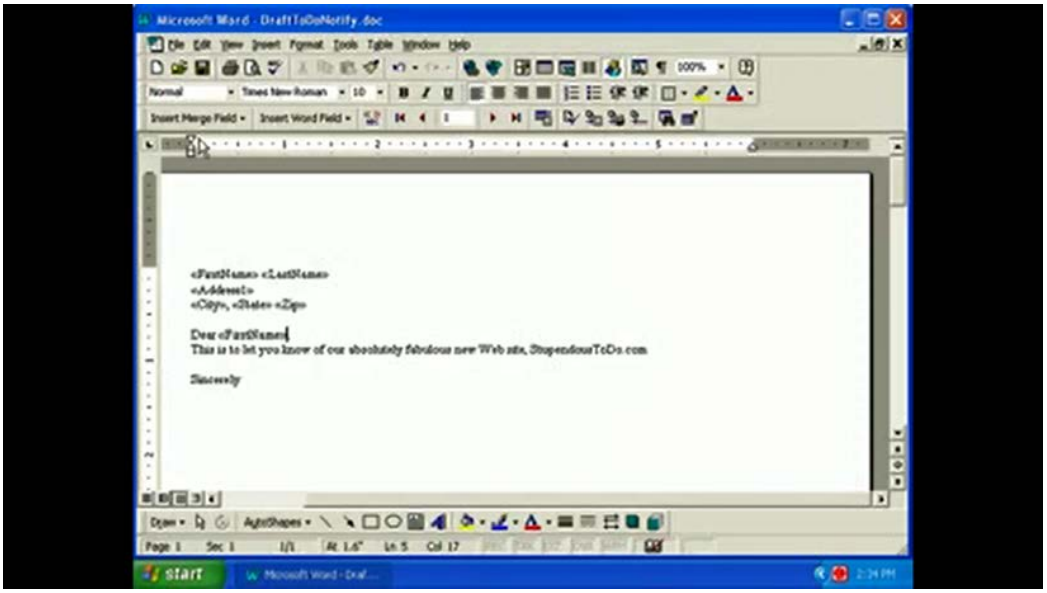
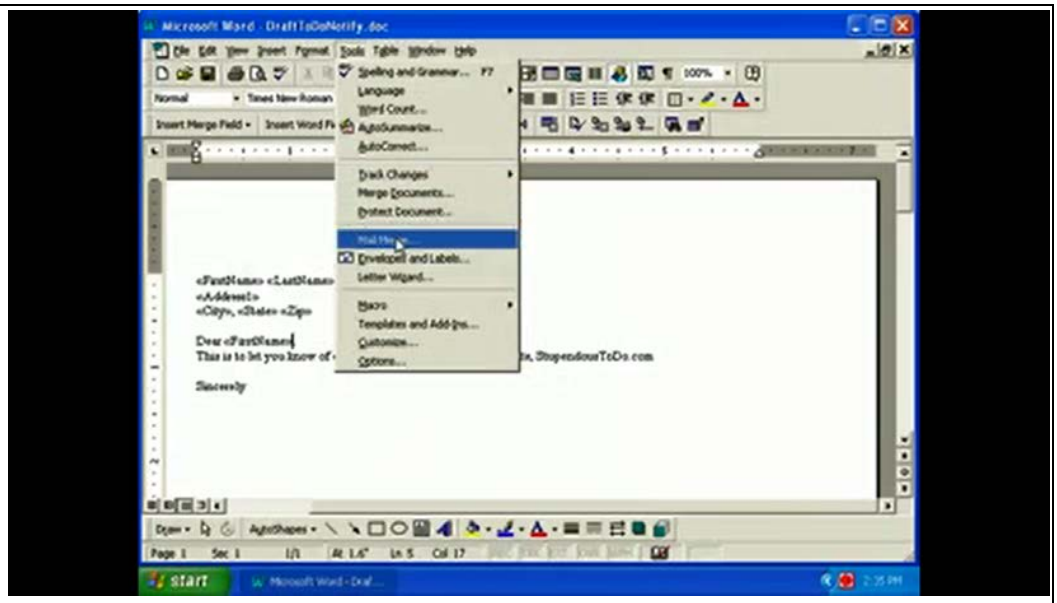
	 Microsoft Word - DraftToDoNotify.doc Data Form FirstName: LastName: Address1: City: State: Zip: OK Add New Delete Restore Find... View Source Record: Mike Smith 555 Some Street Anytown, CA 911 Dear Mike, Sincerely start  Microsoft Word - DraftToDoNotify.doc «FirstName» «LastName» «Address1» «City», «State» «Zip» Dear «FirstName» This is to let you know of our absolutely fabulous new Web site, StupendousToDo.com Sincerely start

Exhibit L


Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar...
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Mail Merge...
Envelopes and Labels...
Letter Wizard...
Macro
Templates and Add-Ins...
Customize...
Options...
start

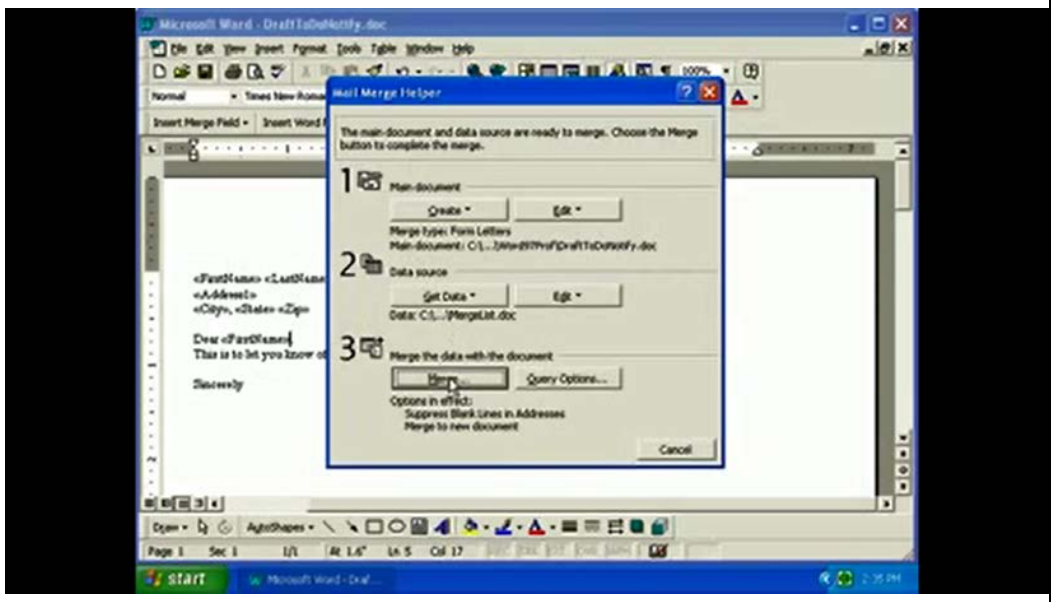

Microsoft Word - DraftToDoNotify.doc
Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel
start

Exhibit L

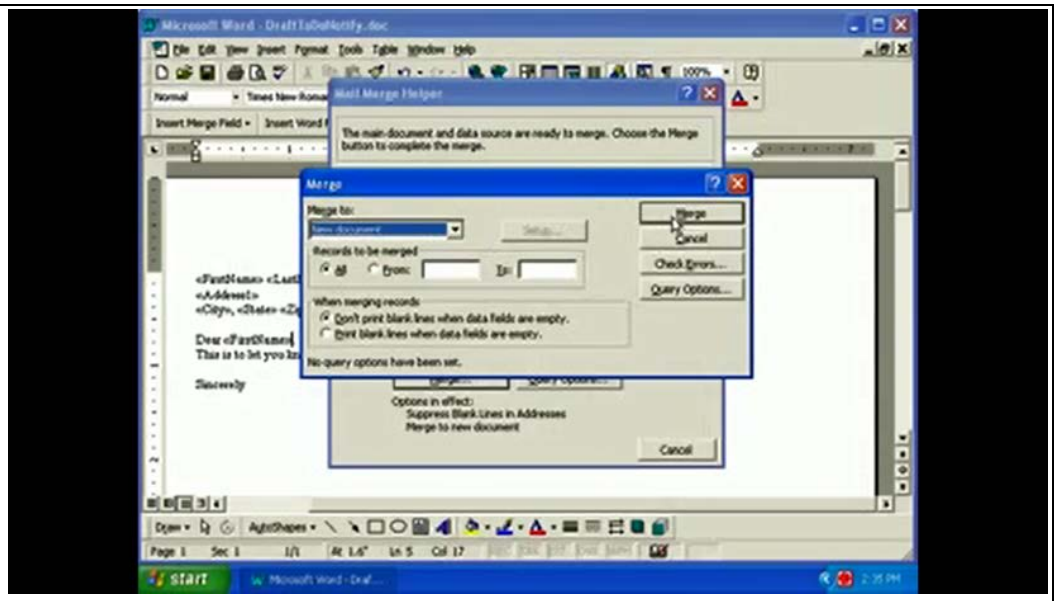
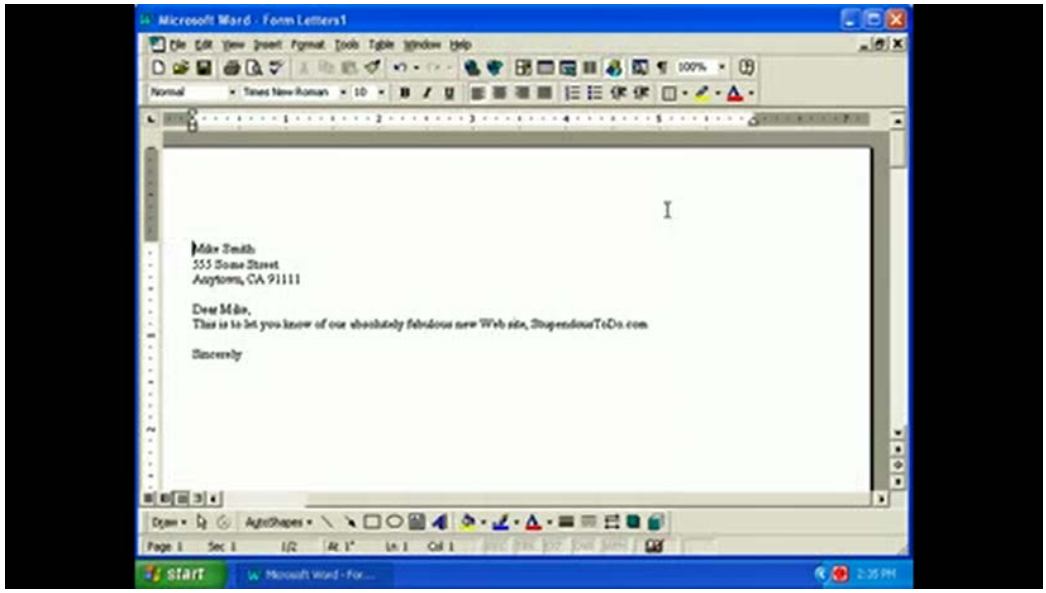
	 Microsoft Word - DraftToDoNotify.doc Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. Merge Merge to: Records to be merged All From: To: When merging records: Don't print blank lines when data fields are empty. Print blank lines when data fields are empty. No query options have been set. Merge... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel Merge Cancel Check Errors... Query Options... Sincerely start  Microsoft Word - Form Letters1 Mike Smith 555 Some Street Anytown, CA 91111 Dear Mike, This is to let you know of our absolutely fabulous new Web site, StupendousToDo.com Sincerely start

Exhibit L

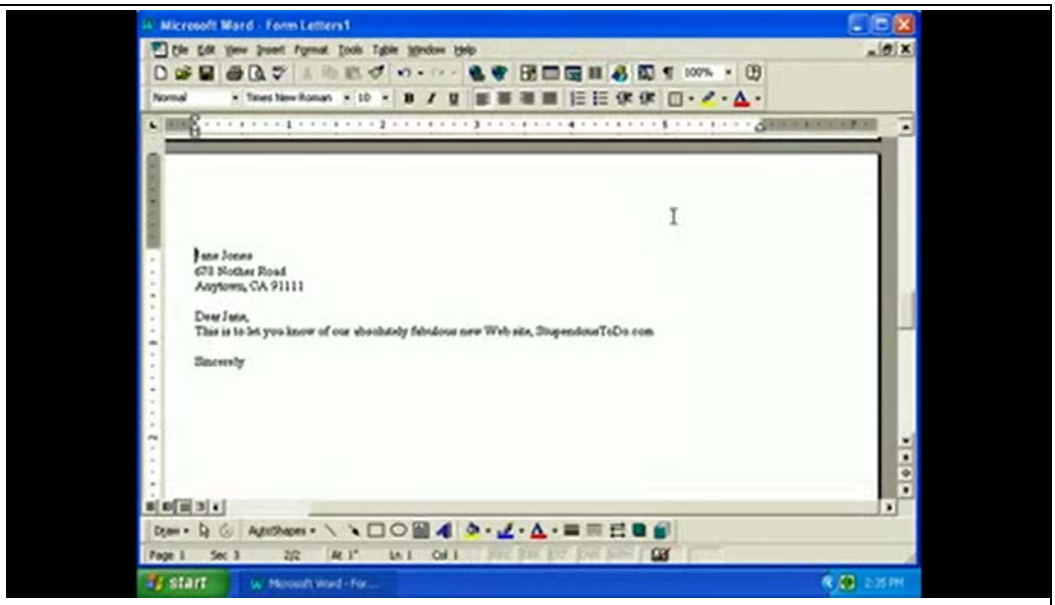
	
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Word 97 discloses this element. See claim 1 above. For example, the following screenshots highlight aspects of Word 97 functionality that discloses providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information. Specifically, Word 97 discloses: Word 97 further discloses:

Exhibit L

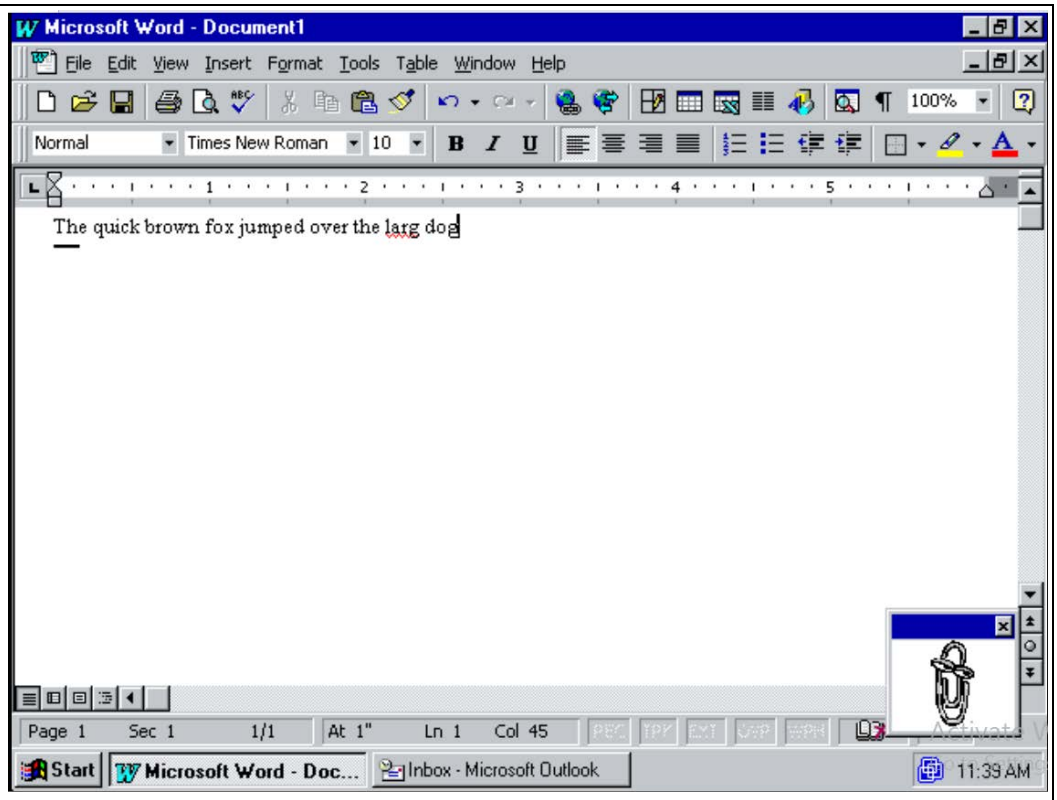
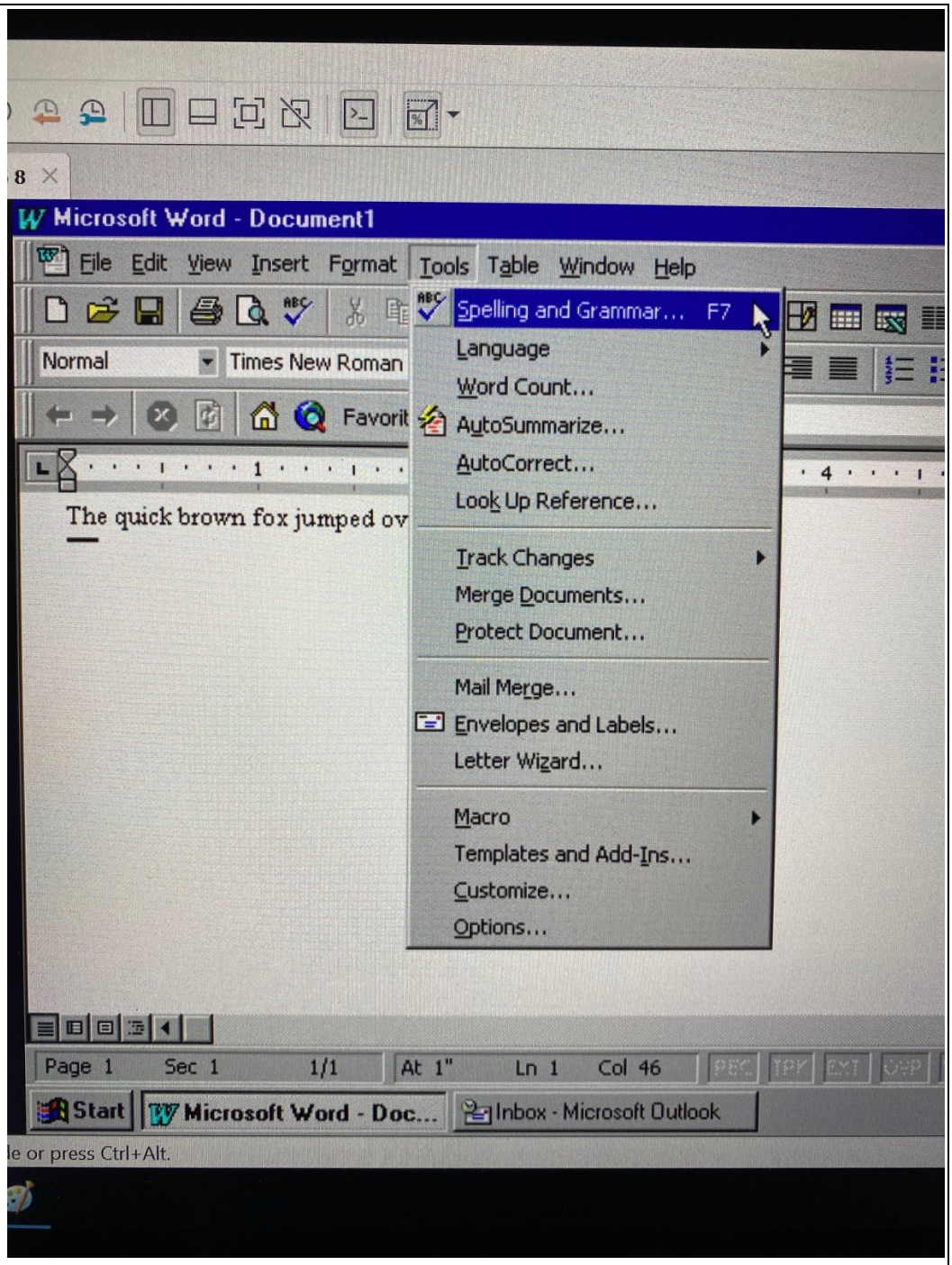
	 Word 97. Word 97 further discloses:

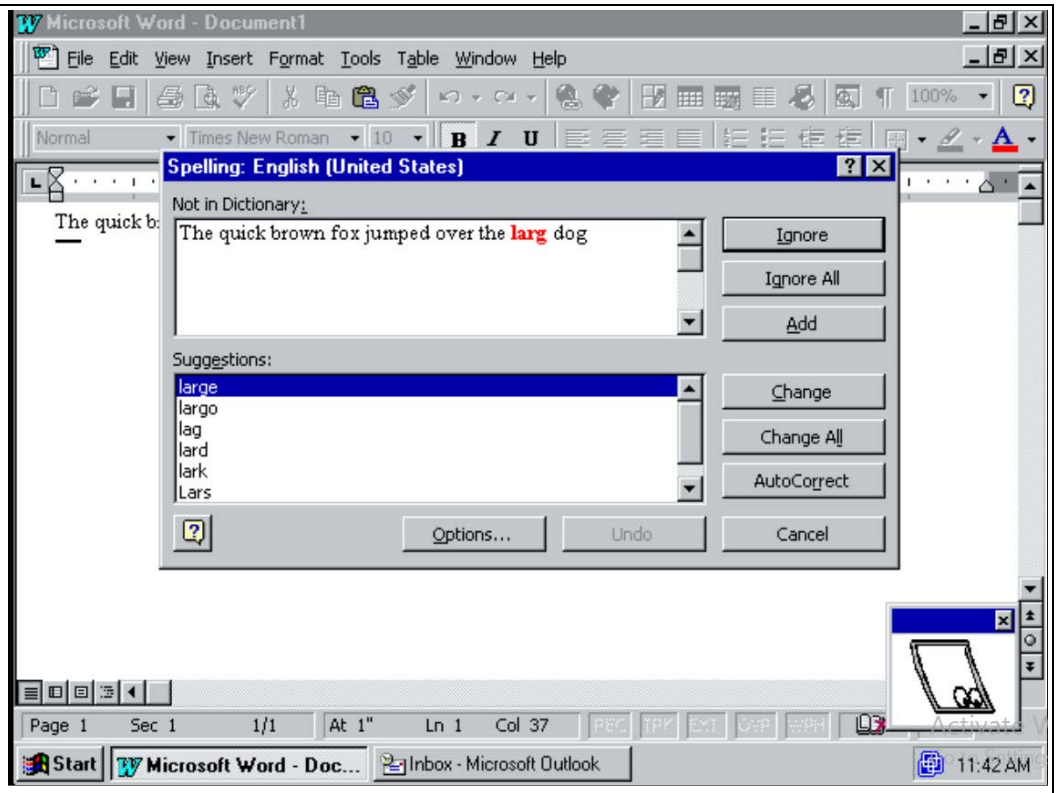
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



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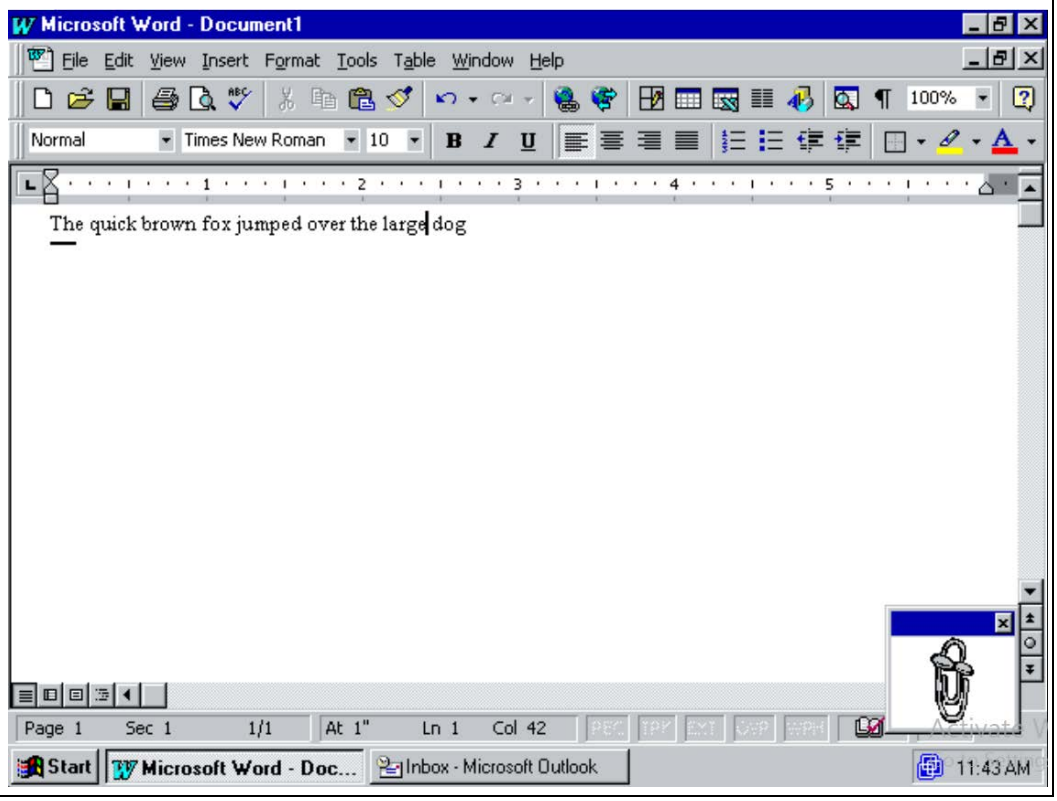


Exhibit L

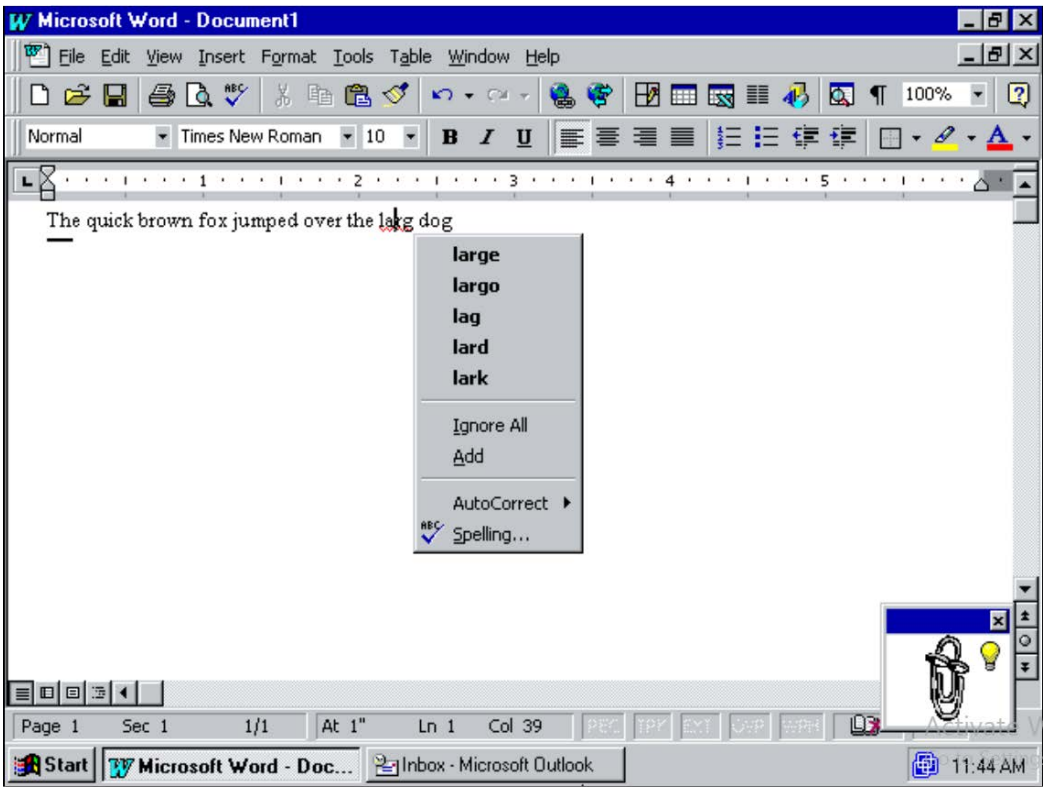
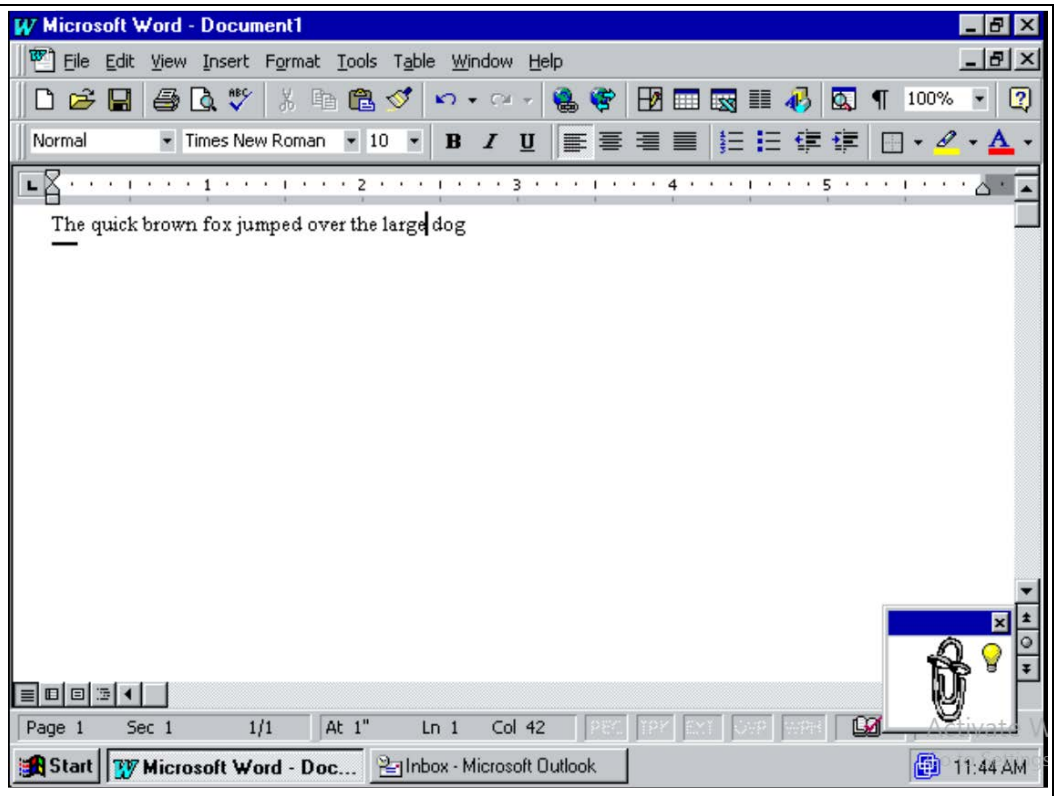
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

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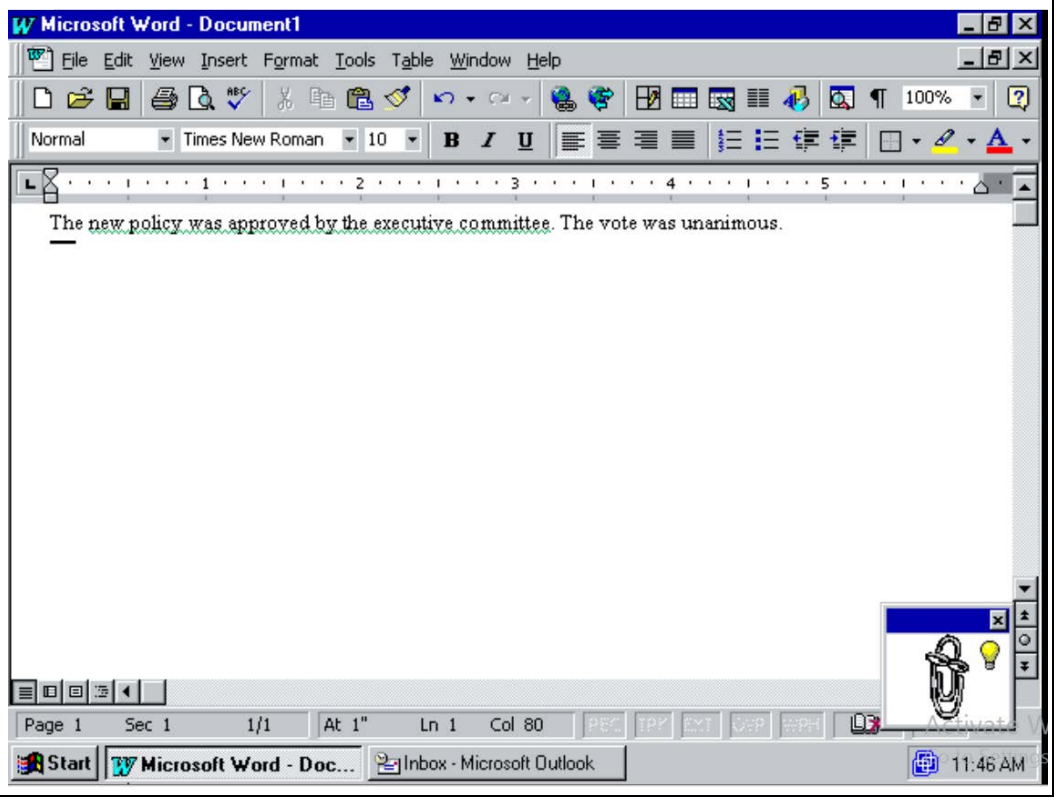

Exhibit L

Word 97.

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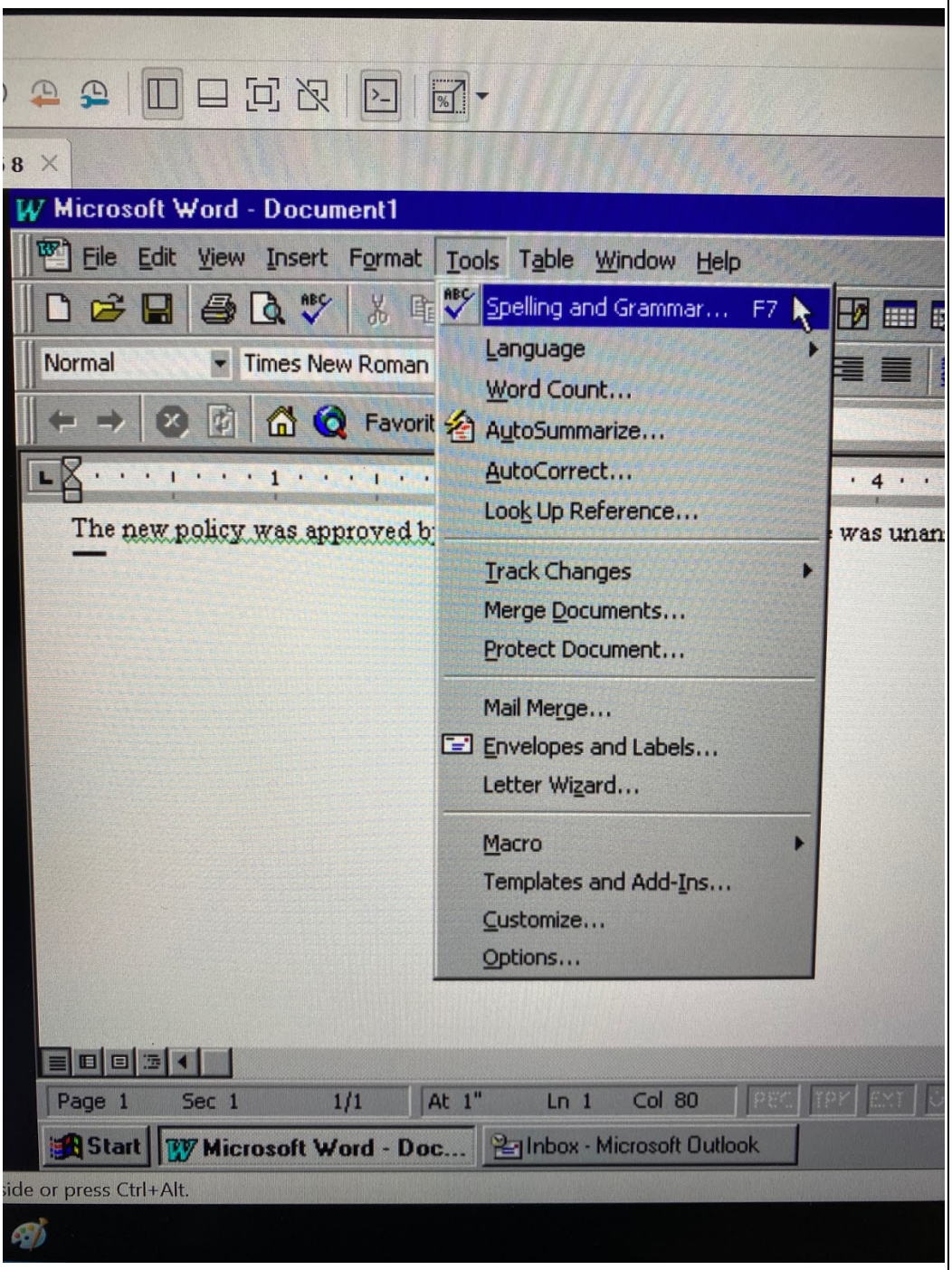

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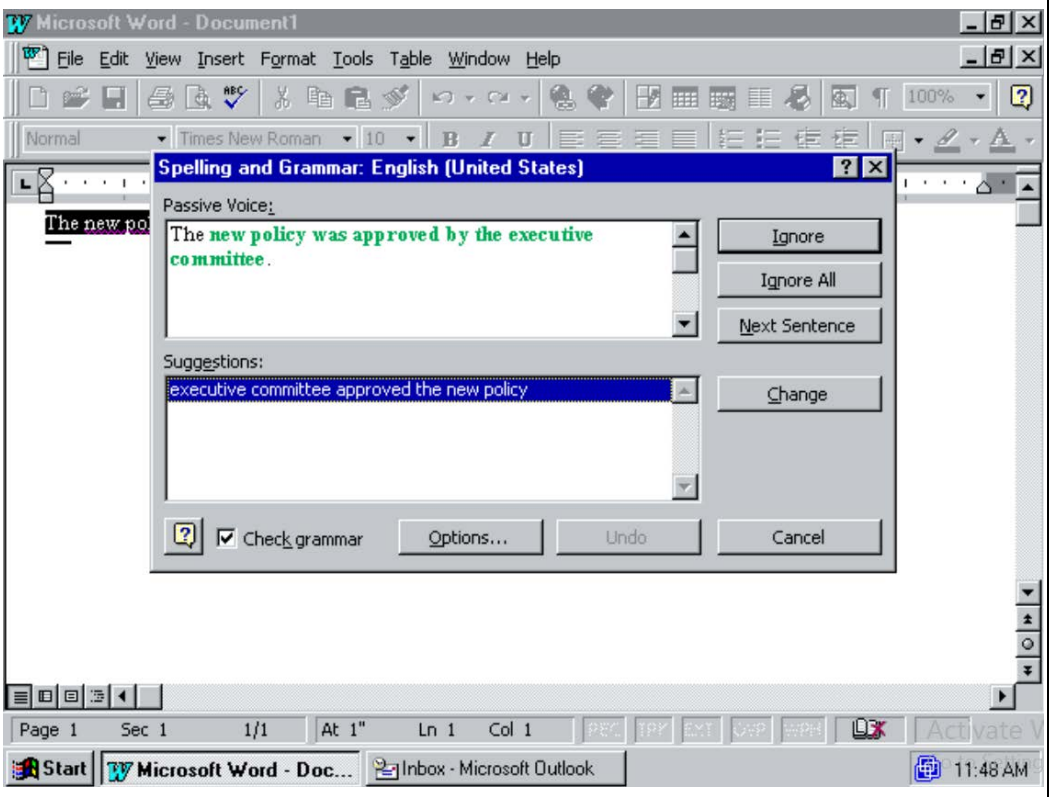

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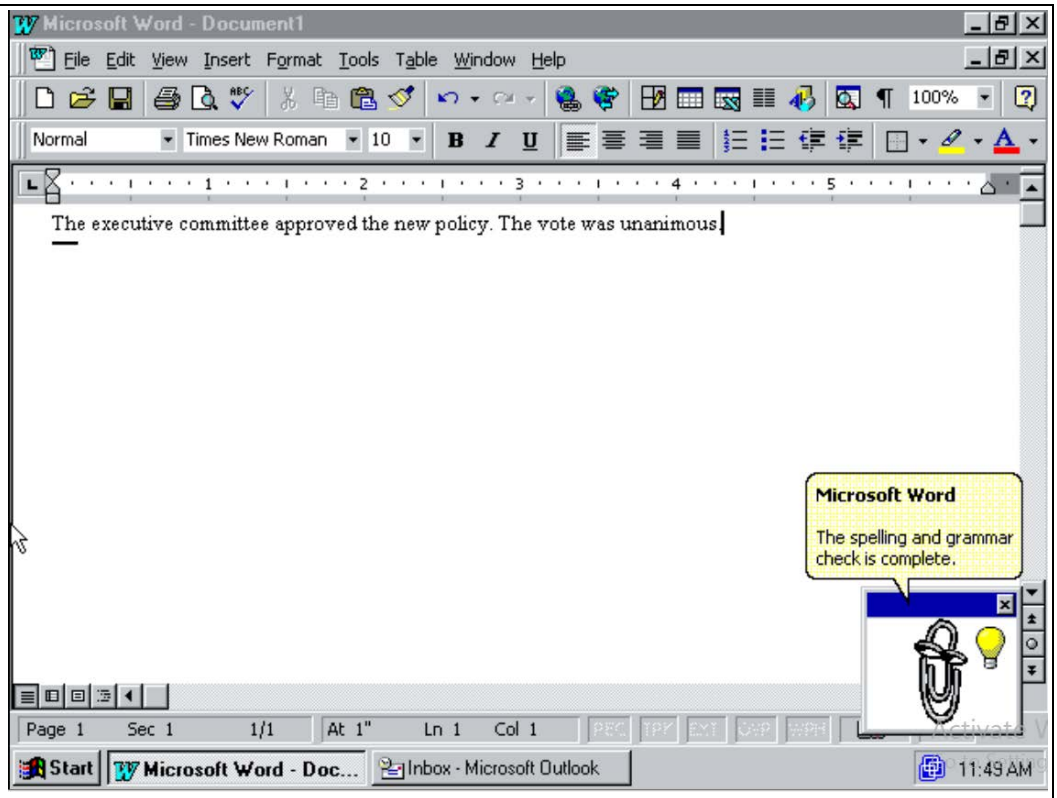

Word 97.

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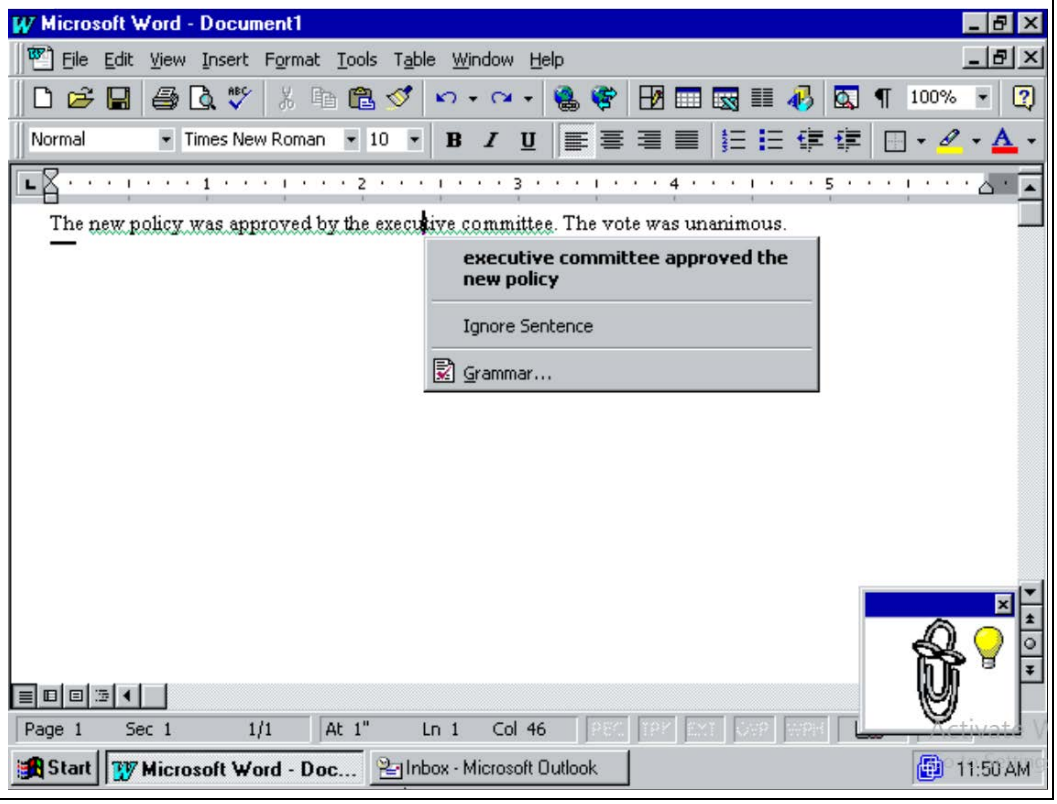
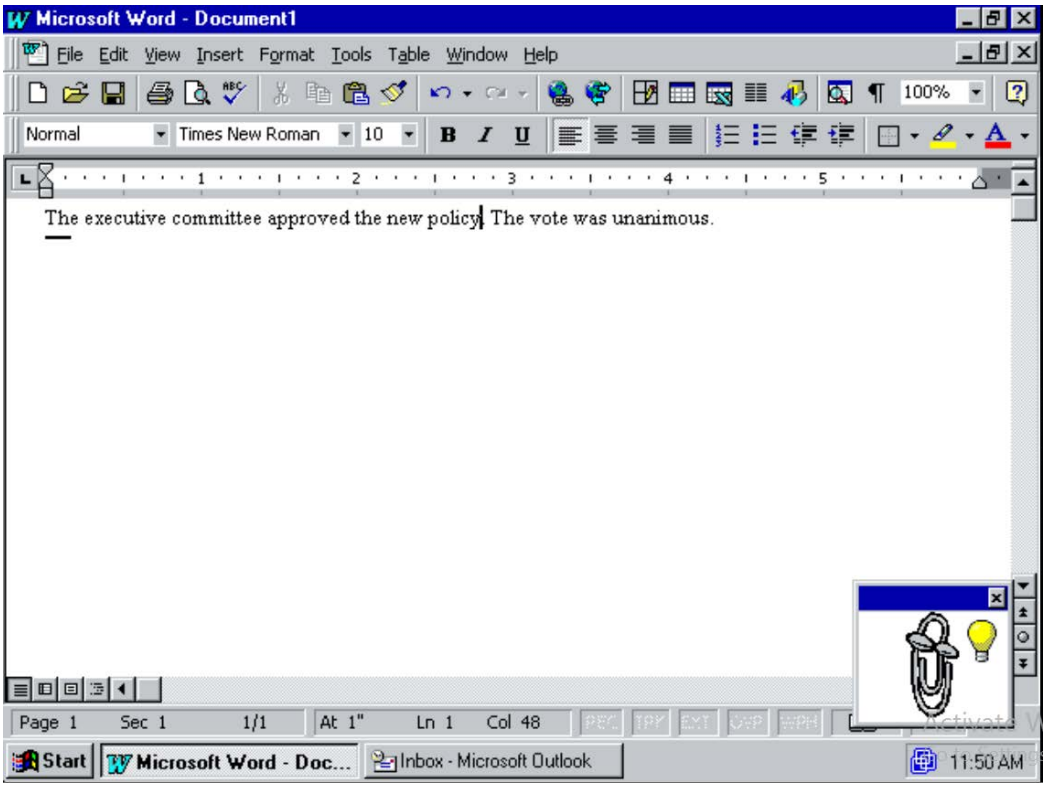


Exhibit L

	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

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	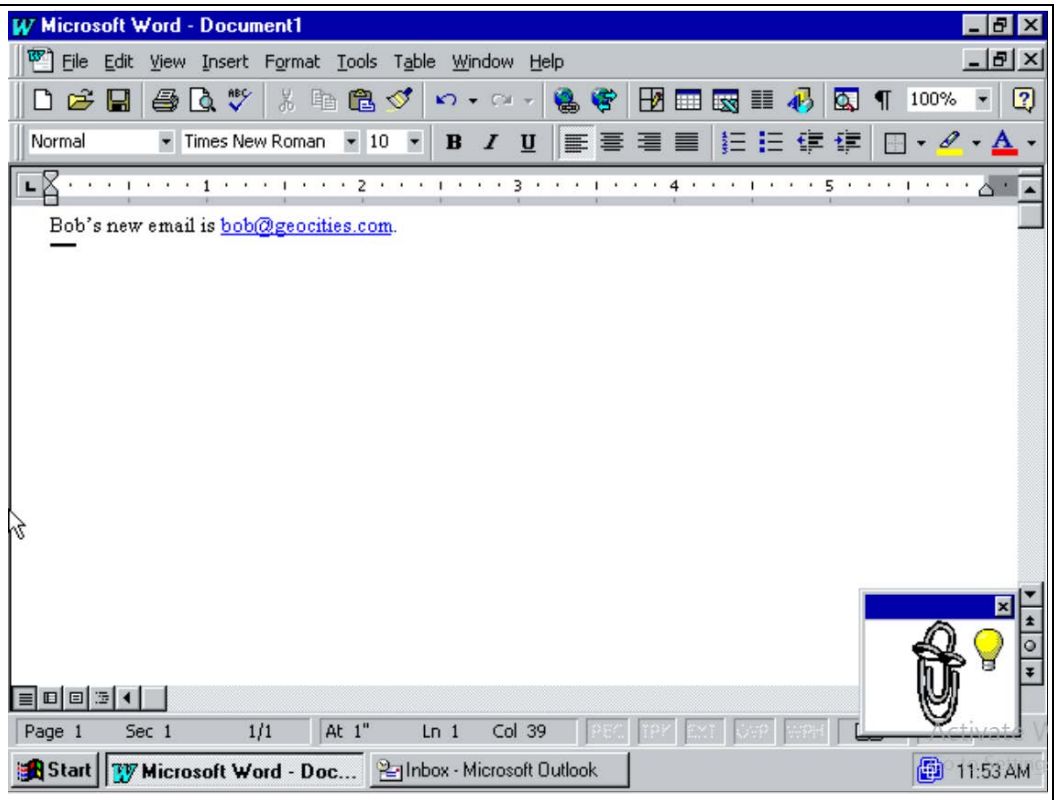 Word 97. Word 97 further discloses:

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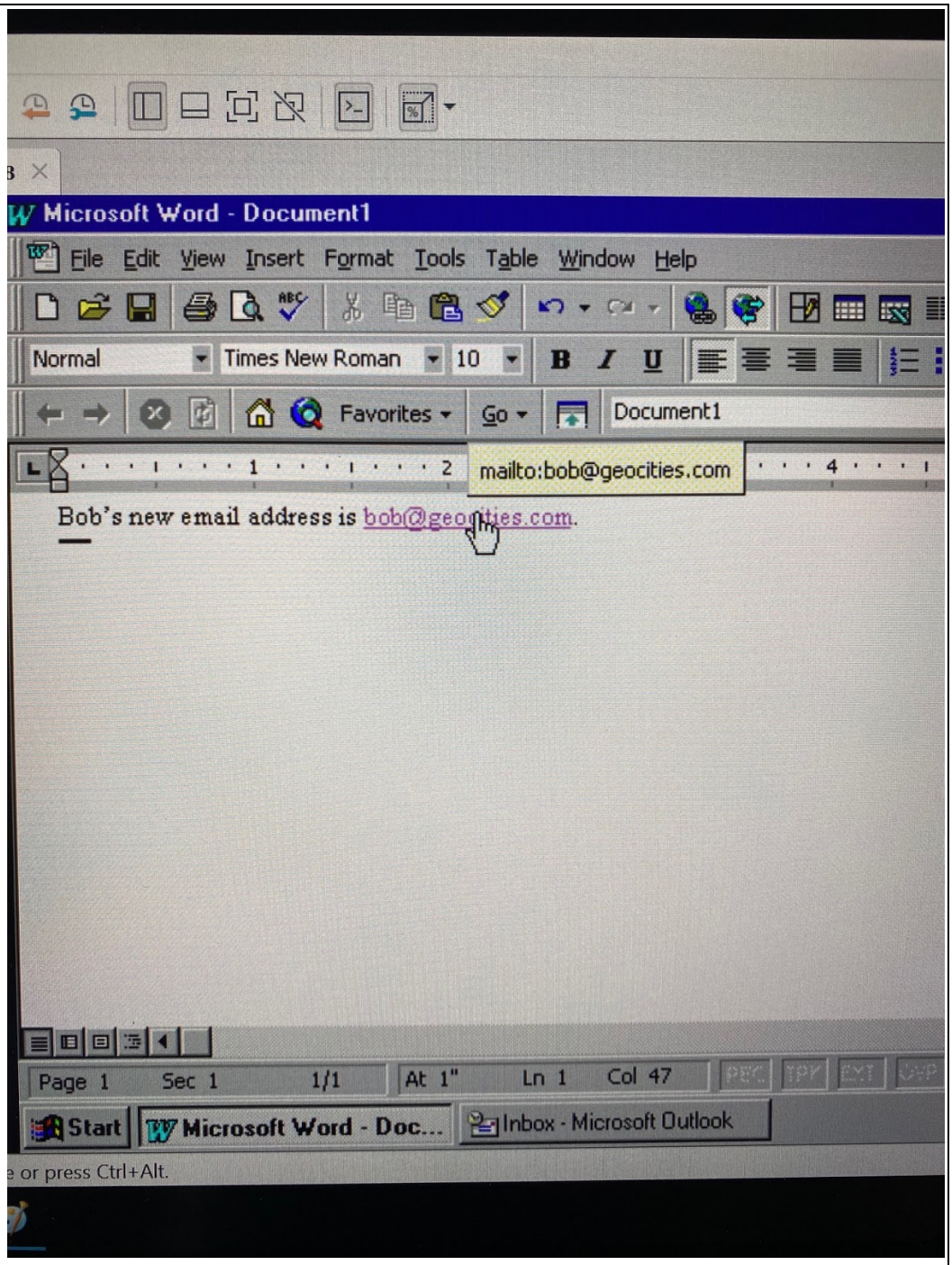

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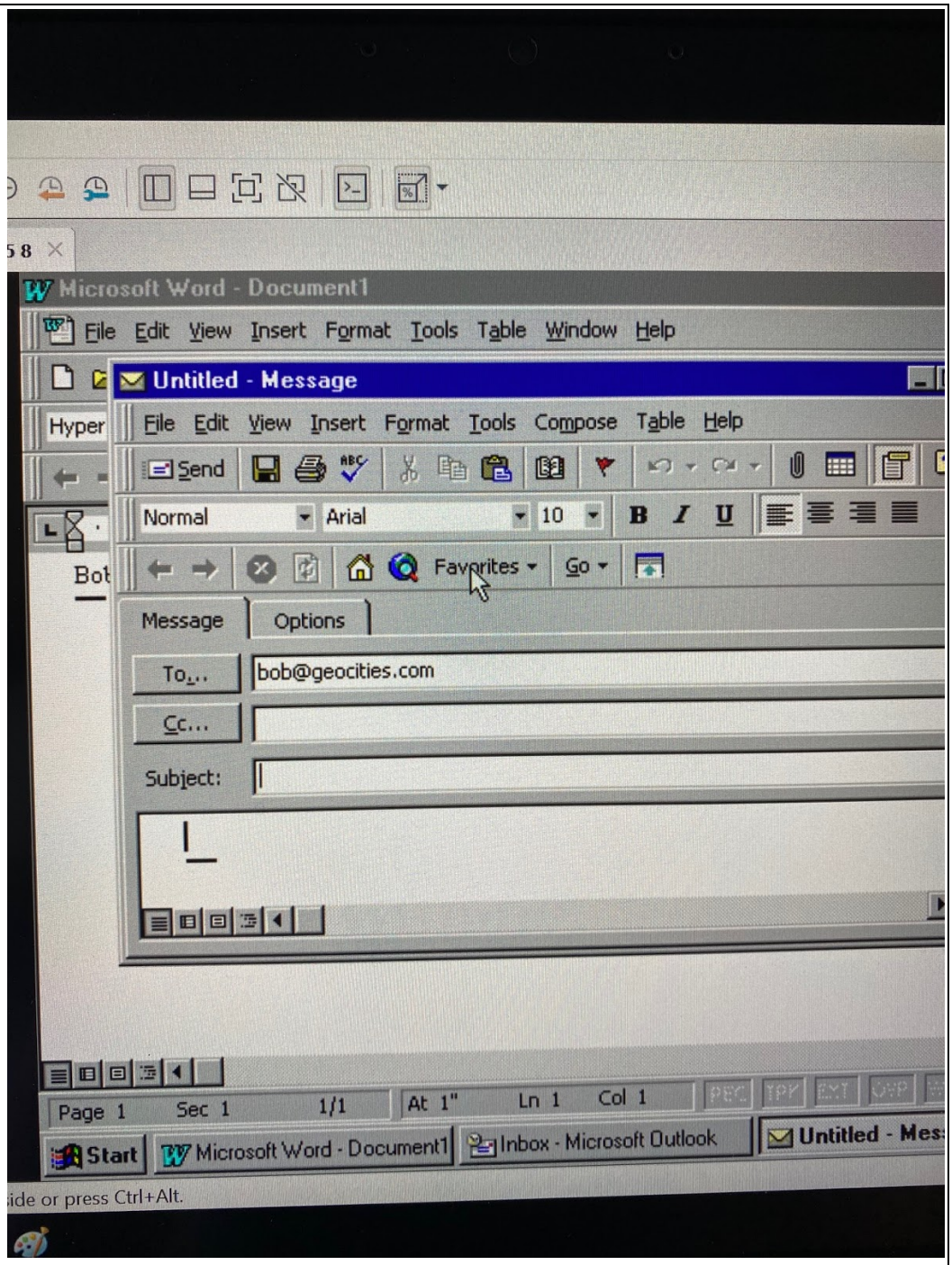

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	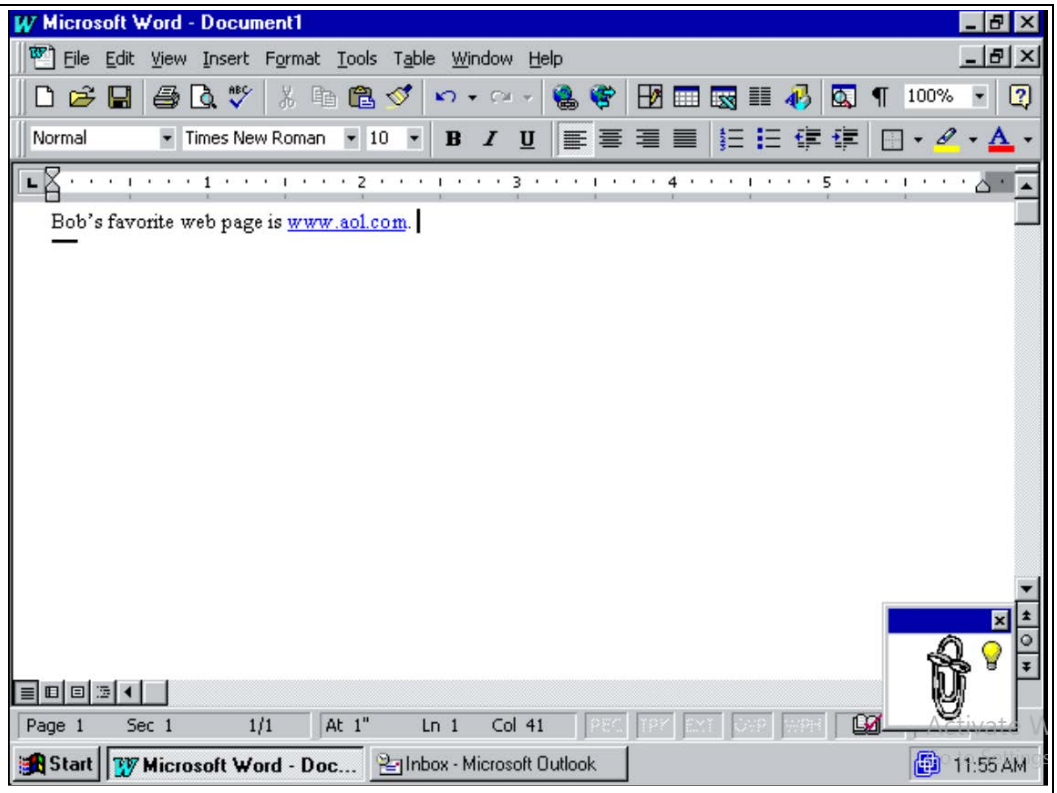 Word 97. Word 97 further discloses:

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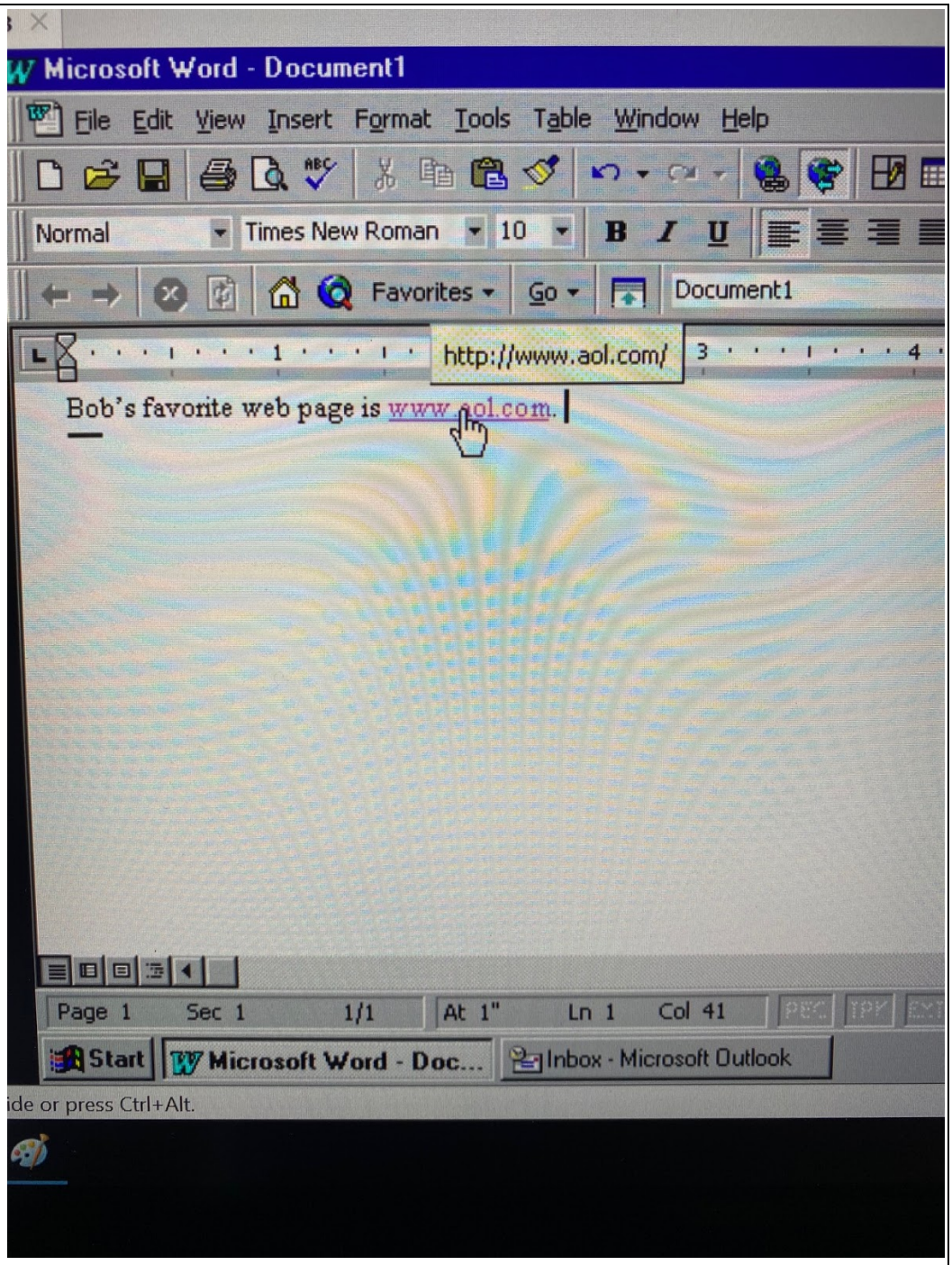
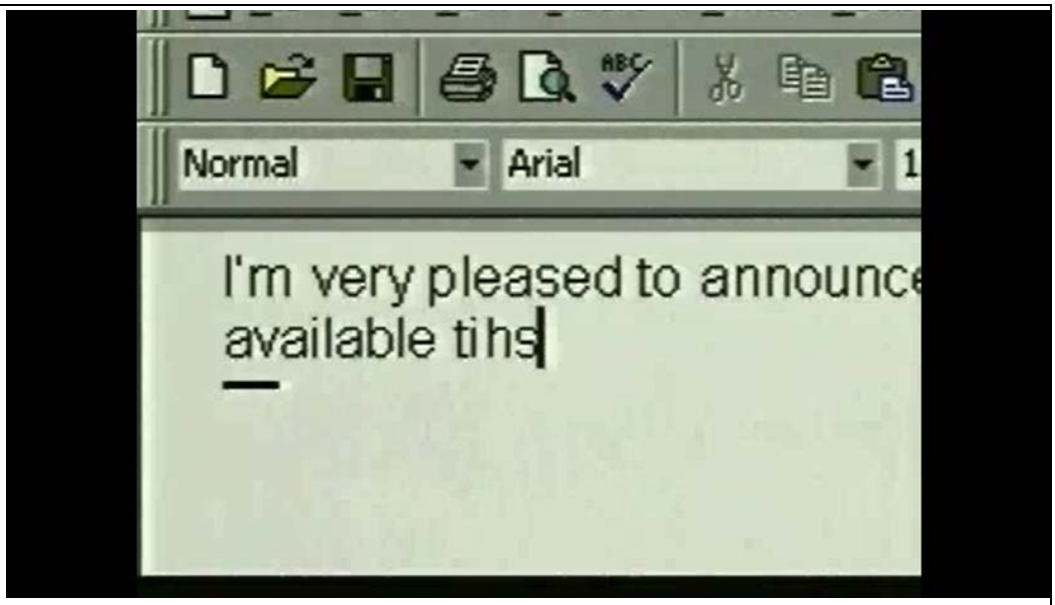
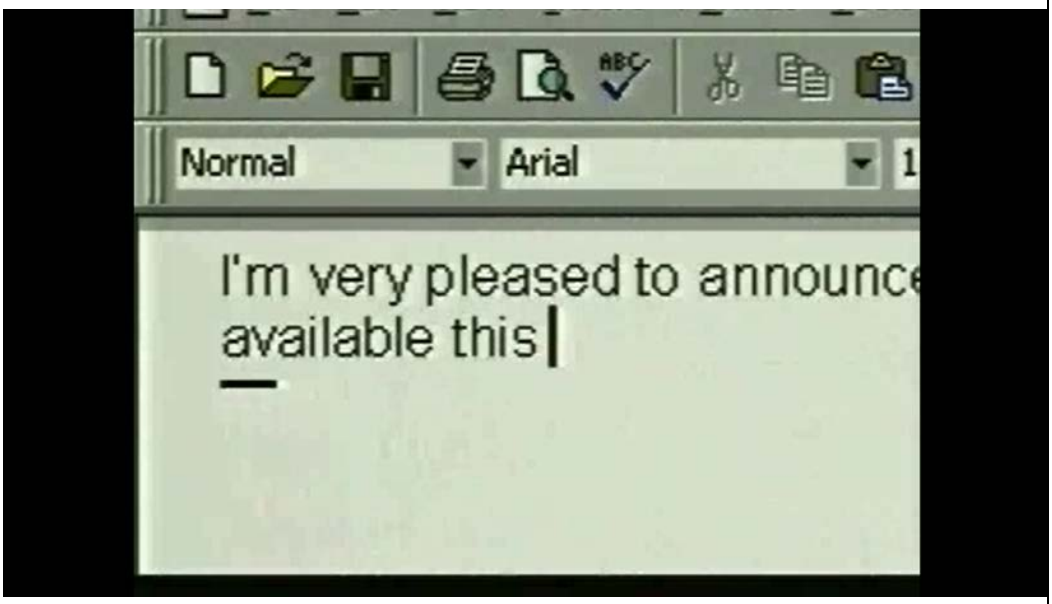


Word 97.

How to use Microsoft Word further discloses:

Exhibit L

	 Normal Arial I'm very pleased to announce available tihs  Normal Arial I'm very pleased to announce available this

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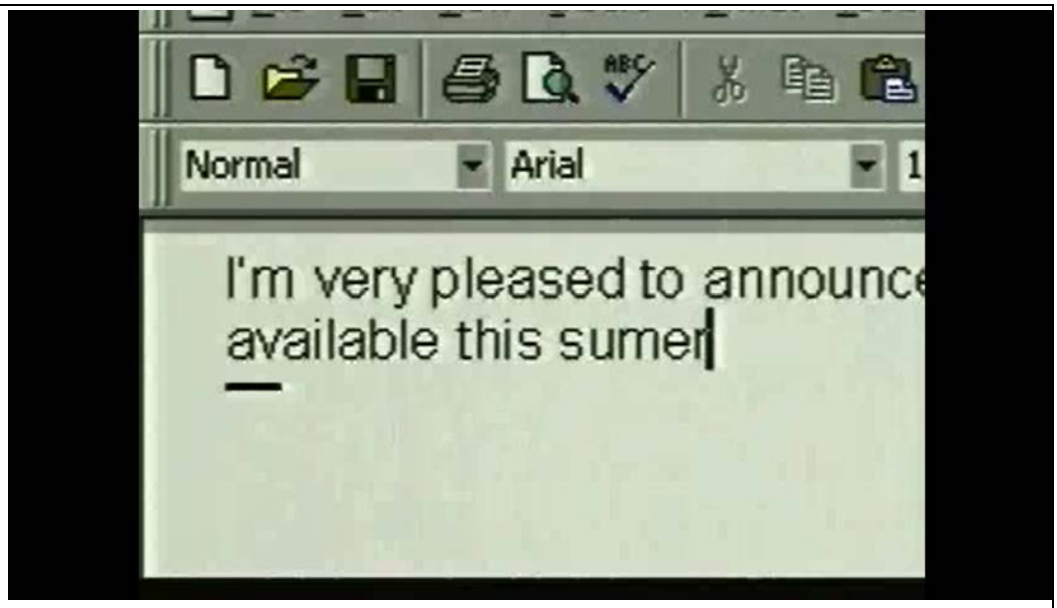
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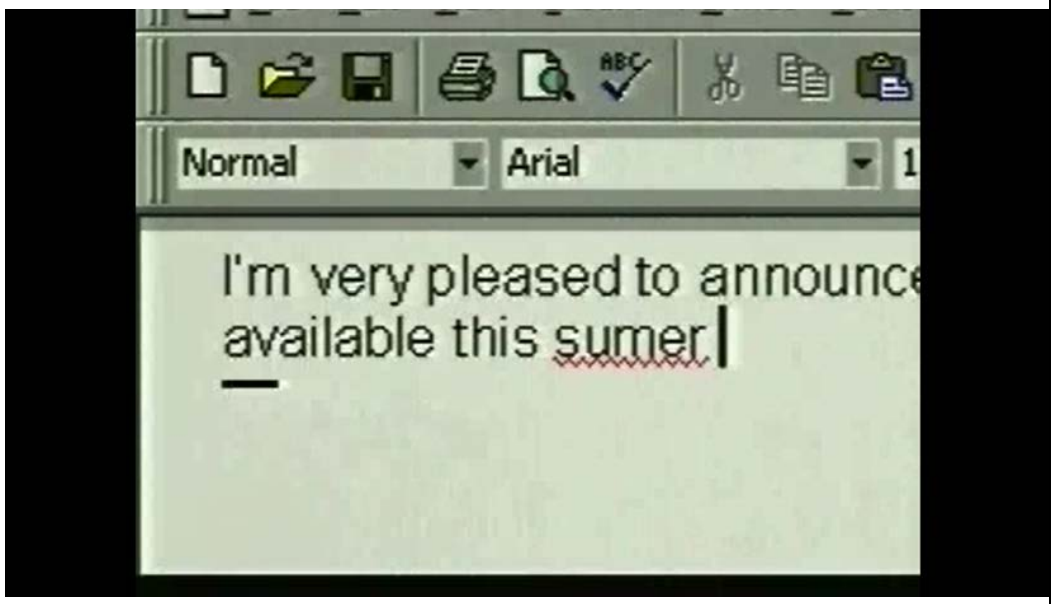
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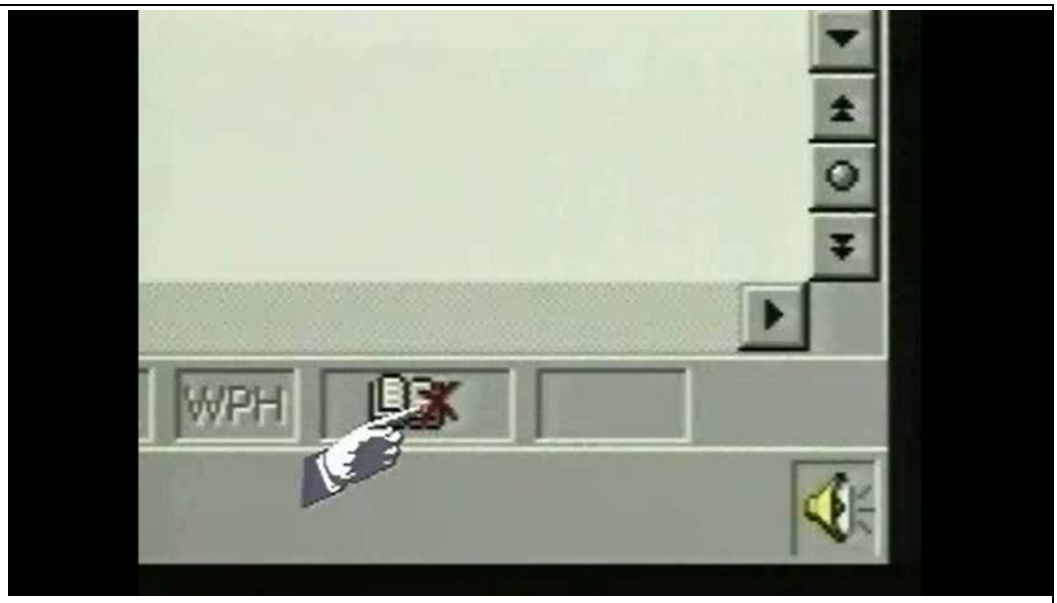
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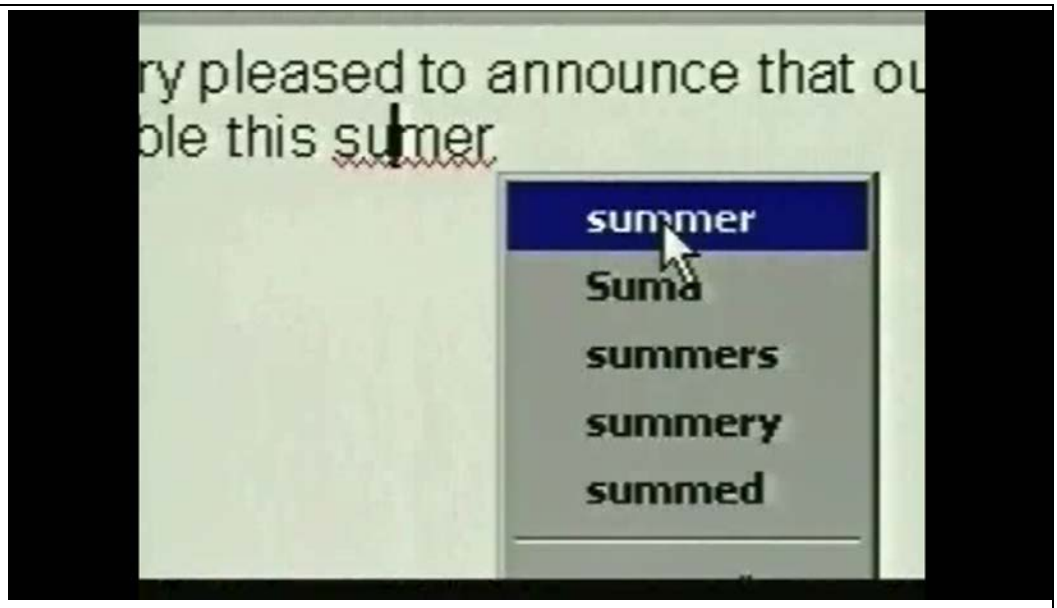
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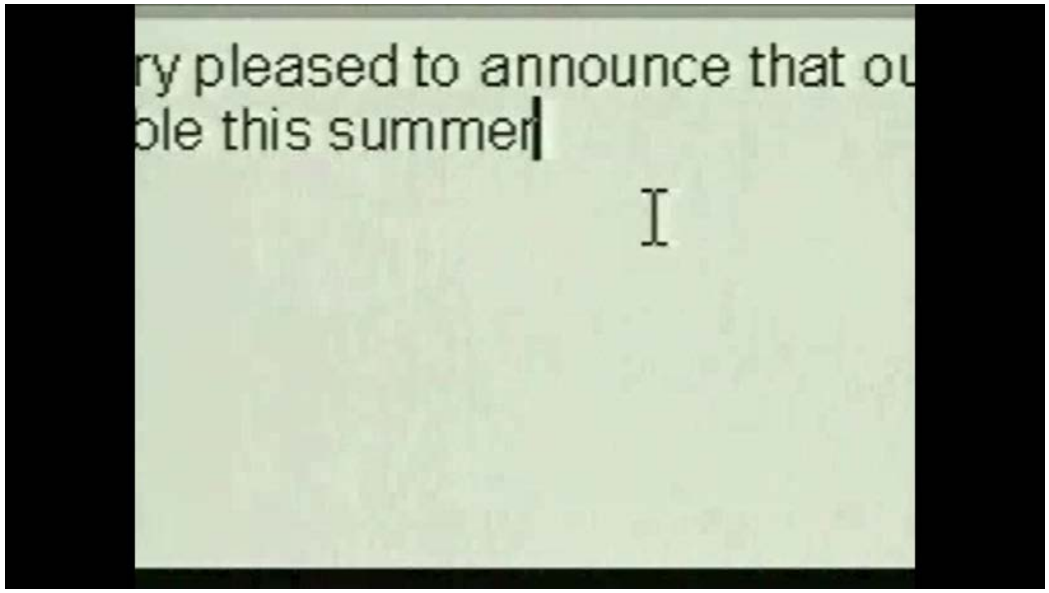
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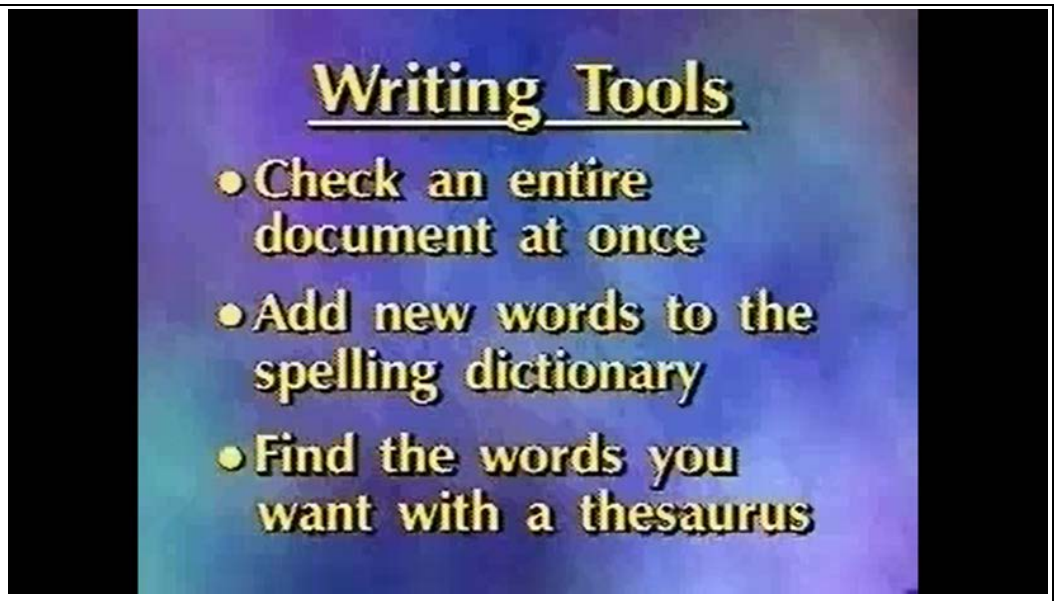
Writing Tools
• Check an entire document at once
• Add new words to the spelling dictionary
• Find the words you want with a thesaurus


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12
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I'm very pleased to announce that our res
available this summer. This will bring our
WOODDALE BED AND BREAKFAST.
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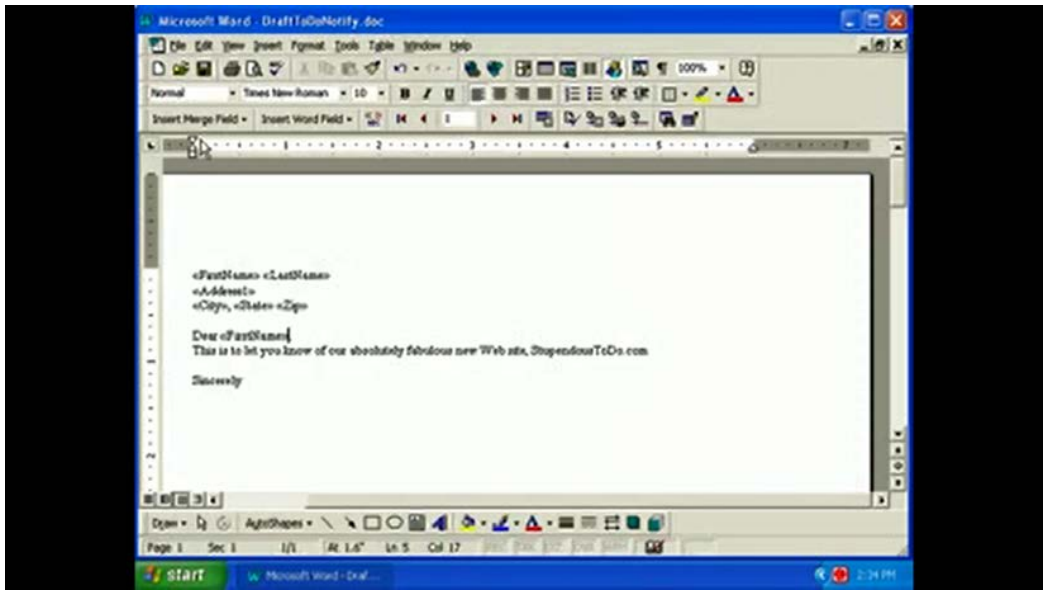
Reservations will begin for Sept

Exhibit L

Word 97 Core Lesson 16 further discloses:



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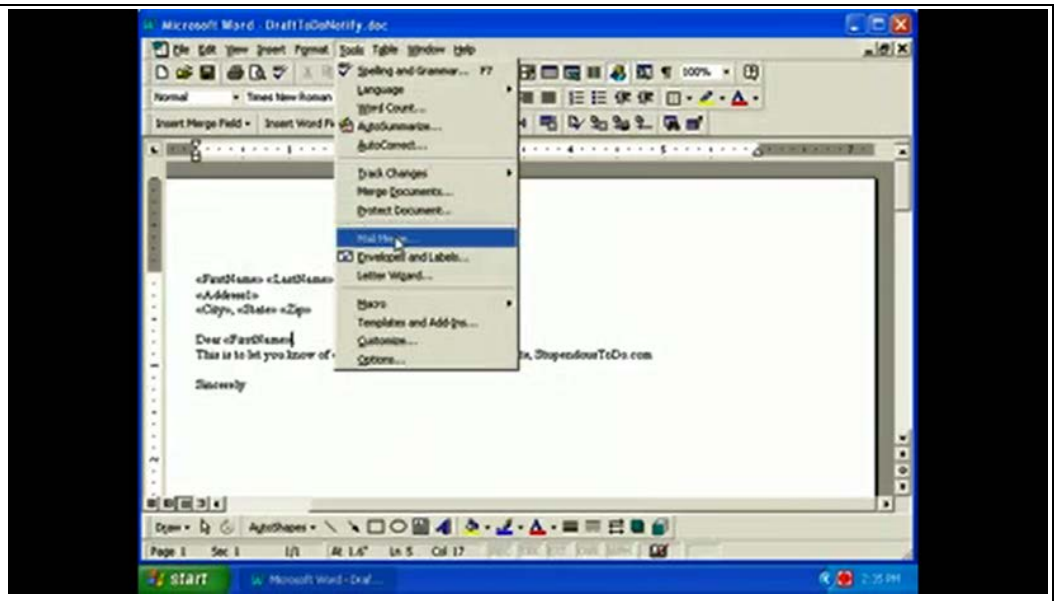
Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar... F7
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
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Customize...
Options...
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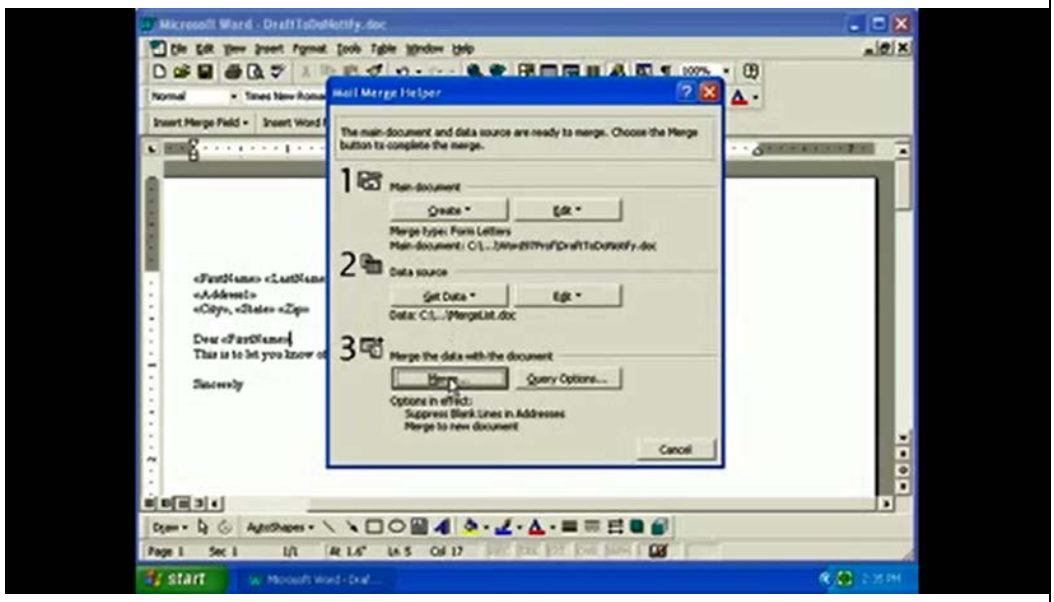
Microsoft Word - DraftToDoNotify.doc
Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
Merge type: Form Letters
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
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Exhibit L

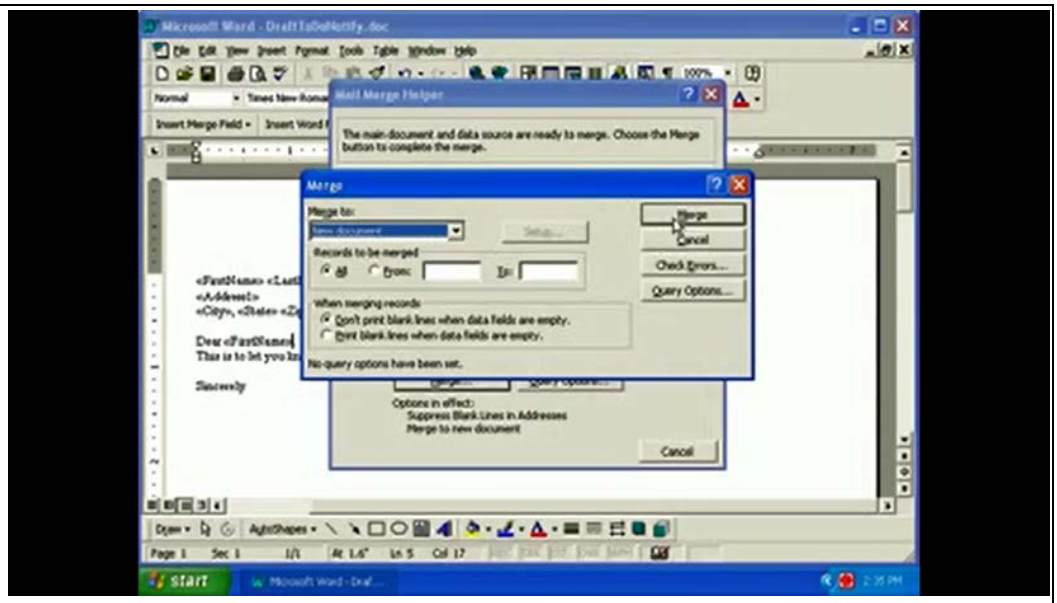
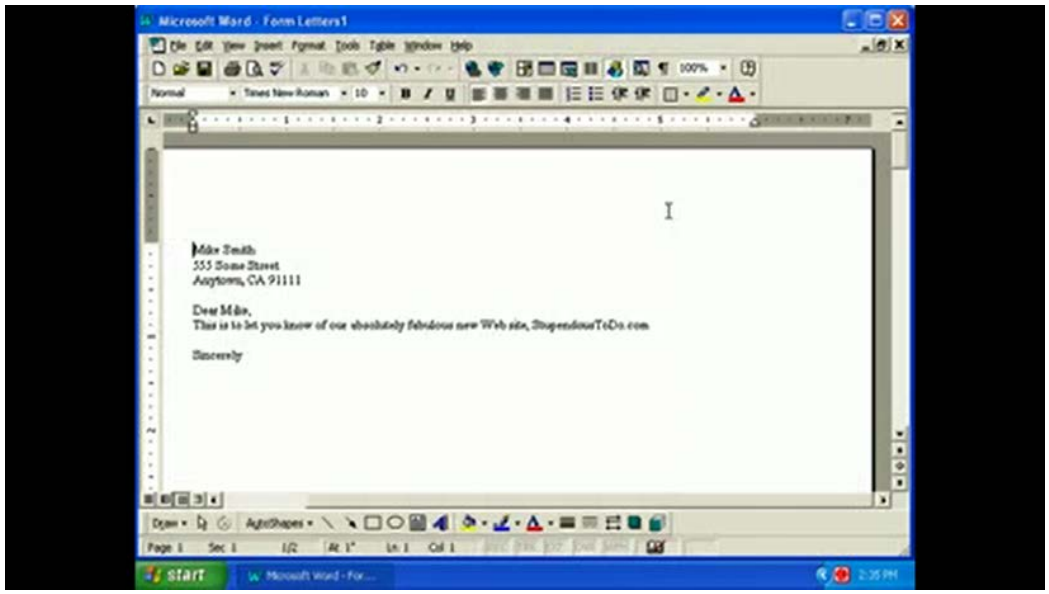
	 Mail Merge Helper The main document and data source are ready to merge. Choose the Merge button to complete the merge. Merge Merge to: Records to be merged When merging records Don't print blank lines when data fields are empty. Print blank lines when data fields are empty. No query options have been set. Check Errors... Query Options... Options in effect: Suppress Blank Lines in Addresses Merge to new document Cancel  Microsoft Word - Form Letters1 Mike Smith 555 Some Street Anytown, CA 91111 Dear Mike, Sincerely

Exhibit L

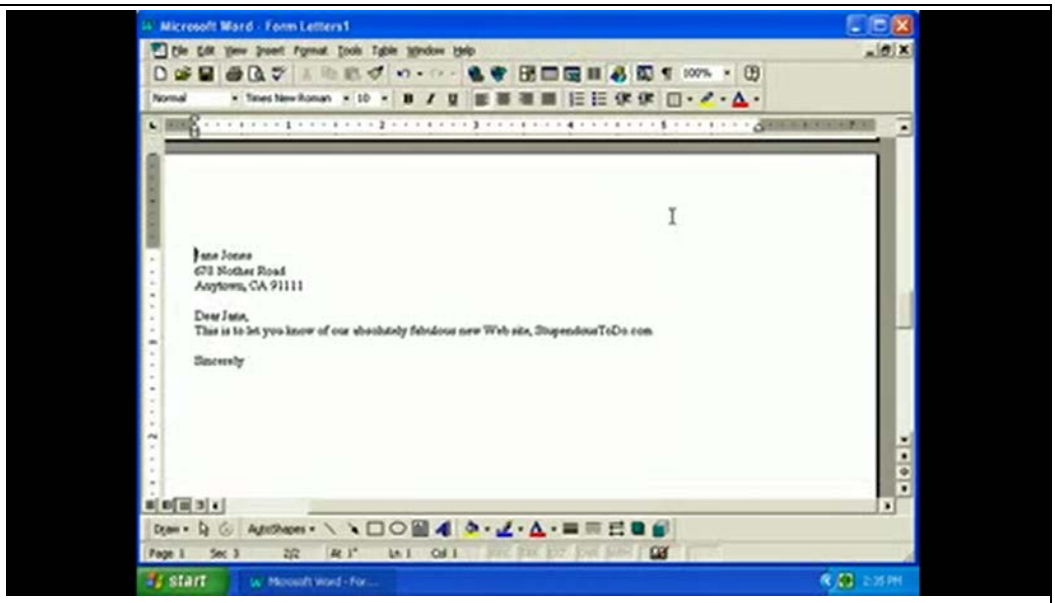
	
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Word 97 discloses this element. See claim 1 above. For example, the following screenshots highlight aspects of Word 97 functionality that discloses in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term. Specifically, Word 97 discloses:

Exhibit L

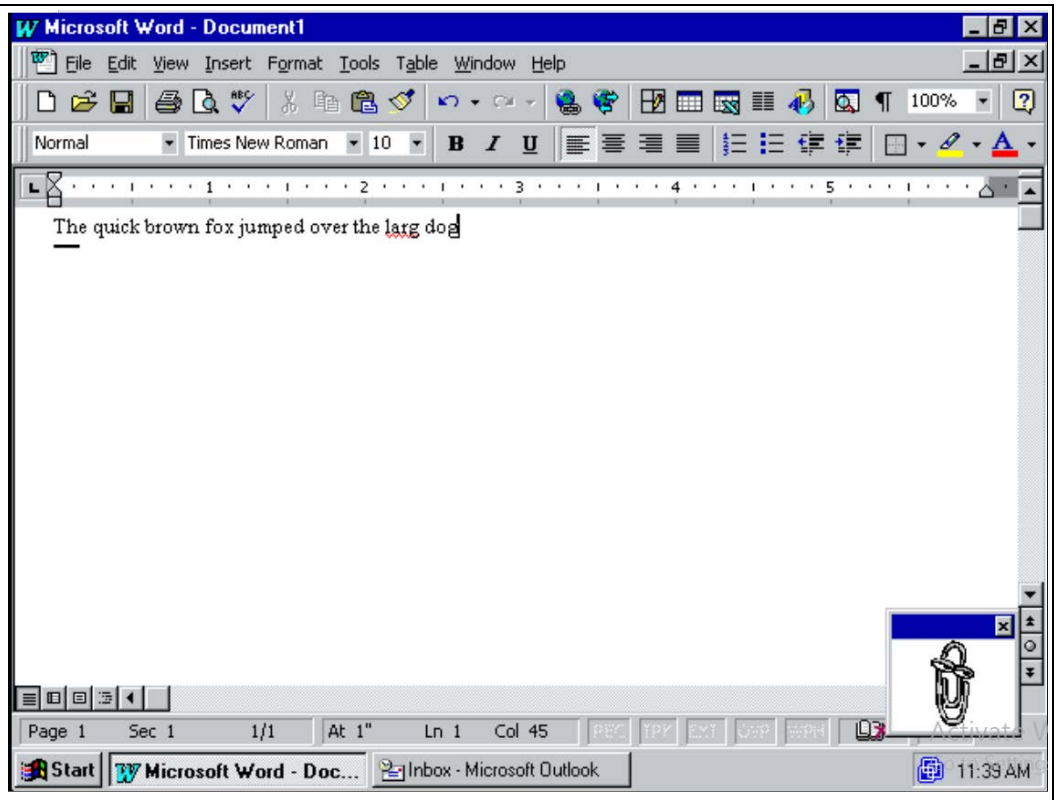
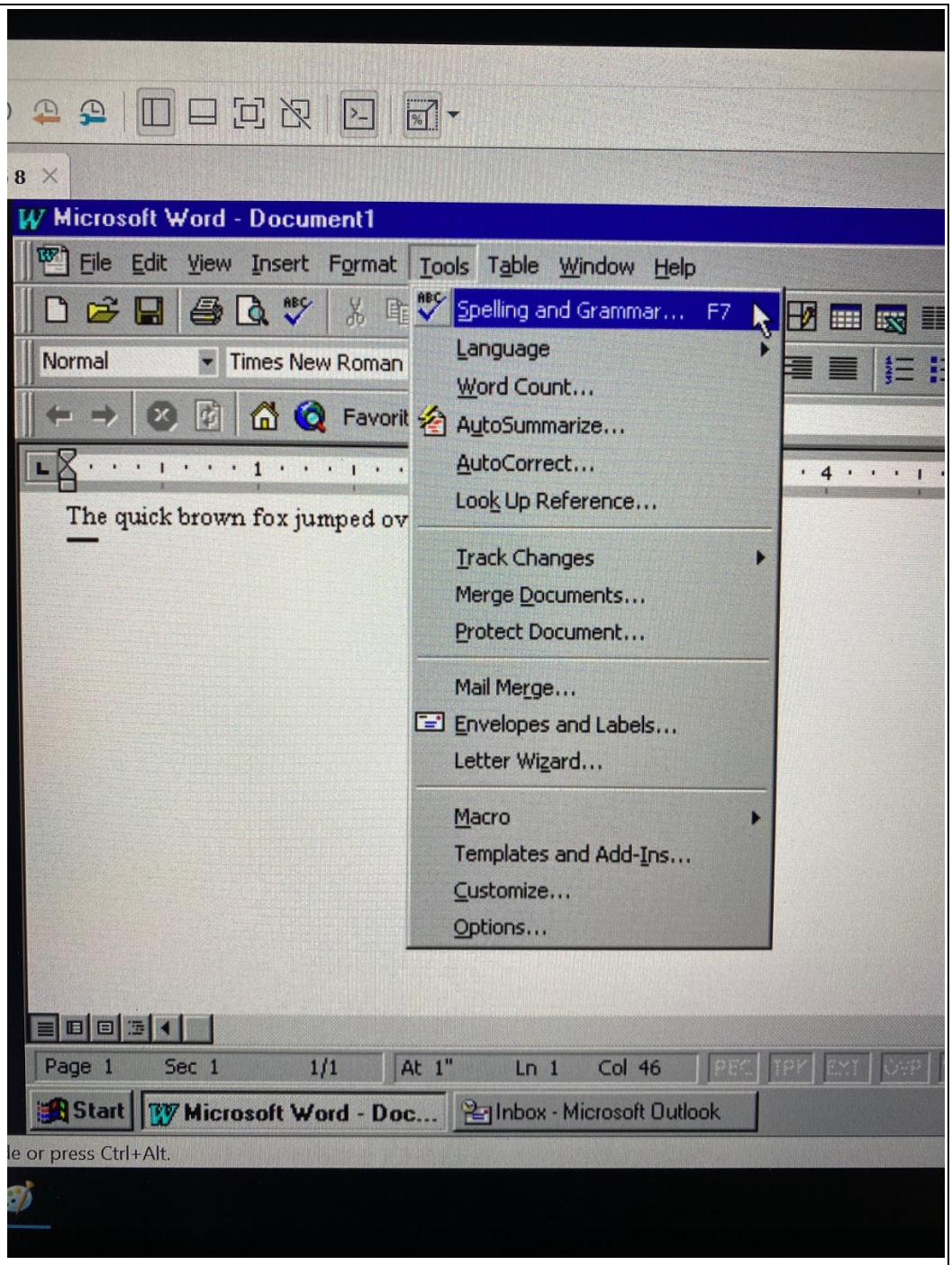
	 Word 97 further discloses:

Exhibit L



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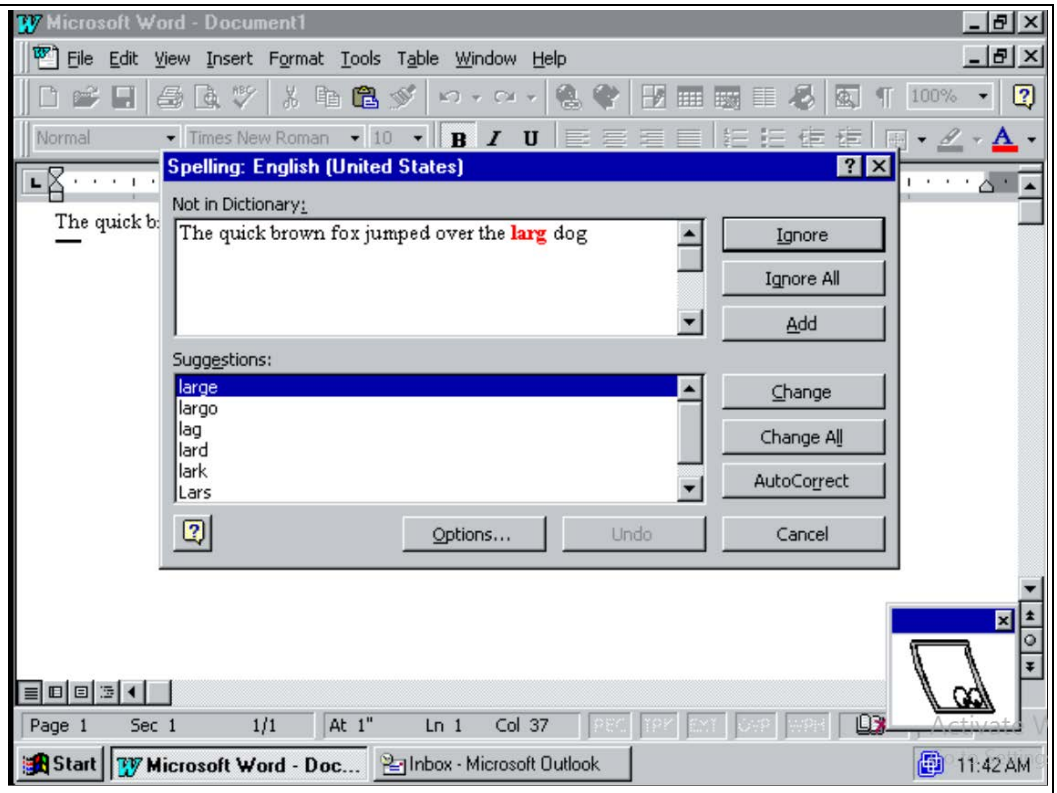

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	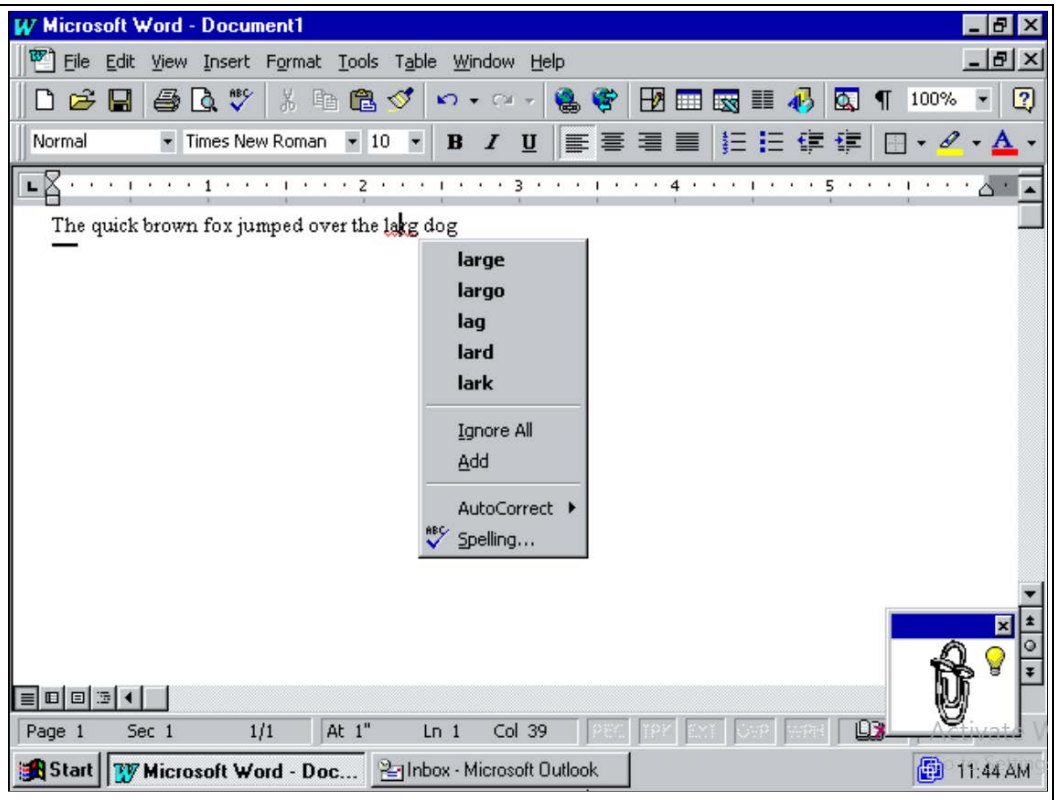 Word 97. Word 97 further discloses:

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	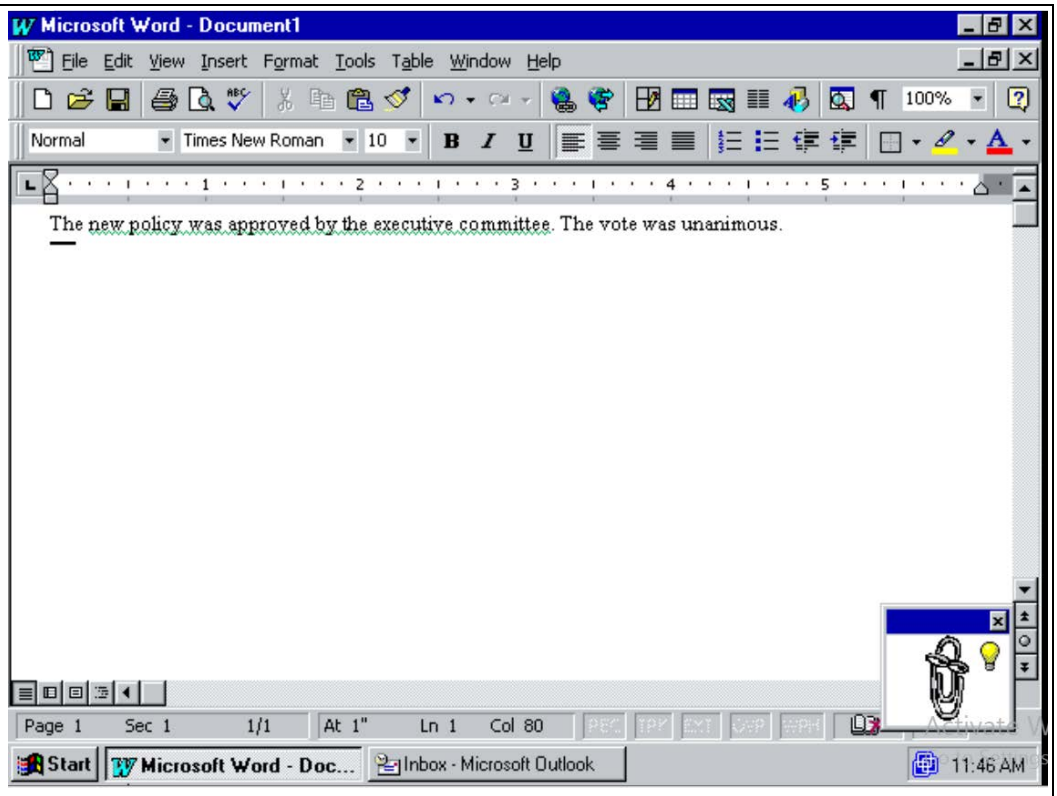 Word 97. Word 97 further discloses:

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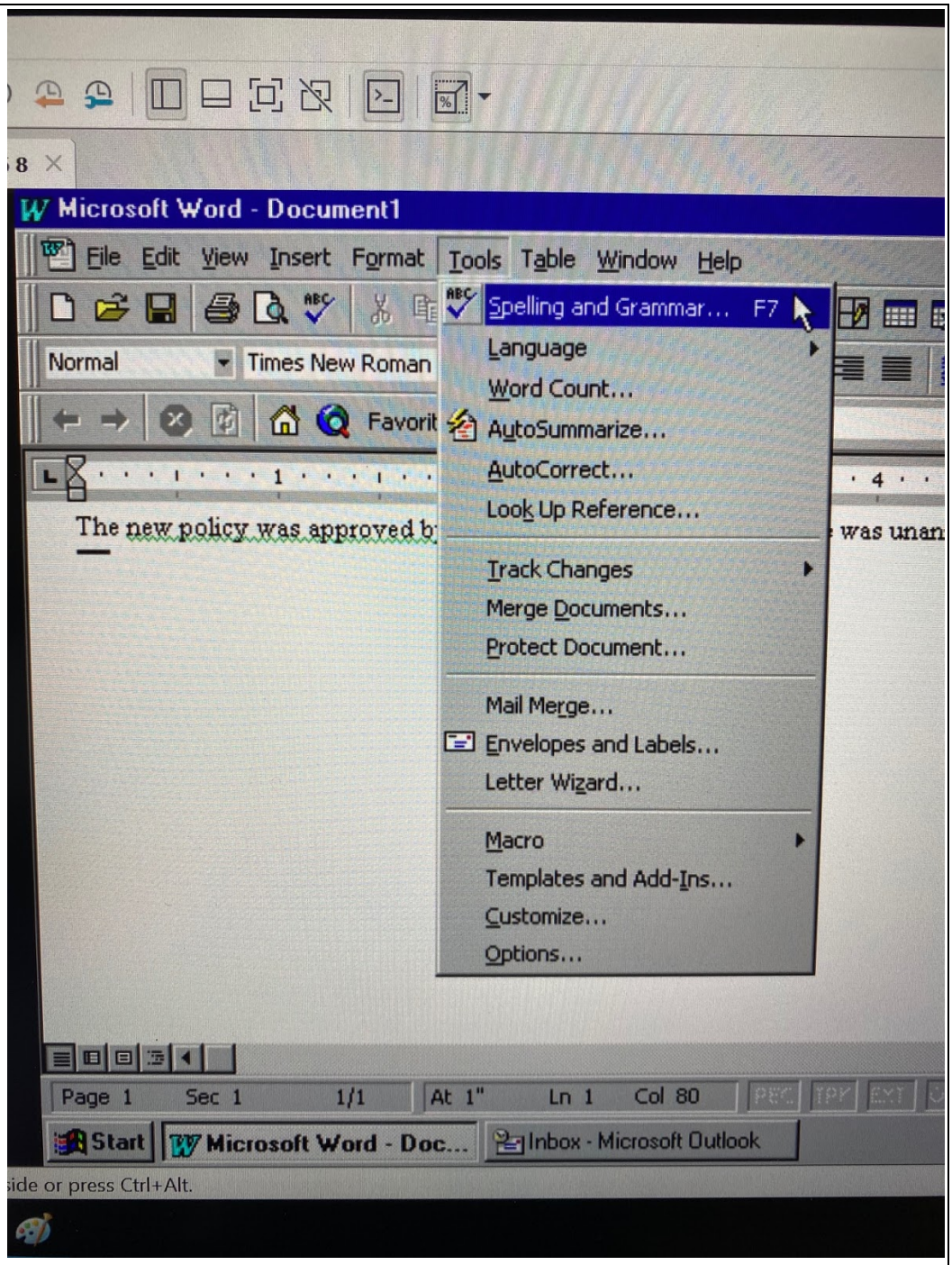

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	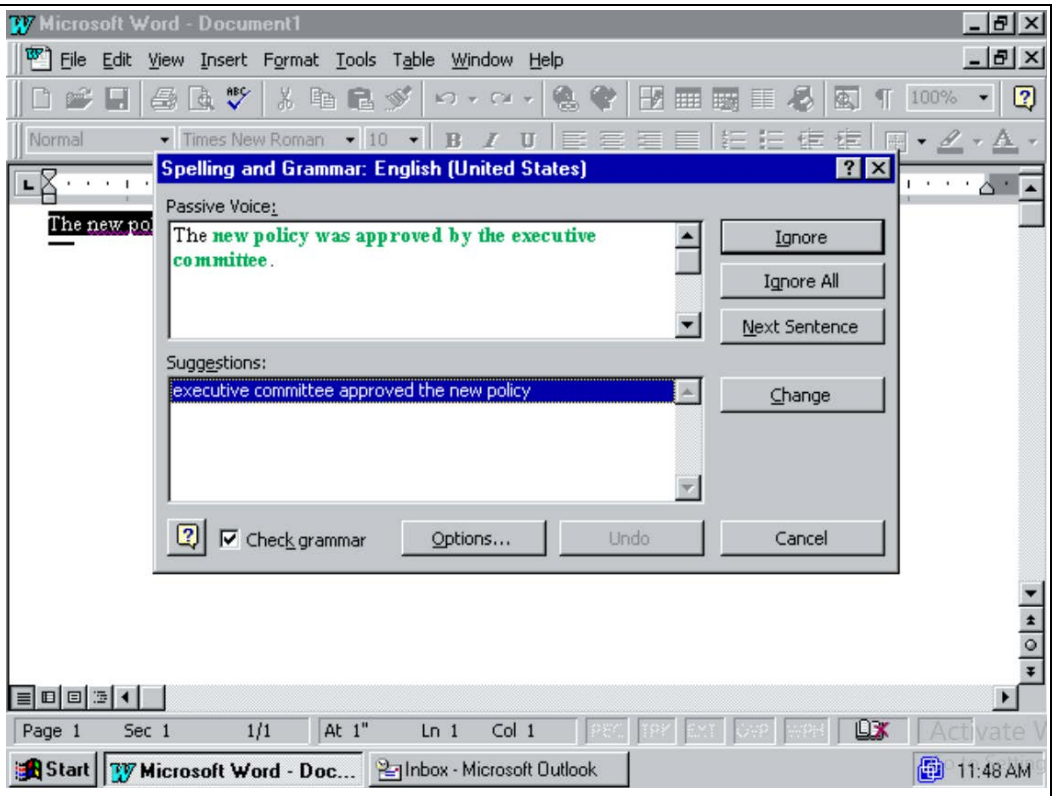 Word 97. Word 97 further discloses:

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	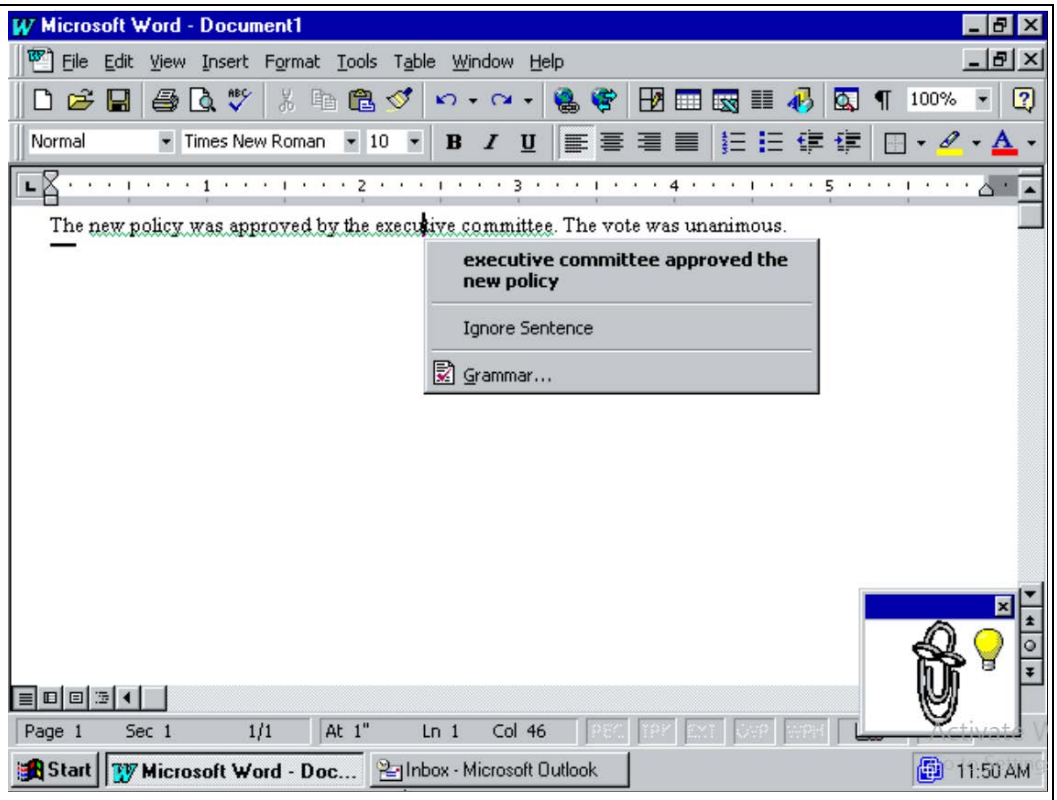 Word 97. Word 97 further discloses:

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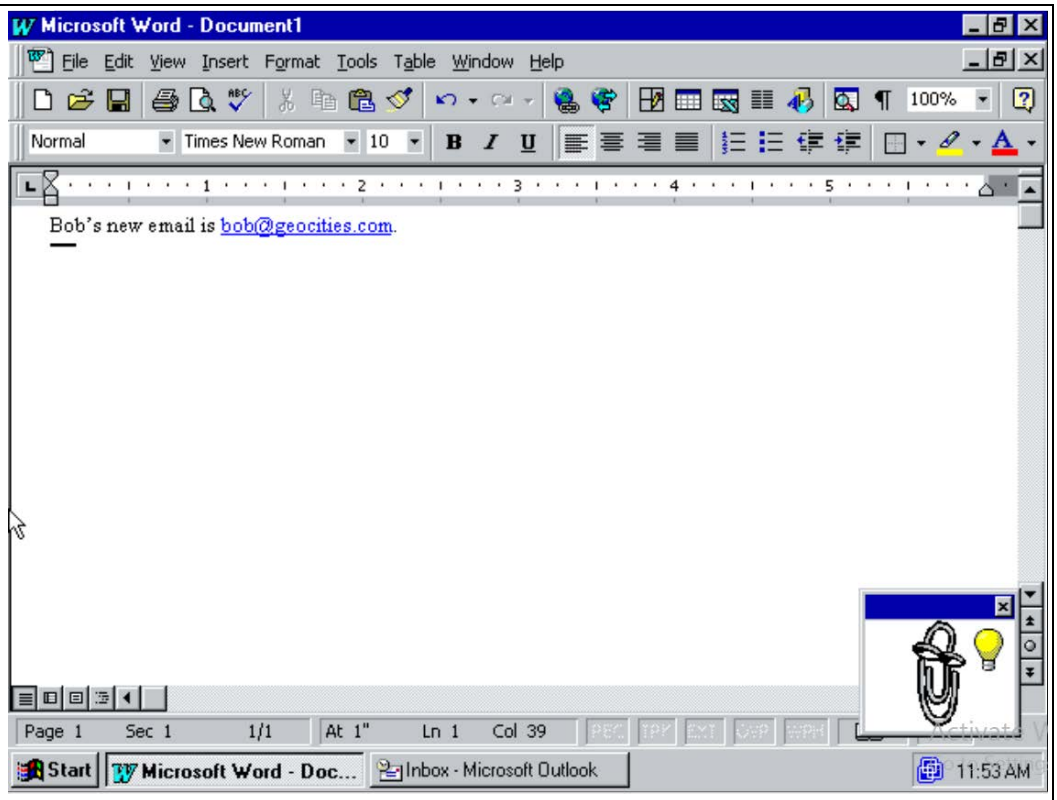
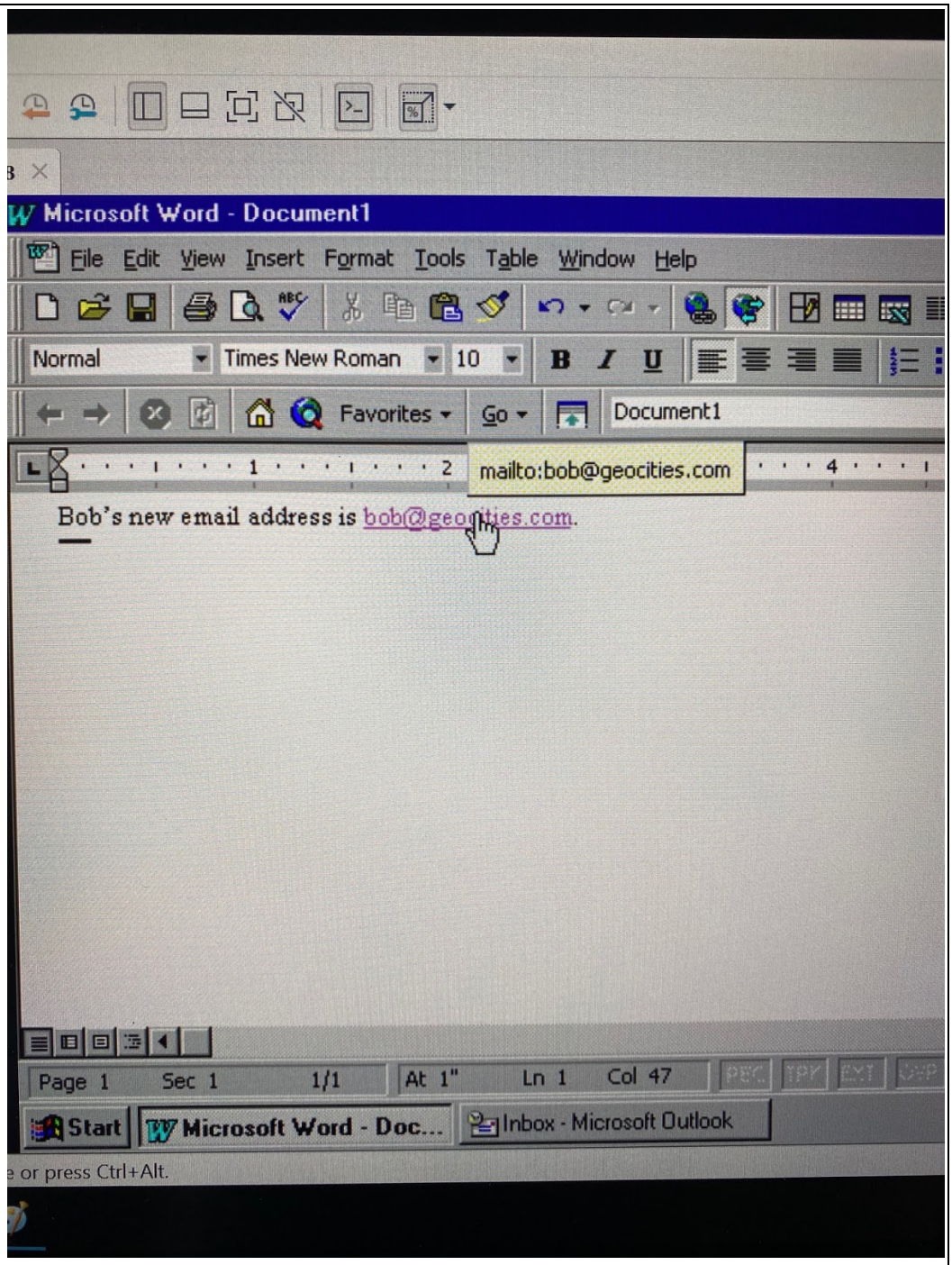
	 Word 97. Word 97 further discloses:

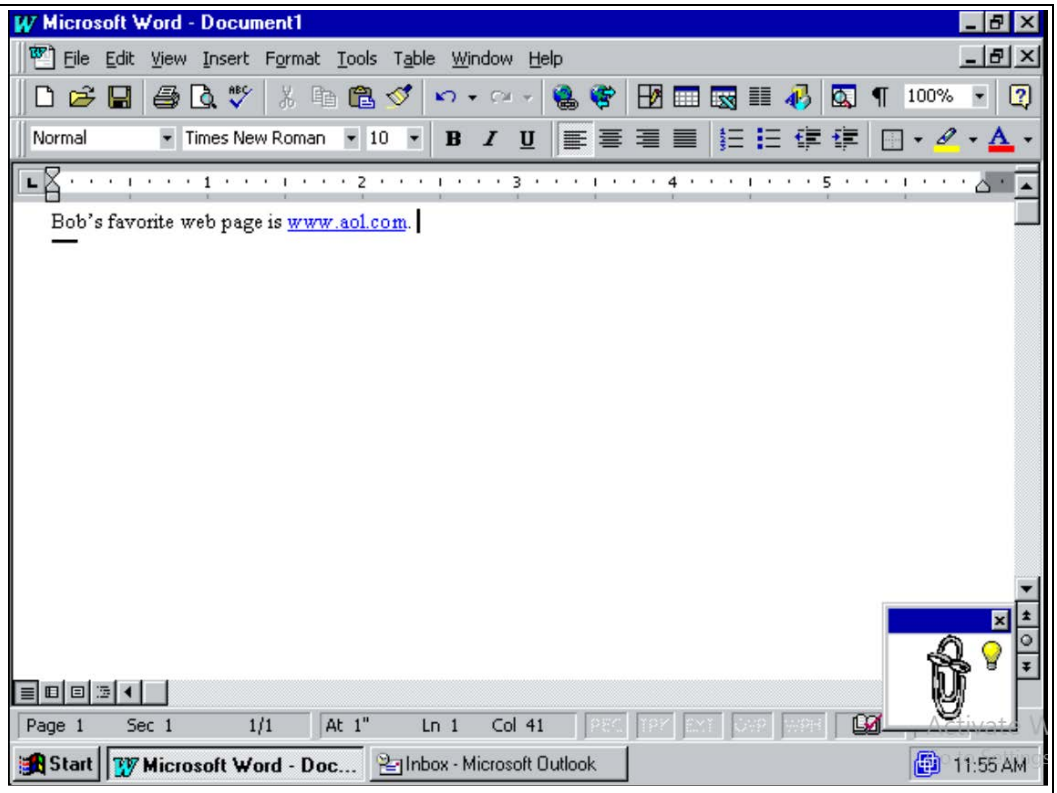
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L

	 Word 97. Word 97 further discloses:

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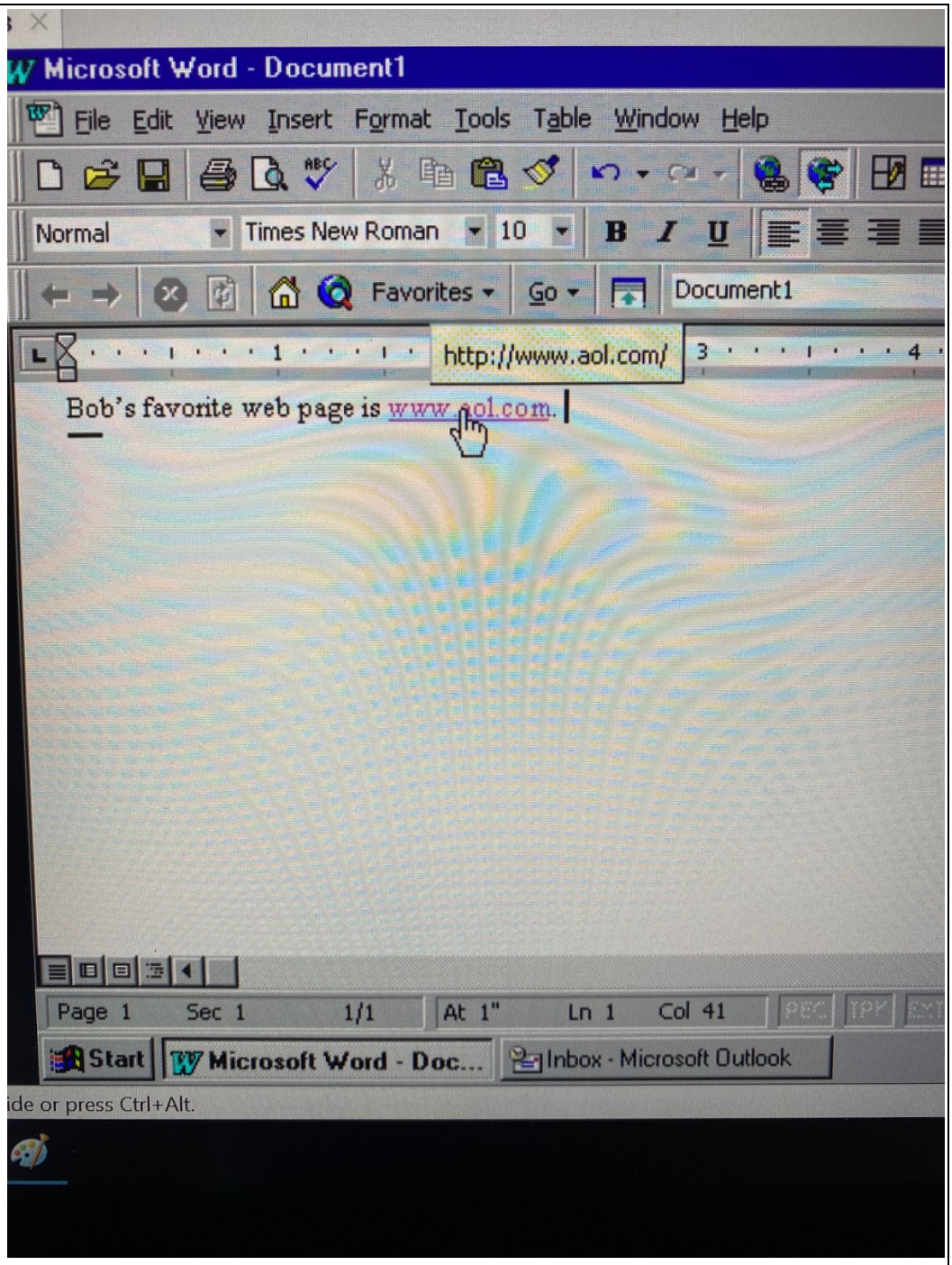
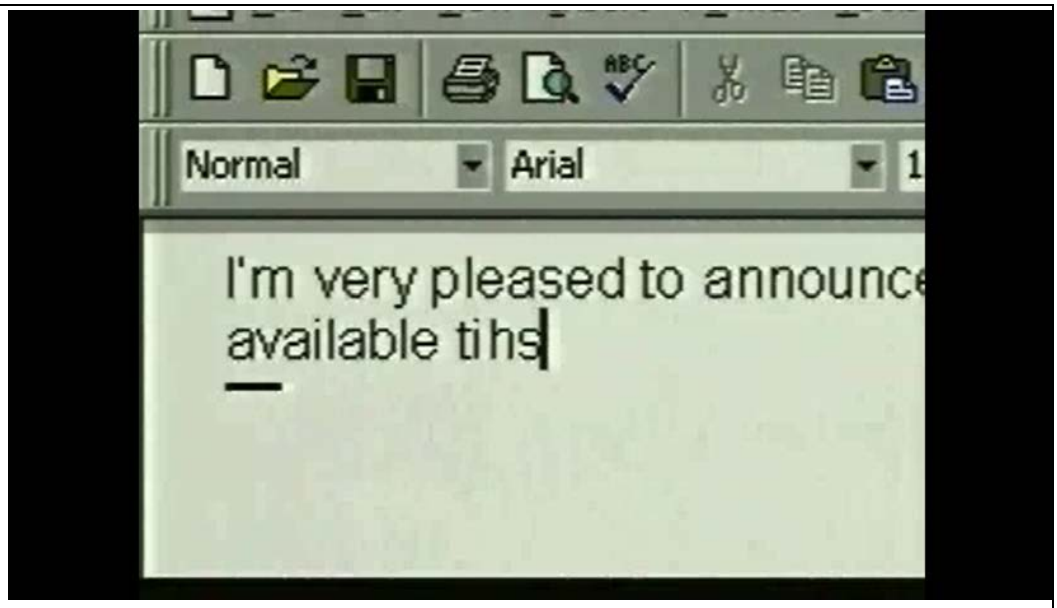
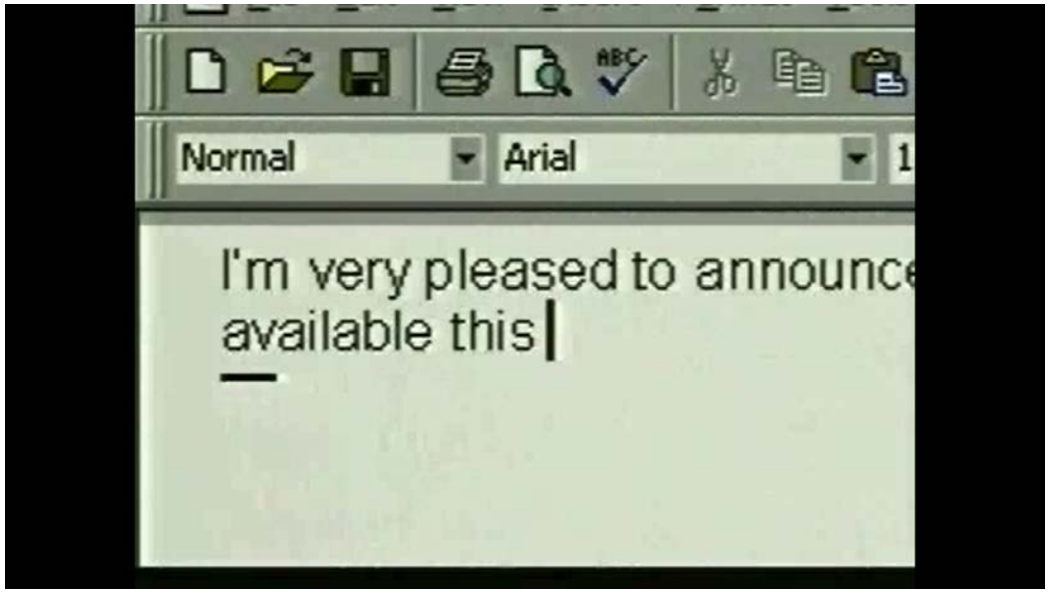


Word 97.

How to use Microsoft Word further discloses:

Exhibit L

	 Normal Arial I'm very pleased to announce available tihs  Normal Arial I'm very pleased to announce available this

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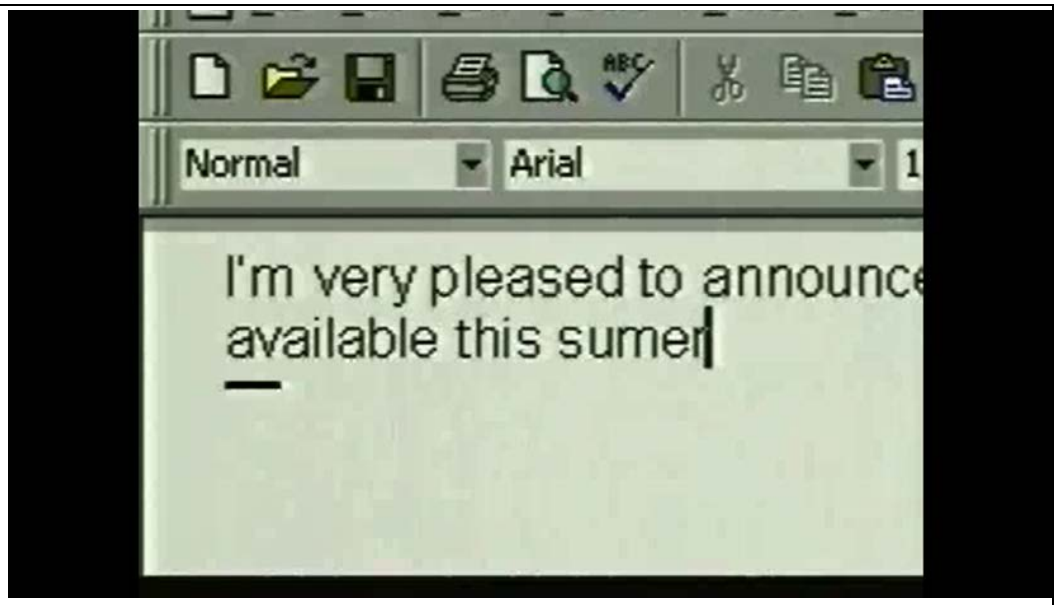
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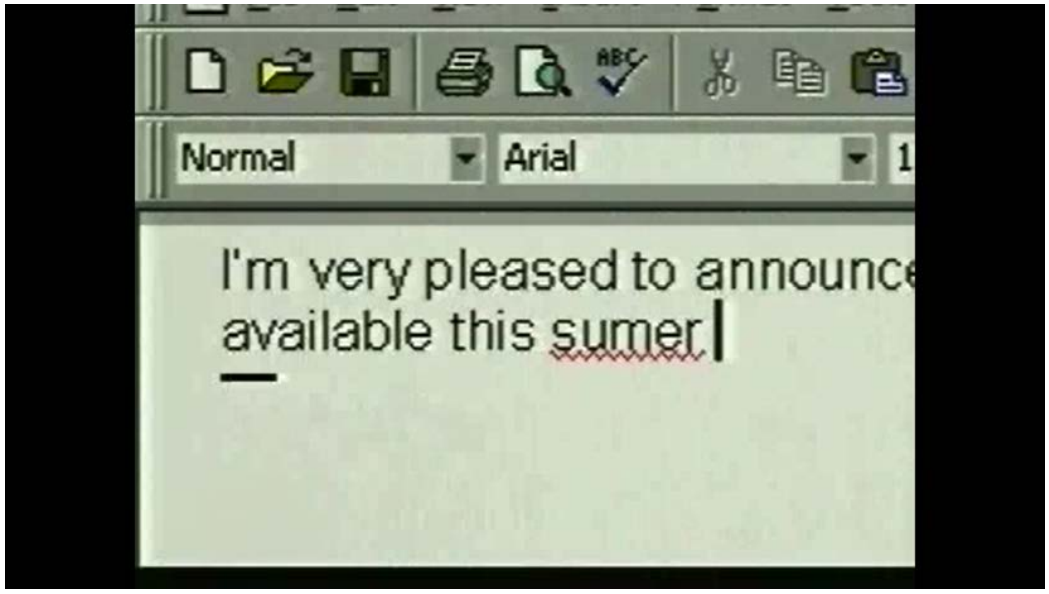
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Exhibit L

Word 97 Core Lesson 16 further discloses:

Exhibit L

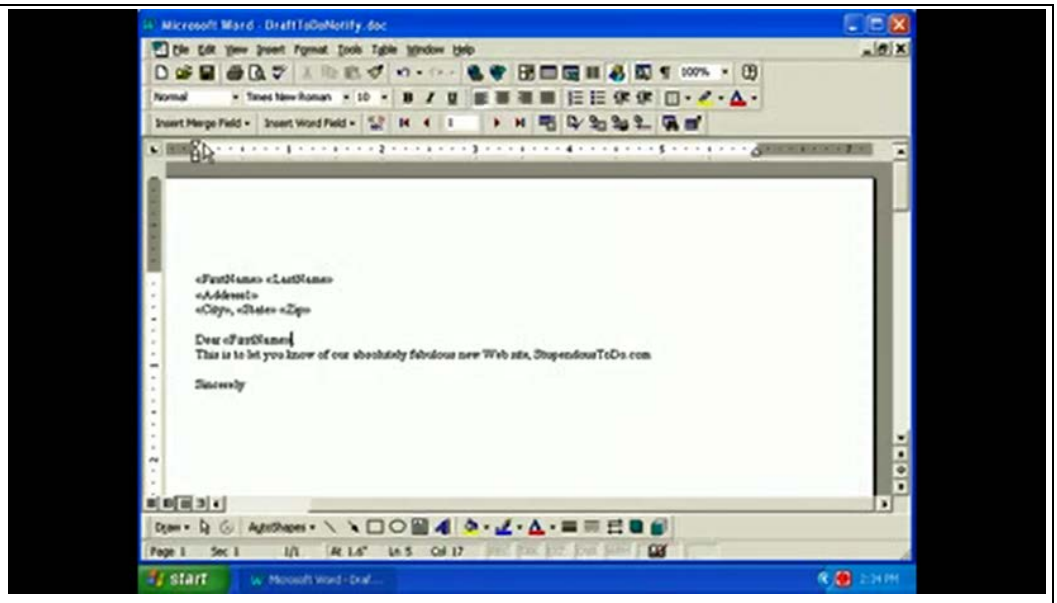
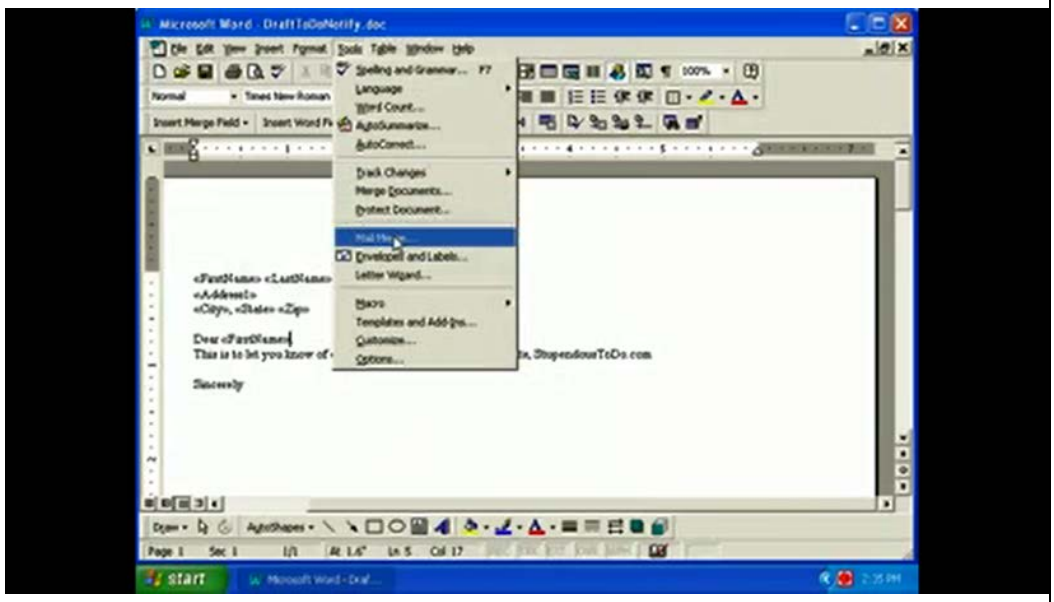
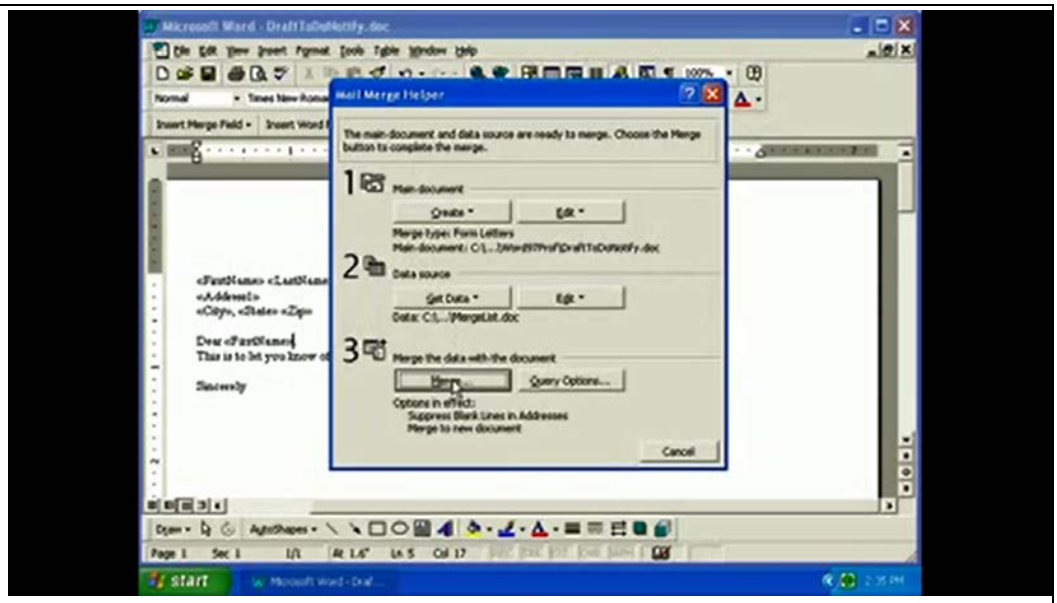
	 Microsoft Word - DraftToDoNotify.doc «FirstName» «LastName» «Address1» «City», «State» «Zip» Dear «FirstName», Sincerely,  Microsoft Word - DraftToDoNotify.doc Spelling and Grammar... F7 Language Word Count... AutoSummarize... AutoCorrect... Track Changes Merge Documents... Protect Document... Mail Merge... Envelopes and Labels... Letter Wizard... Macro Templates and Add-Ins... Customize... Options... «FirstName» «LastName» «Address1» «City», «State» «Zip» Dear «FirstName», Sincerely,

Exhibit L


Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

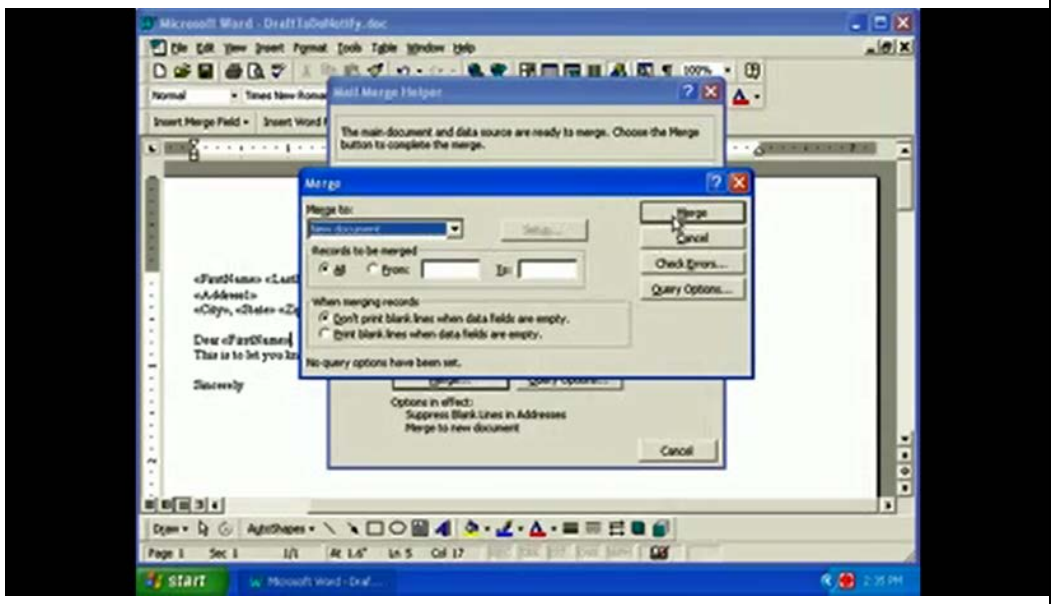

Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
Merge
Merge to:
Records to be merged
When merging records
Don't print blank lines when data fields are empty.
Print blank lines when data fields are empty.
Merge
Cancel
Check Errors...
Query Options...
No query options have been set.
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

Exhibit L

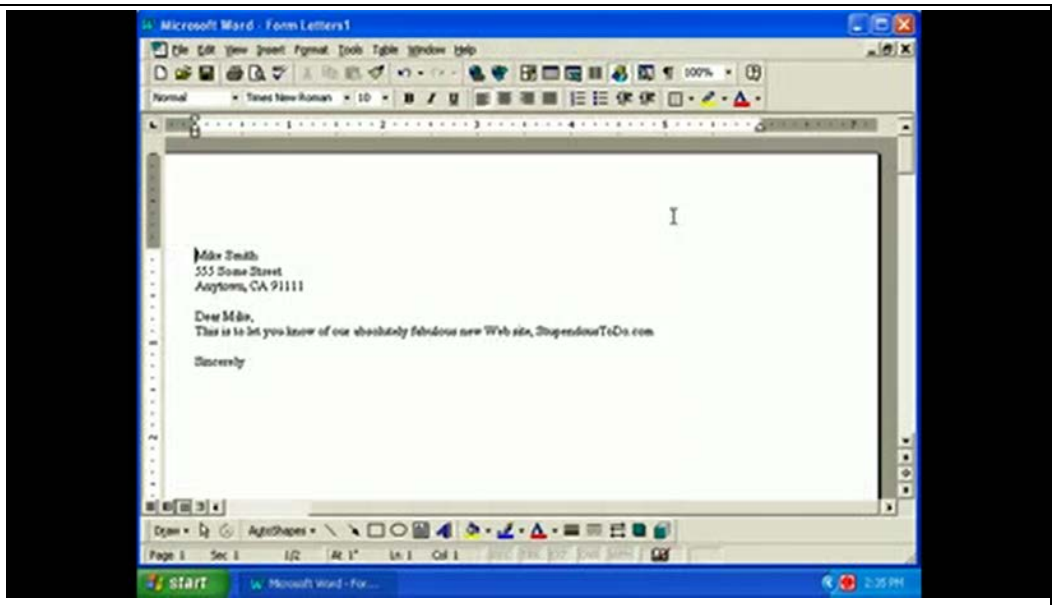
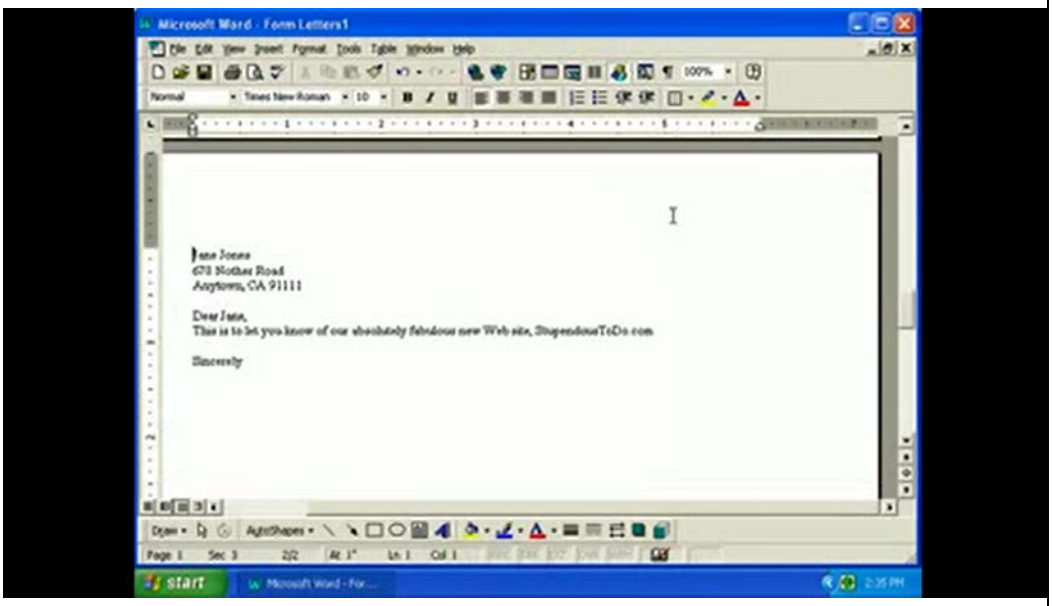
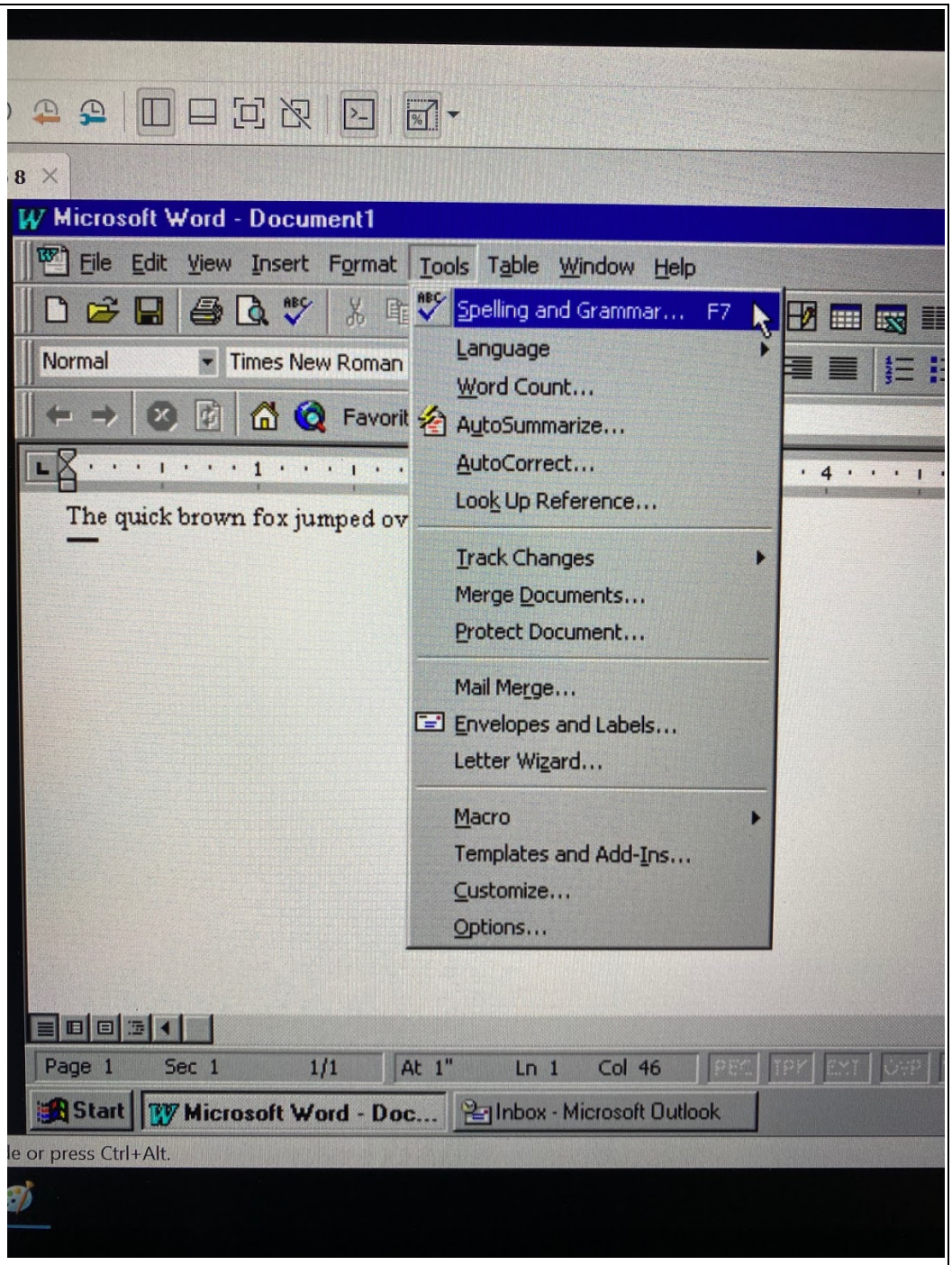
	 
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Word 97 discloses this element. See claim 1 above. For example, the following screenshots highlight aspects of Word 97 functionality that discloses if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information. Specifically, Word 97 discloses:

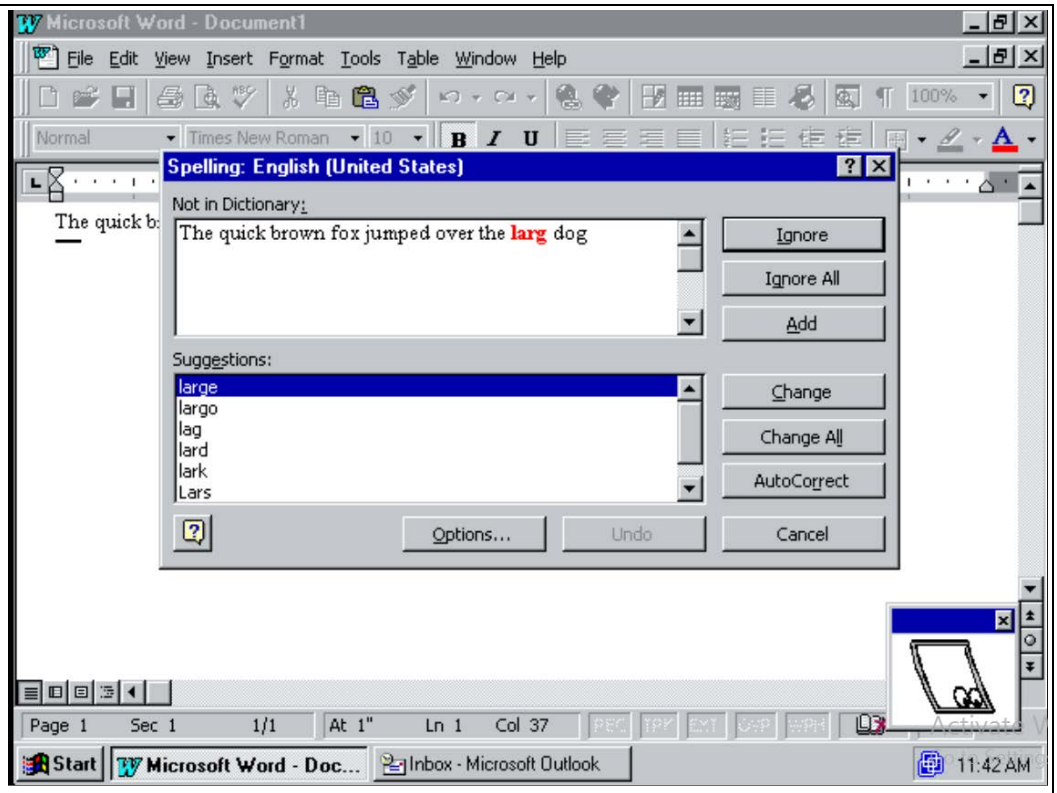
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

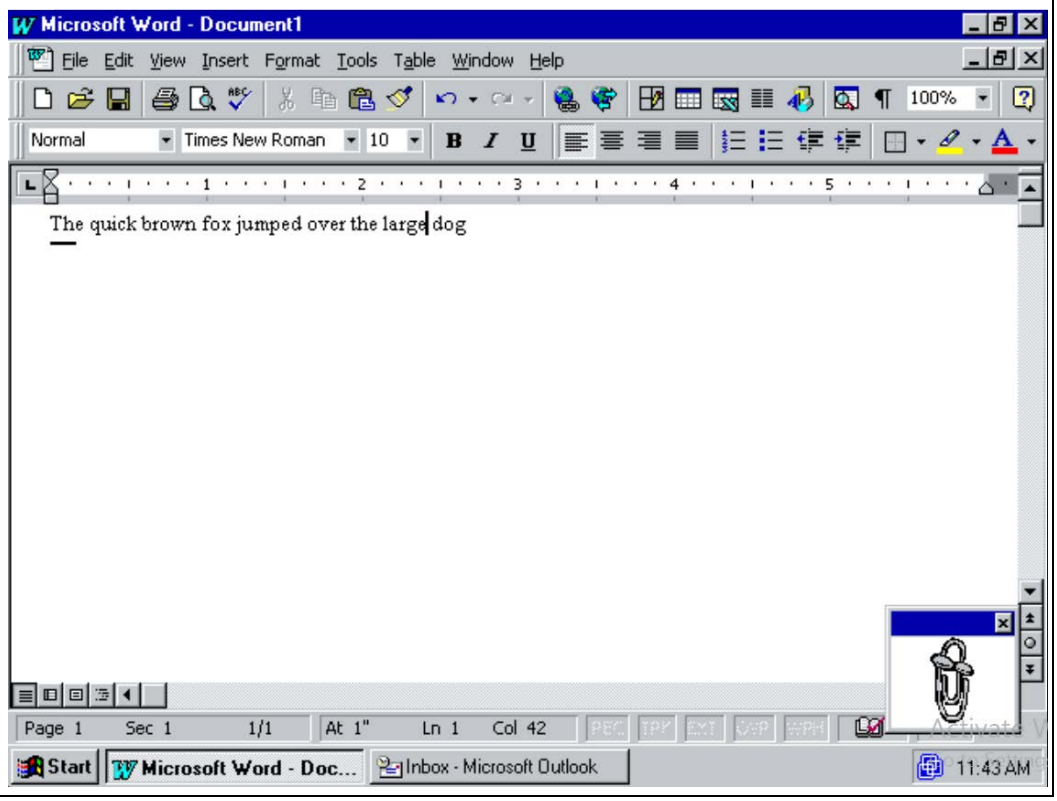


Exhibit L

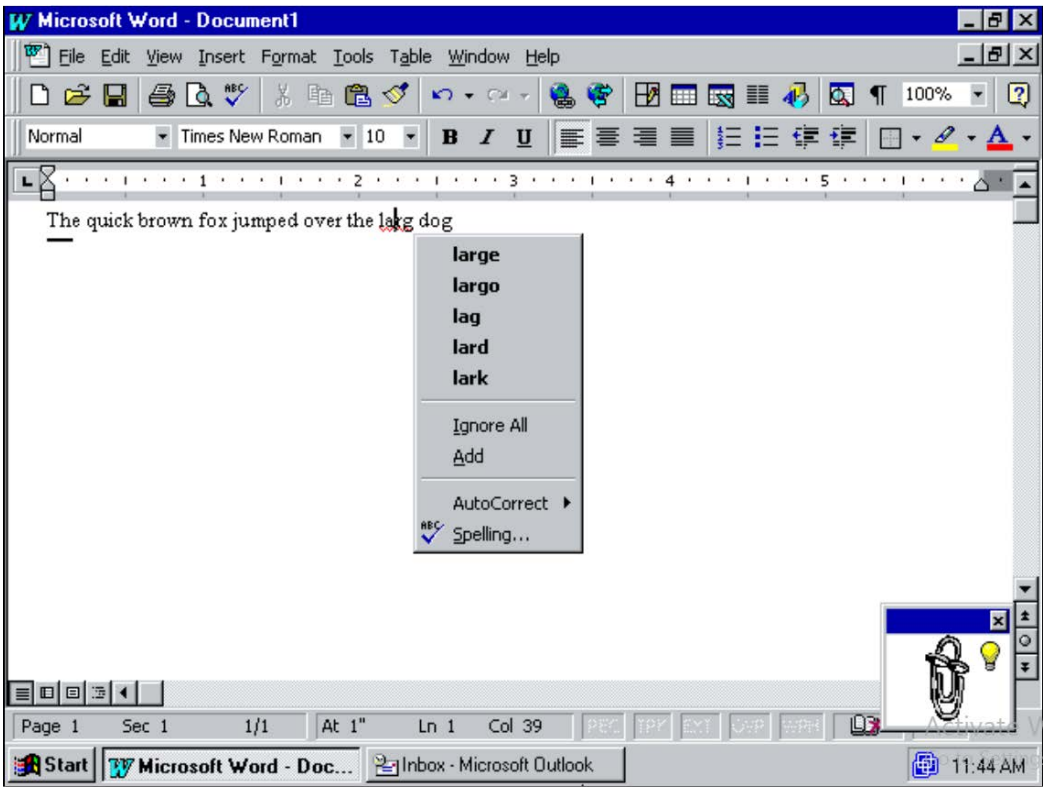
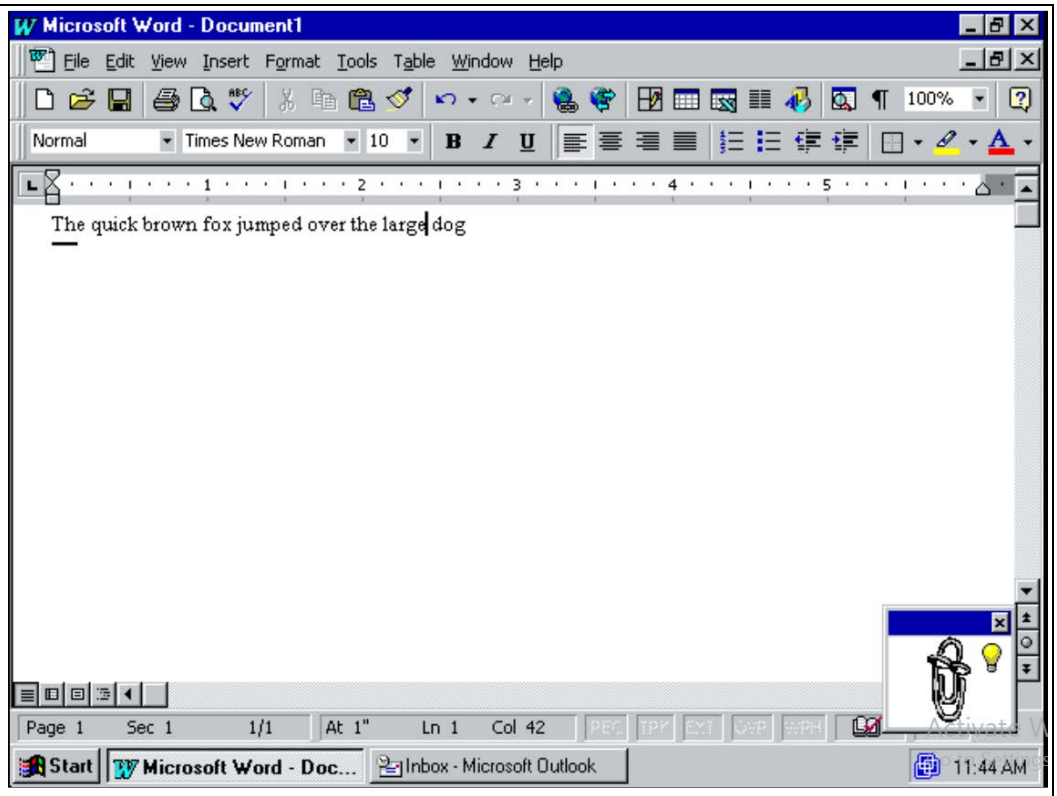
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

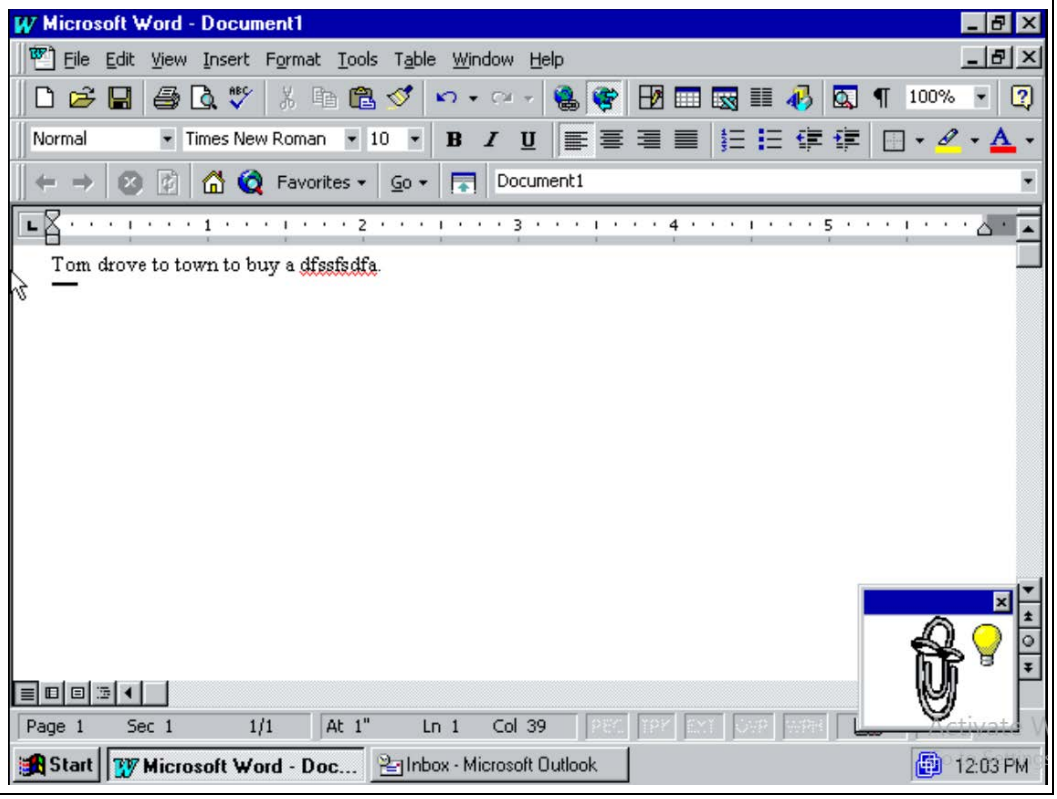


Exhibit L

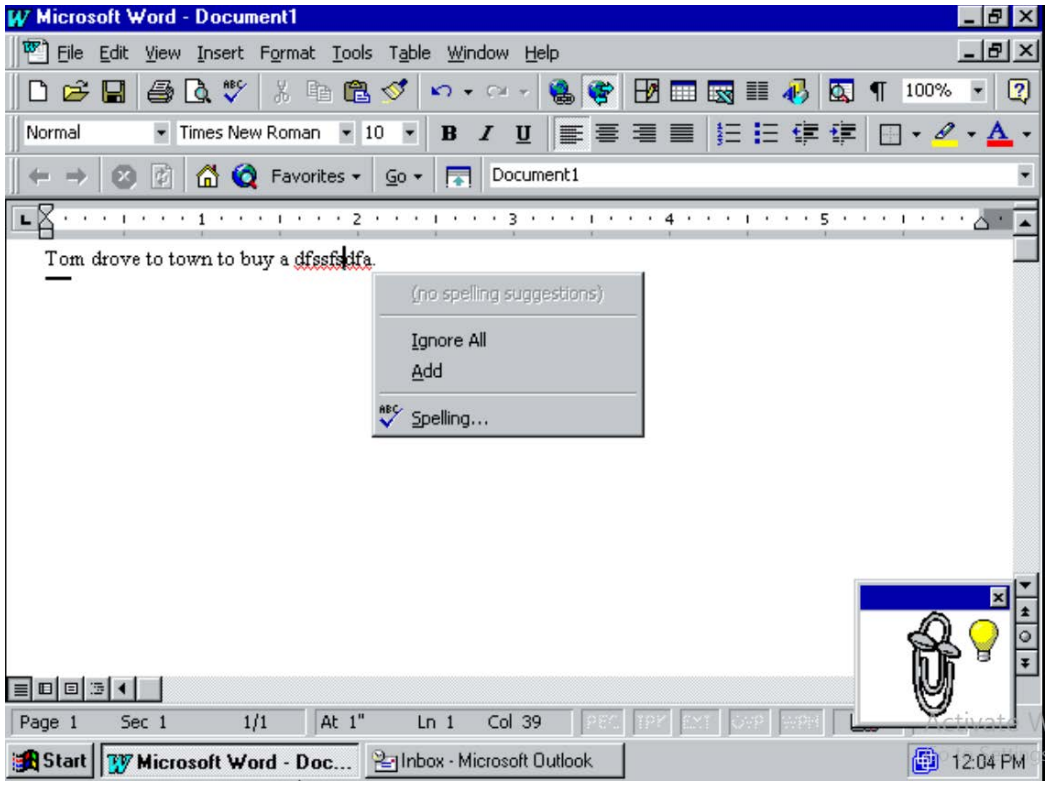
	Word 97. Word 97 further discloses:  Word 97. Word further discloses:

Exhibit L

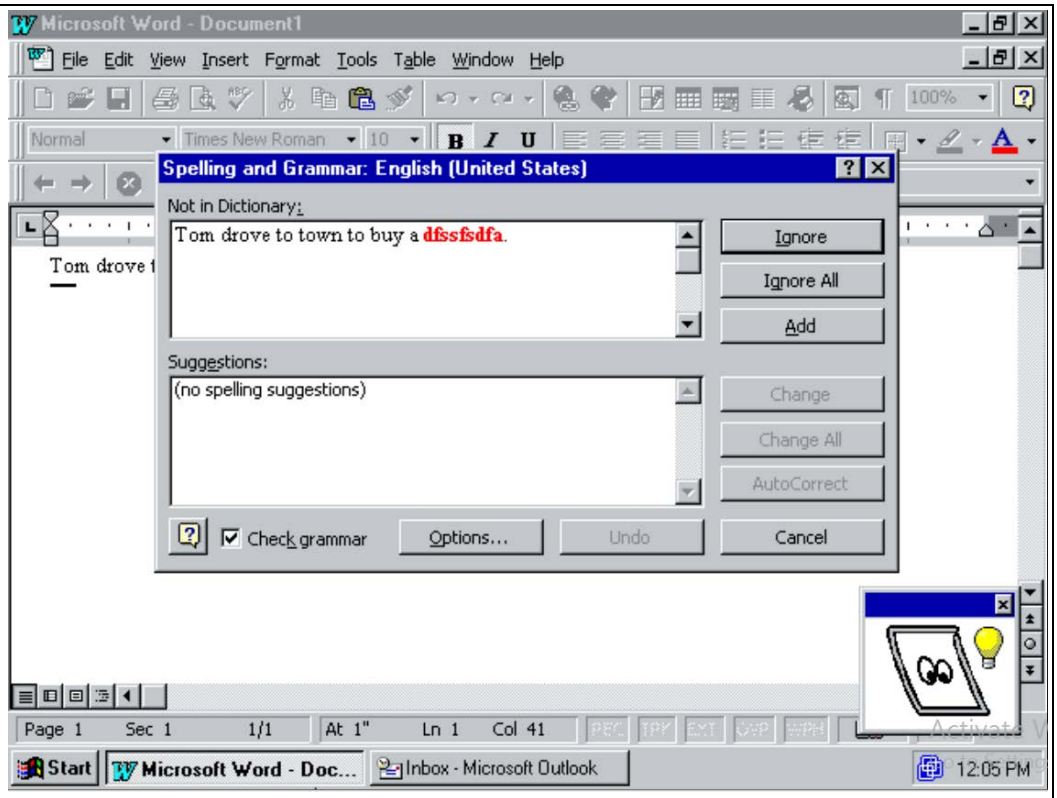
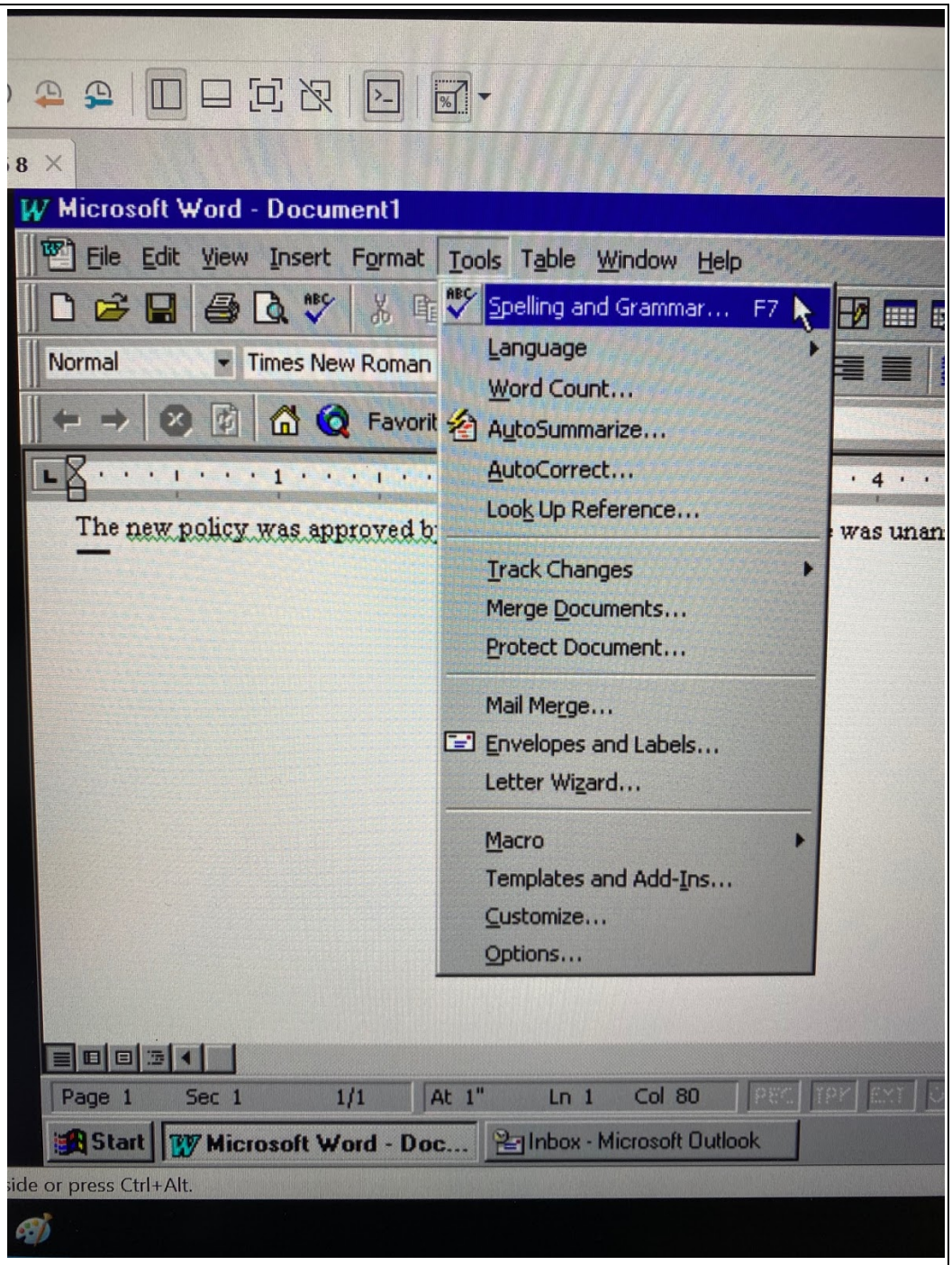
	 Word 97. Word 97 further discloses:

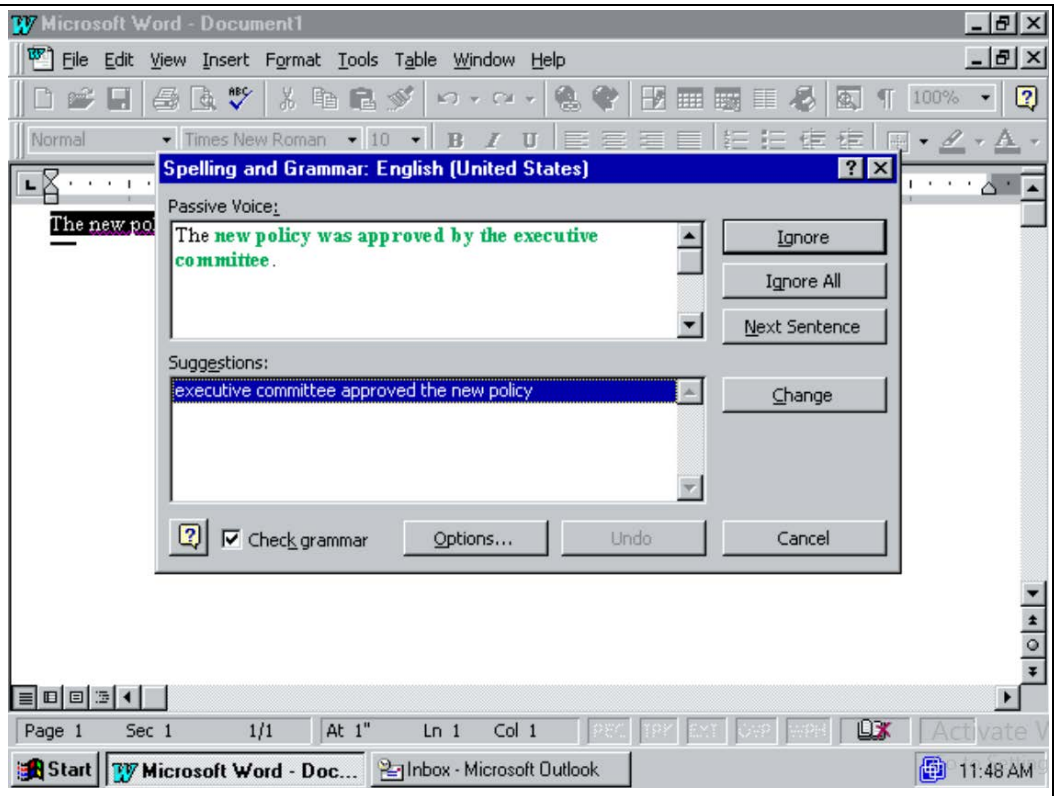
Exhibit L



Word 97.

Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

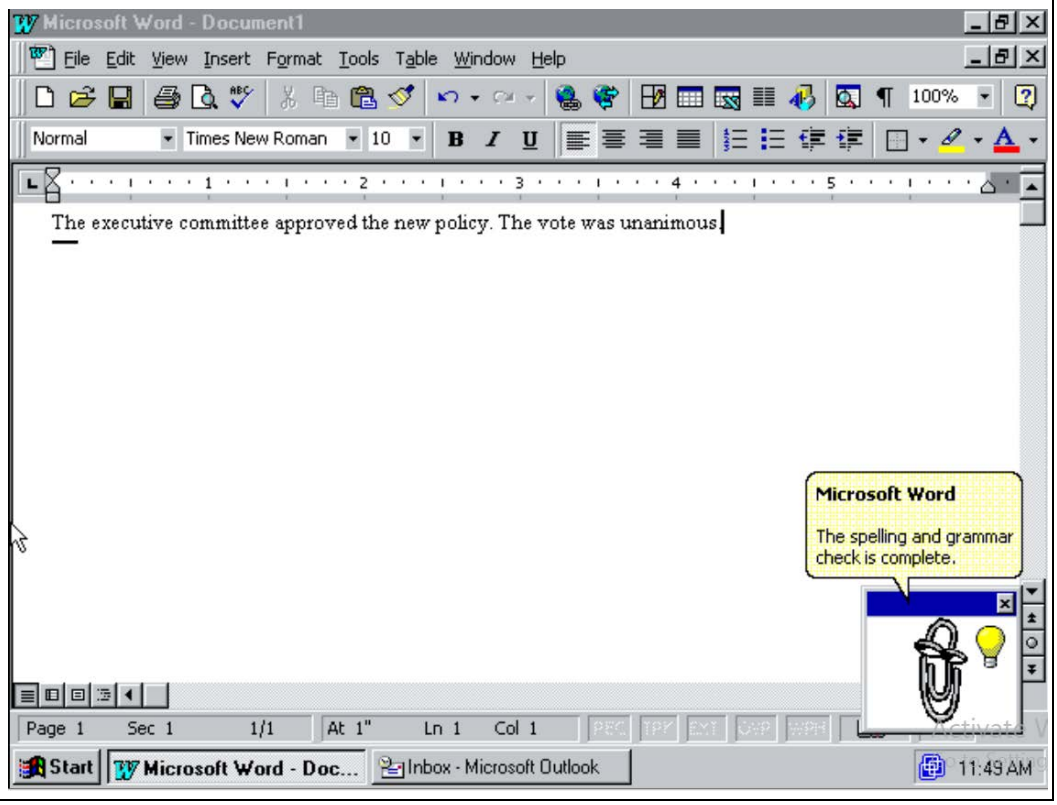


Exhibit L

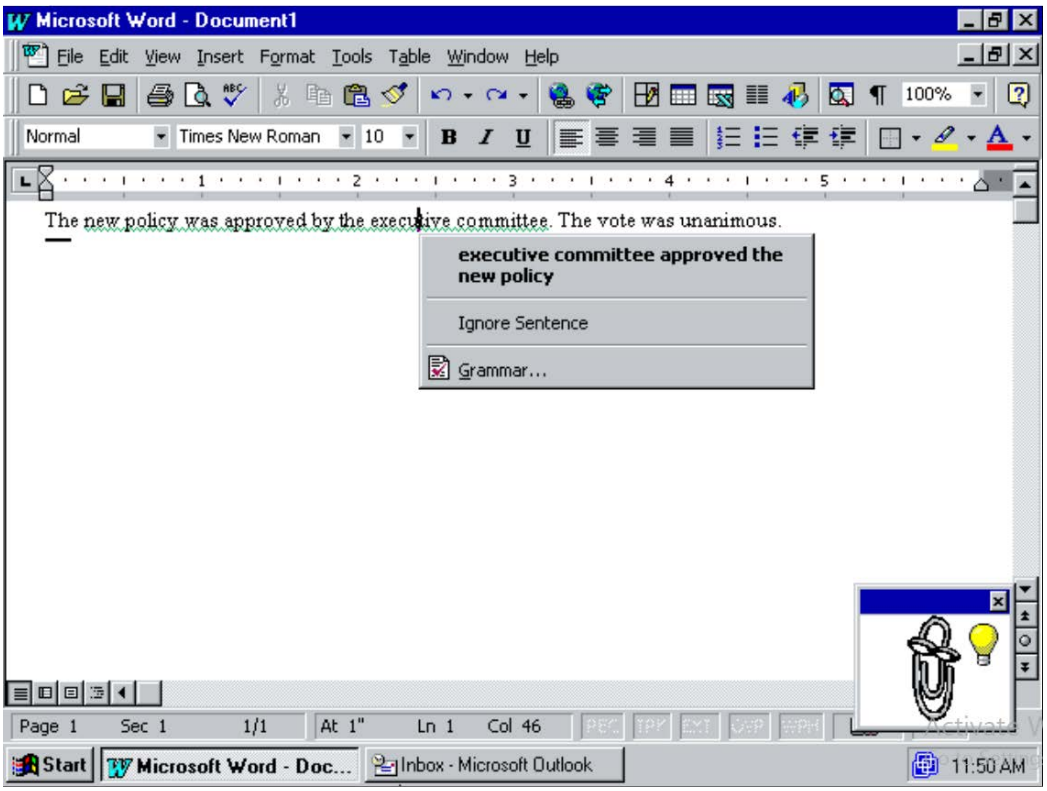
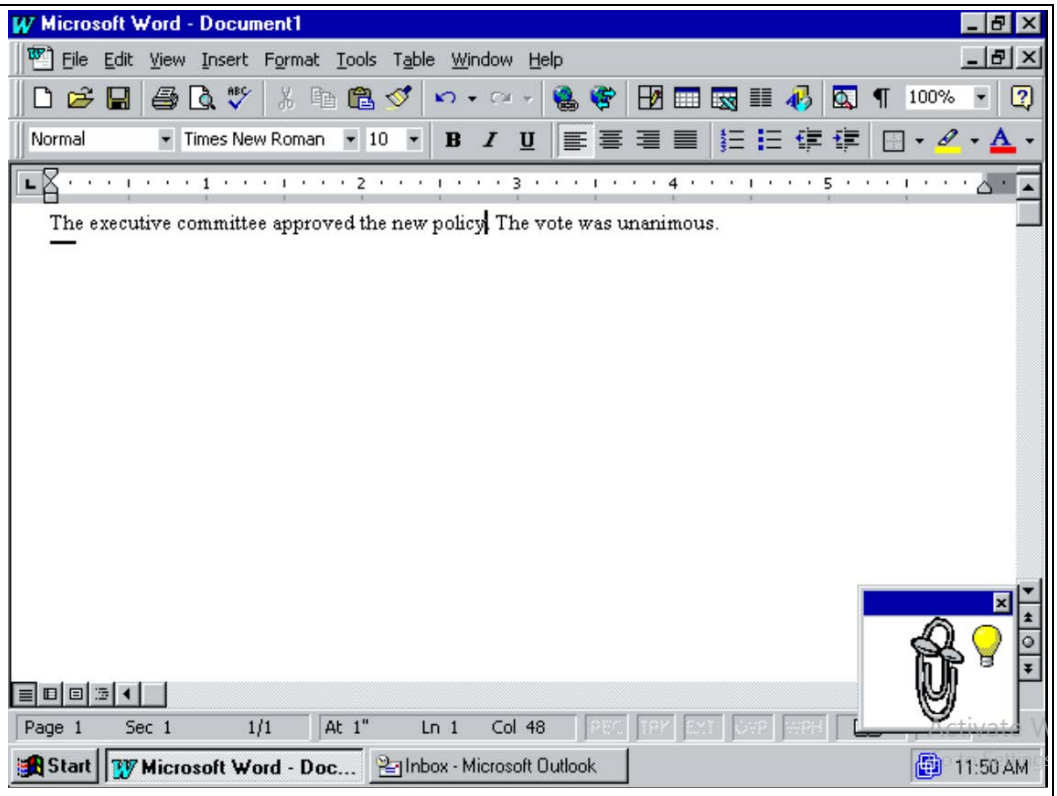
	Word 97. Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

Word 97 further discloses:

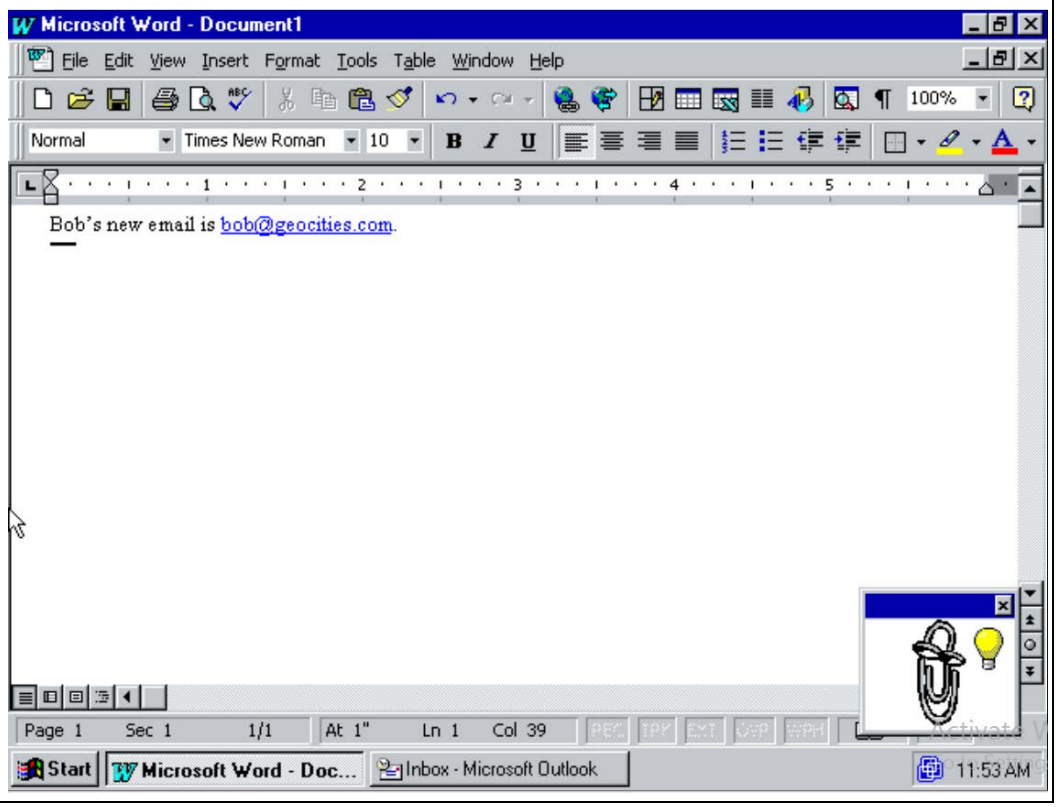


Exhibit L

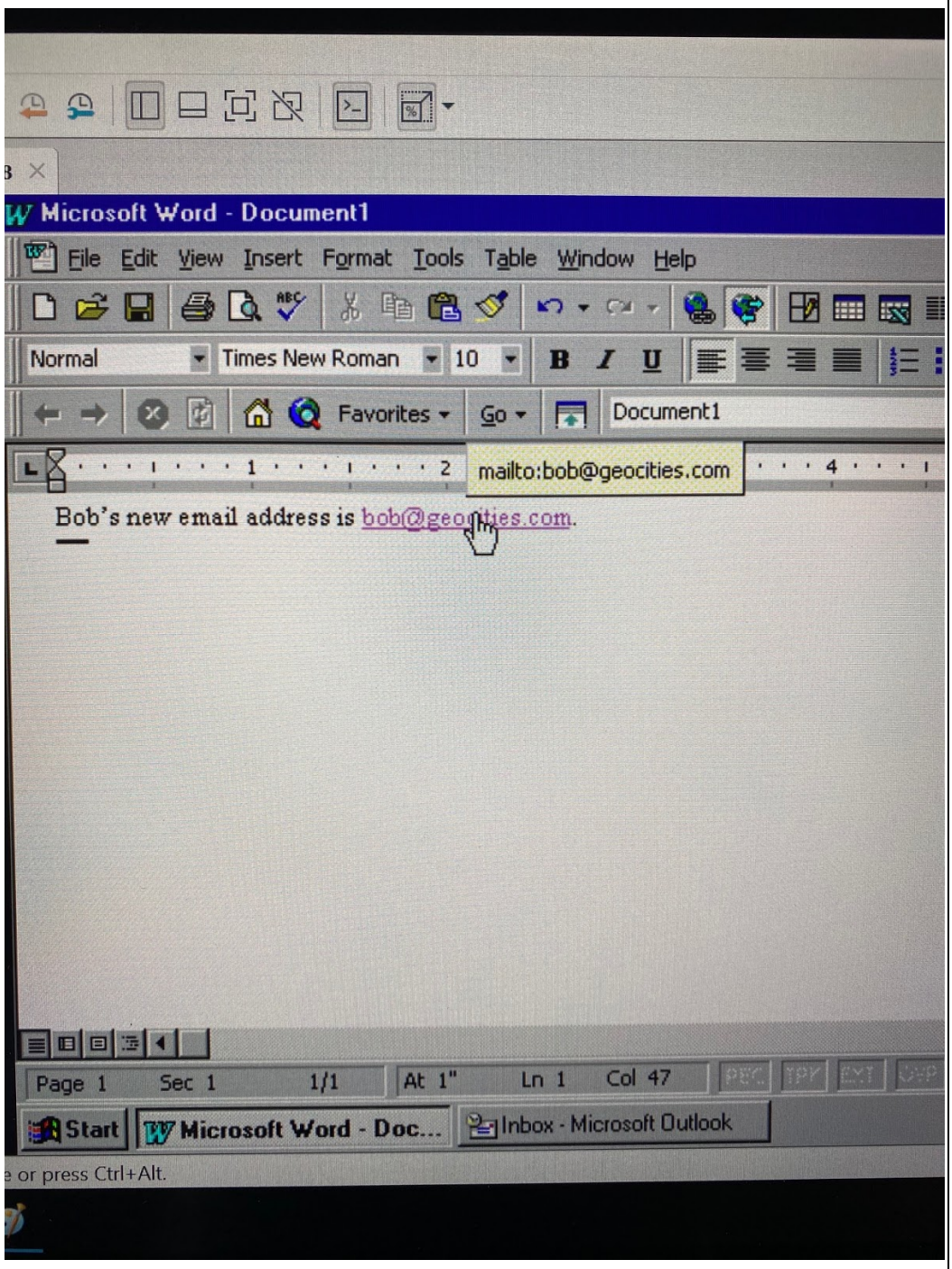
	Word 97. Word 97 further discloses:  Word 97.

Exhibit L

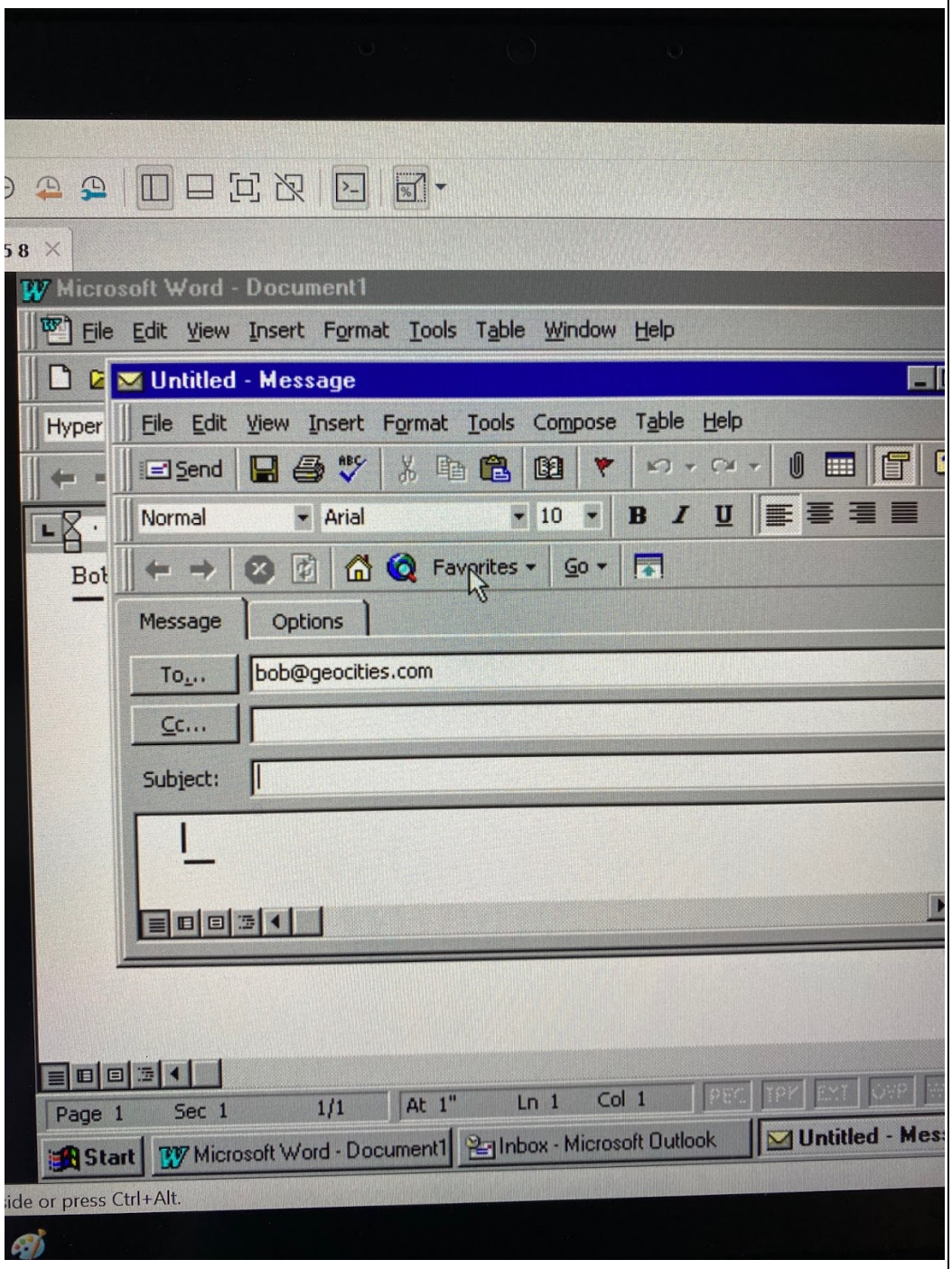
	Word 97 further discloses:  Word 97. Word 97 further discloses:

Exhibit L

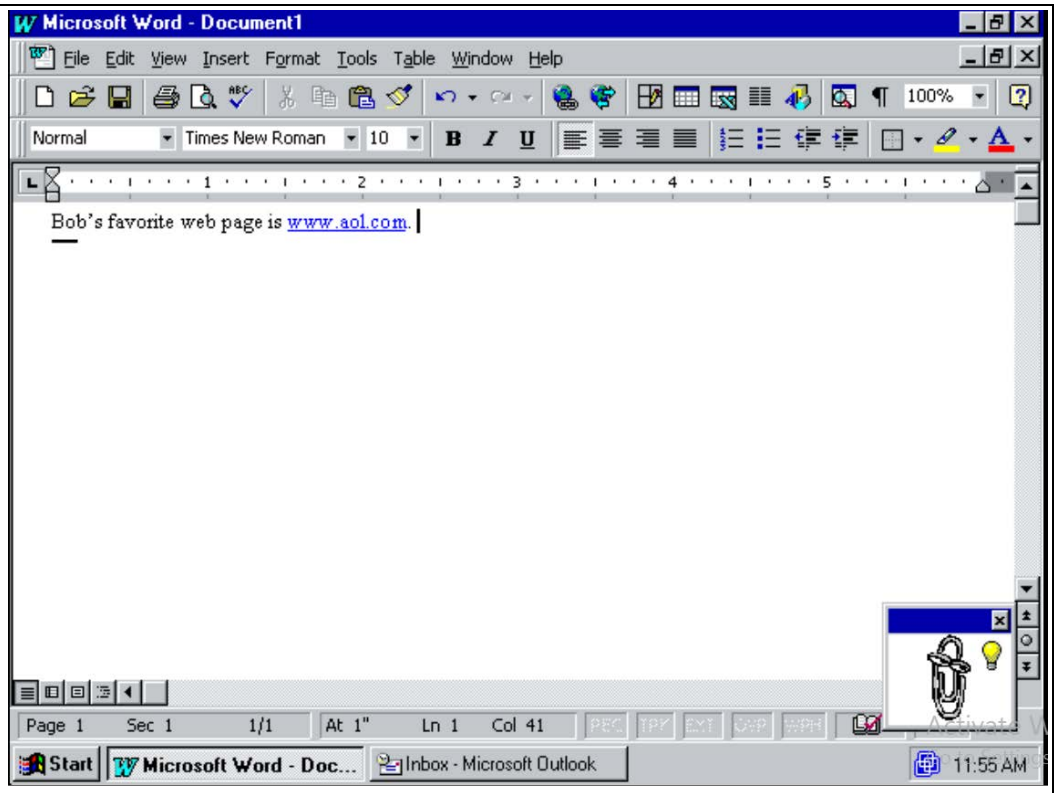
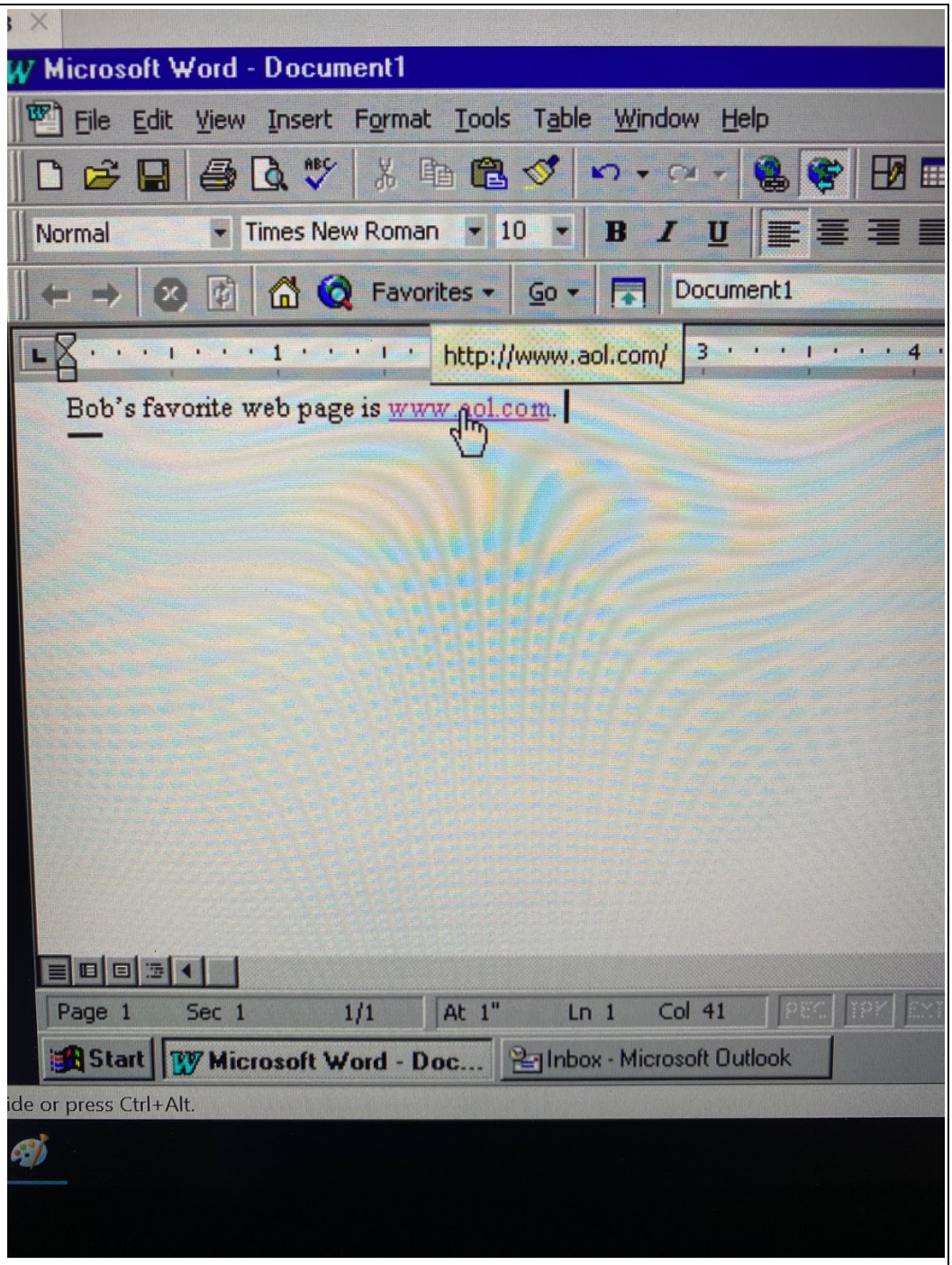
	 Word 97. Word 97 further discloses:

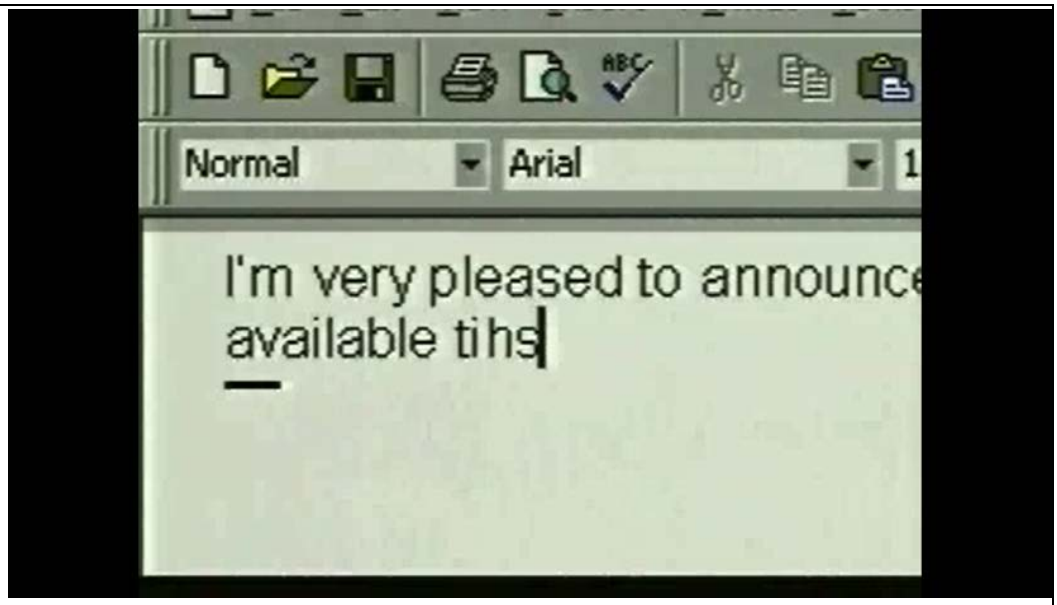
Exhibit L



Word 97.

How to use Microsoft Word further discloses:

Exhibit L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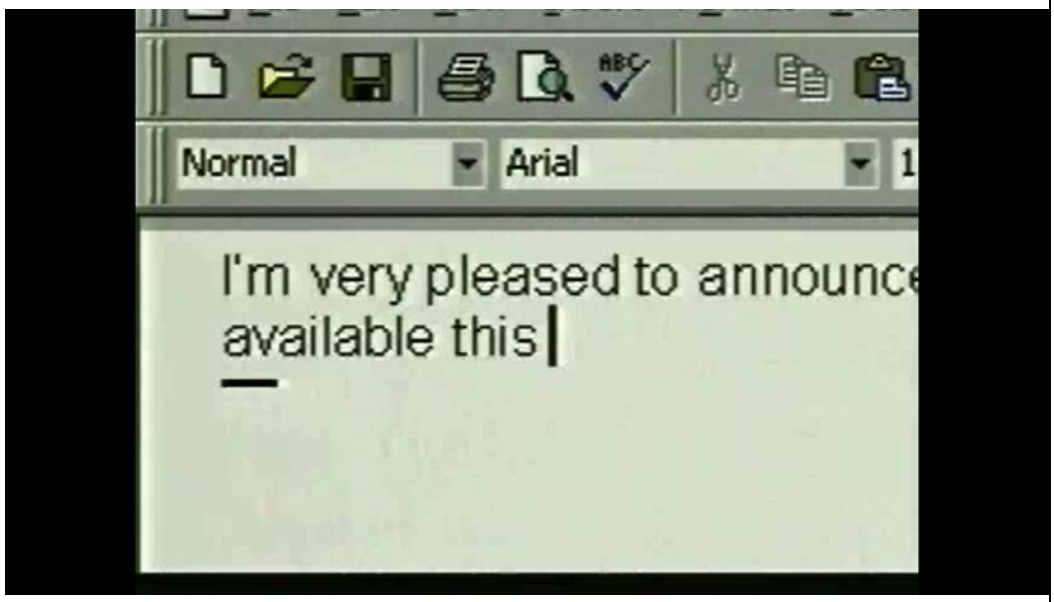
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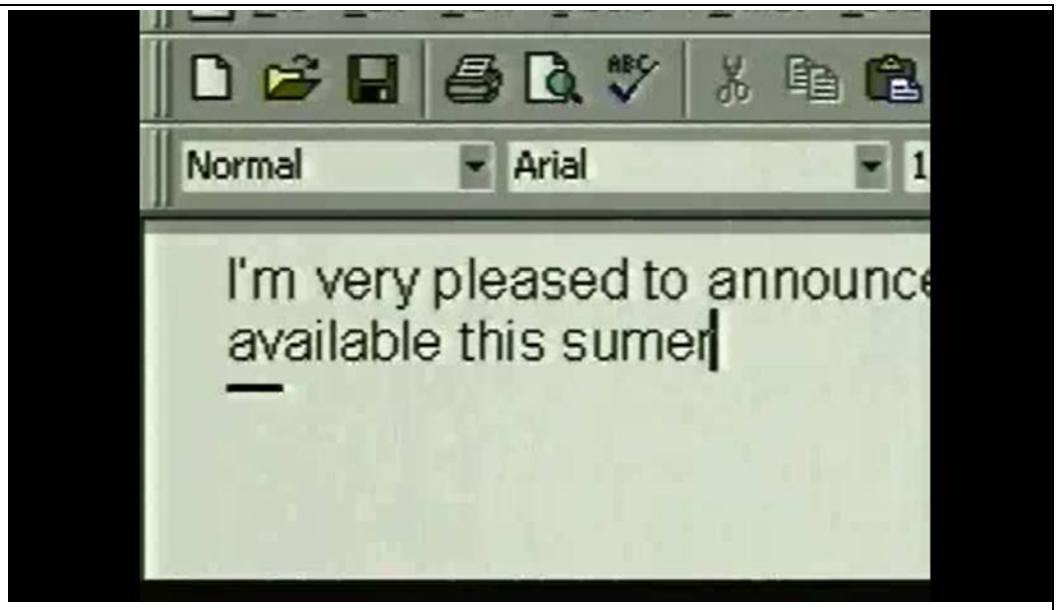
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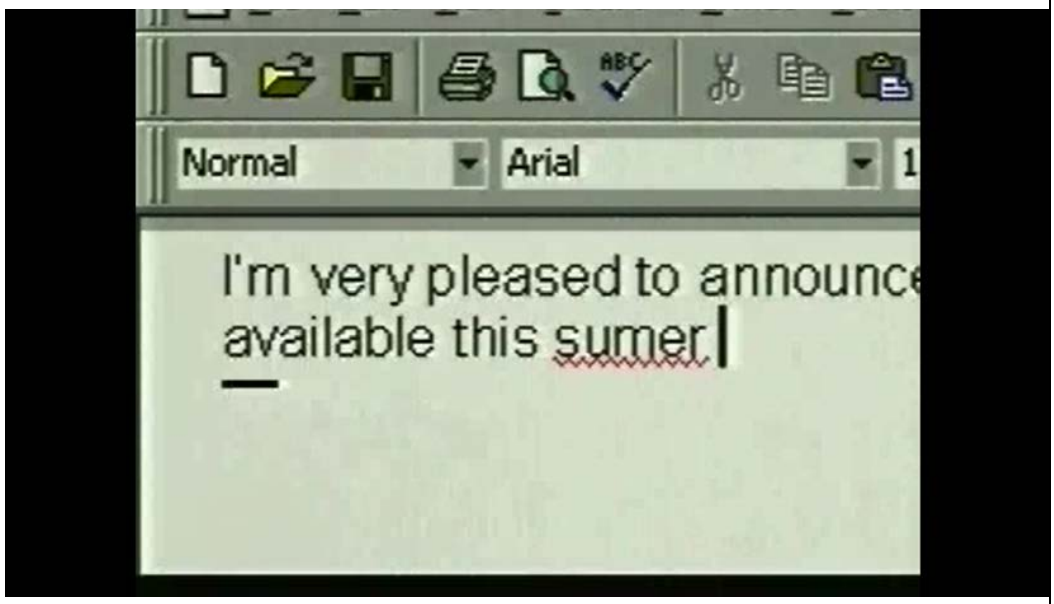
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Exhibit L


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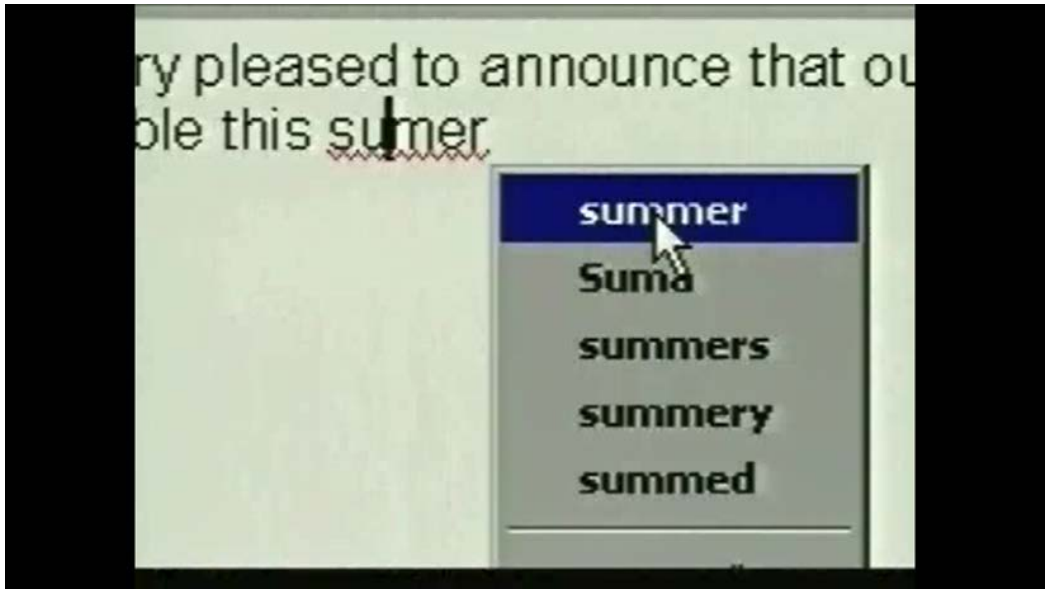
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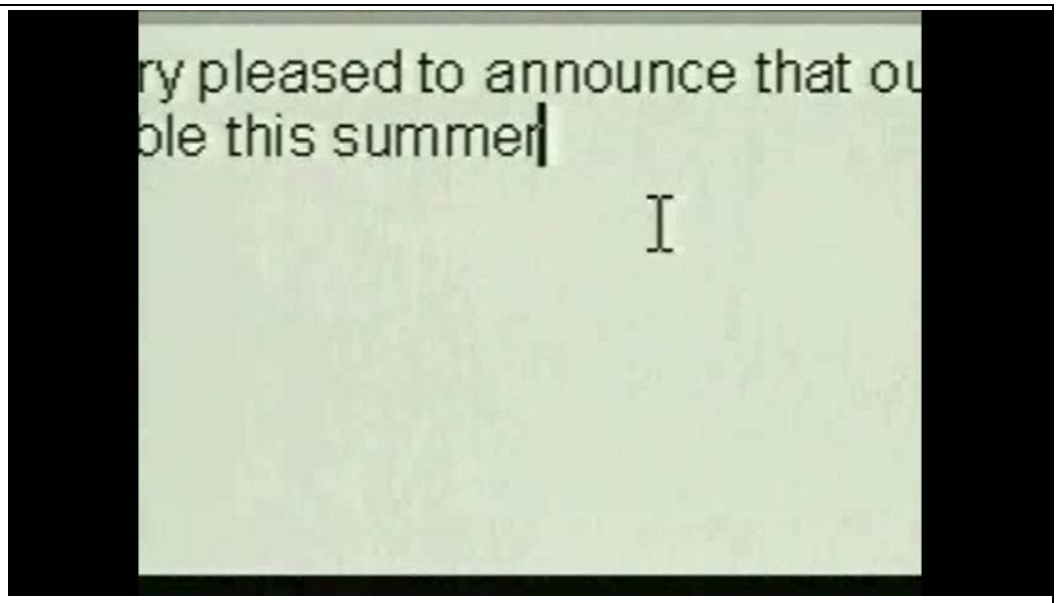
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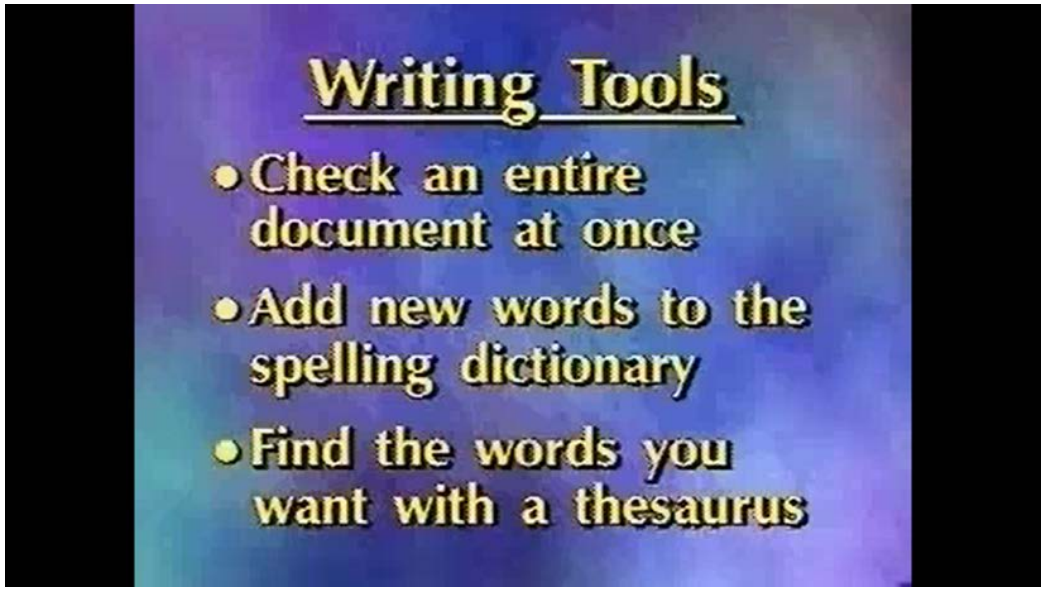
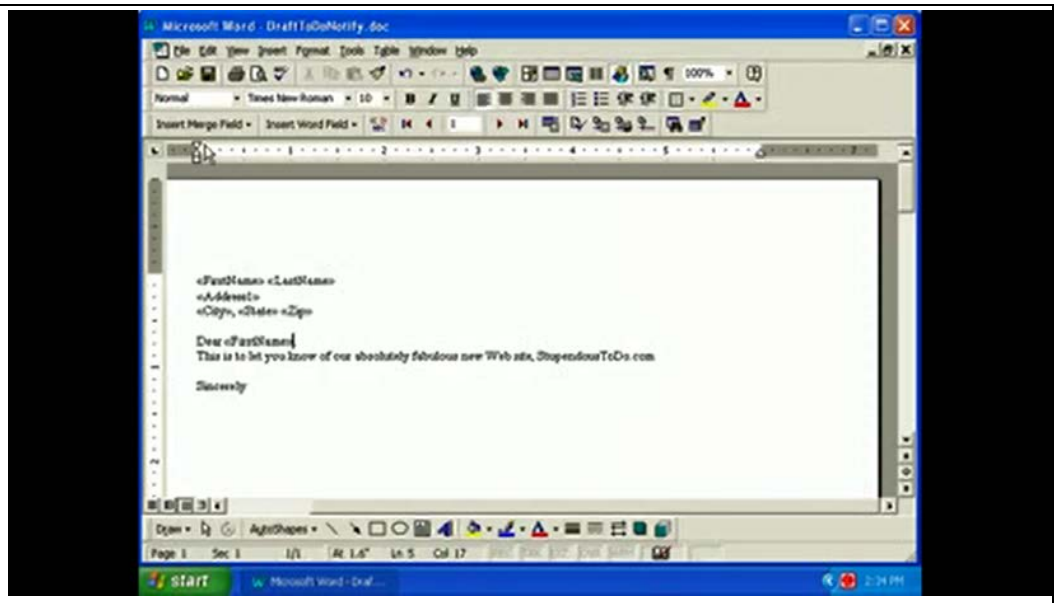
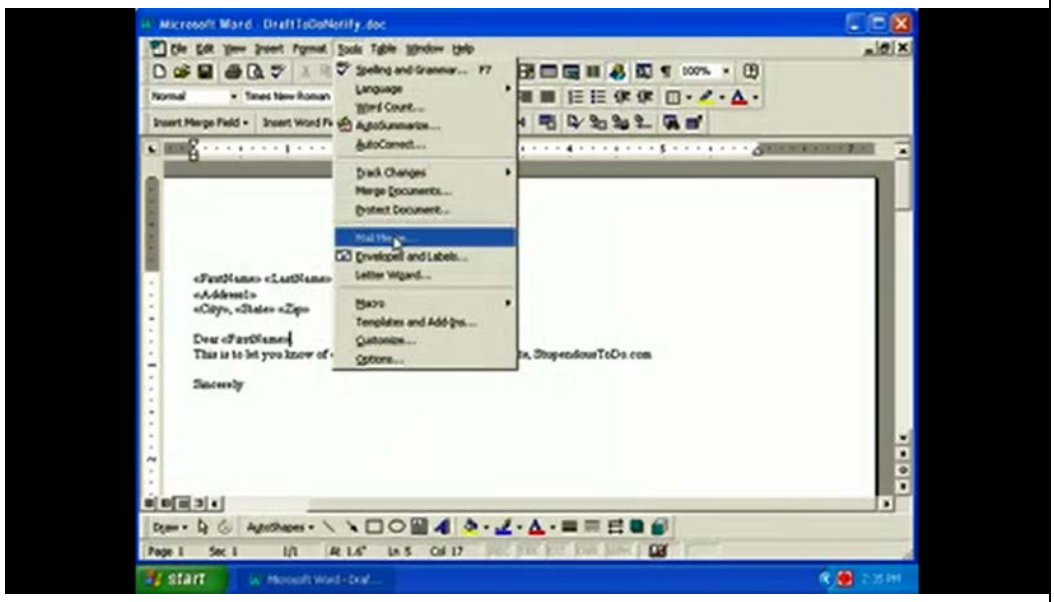

Writing Tools
• Check an entire document at once
• Add new words to the spelling dictionary
• Find the words you want with a thesaurus

Exhibit L

Word 97 Core Lesson 16 further discloses:

Exhibit L


Microsoft Word - DraftToDoNotify.doc
«FirstName» «LastName»
«Address1»
«City», «State» «Zip»
Dear «FirstName»
Sincerely
start


Microsoft Word - DraftToDoNotify.doc
Spelling and Grammar... F7
Language
Word Count...
AutoSummarize...
AutoCorrect...
Track Changes
Merge Documents...
Protect Document...
Envelopes and Labels...
Letter Wizard...
Macros
Templates and Add-Ins...
Customize...
Options...
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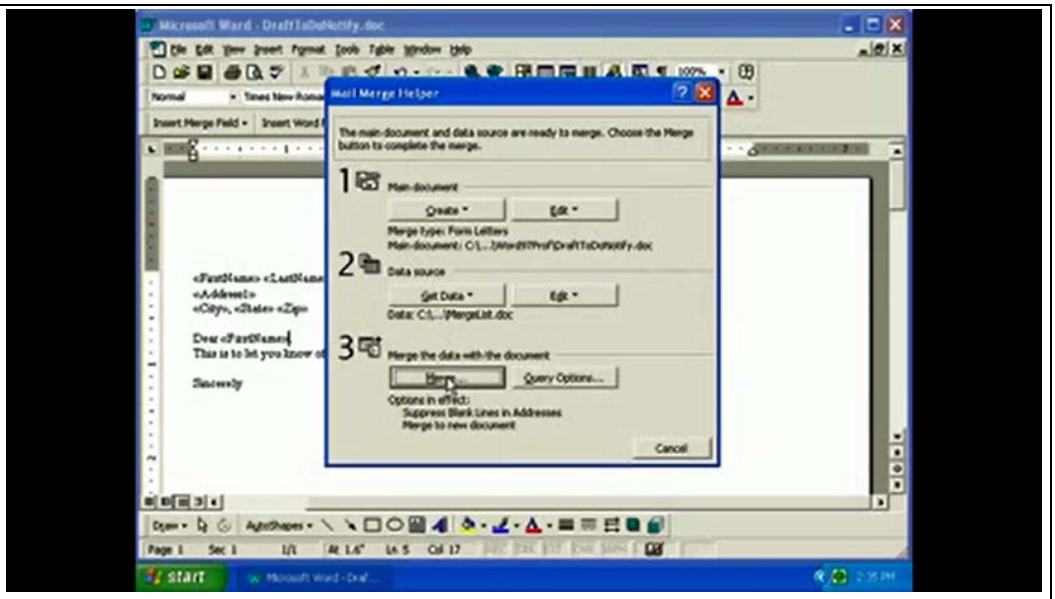
«Address1»
«City», «State» «Zip»
Dear «FirstName»
Sincerely
start

Exhibit L


Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
1 Main document
Create
Edit
2 Data source
Get Data
Edit
3 Merge the data with the document
Merge...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

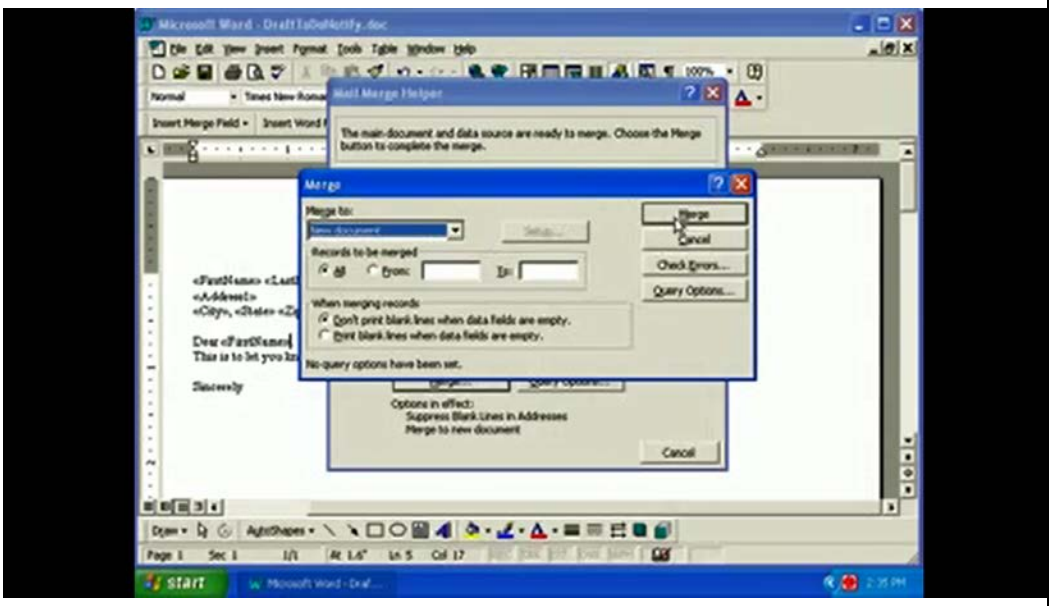

Mail Merge Helper
The main document and data source are ready to merge. Choose the Merge button to complete the merge.
Merge
Merge to:
Records to be merged
When merging records
No query options have been set.
Check Errors...
Query Options...
Options in effect:
Suppress Blank Lines in Addresses
Merge to new document
Cancel

Exhibit L

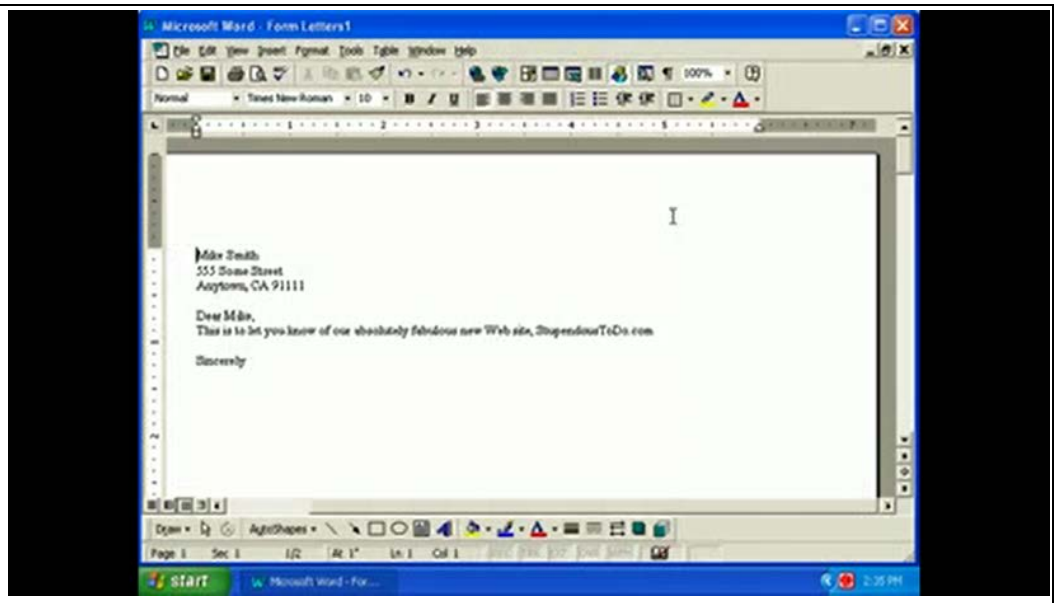
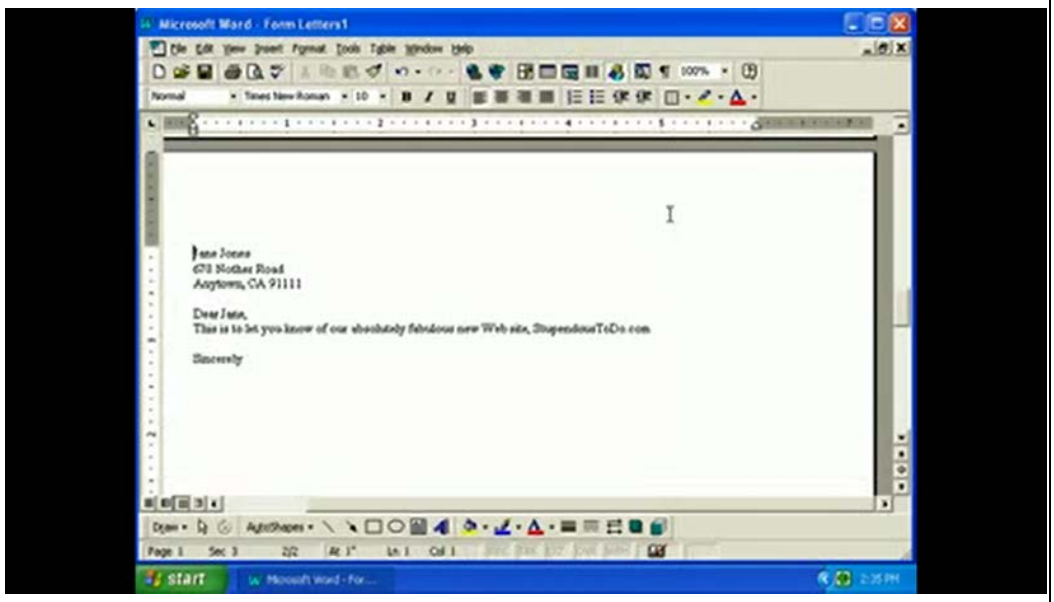
	 
Claim 30	
At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising:	Word 97 discloses claim 23. *See* claim 23 above.
providing a prompt for updating the information source to include the first information.	Word 97 discloses this element. *See* claim 8 above. For example, the following screenshots highlight aspects of Word 97 functionality that discloses providing a prompt for updating the information

Exhibit L

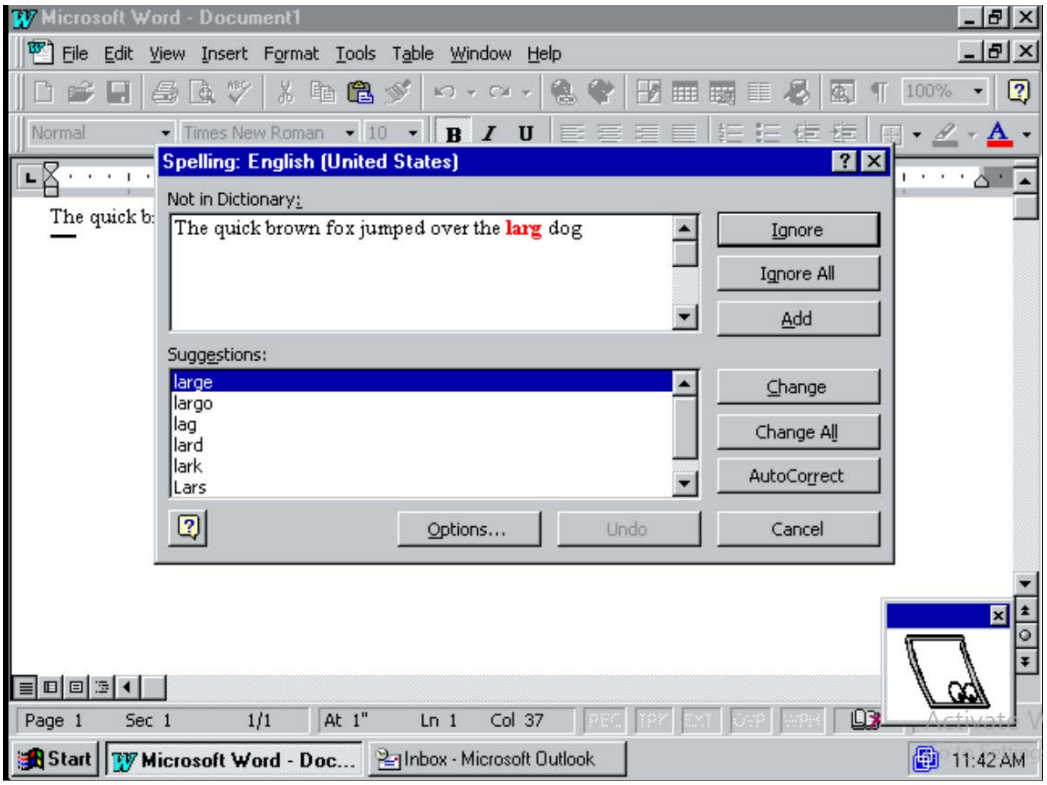
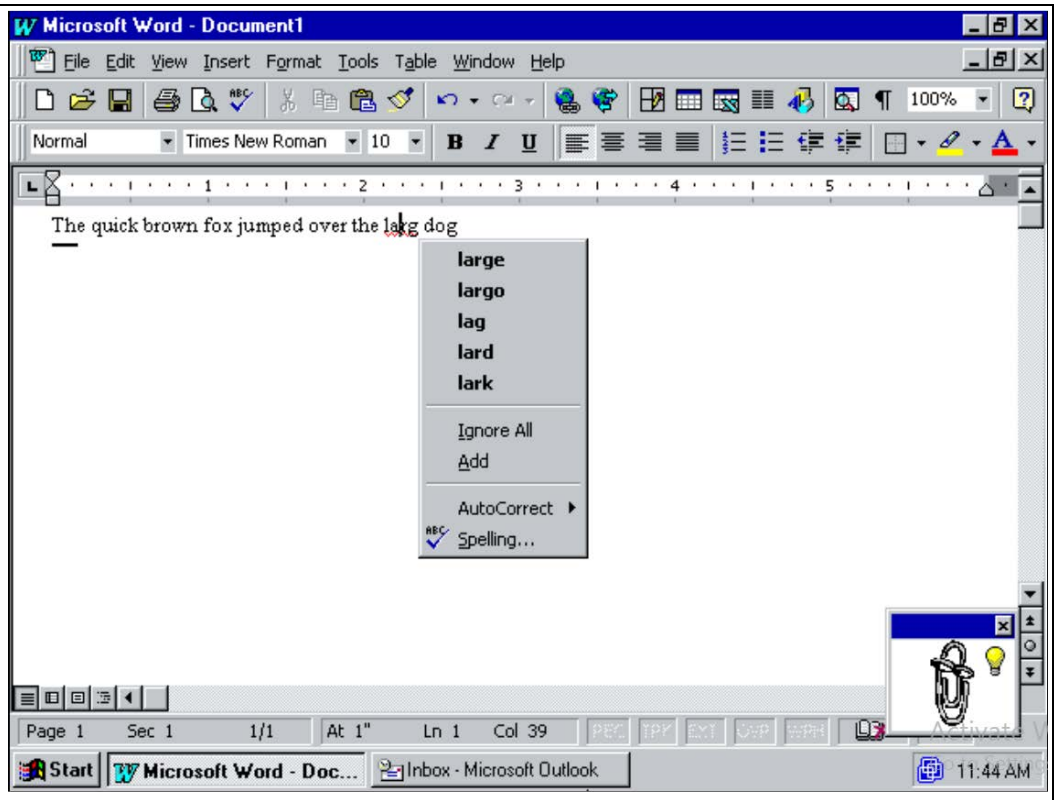
	source to include the first information. Specifically, Word 97 discloses:  Word 97. Word 97 further discloses:

Exhibit L



Word 97.

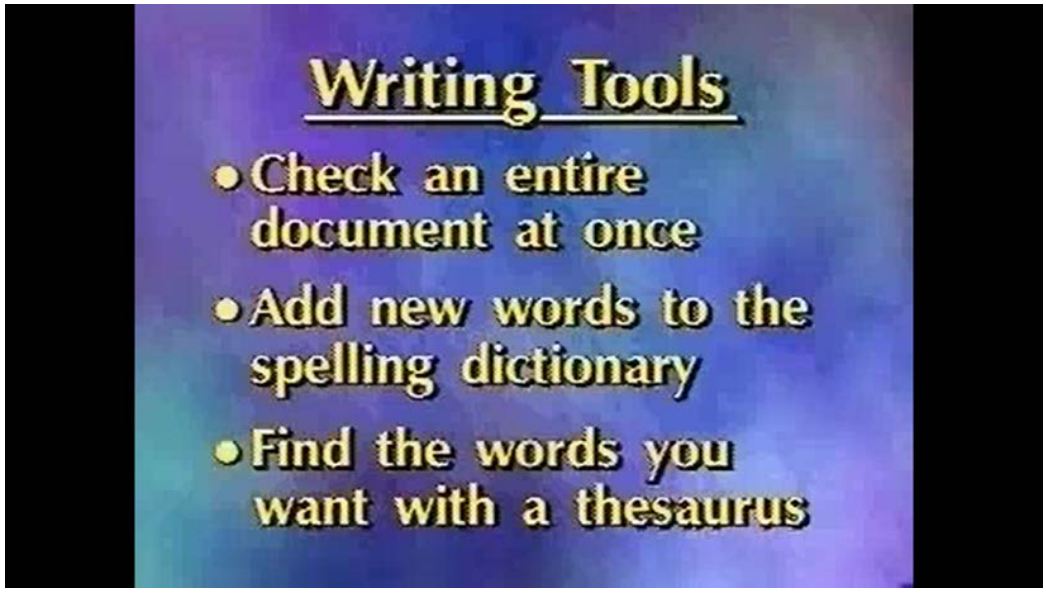


Exhibit M

Claim Chart Applying "Special Edition Using Microsoft Word 97" Against the '843 Patent

"Special Edition Using Microsoft Word 97" ("Person") was published by Que Publisher on December 16, 1996. It therefore constitutes prior art under pre-AlA 35 U.S.C. § 102(a) and (b). As shown below Person anticipates and/or renders obvious claims 1, 8, 13, 15, 17, 18, 19, 23 and 30 of the '843 patent.

"Obviousness Statement" - To the extent that the Judge or Jury finds that Outlook does not teach an element either expressly or inherently, then the claim element is obvious to a POSITA based on the state of the art (*see, e.g.*, Section V of my Report), including the admissions of the prior art functionalities and motivations to combine those prior art functionalities in the '843 patent, as well as the motivations to combine and understandings of a POSITA discussed in my Report (*see, e.g.*, Section IX of my Report and Exhibit U), in light of the teachings of, at least, the prior art listed and discussed in Exhibit U, and each prior art system and/or reference listed in my Report, including, without limitation, Pandit, Chalas, Domini, Hachamovitch, Tso, Person, CyberDesk System (including specific publications describing aspects of the CyberDesk System), Eudora System (including specific publications describing aspects of the Eudora System), Apple Data Detectors System (including specific publications describing aspects of the Apple Data Detectors System), LiveDoc System (including specific publications describing aspects of the LiveDoc System), Newton System (including specific publications describing aspects of the Newton System), Microsoft Outlook 97 (including specific publications describing aspects of Microsoft Outlook 97), Selection Recognition Agent System (including specific publications describing aspects of the Selection Recognition Agent System), and Microsoft Word 97 (including specific publications describing aspects of Microsoft Word 97).

'843 Patent Claims	**Disclosure**
Claim 1	
A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:	To the extent the preamble is found to be limiting, Person discloses the preamble. "Insert an individual's name and address in a letter Insert an address from the Personal Address Book, Scheduler, or Outlook" Person at 477. "Use the Mail Merge Helper to create a main document and a data source and to control the data merging of documents The Mail Merge Helper manages the entire mail-merge process in three easy steps." *Id.* "You can create two types of form letters with Word: those that are filled in manually and those that are filled in from computer-generated lists. In this chapter, you learn to create an automated form letter that prompts you for information the document needs for creating an invoice. You learn also how to fill in the blanks in a form letter by

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	merging a mailing list with the main document. Finally, you learn advanced Word techniques for document automation, including a form letter that combines manual fill-in with merging of information." *Id.* "Merging Mailing Lists and Documents One of the most powerful and time-saving features available in any word processor is mail merge. *Mail merge* enables you to create multiple letters or envelopes by merging together a list of names and addresses with letters, envelopes, or address labels. Mail merge can also be used for such tasks as filling in administrative forms and creating invoices from accounting files. Whenever you keep a list or get a list from other programs and you need to put information into a Word document, you should consider using mail merge. The time you save by using mail merge can be tremendous. Instead of typing or modifying tens or hundreds of documents, Word can make all the documents for you. All you need to do is keep your list (names, addresses, and so on) up-to-date and create a form letter in which to insert the data. In fact, you can even make each document pause during mail merge so that you can enter personalized information." *Id.* at 485. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 1, 9, and 18.
displaying the document electronically using the first computer program;	Person discloses this element. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document

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	* * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "If you click Edit Main Document, Word displays the main document as a normal Word document with one exception--the Mail Merge toolbar is now displayed below the toolbar(s) and above the ruler (see Figure 17.16). With the main document on-screen, you can create a main document in which the data will be inserted." *Id.* at 491. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 1.
while the document is being displayed, analyzing, in a computer process, first information from the	Person discloses this element.

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document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	If the Judge or Jury finds that Person does not disclose this element, the element and the claim are still rendered obvious for the reasons stated in Exhibit U, Table 11. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485.

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	"When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. "Word enables you to select the records you want to merge. You can build *rules* that limit which data is merged. The rules form English statements specifying the data you want to merge." *Id.* at 508. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 11, 14, and 15.
retrieving the first information;	Person discloses this element. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list

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	5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document,	Person discloses this element. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address.

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wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "If you click Edit Main Document, Word displays the main document as a normal Word document with one exception--the Mail Merge toolbar is now displayed below the toolbar(s) and above the ruler (see Figure 17.16). With the main document on-screen, you can create a main document in which the data will be inserted." *Id.* at 491.

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	"You can get a sneak preview of the merged document by clicking the View Merged Data button in the Mail Merge toolbar. With View Merged Data off, your completed main document resembles the document at the top in Figure 17.31. After you click the View Merged Data button, the document appears as shown at the bottom of that figure." *Id.* at 506. "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 6, 8, 9, 11, 12, 14, 19, and 20.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Person discloses this element. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79.

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	"Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 10, and 19.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Person discloses this element. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address.

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	2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514.

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	For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 12 and 17.
Claim 8	
A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.	Person discloses claim 1. *See* claim 1 above. Person further discloses this claim. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 4, 5, and 17.
Claim 13	
A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.	Person discloses claim 1. *See* claim 1 above. Person further discloses this claim. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79.

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	"You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 2.
Claim 15	
A method according to claim 1, further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.	Person discloses claim 1. *See* claim 1 above. Person further discloses this claim. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 7, 17, and 20.
Claim 17	
A method according to claim 1, wherein the information source is associated with the second computer program and is available through the computer.	Person discloses claim 1. *See* claim 1 above. Person further discloses this claim. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

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	"1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert

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	Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.	Person discloses claim 1. *See* claim 1 above. Person further discloses this claim. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478. "1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main*

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	document, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 3 (e.g., Schulman, Domini, and Schabes). See also '843 patent at 1:17-42; My Report at paragraphs 187-189.
Claim 19	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.	Person discloses claim 1. *See* claim 1 above. Person further discloses this claim. "You can use Address Books and lists of contacts to manage the names and addresses of people you write to frequently. After you enter the names, addresses, and e-mail information about people, you can retrieve the information by clicking the Insert Address button in the Standard toolbar, then selecting to use names and addresses from an address book or a contact list. You also can paste a person's address into your document by clicking their name." Person at 478.

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	"1. Position the insertion point in the document where you want to past a person's address. 2. Click the Insert Address button in the Standard toolbar. If you are prompted, select an Exchange profile. The Select Name dialog box appears as shown in Figure 17.1 3. Select the Show Names From The list and select the address book or contact list containing the address you want to insert into your document * * * 4. Type the name you want into the Type Name or Select From List edit box, or click the name in the list 5. Choose OK to insert that person's name and address into your Word document." *Id.* at 478-79. "Understanding the Mail Merge Components: Data Sources and Main Documents You need two documents to create form letters or mailing labels. One document, called the *data source*, contains a precisely laid-out set of data, such as names and addresses. The other document, the *main document*, acts as a form that receives the data. Most forms that receive data are form letters or multicolumn tables for mailing labels. Although most people would use the term *form letter* to describe a Word main document, a main document can take the form of a mailing list, catalog, mailing labels, or letters. The main document is like a normal document except that it contains MERGEFIELD field codes that specify the placement of merged data. In a typical form letter, for example, the main document is a form letter in which the names and addresses are inserted, and the data source is the list of those names and addresses." *Id.* at 485. "When you merge the document, Word replaces the merge fields with the appropriate text from the data source. At merge time, you can choose to display the result as a new document on-screen or to print it directly to the current printer." *Id.* "To personalize the letter, you need to know to whom you are sending it. To display in the fill-in dialog box the name of the person being addressed, type a prompt in quotes; then in the quotes, use the Insert

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	Merge Field button to insert a MERGEFIELD of the person's name." *Id.* at 514. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 3 (e.g., Schulman, Domini, and Schabes). See also '843 patent at 1:17-42; My Report at paragraphs 187-189.
Claim 23	
At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data related to the contents of a document using a first computer program running on a computer, the processes comprising:	Person discloses this element. *See* claim 1 above.
displaying the document electronically using the first computer program;	Person discloses this element. *See* claim 1 above.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Person discloses this element. *See* claim 1 above.
retrieving the first information;	Person discloses this element. *See* claim 1 above.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information	Person discloses this element. *See* claim 1 above.

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source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Person discloses this element. *See* claim 1 above.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Person discloses this element. *See* claim 1 above.
Claim 30	
At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising: providing a prompt for updating the information source to include the first information	Person discloses claim 23. *See* claim 23 above. Person further discloses this element. *See* claim 8 above.

Exhibit N

Claim Chart Applying Microsoft Outlook 97 Against the '843 Patent

Microsoft Outlook 97 ("Outlook") was offered for sale, sold, or publicly used in the United States at least by 1997. It therefore constitutes prior art under pre-AlA 35 U.S.C. § 102(a) and (b). As shown below Outlook anticipates and/or renders obvious claims 1, 8, 13, 15, 17, 18, 19, 23 and 30 of the '843 patent.

"Obviousness Statement" - To the extent that the Judge or Jury finds that Outlook does not teach an element either expressly or inherently, then the claim element is obvious to a POSITA based on the state of the art (*see, e.g.*, Section V of my Report), including the admissions of the prior art functionalities and motivations to combine those prior art functionalities in the '843 patent, as well as the motivations to combine and understandings of a POSITA discussed in my Report (*see, e.g.*, Section IX of my Report and Exhibit U), in light of the teachings of, at least, the prior art listed and discussed in Exhibit U, and each prior art system and/or reference listed in my Report, including, without limitation, Pandit, Chalas, Domini, Hachamovitch, Tso, Person, CyberDesk System (including specific publications describing aspects of the CyberDesk System), Eudora System (including specific publications describing aspects of the Eudora System), Apple Data Detectors System (including specific publications describing aspects of the Apple Data Detectors System), LiveDoc System (including specific publications describing aspects of the LiveDoc System), Newton System (including specific publications describing aspects of the Newton System), Microsoft Outlook 97 (including specific publications describing aspects of Microsoft Outlook 97), Selection Recognition Agent System (including specific publications describing aspects of the Selection Recognition Agent System), and Microsoft Word 97 (including specific publications describing aspects of Microsoft Word 97).

Evidence of the availability of Outlook include the following:
- Getting Results with Microsoft Office 97 (copyright 1995-97)
- Microsoft Outlook 97 (copyright 1995-1996), as reflected in the below screenshots
- Microsoft Outlook 1997, Product Enhancements Guide
- Special Edition Using Microsoft Outlook 97, by Gordon Padwick (1997) ("Special Edition")
- "Learning Outlook '97 Basics Gi8dCE4sM8k" ("Learning Outlook 97 Basics)
- "Microsoft Office 97/98," WinWorld

Evidence of the design and operation of Outlook include the following:
- Getting Results with Microsoft Office 97
- Microsoft Outlook 97 and associated help files
- Special Edition Using Microsoft Outlook 97, by Gordon Padwick (1997)
- Learning Outlook 97 Basics

'843 Patent Claims	**Disclosure of Microsoft Outlook 97 ("Outlook")**
Claim 1	
A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:	To the extent the preamble is limiting, Outlook discloses the preamble. "Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Special Edition at 342.

Exhibit N

	Help file entry for "Check recipient names before sending a message." **Check recipient names before sending a message** Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book before you send a message. If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from. "AutoName Check AutoName Check helps ensure that a user's e-mail message is sent to the intended recipients by quickly and clearly identifying ambiguous e-mail names. While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed. If a name, abbreviated name or nickname matches an entry in the address book, Outlook displays the full name. If a name matches more than one address-book entry, such as when an abbreviated name or nickname is entered, Outlook marks the ambiguous name with a red underline, as for a misspelling in Microsoft Word. Users right-click the ambiguous name to choose the correct name from a list of choices. Once the user has resolved an ambiguous name, Outlook automatically remembers the ambiguous name as a nickname and proposes the same address-book entry the next time the nickname is entered." Product Enhancements Guide, p. 24. "**Improved integration** Outlook saves you time at your desk. Instantly create an appointment, a task, or a contact from an e-mail message without retyping information. Reschedule an appointment simply by dragging it to another day. Assign tasks to others in your workgroup by using task requests in Outlook." Getting Results, p. 11. "Install Office on Your Computer" Getting Results, p. 29. "Information is your most valuable resource. It can be an e-mail message, an appointment in your calendar, a collection of names and addresses, a list, a note, or a document. Whatever form the information takes, Outlook can help you make the most of it." Getting Results, p. 113.

Exhibit N

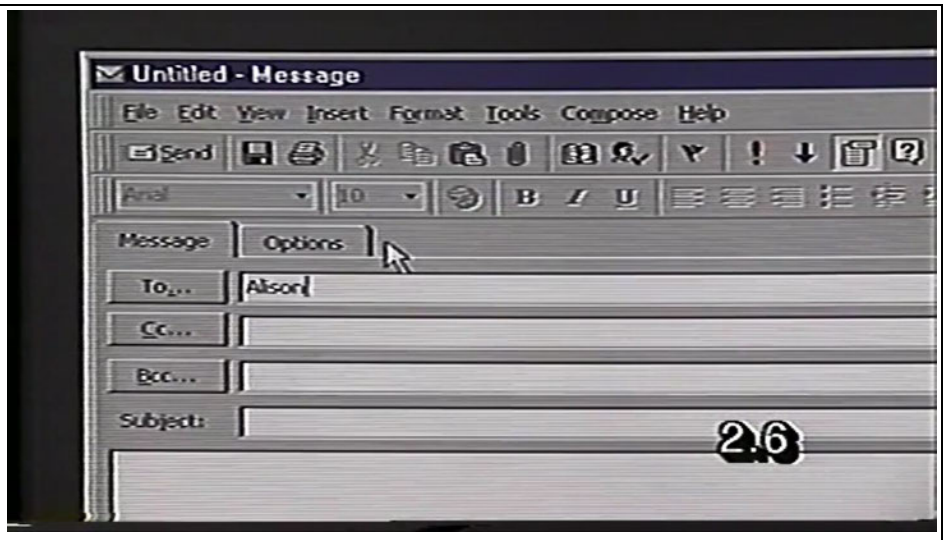
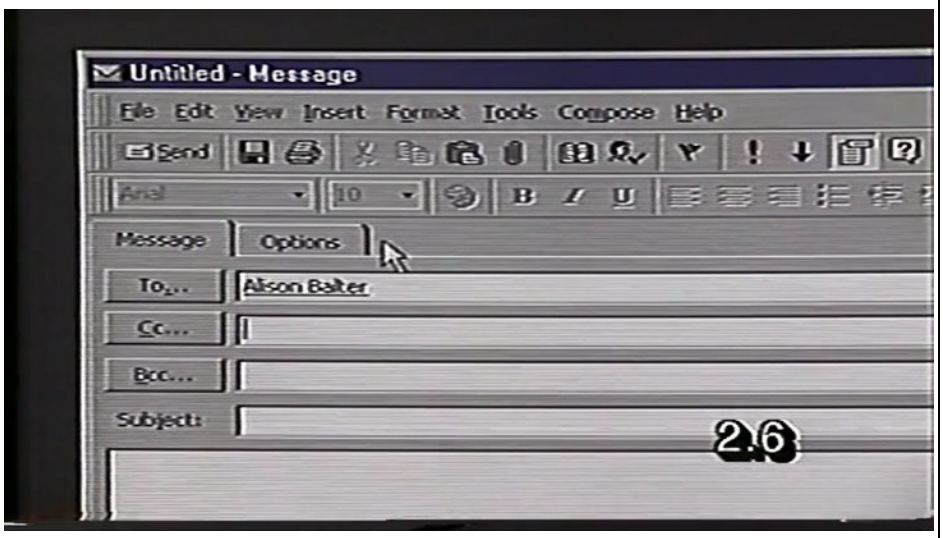
	 Learning Outlook 97 Basics at 34:45.  Learning Outlook 97 Basics at 34:50. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 1, 9, and 18.
displaying the document electronically using the first computer program;	Outlook discloses this element.

Exhibit N

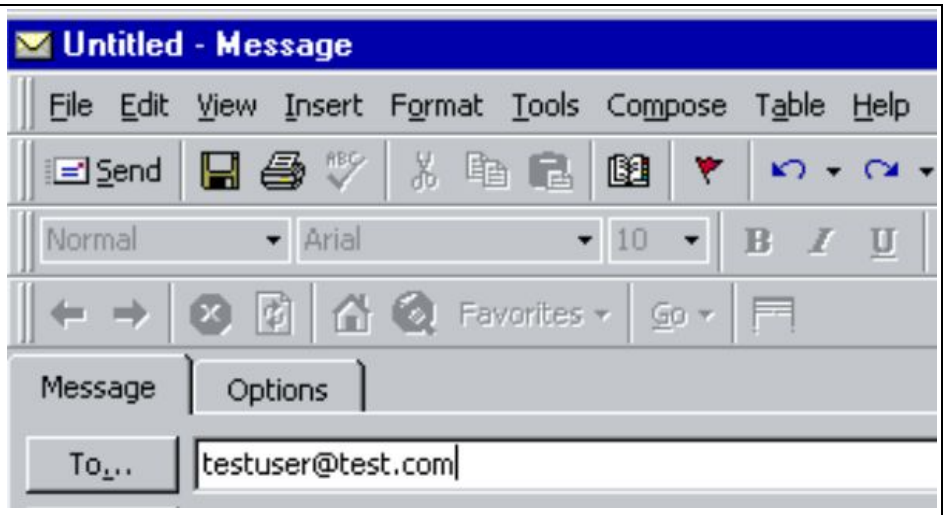
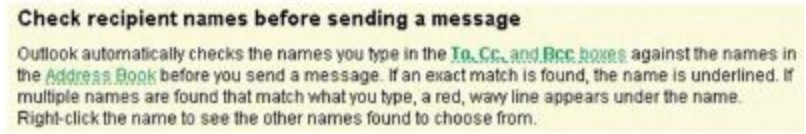
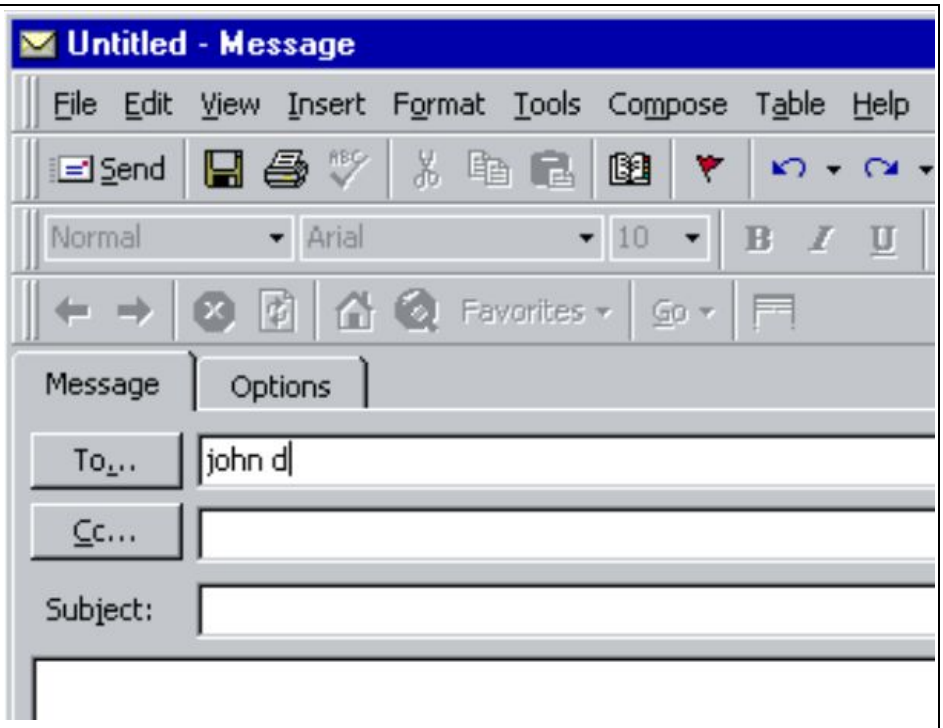
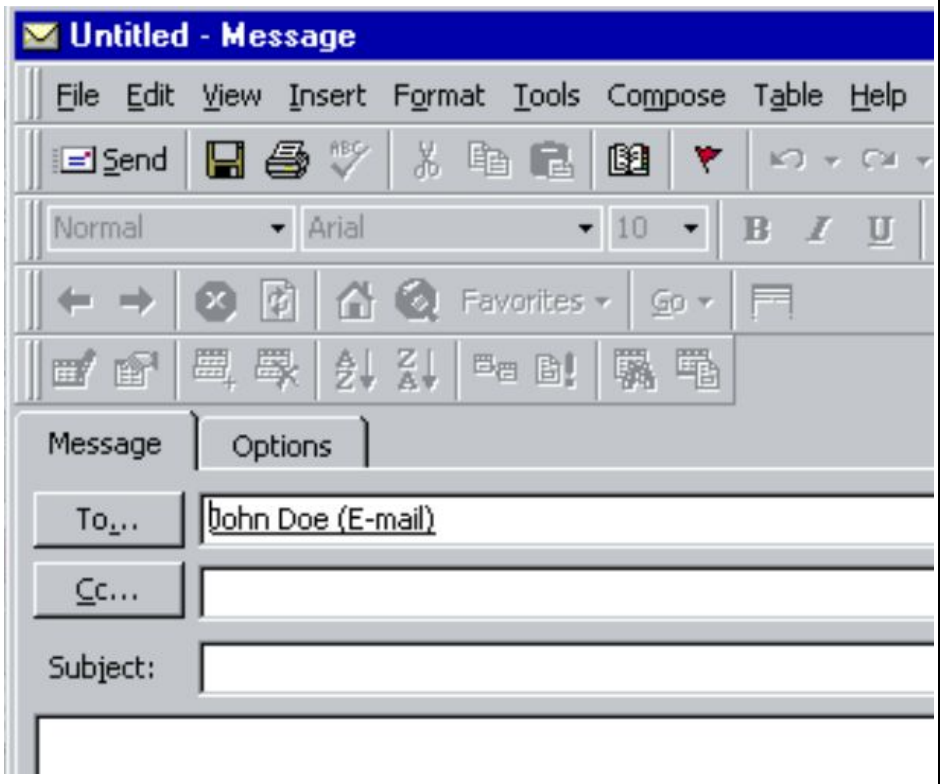
	 Screenshot from Outlook. "While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed." Product Enhancements Guide, p. 24. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Outlook discloses this element. "Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Special Edition at 342. Help file entry for "Check recipient names before sending a message." "If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from." Special Edition at 342.  **Check recipient names before sending a message** Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book before you send a message. If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from. Outlook further shows:

Exhibit N



Screenshot from Outlook.



Screenshot from Outlook.

Exhibit N

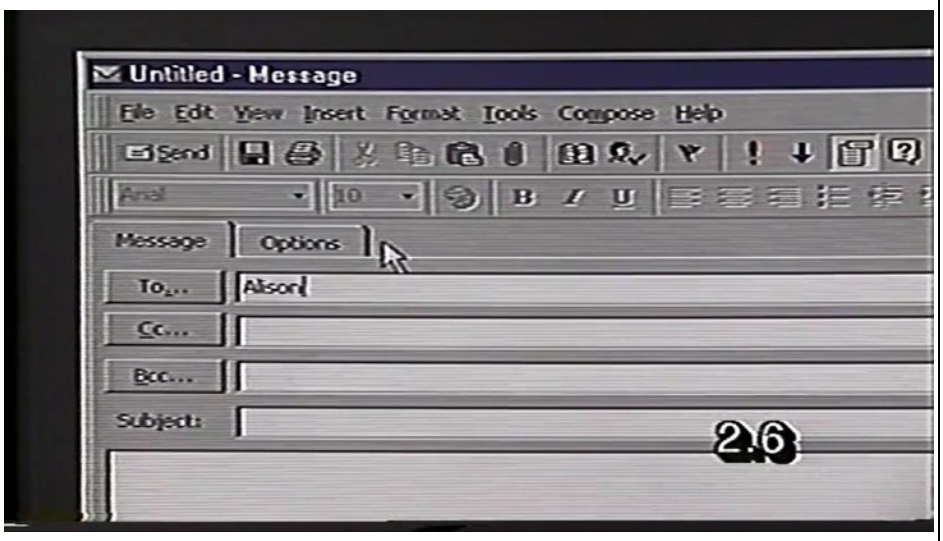
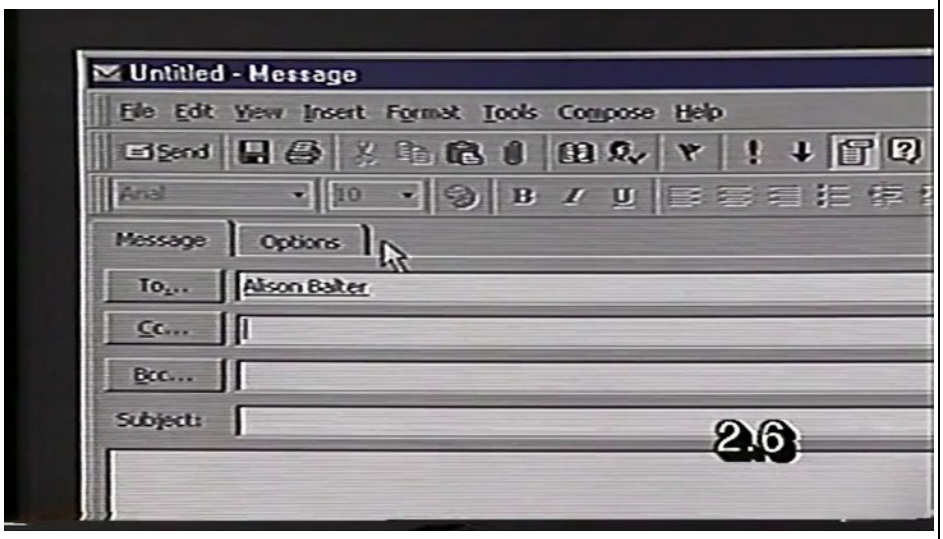
	"AutoName Check helps ensure that a user's e-mail message is sent to the intended recipients by quickly and clearly identifying ambiguous e-mail names. While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed. If a name, abbreviated name or nickname matches an entry in the address book, Outlook displays the full name." Product Enhancements Guide, p. 24.  Learning Outlook 97 Basics at 34:45.  Learning Outlook 97 Basics at 34:50. For example (and without limitation to the Obviousness Statement that

Exhibit N

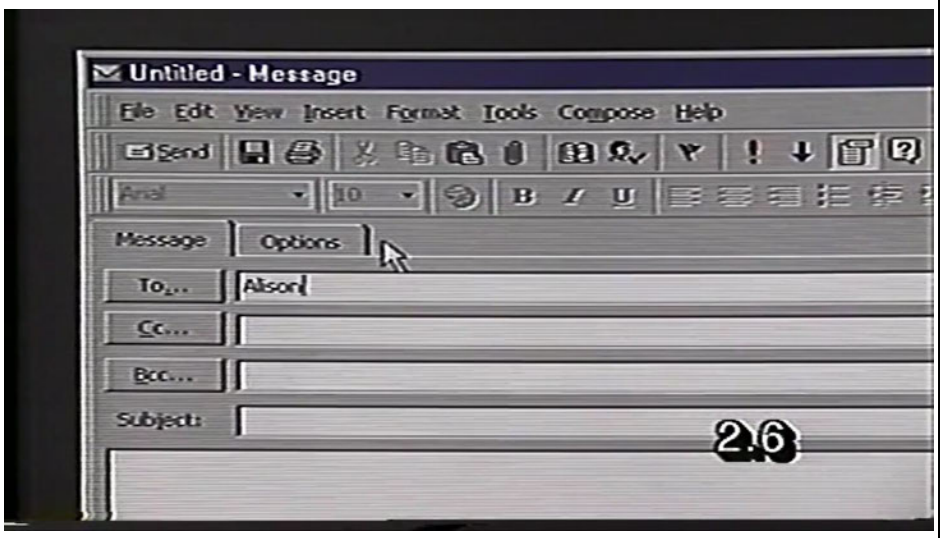
	is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 11, 14, and 15.
retrieving the first information;	Outlook discloses this element. "Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Special Edition at 342. Help file entry for "Check recipient names before sending a message." **Check recipient names before sending a message** Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book before you send a message. If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from. "AutoName Check helps ensure that a user's e-mail message is sent to the intended recipients by quickly and clearly identifying ambiguous e-mail names. While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed." Product Enhancements Guide, p. 24.  Learning Outlook 97 Basics at 34:45.

Exhibit N

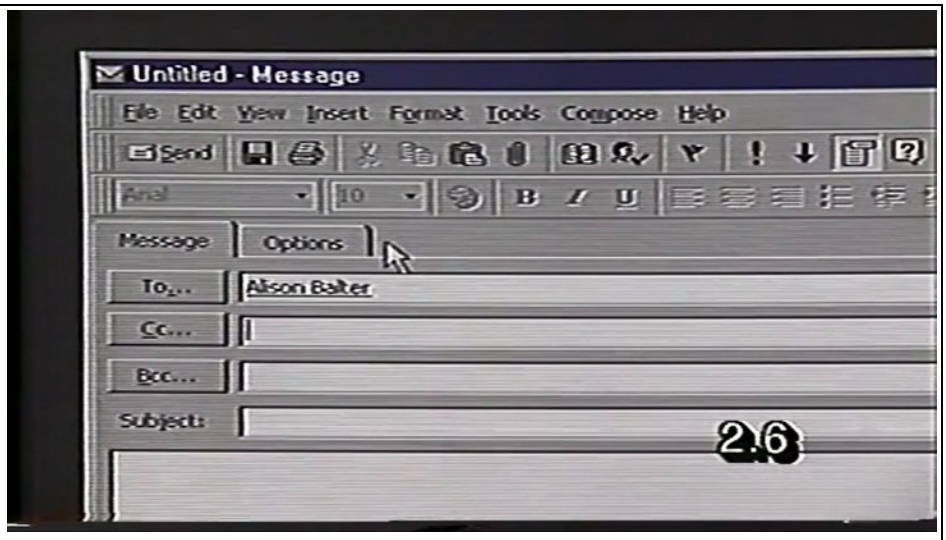
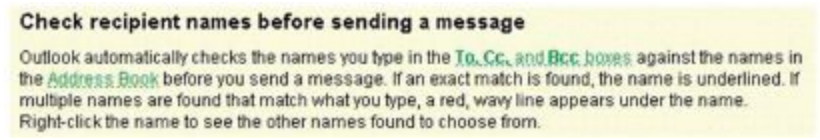
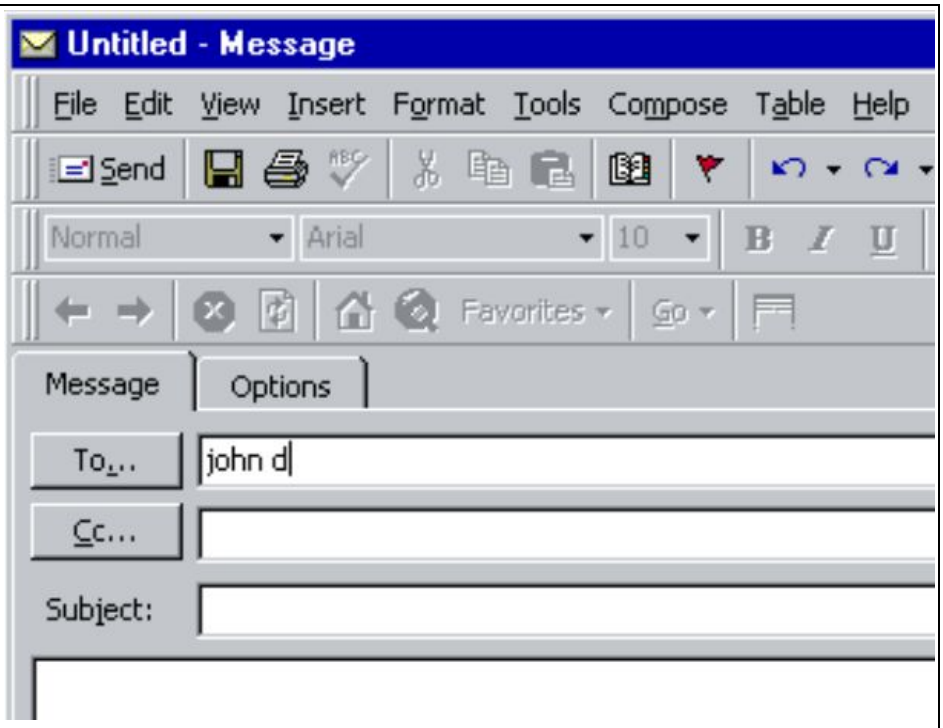
	 Learning Outlook 97 Basics at 34:50.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Outlook discloses this element.  Help file entry for "Manually check names before sending a message." "Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Special Edition at 342. Help file entry for "Check recipient names before sending a message."  Outlook further shows:

Exhibit N



Screenshot from Outlook.

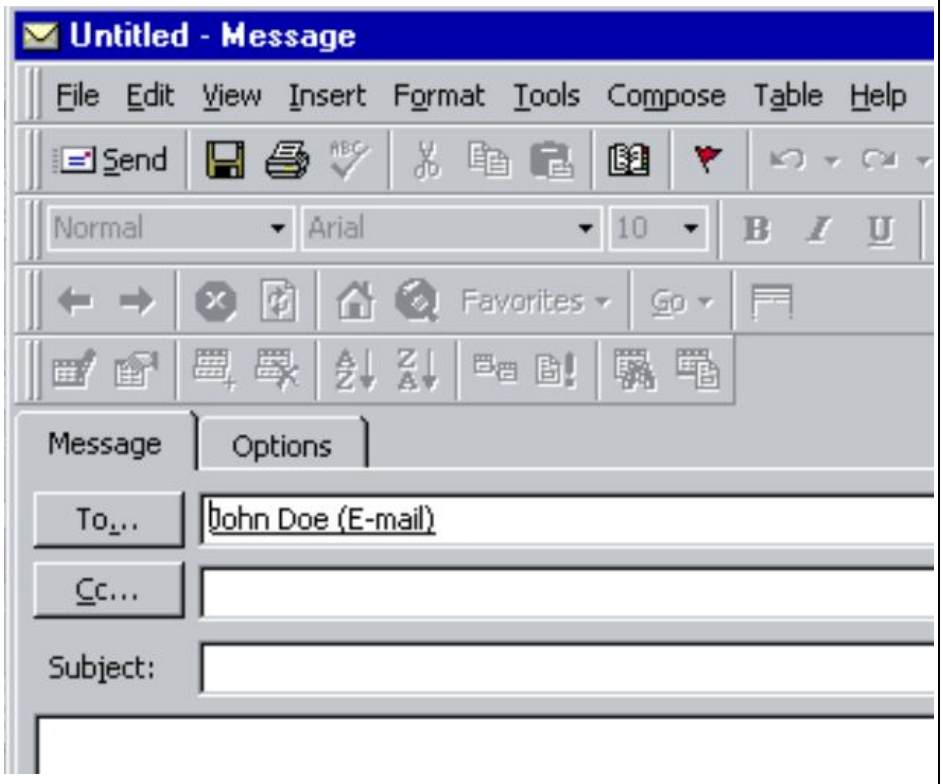


Exhibit N

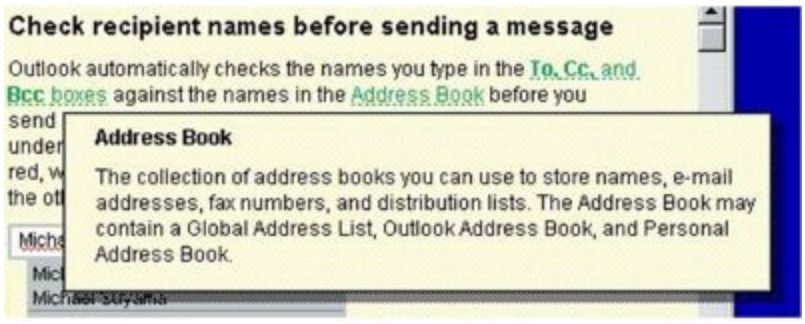
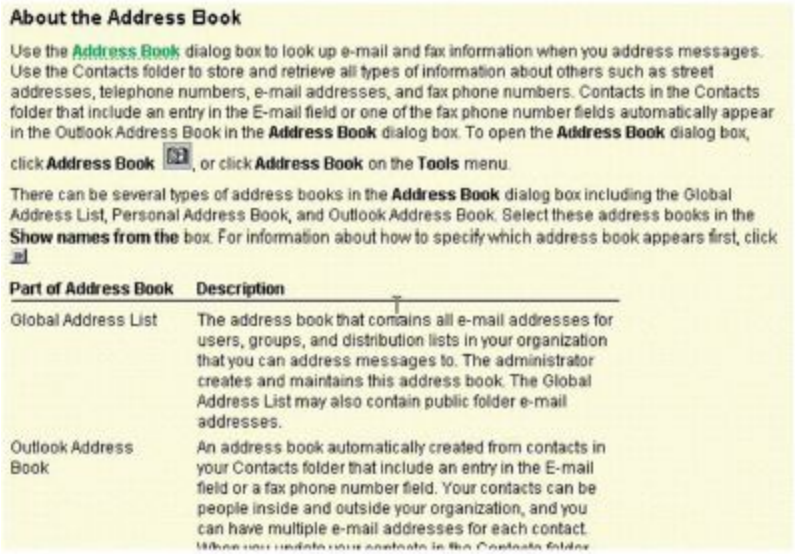
	"AutoName Check helps ensure that a user's e-mail message is sent to the intended recipients by quickly and clearly identifying ambiguous e-mail names. While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed. If a name, abbreviated name or nickname matches an entry in the address book, Outlook displays the full name. If a name matches more than one address-book entry, such as when an abbreviated name or nickname is entered, Outlook marks the ambiguous name with a red underline, as for a misspelling in Microsoft Word. Users right-click the ambiguous name to choose the correct name from a list of choices. Once the user has resolved an ambiguous name, Outlook automatically remembers the ambiguous name as a nickname and proposes the same address-book entry the next time the nickname is entered." Product Enhancements Guide, p. 24. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 6, 8, 9, 11, 12, 14, 19, and 20.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Outlook discloses this element.  Help file entry for "Manually check names before sending a message." Outlook further shows:  Help file entry for "Check recipient names before sending a message." Outlook further shows:

Exhibit N



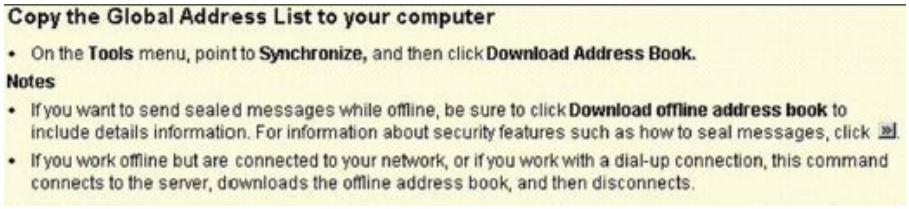
About the Address Book

Use the Address Book dialog box to look up e-mail and fax information when you address messages. Use the Contacts folder to store and retrieve all types of information about others such as street addresses, telephone numbers, e-mail addresses, and fax phone numbers. Contacts in the Contacts folder that include an entry in the E-mail field or one of the fax phone number fields automatically appear in the Outlook Address Book in the **Address Book** dialog box. To open the **Address Book** dialog box, click **Address Book**, or click **Address Book** on the **Tools** menu.

There can be several types of address books in the **Address Book** dialog box including the Global Address List, Personal Address Book, and Outlook Address Book. Select these address books in the **Show names from the** box. For information about how to specify which address book appears first, click

Part of Address Book	Description
Global Address List	The address book that contains all e-mail addresses for users, groups, and distribution lists in your organization that you can address messages to. The administrator creates and maintains this address book. The Global Address List may also contain public folder e-mail addresses.
Outlook Address Book	An address book automatically created from contacts in your Contacts folder that include an entry in the E-mail field or a fax phone number field. Your contacts can be people inside and outside your organization, and you can have multiple e-mail addresses for each contact.

Help file entry for "About the address book."



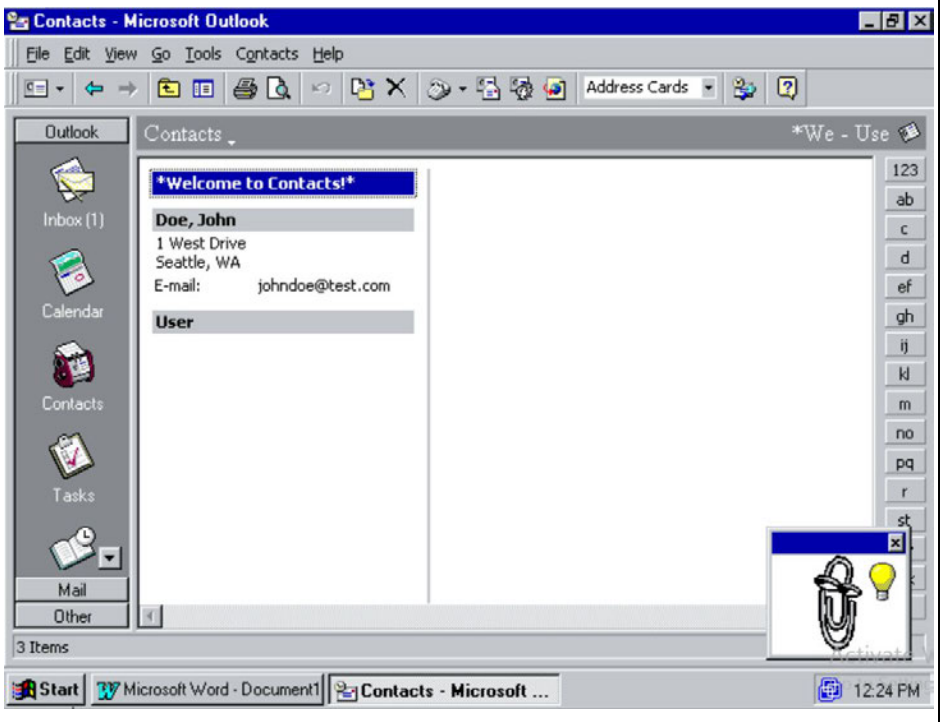
Copy the Global Address List to your computer

- On the **Tools** menu, point to **Synchronize**, and then click **Download Address Book.**

Notes

- If you want to send sealed messages while offline, be sure to click **Download offline address book** to include details information. For information about security features such as how to seal messages, click
- If you work offline but are connected to your network, or if you work with a dial-up connection, this command connects to the server, downloads the offline address book, and then disconnects.

Help file entry for "Copy the Global Address List to your computer."



Screenshot from Outlook.

Exhibit N

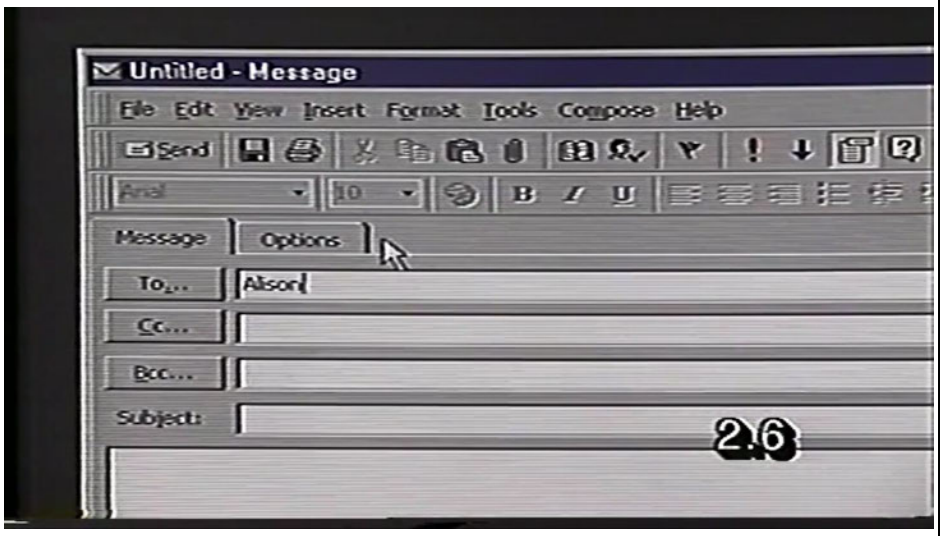
	"While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed. If a name, abbreviated name or nickname matches an entry in the address book, Outlook displays the full name. If a name matches more than one address-book entry, such as when an abbreviated name or nickname is entered, Outlook marks the ambiguous name with a red underline, as for a misspelling in Microsoft Word. Users right-click the ambiguous name to choose the correct name from a list of choices. Once the user has resolved an ambiguous name, Outlook automatically remembers the ambiguous name as a nickname and proposes the same address-book entry the next time the nickname is entered." Product Enhancements Guide, p. 24.  Learning Outlook 97 Basics at 34:45.

Exhibit N

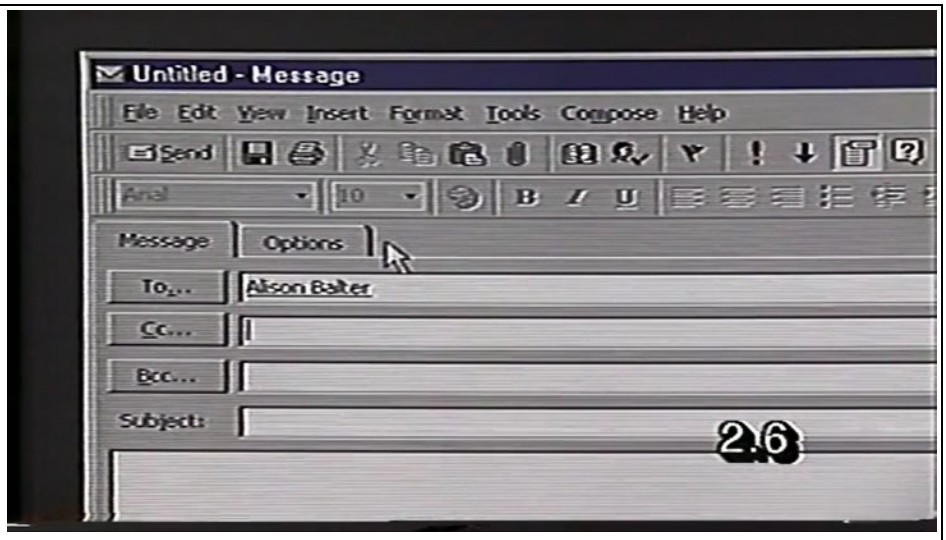
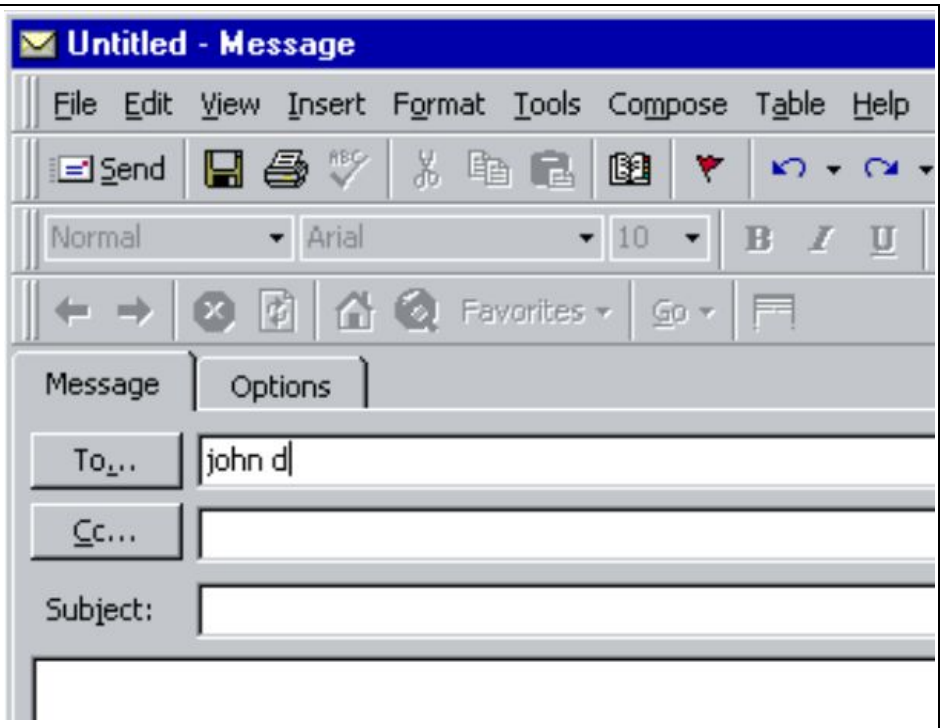
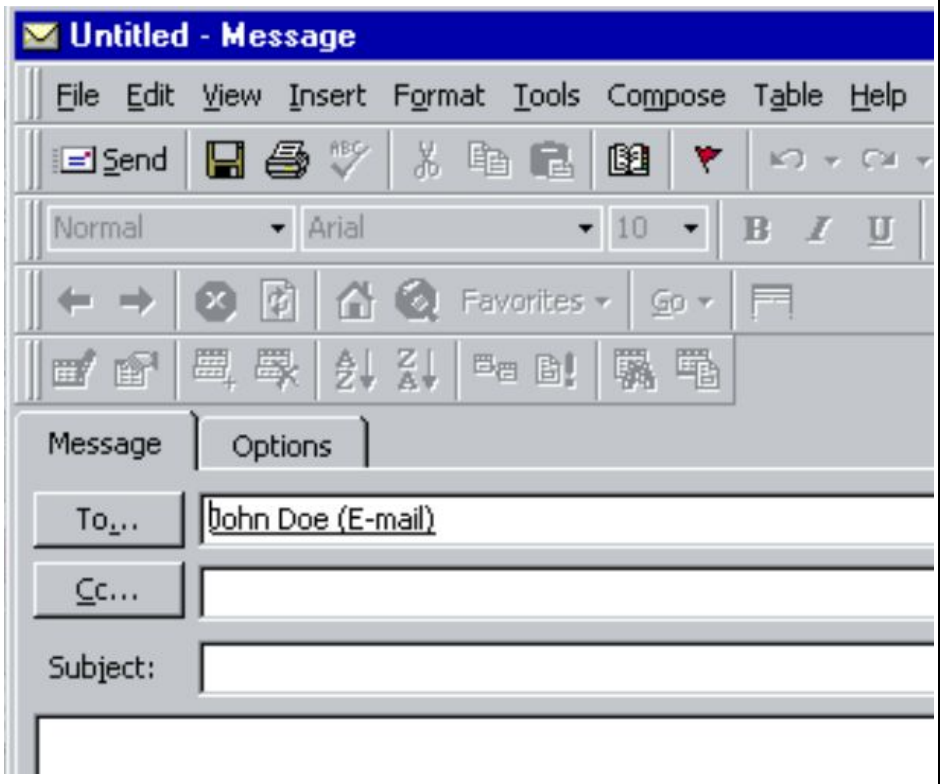
	 Learning Outlook 97 Basics at 34:50. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 10, and 19.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Outlook discloses this element. "If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from." Special Edition at 342. Help file entry for "Check recipient names before sending a message." **Check recipient names before sending a message** Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book before you send a message. If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from.  Help file entry for "Check recipient names before sending a message."

Exhibit N



Screenshot from Outlook.



Screenshot from Outlook.

Exhibit N

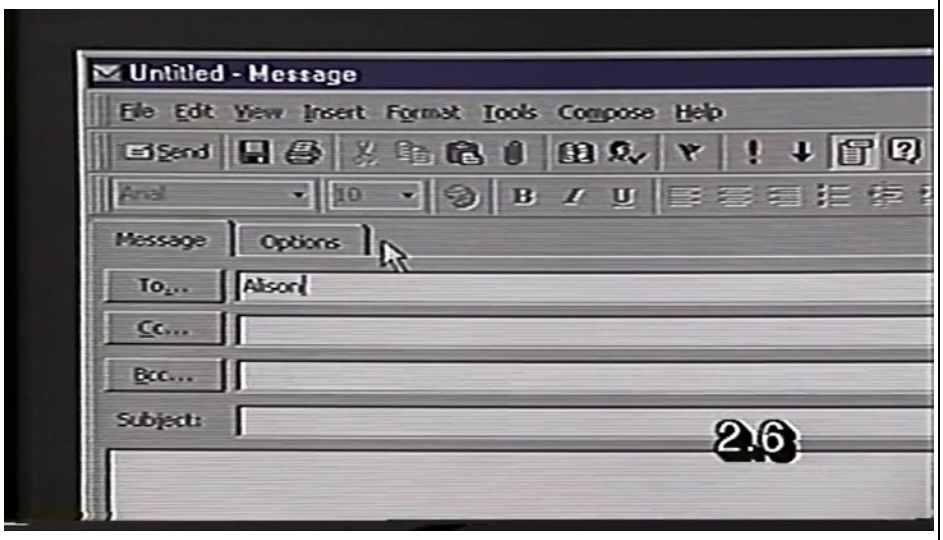
	"AutoName Check helps ensure that a user's e-mail message is sent to the intended recipients by quickly and clearly identifying ambiguous e-mail names. While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed. If a name, abbreviated name or nickname matches an entry in the address book, Outlook displays the full name. If a name matches more than one address-book entry, such as when an abbreviated name or nickname is entered, Outlook marks the ambiguous name with a red underline, as for a misspelling in Microsoft Word. Users right-click the ambiguous name to choose the correct name from a list of choices. Once the user has resolved an ambiguous name, Outlook automatically remembers the ambiguous name as a nickname and proposes the same address-book entry the next time the nickname is entered." Product Enhancements Guide, p. 24.  Learning Outlook 97 Basics at 34:45.

Exhibit N

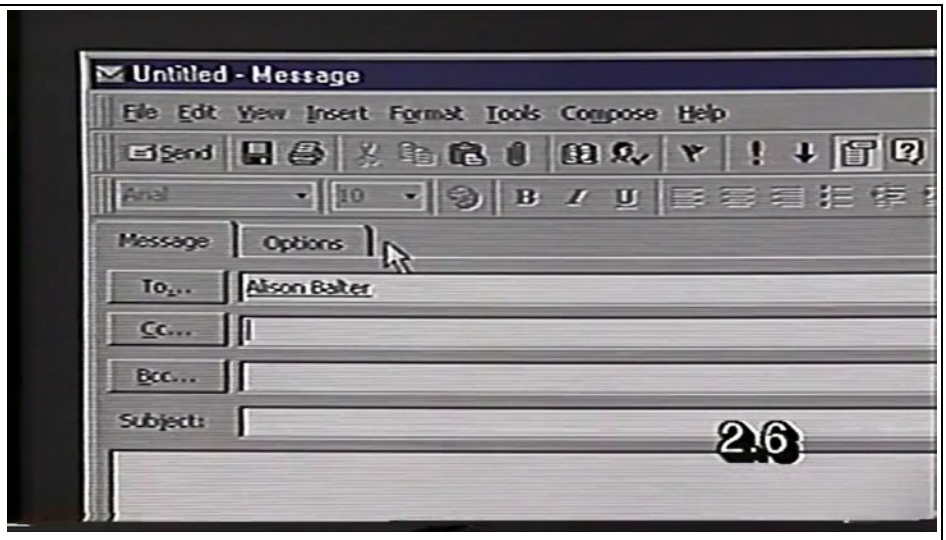
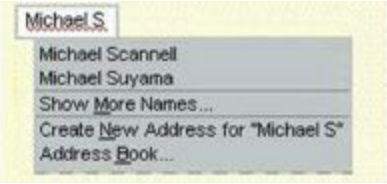
	 Learning Outlook 97 Basics at 34:50. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 12 and 17.
Claim 8	
A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.	Outlook discloses claim 1. *See* claim 1 above. Outlook further discloses this element.  Help file entry for "Check recipient names before sending a message."

Exhibit N

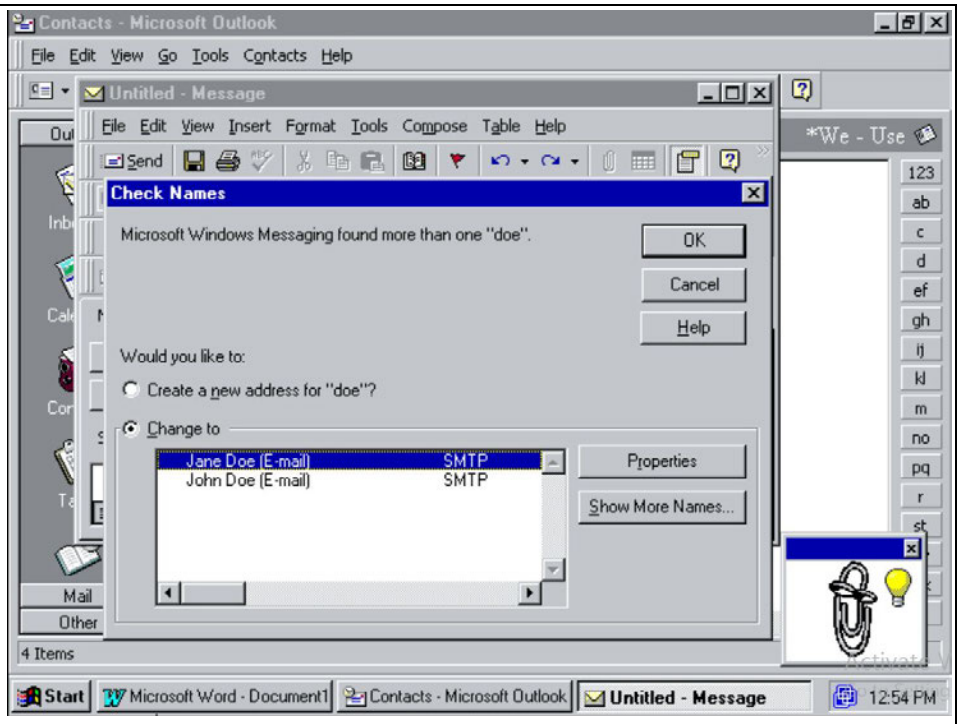
	 Screenshot from Outlook. "If a name matches more than one address-book entry, such as when an abbreviated name or nickname is entered, Outlook marks the ambiguous name with a red underline, as for a misspelling in Microsoft Word. Users right-click the ambiguous name to choose the correct name from a list of choices. Once the user has resolved an ambiguous name, Outlook automatically remembers the ambiguous name as a nickname and proposes the same address-book entry the next time the nickname is entered." Product Enhancements Guide, p. 24. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 4, 5, and 17.
Claim 13	
A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.	Outlook discloses claim 1. *See* claim 1 above. Outlook further discloses this element. 

Exhibit N

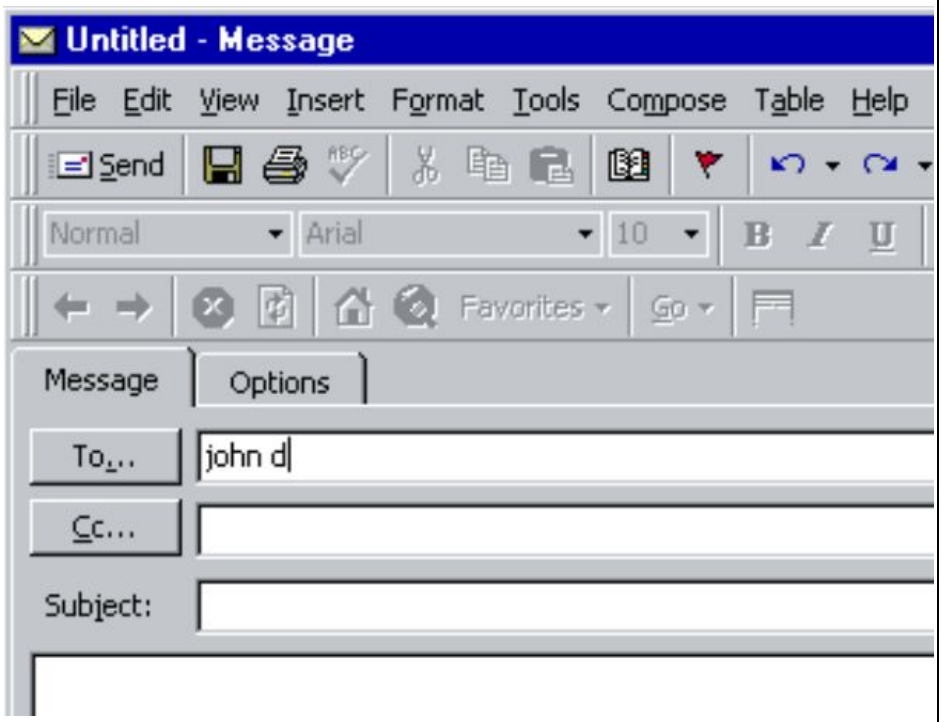
	Help file entry for "Manually check names before sending a message." "Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Special Edition at 342. Help file entry for "Check recipient names before sending a message." **Check recipient names before sending a message** Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book before you send a message. If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from. Outlook further shows:  Screenshot from Outlook.

Exhibit N

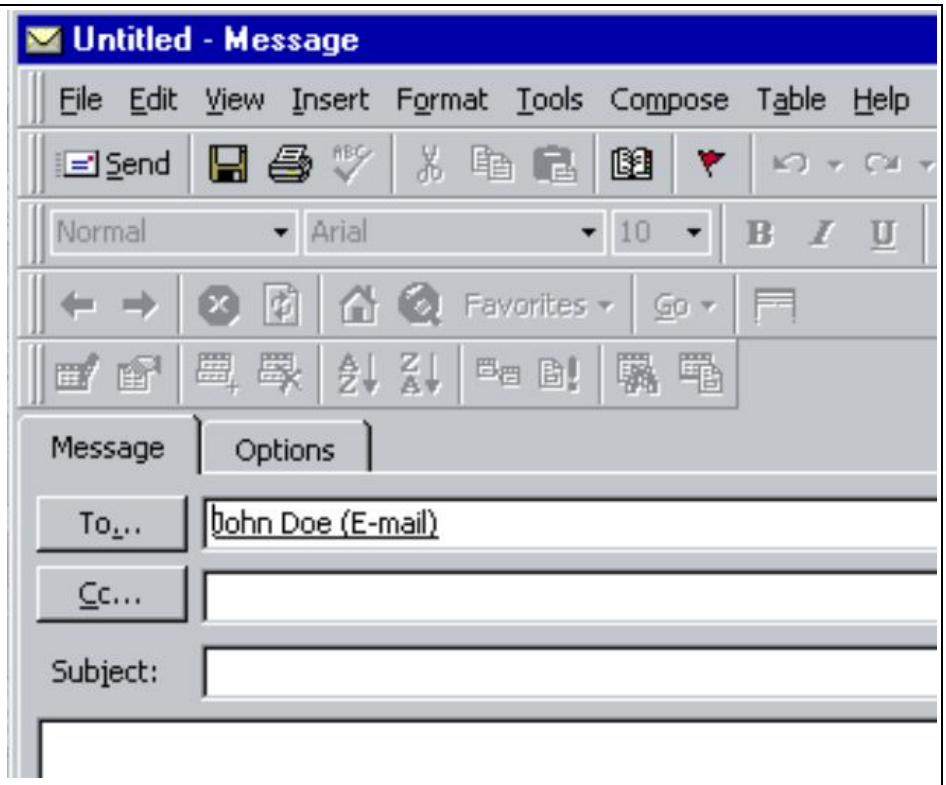
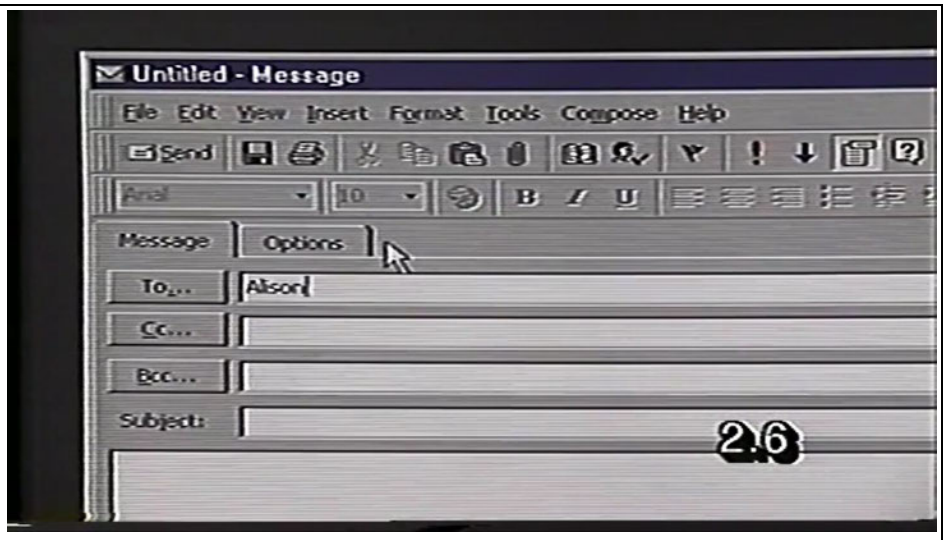
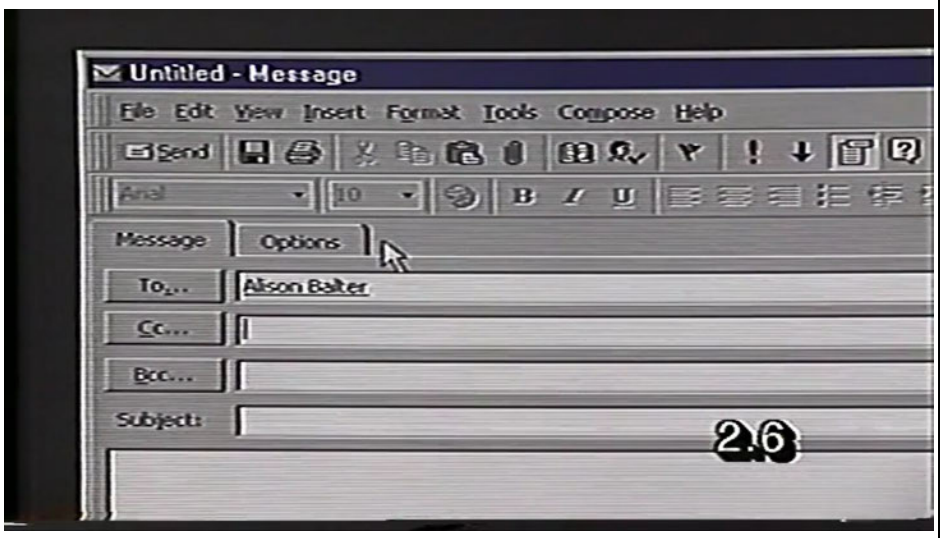
	 "While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed. If a name, abbreviated name or nickname matches an entry in the address book, Outlook displays the full name. If a name matches more than one address-book entry, such as when an abbreviated name or nickname is entered, Outlook marks the ambiguous name with a red underline, as for a misspelling in Microsoft Word. Users right-click the ambiguous name to choose the correct name from a list of choices. Once the user has resolved an ambiguous name, Outlook automatically remembers the ambiguous name as a nickname and proposes the same address-book entry the next time the nickname is entered." Product Enhancements Guide, p. 24.

Exhibit N

	 Learning Outlook 97 Basics at 34:45.  Learning Outlook 97 Basics at 34:50. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 2.
Claim 15	
A method according to claim 1, further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.	Outlook discloses claim 1. *See* claim 1 above. Outlook further discloses this element.

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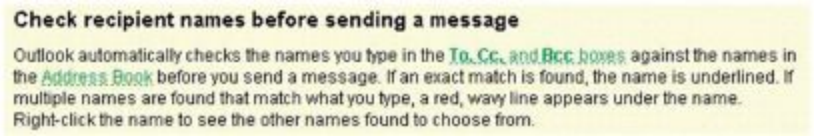
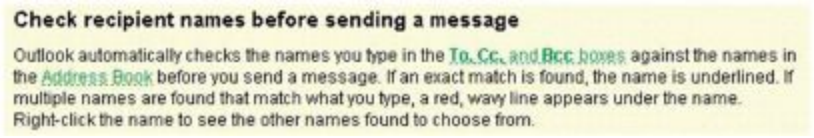
	 "If a name matches more than one address-book entry, such as when an abbreviated name or nickname is entered, Outlook marks the ambiguous name with a red underline, as for a misspelling in Microsoft Word. Users right-click the ambiguous name to choose the correct name from a list of choices. Once the user has resolved an ambiguous name, Outlook automatically remembers the ambiguous name as a nickname and proposes the same address-book entry the next time the nickname is entered." Product Enhancements Guide, p. 24. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 7, 17, and 20.
Claim 17	
A method according to claim 1, wherein the information source is associated with the second computer program and is available through the computer.	Outlook discloses claim 1. *See* claim 1 above. Outlook further discloses this element. "Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Special Edition at 342. Help file entry for "Check recipient names before sending a message."  Outlook further shows:

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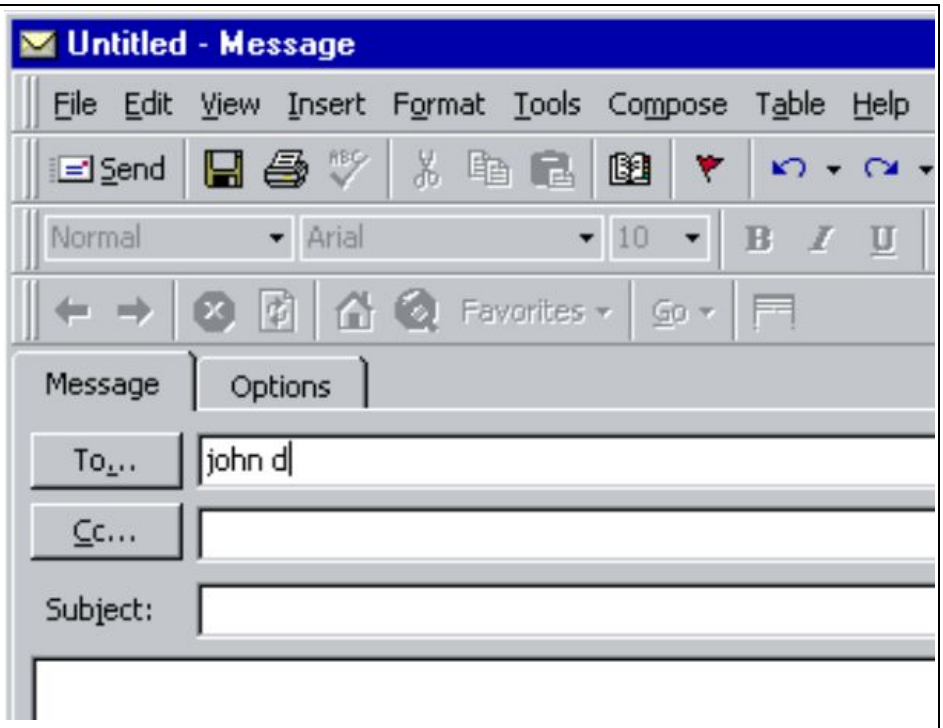
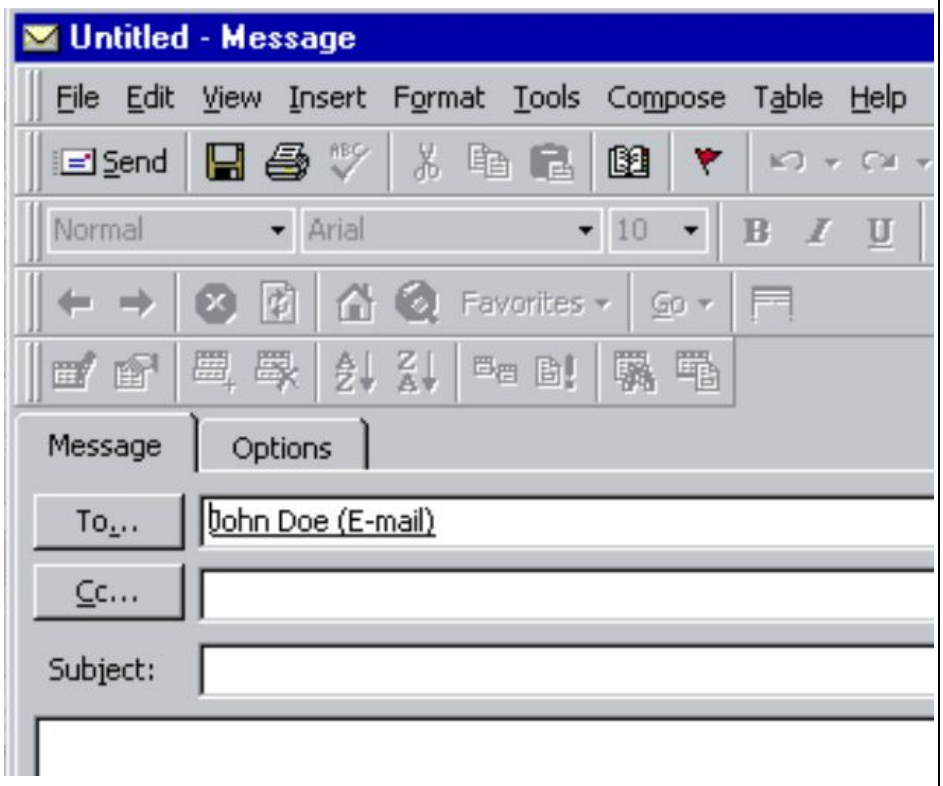


Screenshot from Outlook.



"While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed. If a name,

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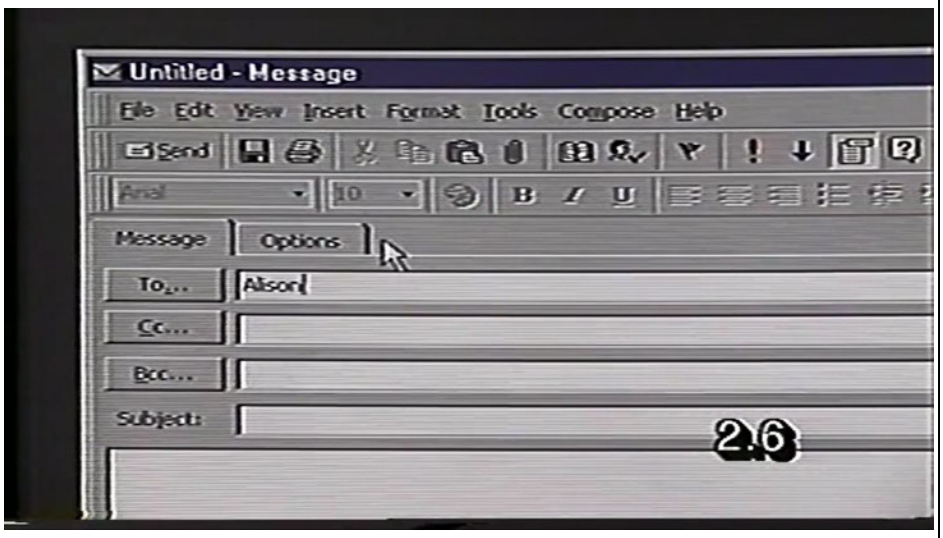
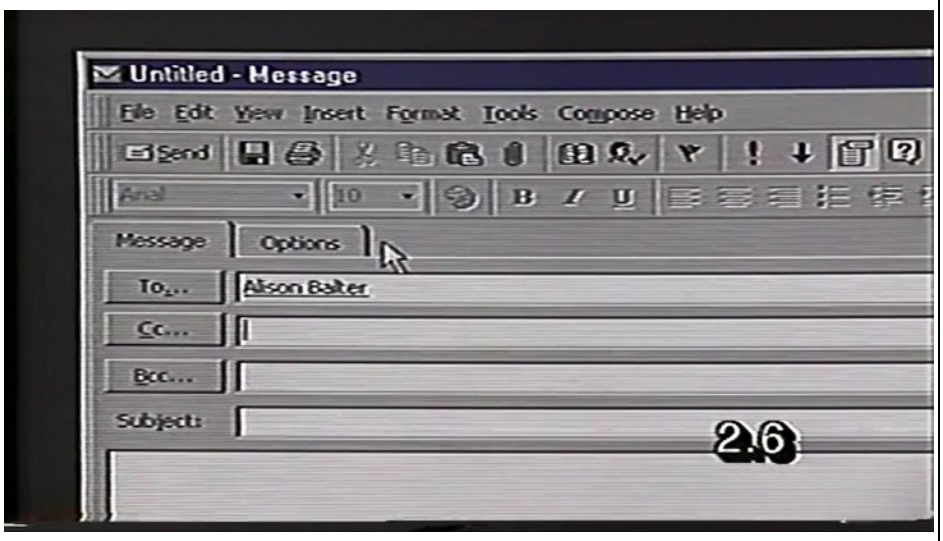
	abbreviated name or nickname matches an entry in the address book, Outlook displays the full name. If a name matches more than one address-book entry, such as when an abbreviated name or nickname is entered, Outlook marks the ambiguous name with a red underline, as for a misspelling in Microsoft Word. Users right-click the ambiguous name to choose the correct name from a list of choices. Once the user has resolved an ambiguous name, Outlook automatically remembers the ambiguous name as a nickname and proposes the same address-book entry the next time the nickname is entered." Product Enhancements Guide, p. 24.  Learning Outlook 97 Basics at 34:45.  Learning Outlook 97 Basics at 34:50.

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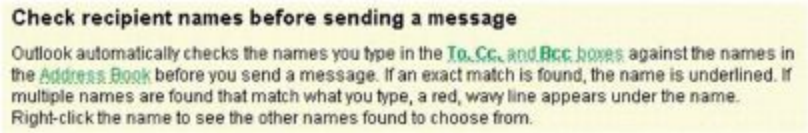
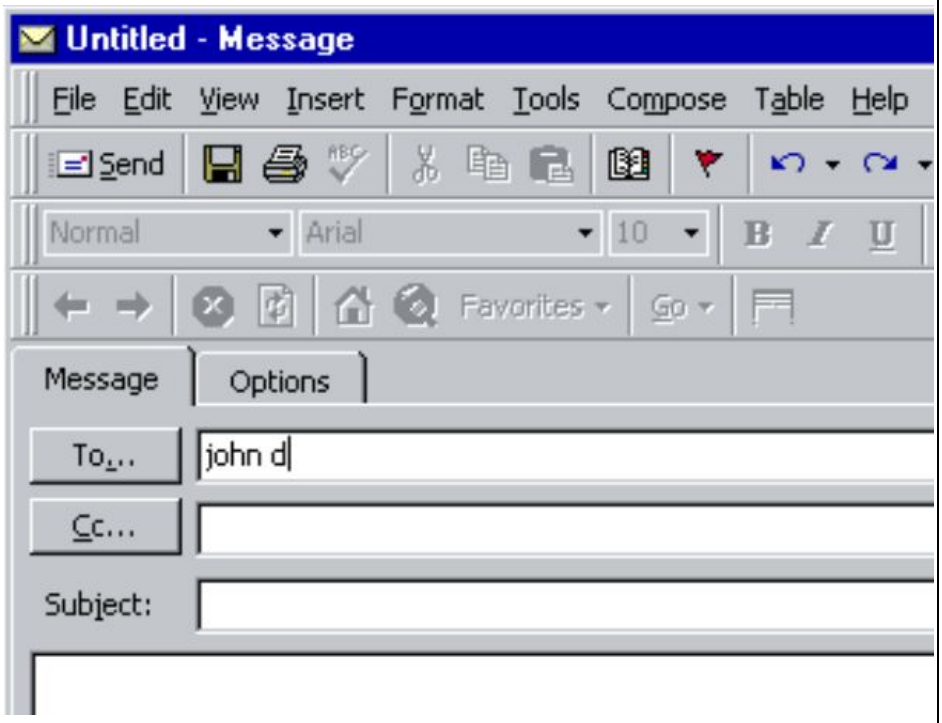
	For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.	Outlook discloses claim 1. *See* claim 1 above. Outlook further discloses this element.  **Check recipient names before sending a message** Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book before you send a message. If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from. Outlook further shows:  Screenshot from Outlook.

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	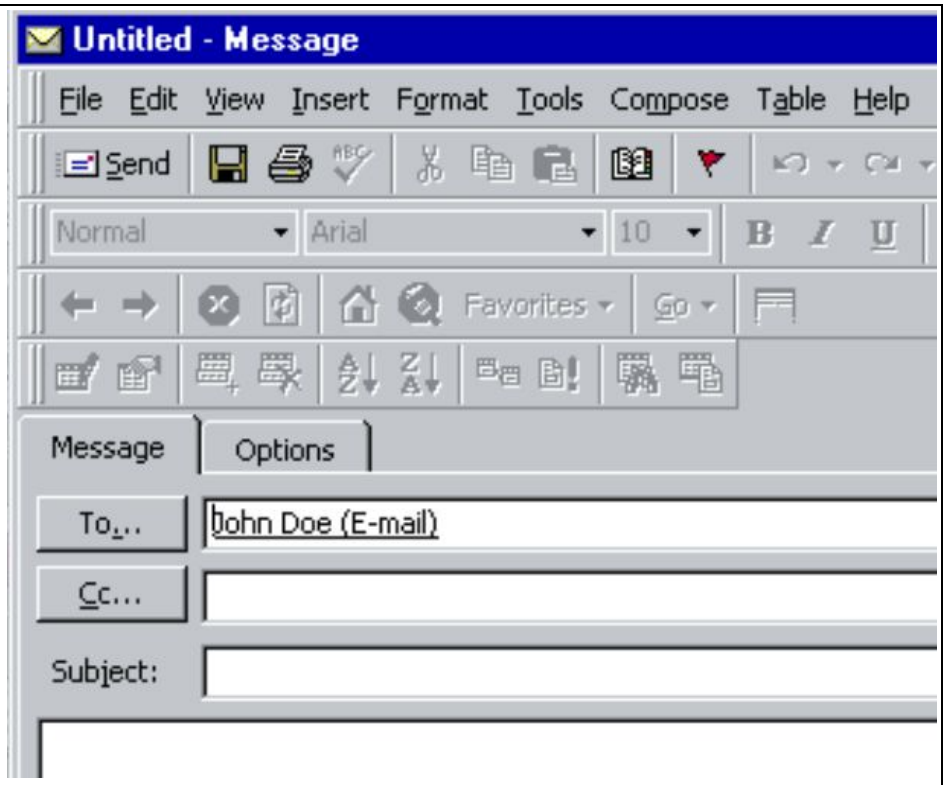 "AutoName Check helps ensure that a user's e-mail message is sent to the intended recipients by quickly and clearly identifying ambiguous e-mail names. While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed. If a name, abbreviated name or nickname matches an entry in the address book, Outlook displays the full name." Product Enhancements Guide, p. 24.

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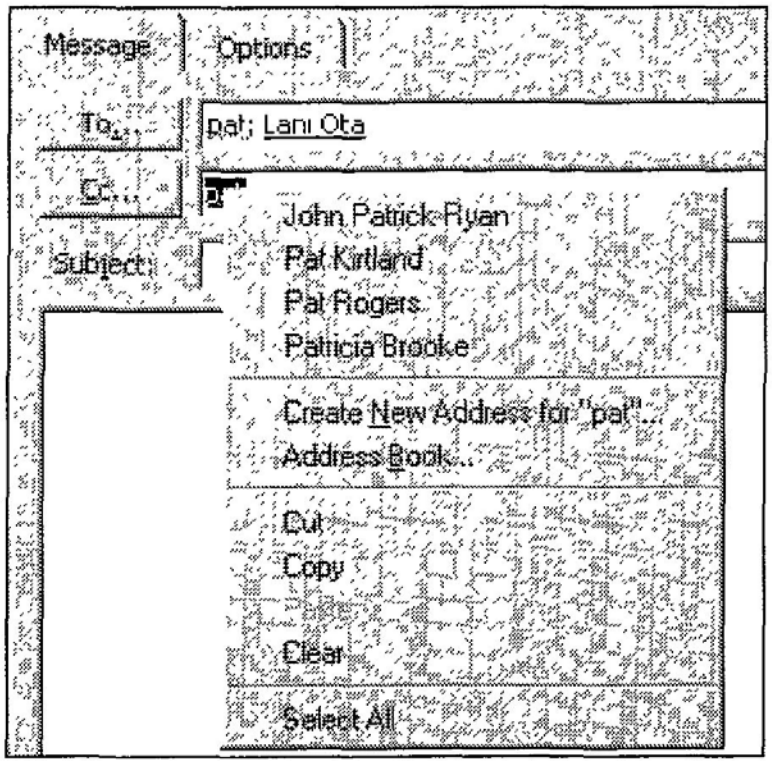
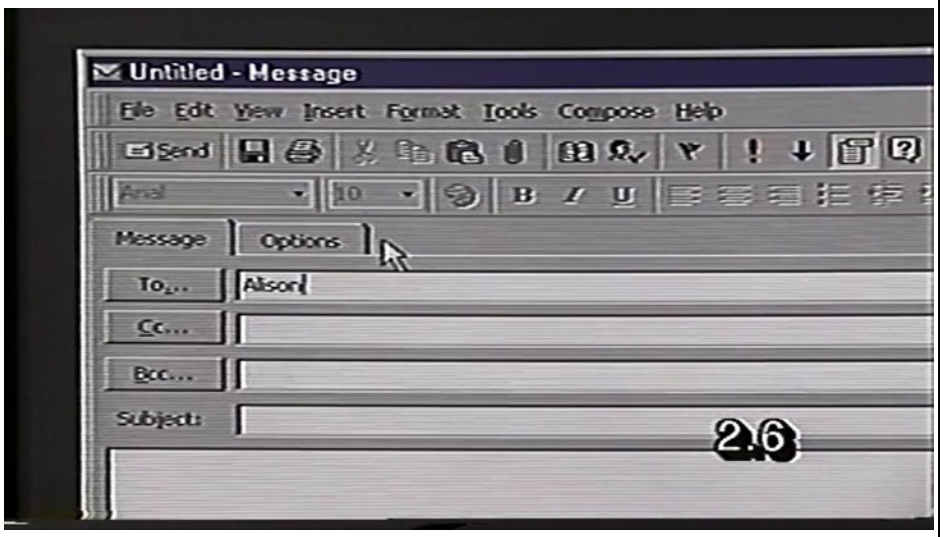


Fig. 4. AutoName Check

Product Enhancements Guide, p. 25.



Learning Outlook 97 Basics at 34:45.

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	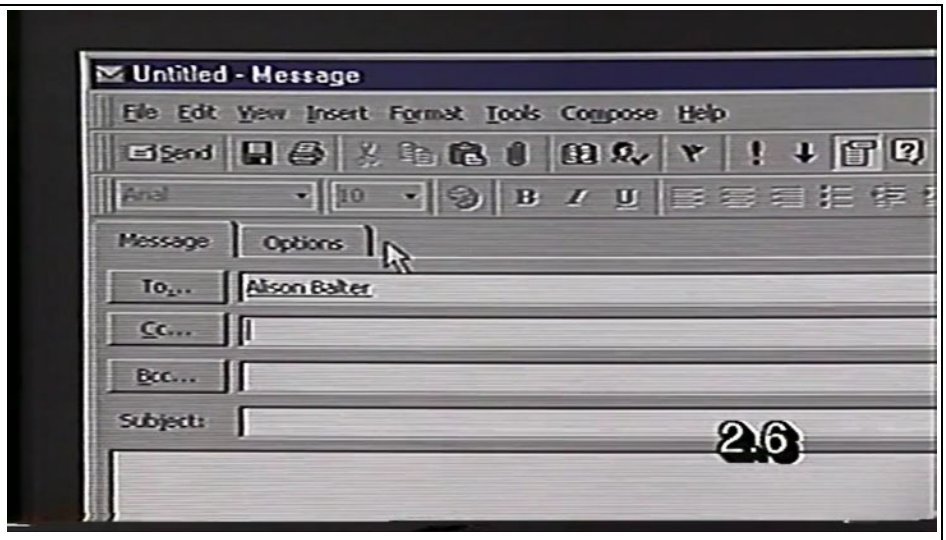 Learning Outlook 97 Basics at 34:50. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 3 (e.g., Schulman, Domini, and Schabes). See also '843 patent at 1:17-42; My Report at paragraphs 187-189.
Claim 19	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.	Outlook discloses claim 1. *See* claim 1 above. Outlook further discloses this element. **Check recipient names before sending a message** Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book before you send a message. If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from. Outlook further shows:

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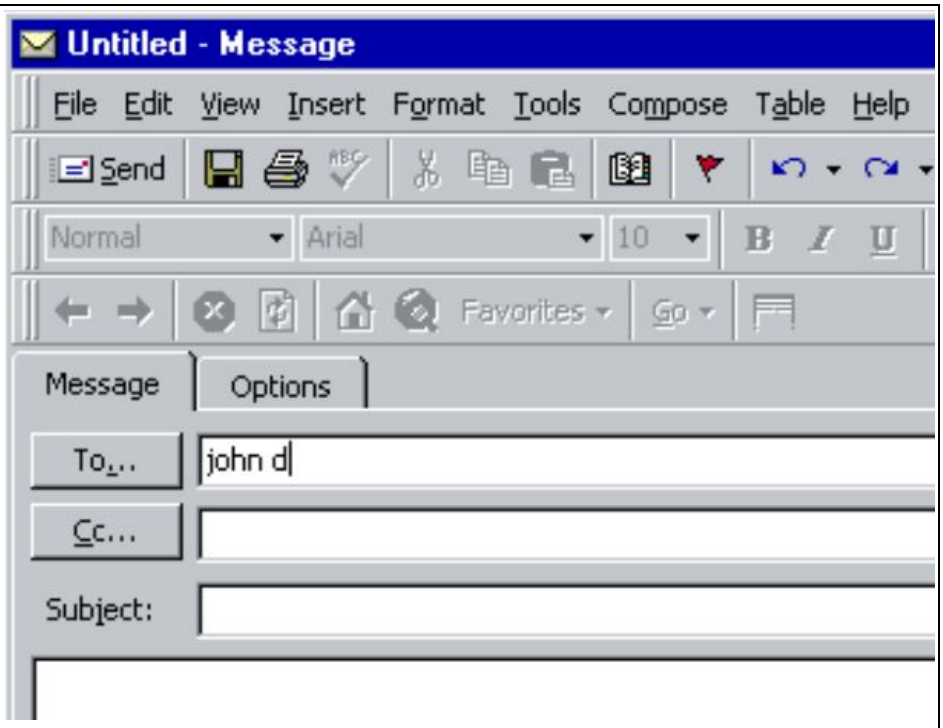
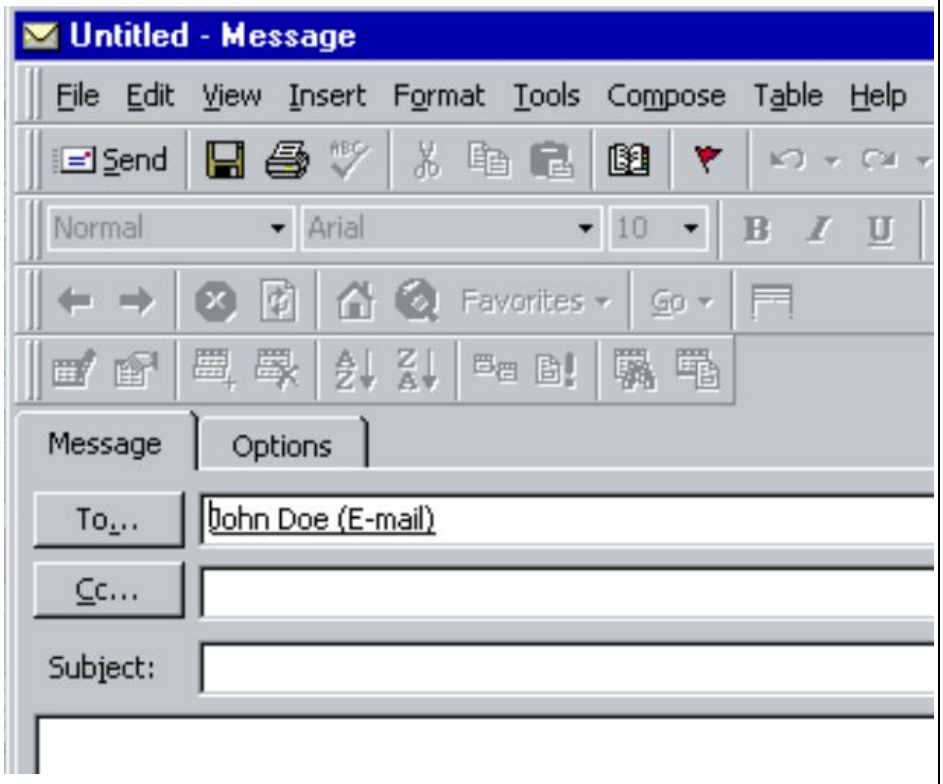


Screenshot from Outlook.



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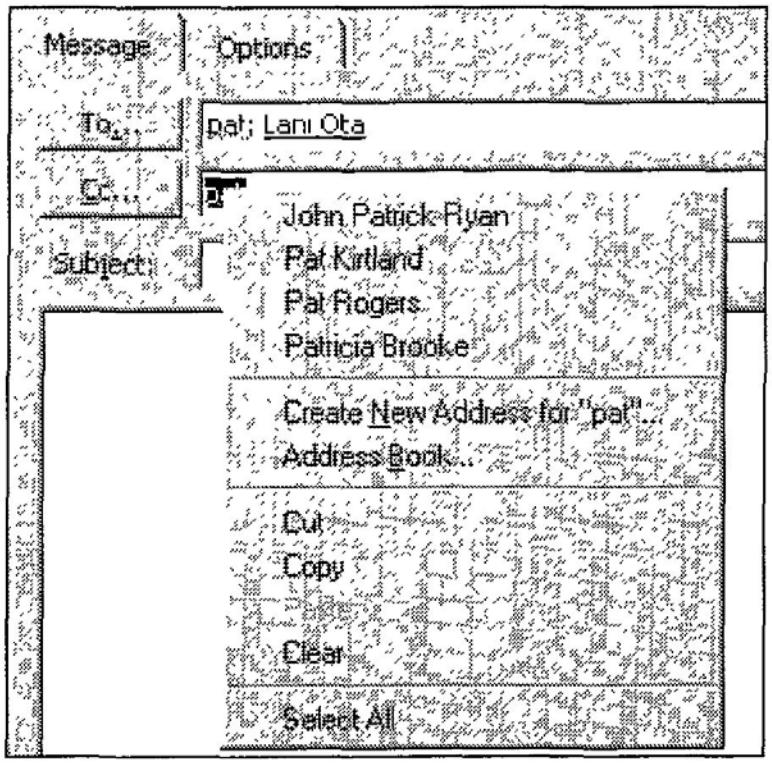
	"AutoName Check helps ensure that a user's e-mail message is sent to the intended recipients by quickly and clearly identifying ambiguous e-mail names. While the user composes the rest of the message, Microsoft Outlook automatically checks the e-mail names that were typed. If a name, abbreviated name or nickname matches an entry in the address book, Outlook displays the full name." Product Enhancements Guide, p. 24.  *Fig. 4. AutoName Check* Product Enhancements Guide, p. 25.

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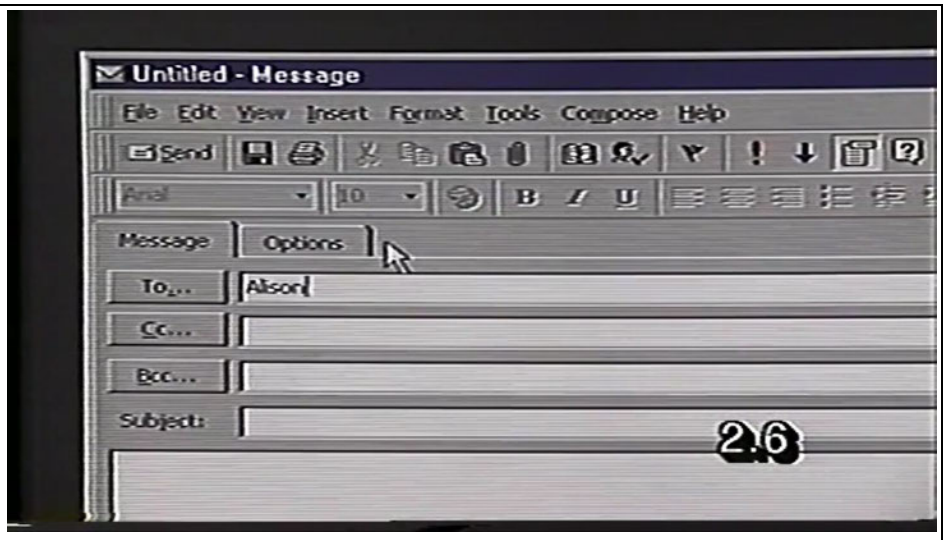
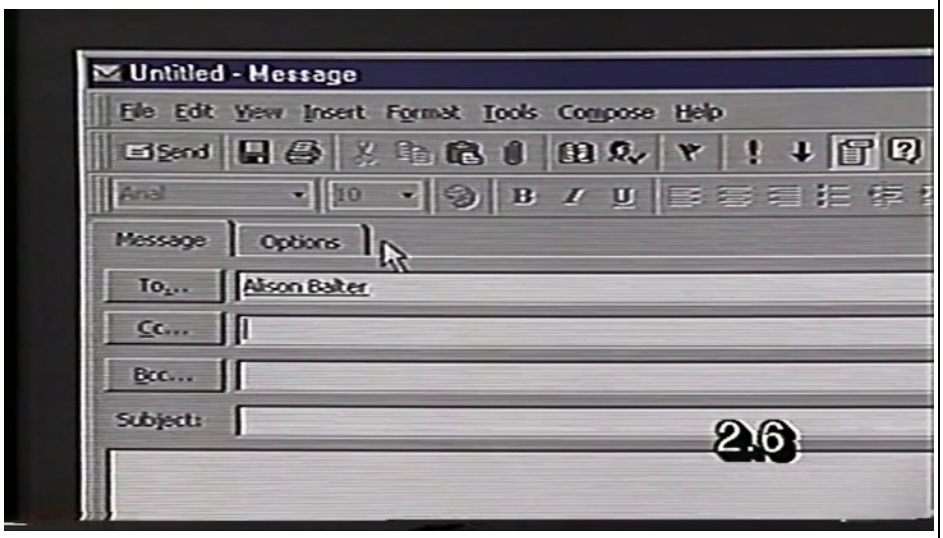
	 Learning Outlook 97 Basics at 34:45.  Learning Outlook 97 Basics at 34:50. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 3 (e.g., Schulman, Domini, and Schabes). See also '843 patent at 1:17-42; My Report at paragraphs 187-189.
Claim 23	
At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer,	Outlook discloses this element. *See* claim 1 above.

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establish processes for finding data related to the contents of a document using a first computer program running on a computer, the processes comprising:	
displaying the document electronically using the first computer program;	Outlook discloses this element. *See* claim 1 above.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Outlook discloses this element. *See* claim 1 above.
retrieving the first information;	Outlook discloses this element. *See* claim 1 above.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Outlook discloses this element. *See* claim 1 above.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order	Outlook discloses this element. *See* claim 1 above.

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to find second information related to the search term; and	
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Outlook discloses this element. *See* claim 1 above.
Claim 30	
At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising: providing a prompt for updating the information source to include the first information	Outlook discloses claim 23. *See* claim 23 above. Outlook further discloses this element. *See* claim 8 above.

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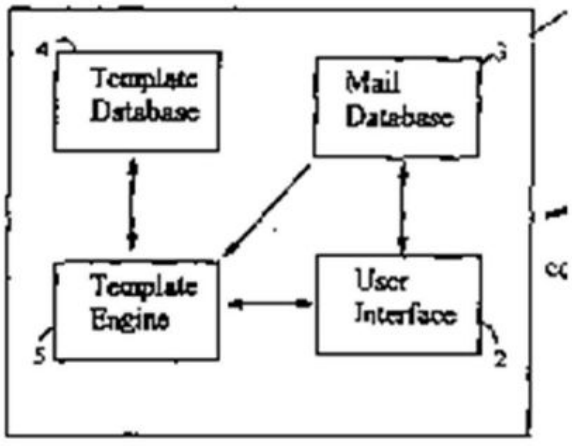
Claim Chart Applying 6,085,201 to Tso ("Tso") Against the '843 Patent

U.S. Patent No. 6,085,201 ("Tso") was filed on June 28, 1996 and was issued on July 4, 2000. It therefore constitutes prior art under pre-AIA 35 U.S.C. § 102(e) and § 103(a). As shown below, Tso anticipates and/or renders obvious claims 1, 8, 13, 15, 17, 18, 19, 23, and 30 of the '843 patent.

"Obviousness Statement" - To the extent that the Judge or Jury finds that Tso does not teach an element either expressly or inherently, then the claim element is obvious to a POSITA based on the state of the art (*see, e.g.*, Section V of my Report), including the admissions of the prior art functionalities and motivations to combine those prior art functionalities in the '843 patent, as well as the motivations to combine and understandings of a POSITA discussed in my Report (*see, e.g.*, Section IX of my Report and Exhibit U), in light of the teachings of, at least, the prior art listed and discussed in Exhibit U, and each prior art system and/or reference listed in my Report, including, without limitation, Pandit, Chalas, Domini, Hachamovitch, Tso, Person, CyberDesk System (including specific publications describing aspects of the CyberDesk System), Eudora System (including specific publications describing aspects of the Eudora System), Apple Data Detectors System (including specific publications describing aspects of the Apple Data Detectors System), LiveDoc System (including specific publications describing aspects of the LiveDoc System), Newton System (including specific publications describing aspects of the Newton System), Microsoft Outlook 97 (including specific publications describing aspects of Microsoft Outlook 97), Selection Recognition Agent System (including specific publications describing aspects of the Selection Recognition Agent System), and Microsoft Word 97 (including specific publications describing aspects of Microsoft Word 97).

'843 Patent Claims	**Disclosure**
Claim 1	
A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:	To the extent the preamble is limiting, Tso discloses the preamble.  Mail System: Sender side Fig. 1 and accompanying text.

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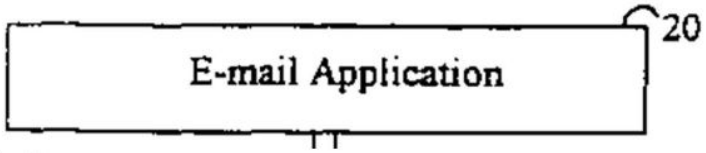

Fig. 2 and accompanying text.

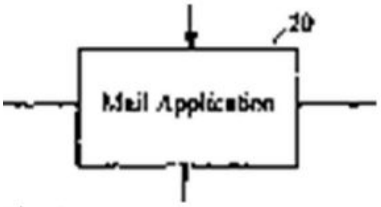

Fig 3 and accompanying text.

"The present invention relates generally to the field of text processing, and in particular to a context-sensitive template engine for analyzing the content of a text segment and automatically generating a template for responsive text. The invention is particularly well-suited for electronic messaging applications in which users are limited to a device having little or no keyboard functionality.

In the field of electronic messaging, or 'e-mail,' it is desirable to minimize the time and effort required for a user to compose text messages."
1:3-12

"The present invention provides a context-sensitive template engine that enables users to generate a text string that is responsive to the content of an input text string. The present invention is especially well-suited to electronic messaging applications in which users have limited keyboard functionality available, enabling such users to compose and/or reply to messages much more efficiently than is possible with existing applications."
1:65-2:6

"The present invention provides a context-sensitive template engine that helps users compose and/or reply to e-mail messages using minimal keyboard access. Given an input text passage, such as a portion of a partially-composed outgoing text message or a portion of a received text message, the template engine can suggest one or more predefined, context-appropriate sentences to include in the outgoing text message based on the actual content of the input text passage. The present invention thus reduces the inconvenience imposed by devices having limited or no keyboard access, such as a

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	Smartphone or similar hand-held device." 2:59-3:3 "Referring now to the block diagram of FIG. 1, a typical e-mail system 1 of the type to which the present invention is directed includes a user interface 2 and a mail database 3. The user interface 2 provides the standard user functions necessary to send and/or receive e-mail messages, and includes a video display, a user input device (e.g., an alphanumeric keypad), and software drivers which enable a user to interact with the e-mail system 1." 3:29-36. "The block diagram of FIG. 2 graphically illustrates the manner in which an e-mail application 20 interacts with a template engine 5 according to the present invention. The e-mail application 20 is electronically coupled to the template engine 5, shown here as an API. In other words, the e-mail application 20 is capable of invoking the template engine 5." 4:17-23 "Likewise, the template engine of the present invention is not limited to use only in electronic messaging applications. The present invention may be readily applied to any type of text processing application, including standard word processing applications." 7:53-57 *Further, see also* 4:36-46, 8:2-4 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 1, 9, and 18.
displaying the document electronically using the first computer program;	Tso discloses this element.

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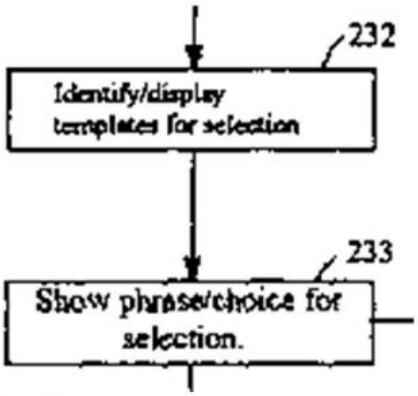

Fig. 3 and accompanying text.

"The identified template may then be used to generate a responsive text message."
Abstract

"Input form identifiers permit users to access input forms for dynamically entering such information as dates and times. Using these templates, users can efficiently generate an appropriate text string with minimal effort."
2:27-30

"the user's e-mail application must provide a user interface 2 capable of (i) displaying templates, phrases and choices; (ii) displaying a special input form corresponding to an input form identifier; and (iii) converting a user's selection from a special input form into text."
4:7-12

"Once the template engine 5 determines the most appropriate template, it passes that template to the user interface 2 for presentation to the user (step 233)."
5:42-44

"It is conceivable that more than one template will have a highest total weight value, in which case the user interface 2 could present multiple templates to the user. The user could then select which template is most appropriate for that user's purposes."
5:49-51

"According to this embodiment, templates presented to a user may include a number of choices that permit the user to

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	minimize the amount of typing required, and may also include one or more input form identifiers." 5:61-64 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information	Tso discloses this element. "The input text string is first decomposed into a set of search words." Abstract "When an incoming message matches a predefined rule (e.g., the message is from a certain person, the message includes a certain word or combination of words)" 1:31-34 "The template engine then decomposes, using a parser, that input text string into a set of search words or input keywords." 2:9-11 "Upon being invoked, the template engine 5 analyzes the information passed by the e-mail application 20 to determine the portion of the text message for which a template is to be provided (step 231). According to one embodiment, the template engine 5 initially views the entire text message passed by the e-mail application 20 as a single data string. Then, using standard string processing techniques, the template engine 5 starts at the current cursor position and searches backwards in the text string until it finds a sentence-ending punctuation mark (i.e., period, question mark, exclamation point). The template engine 5 then designates the first word immediately following the punctuation mark as the beginning of the text string to be processed. A similar technique may then be used by the template engine 5 to determine the end of the text string to be processed. That is, the template engine 5 starts at the current cursor position and searches forward until a sentence-ending punctuation mark is located, which will then be designated the end of the data string to be processed. The data string is thus defined by these beginning and ending positions." 4:48-67

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	"Once the text string to be processed is identified, the template engine 5 decomposes the text string into search words that will be used to search for a template (step 232)." 5:1-3 "The template engine 5 then uses the extracted words to search the set of predefined templates stored in the template database 4 (step 232). For each stored template, the template engine 5 compares the weighted keywords associated with that template to the array of extracted search words. If a keyword is found in the array, the weight value associated with that keyword is added to a running total weight value for that template. In this fashion, the template engine 5 determines a total weight value for each template in the template database 5. The template with the highest total weight value is then designated as the most appropriate template for the text string being processed." 5:7-17 *Further, see also* Claim 1. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 11, 14, and 15.
retrieving the first information;	Tso discloses this element. *See* previous element.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an	Tso discloses this element. "The present invention is especially well-suited to electronic messaging applications in which users have limited keyboard functionality available, enabling such users to compose and/or reply to messages much more efficiently than is possible with existing applications." 2:1-6 "An input form identifier is a graphical user interface that enables a user to easily enter special data (e.g., times, dates, numbers) using, for example, a spin button or a scroll bar." 3:10-14 "The user interface 2 provides the standard user functions necessary to send and/or receive e-mail messages, and includes a video display, a user input device (e.g., an alphanumeric keypad), and software drivers which enable a user to interact

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action using at least part of the second information;	with the e-mail system 1." 3:32-36 "the user's e-mail application must provide a user interface 2 capable of (i) displaying templates, phrases and choices; (ii) displaying a special input form corresponding to an input form identifier; and (iii) converting a user's selection from a special input form into text." 4:7-12 "When a user wishes to compose a new e-mail message or generate a reply to a received e-mail message, the user selects a text string to be processed, for example, by clicking-on it. The particular method by which such a selection is made will vary according to the user input device available to the user. For example, where the user has access to a laptop or other personal computer, the selection could be accomplished using a mouse. On the other hand, with a device having limited user interface capabilities, such as a Smartphone, the selection could be accomplished by appropriately positioning a cursor using a touch keypad and pressing an "ENTER" key. In either case, once the user makes a selection the user interface 2 of the e-mail application 20 will invoke the template engine 5" 4:33-45 "Once the template engine 5 determines the most appropriate template, it passes that template to the user interface 2 for presentation to the user (step 233). This may be accomplished by passing a data string containing the template to the user interface 2 or, alternatively, by passing a pointer to a temporary memory location where the template is stored." 5:42-48 "The user could then select which template is most appropriate for that user's purposes." 5:51-53 "According to this embodiment, templates presented to a user may include a number of choices that permit the user to minimize the amount of typing required, and may also include one or more input form identifiers. For example, a user may be presented with the following template: Let's meet at [the time you

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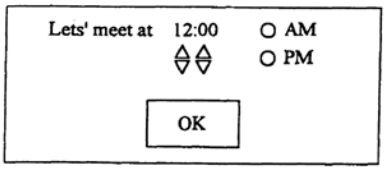
	suggested.vertline.Monday.vertline.<time>] at [the place you suggested.vertline.my office.vertline.the cafeteria]. The first phrase in this template, Let's meet at [the time you suggested.vertline.Monday.vertline.<time>], consists of a set of three choices: the time you suggested, Monday, and <time>. The third choice is an input form identifier corresponding to a special input form for entering a time." 5:61-6:5 "As shown, the user can enter a time by clicking spin buttons (i.e., the up/down arrows) and option buttons (i.e., filled/open circles). The processing associated with the special input form is the responsibility of the user interface 2, and is initiated by a user clicking on an input form identifier presented in the template. Special input forms such as those described herein, including the processing required to support them, are well known in the art." 6:8-15  Fig. 4 and accompanying text. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 6, 8, 9, 11, 12, 14, 19, and 20.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Tso discloses this element. "The template engine then uses those search words to search a database of predefined templates to identify a template that is contextually appropriate for the input text string." Abstract

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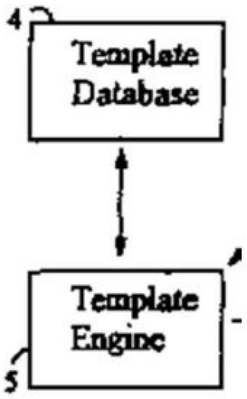

Fig. 1 and accompanying text.

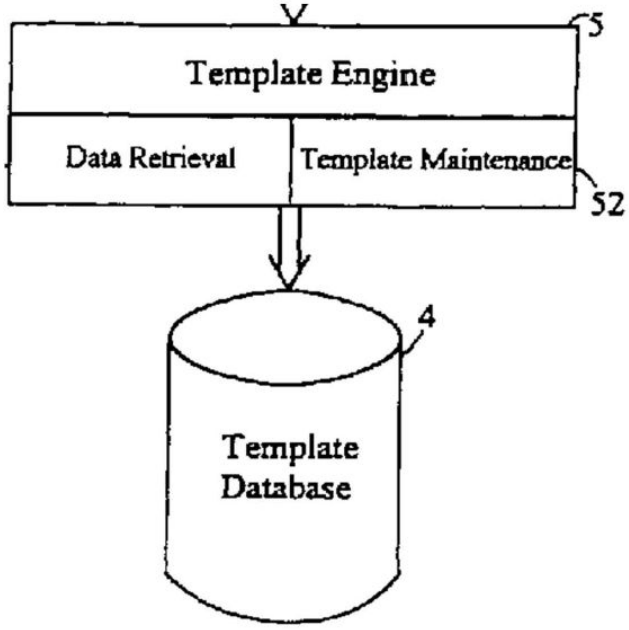

Fig. 2 and accompanying text.

"These keywords are then used to search a template database for one or more templates that most closely correspond to the context of the input text string. The template database includes a plurality of templates, each of which is associated with one or more weighted keywords. As the search of the template database progresses, the template engine attempts to find the template having the highest total weight value based upon matches between the template keywords and the keywords extracted from the input text string."
2:11-20

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	"Finally, each template is associated with a set of "keywords," where each keyword has a predetermined "weight.' 3:16-18 "In an embodiment of the present invention, the template engine is implemented as an application program interface (API) exported by a dynamic link library (DLL). This type of software implementation is well known in the art of data processing, and thus is not described in detail herein. In any event, the present invention does not rely on any particular means by which the template engine is made available to a user or an application programmer." 3:20-28 "According to the embodiment shown in FIG. 1, the e-mail system 1 includes a template database 4 electronically coupled to a template engine 5. The template engine 5 is electronically coupled to the user interface 2, and is capable of retrieving data from the mail database 3. Like the mail database 3, the template database 4 may be implemented as a multi-tiered directory of ASCII-format data files." 3:45-51 "It should be noted that the user interface 2 is not itself part of the present invention; that is, the template engine 5 provides functionality for retrieving data from and maintaining the template database 4, but it does not provide user interface functions." 4:1-5 "As shown in FIG. 2, the functions of the template engine 5 may be broadly classified as data retrieval functions 51 and template maintenance functions 52. "4:25-27 "The template engine 5 then uses the extracted words to search the set of predefined templates stored in the template database 4 (step 232)." 5:7-9 *Further, see also* 7:31-33 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 10, and 19.

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if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Tso discloses this element. "The identified template may then be used to generate a responsive text message. Abstract "The present invention is intended to address these and other shortcomings of known assisted mail systems by providing a context-sensitive template engine to automatically generate a text message" 1:56-59 "The present invention provides a context-sensitive template engine that enables users to generate a text string that is responsive to the content of an input text string." 1:66-2:1 "the user's e-mail application must provide a user interface 2 capable of (i) displaying templates, phrases and choices; (ii) displaying a special input form corresponding to an input form identifier; and (iii) converting a user's selection from a special input form into text." 4:7-12 "Once the text string to be processed is identified, the template engine 5 decomposes the text string into search words that will be used to search for a template (step 232)." 5:1-3 "The template engine 5 then uses the extracted words to search the set of predefined templates stored in the template database 4 (step 232). For each stored template, the template engine 5 compares the weighted keywords associated with that template to the array of extracted search words. If a keyword is found in the array, the weight value associated with that keyword is added to a running total weight value for that template. In this fashion, the template engine 5 determines a total weight value for each template in the template database 5. The template with the highest total weight value is then designated as the most appropriate template for the text string being processed." 5:7-17 "Once the template engine 5 determines the most appropriate template, it passes that template to the user interface 2 for

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	presentation to the user (step 233)." 5:42-44 "It is conceivable that more than one template will have a highest total weight value, in which case the user interface 2 could present multiple templates to the user. The user could then select which template is most appropriate for that user's purposes." 5:49-51 "According to this embodiment, templates presented to a user may include a number of choices that permit the user to minimize the amount of typing required, and may also include one or more input form identifiers. For example, a user may be presented with the following template: Let's meet at [the time you suggested.vertline.Monday.vertline.<time>] at [the place you suggested.vertline.my office.vertline.the cafeteria]. The first phrase in this template, Let's meet at [the time you suggested.vertline.Monday.vertline.<time>], consists of a set of three choices: the time you suggested, Monday, and <time>. The third choice is an input form identifier corresponding to a special input form for entering a time." 5:61-6:5 "it is apparent that the template could be used to generate many different text strings. For example, the user could use the template to generate the response: Let's meet at the time you suggested at the place you suggested." 6:17-22 "the additional text generated by the template engine 5 is passed to the e-mail application for insertion in the message being composed. The user interface 2 could be programmed to automatically insert the generated text at the end of the message text, or alternatively could prompt the user to place the cursor at a particular location where the text is to be inserted." 6:67-7:6 "The user could invoke the customization function to replace the choice "the cafeteria" with "the thirdfloor conference room," and the template engine 5 would update the template database 4

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	accordingly. Future uses of that template would then include the revised choice. Here again, the template engine is capable of being adapted to the needs and preferences of the particular user, thus increasing its usefulness. Upon completion of template processing for a particular section of text selected by the user, the additional text generated by the template engine 5 is passed to the e-mail application for insertion in the message being composed. The user interface 2 could be programmed to automatically insert the generated text at the end of the message text, or alternatively could prompt the user to place the cursor at a particular location where the text is to be inserted. As illustrated in FIG. 3, the user could then select additional text passages for which templates are desired, and processing will continue as described above." 6:59-7:9 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 12 and 17.
Claim 8	
A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.	Tso discloses claim 1. *See* claim 1. Tso further discloses this element. "dynamically updating the template database to reflect user preferences with respect to templates identified by the template engine as being contextually appropriate for particular search words." Abstract "The template engine 5 is in turn capable of storing data in, and retrieving data from, the template database 4." 4:23-24 "Yet another useful feature of the template engine 5, as shown in this embodiment of FIG. 3, is the ability for a user to customize templates stored in the template database 4 (step 234). As shown above, the template engine 5 might suggest the following template to a user: Let's meet at [the time you suggested [the place you suggested The user could invoke the customization function to replace the choice "the cafeteria" with "the thirdfloor conference room," and

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	the template engine 5 would update the template database 4 accordingly." 6:52-63 "In this embodiment, as shown in FIG. 3, the template engine 5 also provides template maintenance functions which allow the user to further customize the system. For example, the template engine 5 provides the user with the ability to delete existing templates from the template database 4 (step 210) or add new templates (step 220). Where a new template is being added, the user would have the ability to enter text phrases and choices, including input form identifiers for any special input form supported by the user interface 2, identify keywords to be used in searching for suggested templates, and assign weight values to those keywords." 7:14-25 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 4, 5, and 17.
Claim 13	
A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.	Tso discloses claim 1. *See* claim 1. Tso further discloses this element. "The present invention relates generally to the field of text processing, and in particular to a context-sensitive template engine for analyzing the content of a text segment and automatically generating a template for responsive text. The invention is particularly well-suited for electronic messaging applications in which users are limited to a device having little or no keyboard functionality." 1:3-9 "The present invention is intended to address these and other shortcomings of known assisted mail systems by providing a context-sensitive template engine to automatically generate a text message, whether in response to a previously-received message or "from scratch," whose meaning corresponds to certain user-selected words or phrases. The features and benefits of the invention are discussed in detail below."

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	1:56-63 "Upon completion of template processing for a particular section of text selected by the user, the additional text generated by the template engine 5 is passed to the e-mail application for insertion in the message being composed. The user interface 2 could be programmed to automatically insert the generated text at the end of the message text, or alternatively could prompt the user to place the cursor at a particular location where the text is to be inserted." 6:66-7:6 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 2.
Claim 15	
A method according to claim 1, further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.	Tso discloses claim 1. *See* claim 1. Tso further discloses this element. "It is conceivable that more than one template will have a highest total weight value, in which case the user interface 2 could present multiple templates to the user. The user could then select which template is most appropriate for that user's purposes." 5:49-51 "According to this embodiment, templates presented to a user may include a number of choices that permit the user to minimize the amount of typing required, and may also include one or more input form identifiers. For example, a user may be presented with the following template: Let's meet at [the time you suggested.vertline.Monday.vertline.<time>] at [the place you suggested.vertline.my office.vertline.the cafeteria]. The first phrase in this template, Let's meet at [the time you suggested.vertline.Monday.vertline.<time>], consists of a set of three choices: the time you suggested, Monday, and <time>. The third choice is an input form identifier corresponding to a special input form for entering a time."

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	5:61-6:5 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 7, 17, and 20.
Claim 17	
A method according to claim 1, wherein the information source is associated with the second computer program and is available through the computer.	Tso discloses claim 1. *See* claim 1. Tso further discloses this element. "In an embodiment of the present invention, the template engine is implemented as an application program interface (API) exported by a dynamic link library (DLL). This type of software implementation is well known in the art of data processing, and thus is not described in detail herein. In any event, the present invention does not rely on any particular means by which the template engine is made available to a user or an application programmer." 3:20-28 "According to the embodiment shown in FIG. 1, the e-mail system 1 includes a template database 4 electronically coupled to a template engine 5. The template engine 5 is electronically coupled to the user interface 2, and is capable of retrieving data from the mail database 3. Like the mail database 3, the template database 4 may be implemented as a multi-tiered directory of ASCII-format data files." 3:45-51 "It should be noted that the user interface 2 is not itself part of the present invention; that is, the template engine 5 provides functionality for retrieving data from and maintaining the template database 4, but it does not provide user interface functions." 4:1-5 "The block diagram of FIG. 2 graphically illustrates the manner in which an e-mail application 20 interacts with a template engine 5 according to the present invention. The e-mail application 20 is electronically coupled to the template engine 5, shown here as an API. In other words, the e-mail application 20 is capable of invoking the template engine 5." 4:17-23 For example (and without limitation to the Obviousness

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	Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.	Tso discloses claim 1. *See* claim 1. Tso further discloses this element. "The identified template may then be used to generate a responsive text message." Abstract "The present invention is intended to address these and other shortcomings of known assisted mail systems by providing a context-sensitive template engine to automatically generate a text message" 1:56-59 "The present invention provides a context-sensitive template engine that enables users to generate a text string that is responsive to the content of an input text string." 1:66-2:1 "the user's e-mail application must provide a user interface 2 capable of (i) displaying templates, phrases and choices; (ii) displaying a special input form corresponding to an input form identifier; and (iii) converting a user's selection from a special input form into text." 4:7-12 "Once the template engine 5 determines the most appropriate template, it passes that template to the user interface 2 for presentation to the user (step 233)." 5:42-44 "It is conceivable that more than one template will have a highest total weight value, in which case the user interface 2 could present multiple templates to the user. The user could then select which template is most appropriate for that user's purposes." 5:49-51 "According to this embodiment, templates presented to a user may include a number of choices that permit the user to minimize the amount of typing required, and may also include

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	one or more input form identifiers." 5:61-64 "it is apparent that the template could be used to generate many different text strings. For example, the user could use the template to generate the response: Let's meet at the time you suggested at the place you suggested." 6:17-22 "the additional text generated by the template engine 5 is passed to the e-mail application for insertion in the message being composed. The user interface 2 could be programmed to automatically insert the generated text at the end of the message text, or alternatively could prompt the user to place the cursor at a particular location where the text is to be inserted." 6:67-7:6 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 19	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.	Tso discloses claim 1. *See* claim 1. Tso further discloses this element. "The identified template may then be used to generate a responsive text message." Abstract "The present invention is intended to address these and other shortcomings of known assisted mail systems by providing a context-sensitive template engine to automatically generate a text message" 1:56-59 "the user's e-mail application must provide a user interface 2 capable of (i) displaying templates, phrases and choices; (ii) displaying a special input form corresponding to an input form identifier; and (iii) converting a user's selection from a special input form into text." 4:7-12 "Once the template engine 5 determines the most appropriate template, it passes that template to the user interface 2 for

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	presentation to the user (step 233)." 5:42-44 "It is conceivable that more than one template will have a highest total weight value, in which case the user interface 2 could present multiple templates to the user. The user could then select which template is most appropriate for that user's purposes." 5:49-51 "According to this embodiment, templates presented to a user may include a number of choices that permit the user to minimize the amount of typing required, and may also include one or more input form identifiers." 5:61-64 "it is apparent that the template could be used to generate many different text strings. For example, the user could use the template to generate the response: Let's meet at the time you suggested at the place you suggested." 6:17-22 "the additional text generated by the template engine 5 is passed to the e-mail application for insertion in the message being composed. The user interface 2 could be programmed to automatically insert the generated text at the end of the message text, or alternatively could prompt the user to place the cursor at a particular location where the text is to be inserted. " 6:67-7:6 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 23	
At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data related to the contents of a document using a first computer program running on a computer, the processes comprising:	Tso discloses this element. *See* Claim 1

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displaying the document electronically using the first computer program;	Tso discloses this element. *See* Claim 1
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Tso discloses this element. *See* Claim 1
retrieving the first information;	Tso discloses this element. *See* Claim 1
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Tso discloses this element. *See* Claim 1
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Tso discloses this element. *See* Claim 1
if searching finds any second information related to the search	Tso discloses this element.

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term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	*See* Claim 1
Claim 30	
At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising:	Tso discloses claim 23. *See* Claim 23.
Providing a prompt for updating the information source to include the first information.	Tso discloses this element. *See* Claim 8

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Claim Chart Applying U. S. Pat. No. 6,085,206 Against the '843 Patent

U.S. Pat. No. 6,085,206 ("Domini" or "'206 Patent") was filed on June 20, 1996 and was issued on July 4, 2000. It therefore constitutes prior art under pre-AIA 35 U.S.C. § 102. As shown below, Domini anticipates and/or renders obvious claims 1, 8, 13, 15, 17-19, 23, and 30 of the '843 Patent.

"Obviousness Statement" - To the extent that the Judge or Jury finds that Domini does not teach an element either expressly or inherently, then the claim element is obvious to a POSITA based on the state of the art (*see, e.g.*, Section V of my Report), including the admissions of the prior art functionalities and motivations to combine those prior art functionalities in the '843 patent, as well as the motivations to combine and understandings of a POSITA discussed in my Report (*see, e.g.*, Section IX of my Report and Exhibit U), in light of the teachings of, at least, the prior art listed and discussed in Exhibit U, and each prior art system and/or reference listed in my Report, including, without limitation, Pandit, Chalas, Domini, Hachamovitch, Tso, Person, CyberDesk System (including specific publications describing aspects of the CyberDesk System), Eudora System (including specific publications describing aspects of the Eudora System), Apple Data Detectors System (including specific publications describing aspects of the Apple Data Detectors System), LiveDoc System (including specific publications describing aspects of the LiveDoc System), Newton System (including specific publications describing aspects of the Newton System), Microsoft Outlook 97 (including specific publications describing aspects of Microsoft Outlook 97), Selection Recognition Agent System (including specific publications describing aspects of the Selection Recognition Agent System), and Microsoft Word 97 (including specific publications describing aspects of Microsoft Word 97).

'843 Patent Claims	**Disclosure**
Claim 1	
A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:	To the extent this preamble is found to be limiting, Domini discloses this preamble. For example, Domini states: The present invention satisfies the above described needs by providing an improved system and method for spell checking and grammar checking an electronic document. ('206 Patent, Col. 3, Lines 15-17) FIGS. 3 and 4 are illustrations of a combined spelling and grammar dialog box that is displayed when the user selects the "Spelling and Grammar" command in the preferred application program and a possible error is subsequently found in the document being checked. The combined spelling and grammar dialog box illustrated in FIG. 3 is an example of the layout of the combined spelling and grammar dialog box presented in response to detecting an error by the spell checker program module. The combined spelling and grammar dialog box illustrated in FIG. 4 is an example of the layout of the combined spelling and grammar dialog box for an error detected by the grammar checker program module. ('206 Patent, Col. 10, Lines 53-64)

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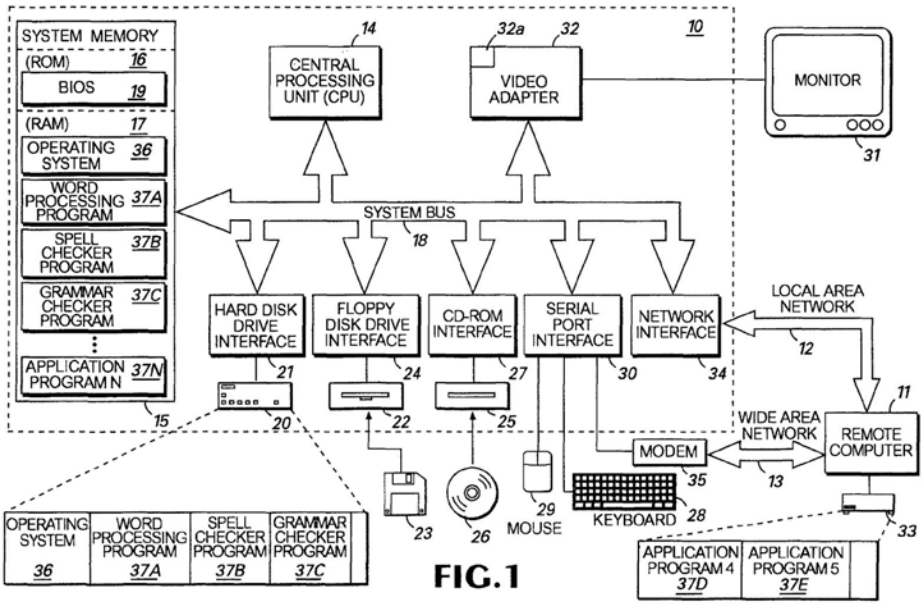
	Still referring to FIG. 3, the combined spelling and grammar dialog box 300 includes a suggestion list box 317. The suggestion list box 317 includes a plurality of suggestions 320 to replace the possible spelling error in the sentence 307. For example, in FIG. 3, the list of suggestions 320 includes "engine" and "ensign" to replace the misspelled word 315 "engin". (‘206 Patent, Col. 12, Lines 1-7) *See also* Abstract, FIGS. 1, 2.  FIG.1

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	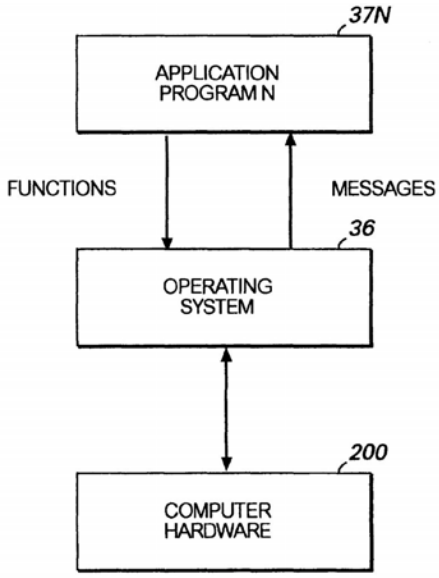 FIG. 2 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 1, 9, and 18.
displaying the document electronically using the first computer program;	Domini discloses this element. Generally described, in one aspect, the present invention provides a method for verifying the accuracy of spelling and grammatical composition of sentences in an electronic document. ('206 Patent, Col. 3, Lines 31-34) The operating system 36 provides a variety of functions or services that allow an application program 37a to easily deal with various types of input/output (I/O). This allows the application program 37n to issue relatively simple function calls that cause the operating system 36 to perform the steps required to accomplish various tasks, such as displaying text on the monitor 31 (FIG. 1) or printing text on an attached printer (not shown). ('206 Patent, Col. 8, Lines 23-30) *See also* FIG. 1.

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	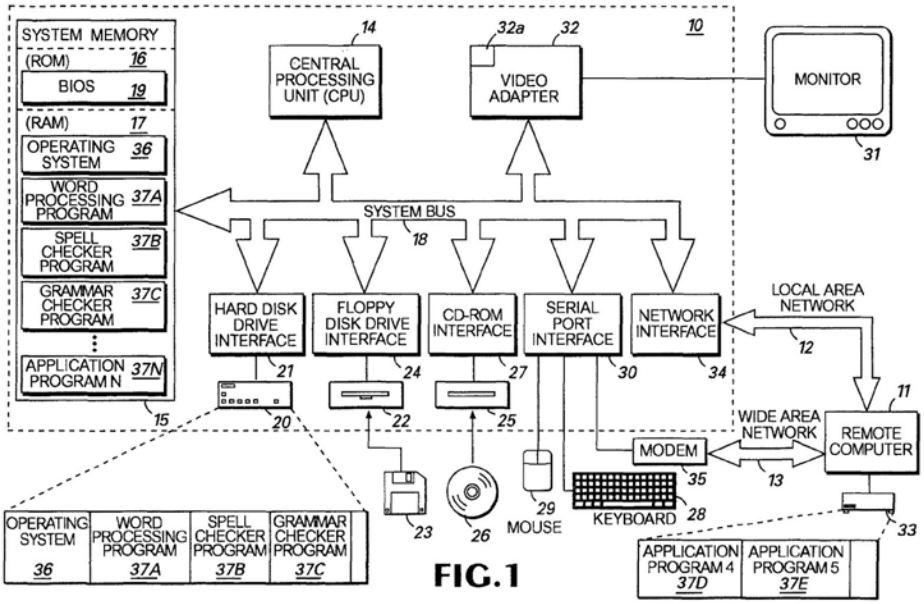 FIG. 1 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Domini discloses this element. At step 510, a sentence is extracted from the document. Preferably, a sentence is extracted by separating the document into sentences. Those skilled in the art will recognize this process as sentence-breaking. Briefly described, sentence-breaking involves finding the beginning and end of a sentence in a buffer of text. Sentence-breaking is often necessary because grammar checker program modules often require a single, complete sentence to effectively grammar check. Most word processor program modules contain functionality to sentence-break a document into sentences. However, preferably, the sentence-breaking is performed by the grammar checker program module, as will be more fully described in reference to FIG. 6. (‘206 Patent, Col. 15, Lines 45-57) After a sentence is extracted at step 510, the sentence is spell checked at step 515. (‘206 Patent, Col. 15, Lines 58-59) *See also* FIGS. 5, 6.

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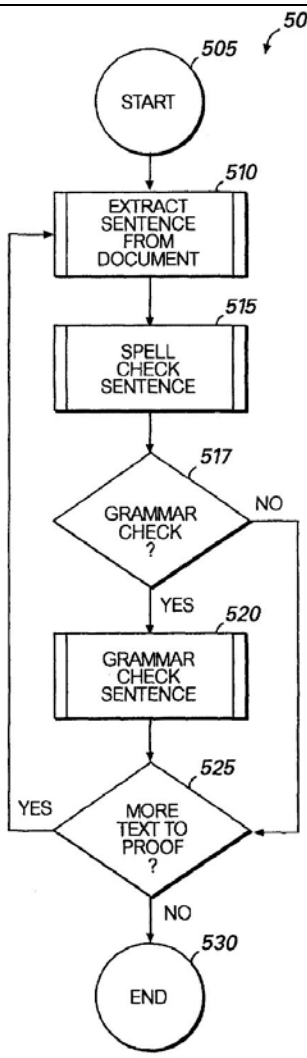
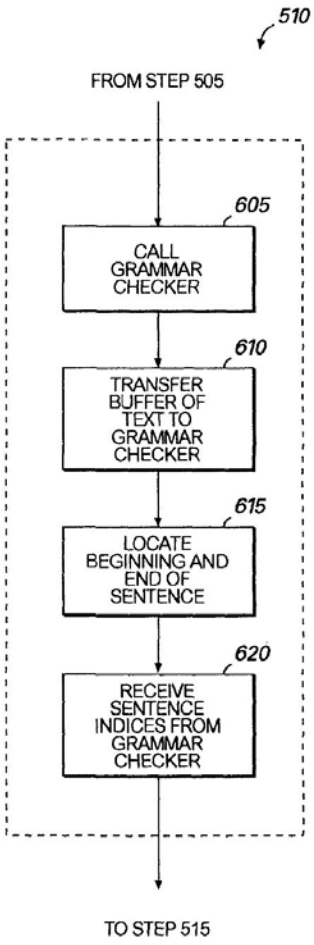
	 FIG.5  FIG.6 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 11, 14, and 15.
retrieving the first information;	Domini discloses this element. The sentence 307 in which a spelling error has been detected is displayed in the RTEC field 310. (‘206 Patent, Col. 11, Lines 29-30) *See also* FIG. 3.

Exhibit P

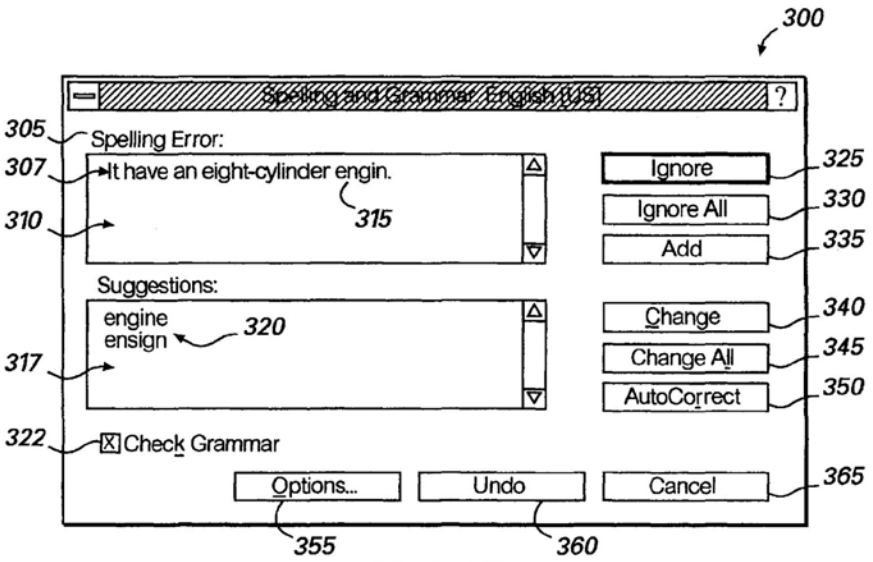
	 FIG. 3
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Domini discloses this element. The "Spelling and Grammar" command can be executed by selecting a command from a menu or toolbar displayed on the monitor 31. (‘206 Patent, Col. 11, Lines 1-3) The suggestion list box 317 includes a plurality of suggestions 320 to replace the possible spelling error in the sentence 307. (‘206 Patent, Col. 12, Lines 3-5) Still referring to FIG. 3, the Change button 340 is positioned below the Add button 335 in the combined spelling and grammar dialog box 300. If the user selects the Change button 340, the misspelled word 315 will be replaced with the word that has been selected by the user from the suggestions 320 in the suggestion list box 317. (‘206 Patent, Col. 12, Lines 59-64) *See also* FIG. 3.

Exhibit P

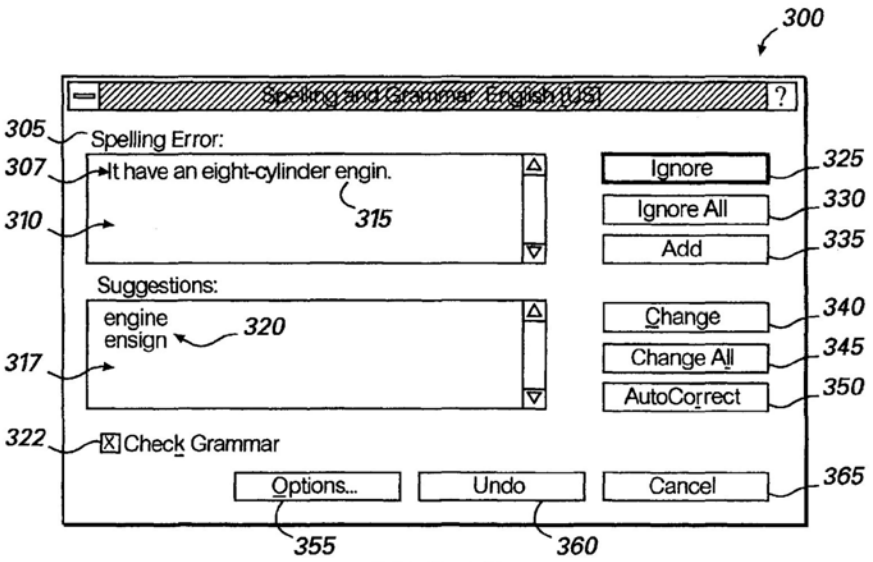
	 FIG. 3 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 6, 8, 9, 11, 12, 14, 19, and 20.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Domini discloses this element. After a sentence is extracted at step 510, the sentence is spell checked at step 515. ('206 Patent, Col. 15, Lines 58-59) The suggestion list box 317 includes a plurality of suggestions 320 to replace the possible spelling error in the sentence 307. ('206 Patent, Col. 12, Lines 3-5) *See also* FIG. 3, 5.

Exhibit P

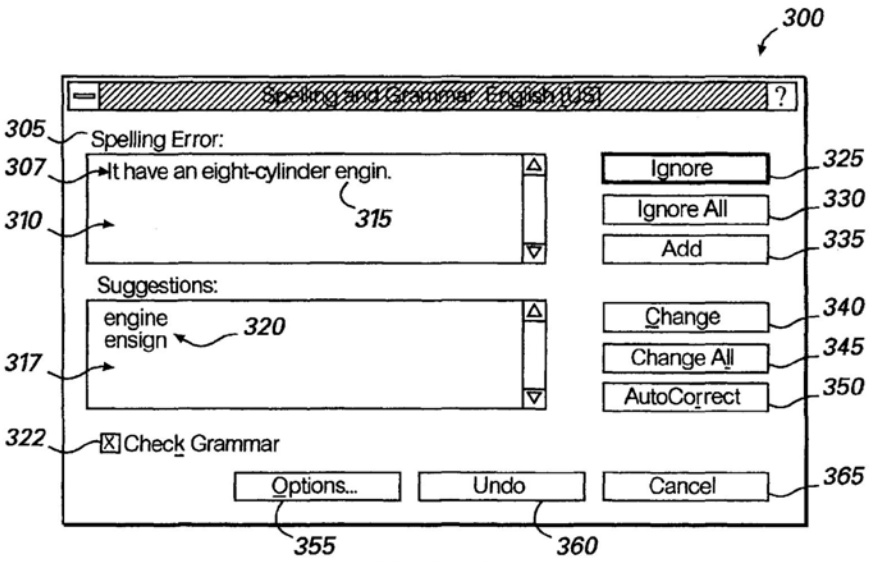


FIG. 3

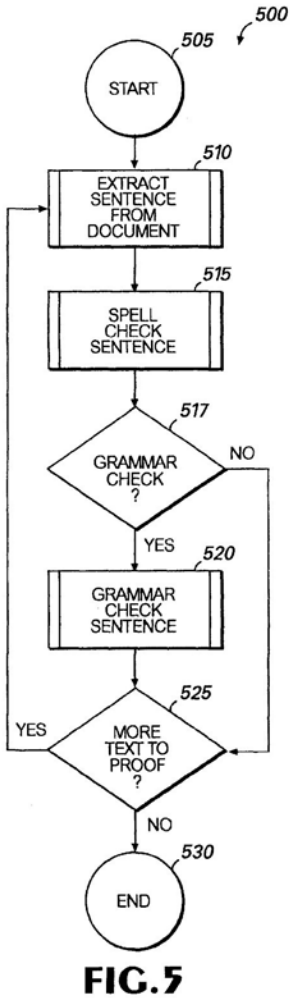


FIG. 5

Exhibit P

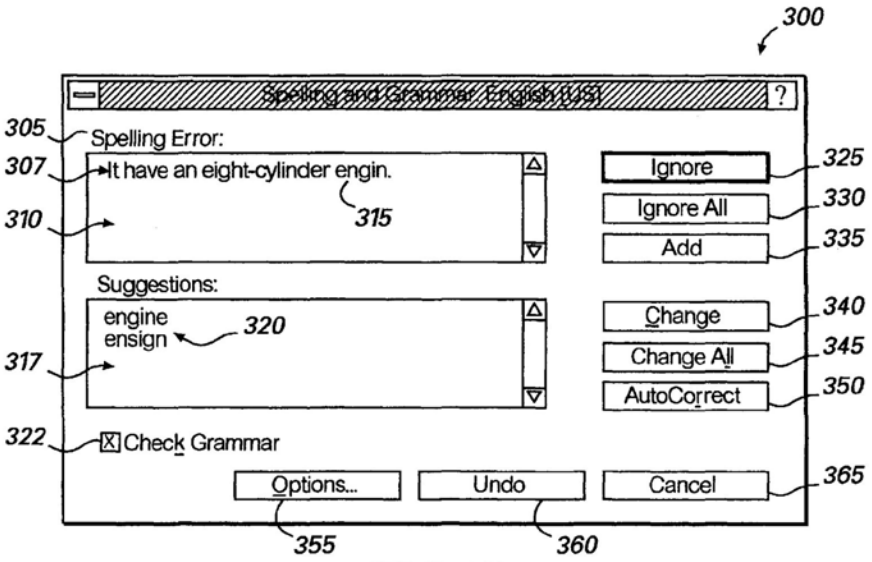
	For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 10, and 19.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Domini discloses this element. Still referring to FIG. 3, the Change button 340 is positioned below the Add button 335 in the combined spelling and grammar dialog box 300. If the user selects the Change button 340, the misspelled word 315 will be replaced with the word that has been selected by the user from the suggestions 320 in the suggestion list box 317. ('206 Patent, Col. 12, Lines 59-64) If the user selects the Change button 440, then the grammatical error will be replaced with the word that has been selected by the user from the suggestions 420 in the suggestion list box 417. ('206 Patent, Col. 14, Lines 42-45) *See also* FIGS. 3, 4.  FIG. 3

Exhibit P

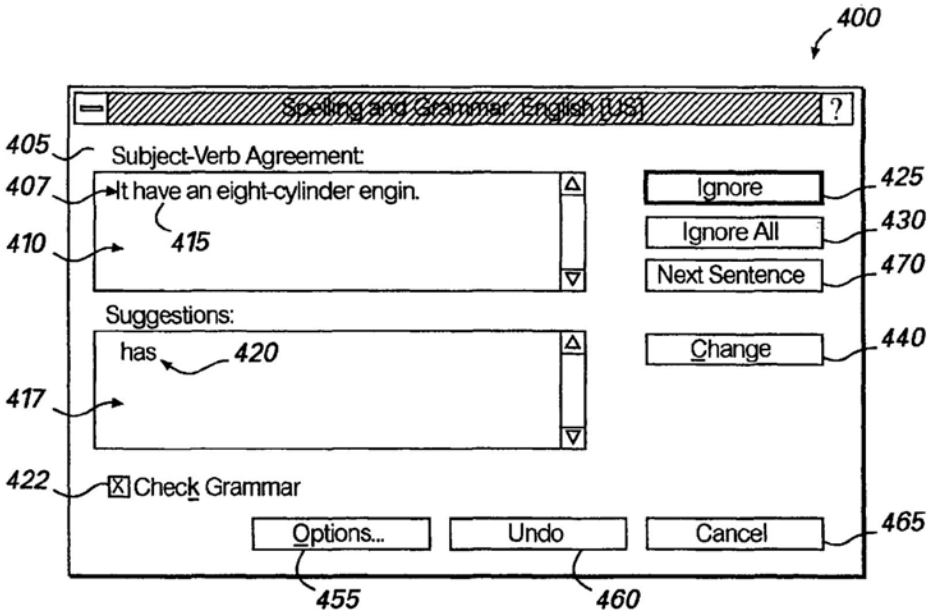
	 FIG.4 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 12 and 17.
Claim 8	
A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.	Domini discloses claim 1. *See* claim 1 above. Domini further discloses this element. *See* FIG. 3, element 335.

Exhibit P

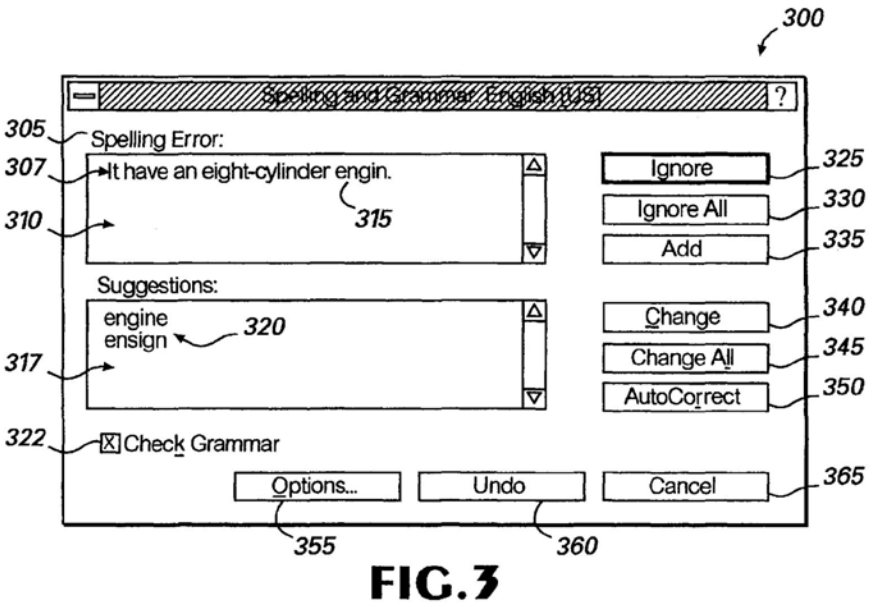
	 FIG. 3 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 4, 5, and 17.
Claim 13	
A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.	Domini discloses claim 1. *See* claim 1 above. Domini further discloses this element. The "Spelling and Grammar" command can be executed by selecting a command from a menu or toolbar displayed on the monitor 31. (‘206 Patent, Col. 11, Lines 1-3) *See* FIG. 1.

Exhibit P

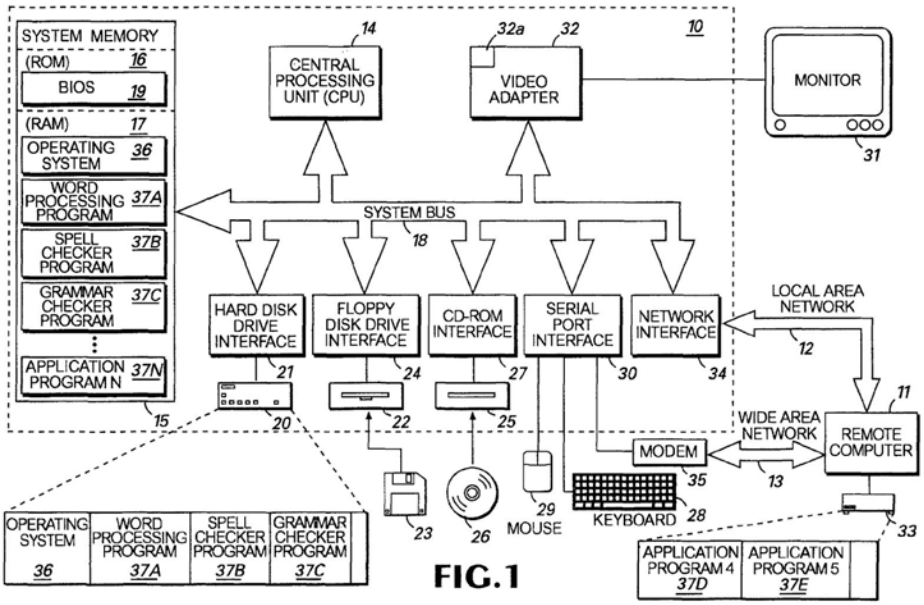
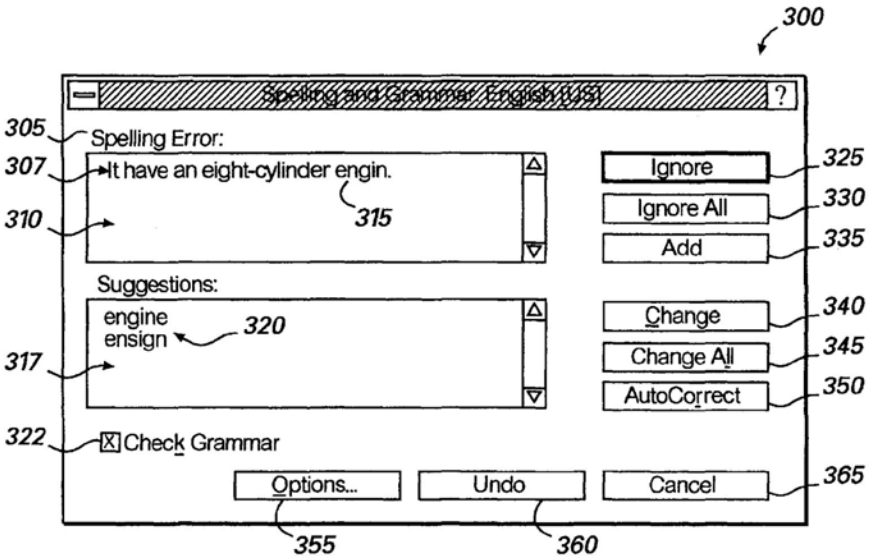
	 FIG.1 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 2.
Claim 15	
A method according to claim 1, further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.	Domini discloses claim 1. *See* claim 1 above. Domini further discloses this element. FIG. 3.  FIG.3

Exhibit P

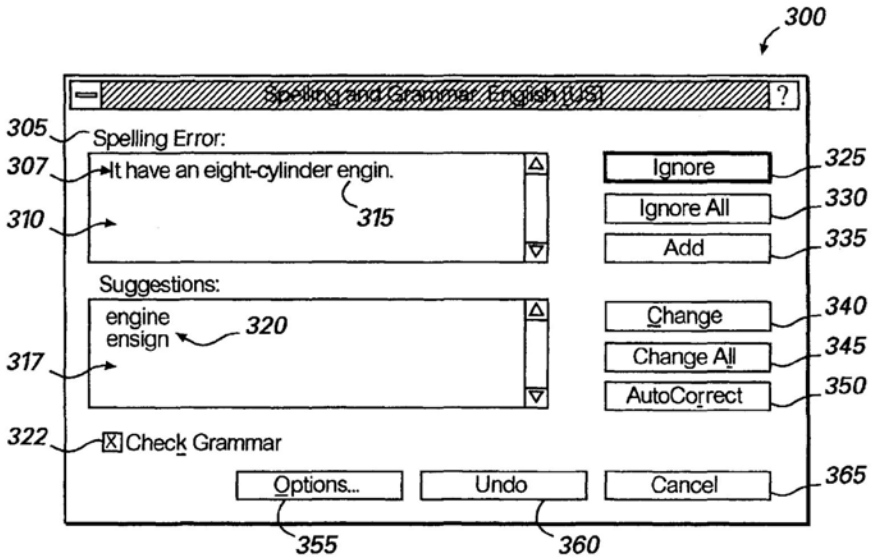
	For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 7, 17, and 20.
Claim 17	
A method according to claim 1, wherein the information source is associated with the second computer program and is available through the computer.	Domini discloses claim 1. *See* claim 1 above. Domini further discloses this element. *See* FIGS. 3, 4.  FIG.3

Exhibit P

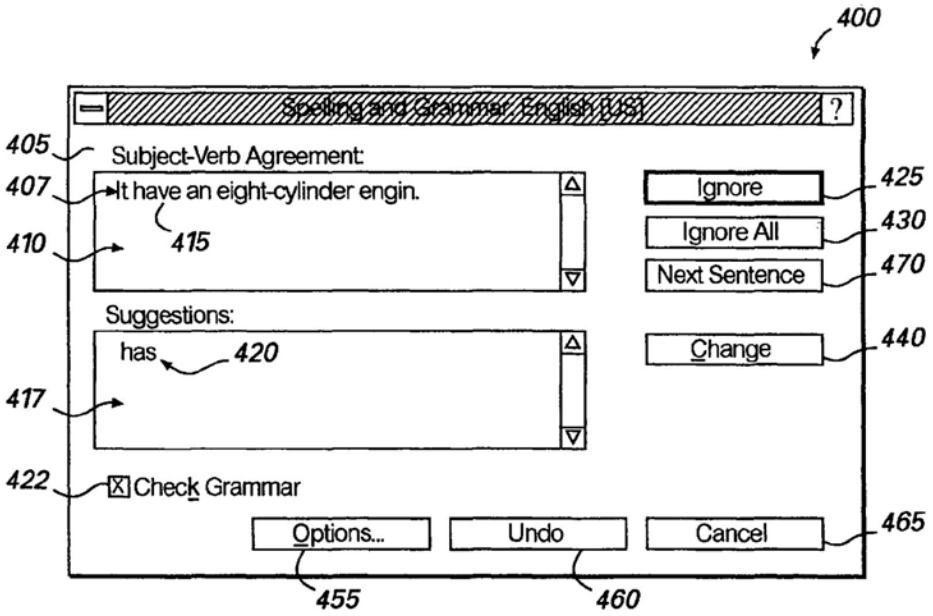
	 FIG.4 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.	Domini discloses claim 1. *See* claim 1 above. Domini further discloses this element. See, e.g.: FIGS. 3, 4. "Still referring to FIG. 3, the combined spelling and grammar dialog box 300 includes a suggestion list box 317. The suggestion list box 317 includes a plurality of suggestions 320 to replace the possible spelling error in the sentence 307. For example, in FIG. 3, the list of suggestions 320 includes 'engine' and 'ensign' to replace the misspelled word 315 'engin'." ('206 Patent, Col. 12, Lines 1-7) "Still referring to FIG. 3, the Change button 340 is positioned below the Add button 335 in the combined spelling and grammar dialog box 300. If the user selects the Change button 340, the misspelled word 315 will be replaced with the word that has been selected by the user from the suggestions 320 in the suggestion list box 317." ('206 Patent, Col. 12, Lines 59-64)

Exhibit P

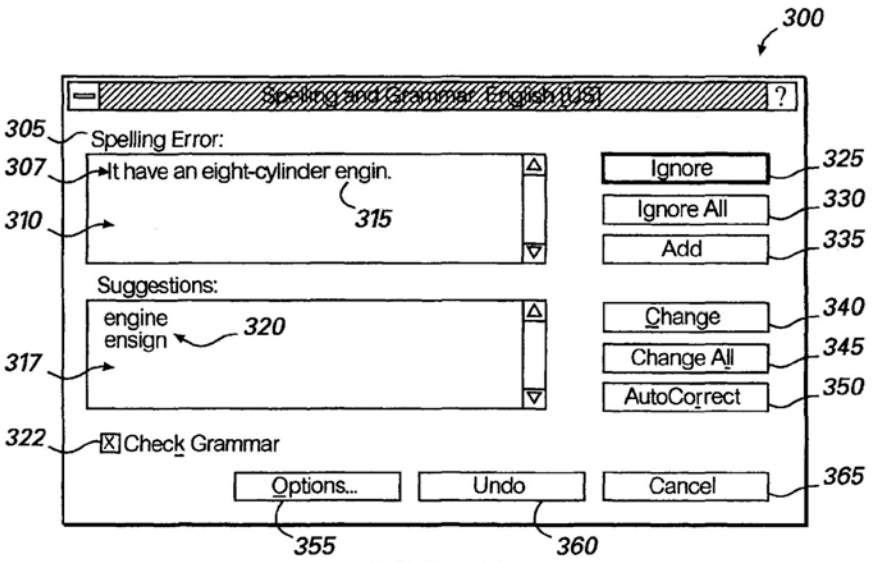
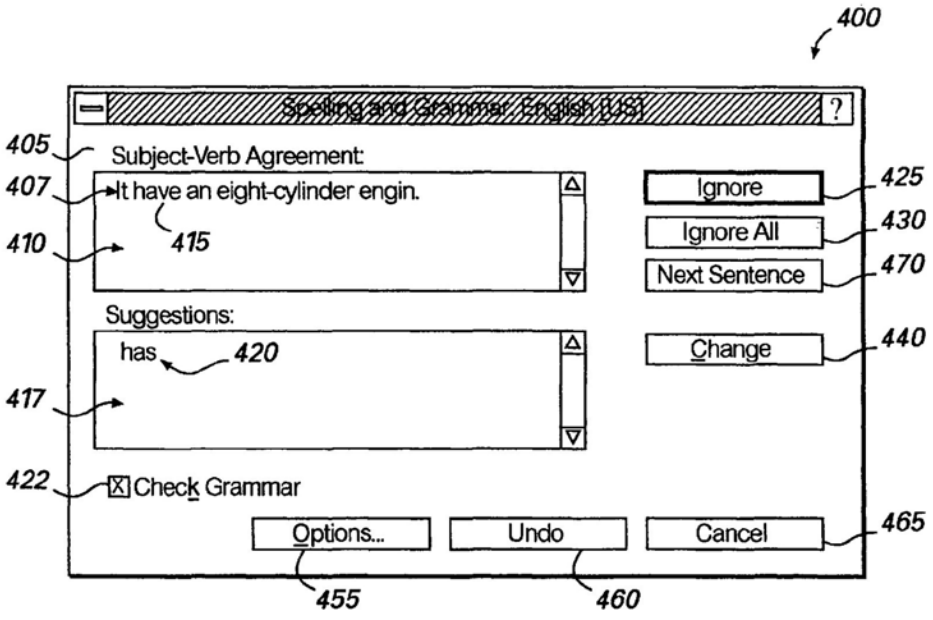
	"If the user selects the Change button 440, then the grammatical error will be replaced with the word that has been selected by the user from the suggestions 420 in the suggestion list box 417." ('206 Patent, Col. 14, Lines 42-45)  FIG. 3  FIG. 4 For example (and without limitation to the Obviousness Statement that is

Exhibit P

	incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 19	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.	Domini discloses claim 1. *See* claim 1 above. Domini further discloses this element. See, e.g.: FIGS. 3, 4. "Still referring to FIG. 3, the combined spelling and grammar dialog box 300 includes a suggestion list box 317. The suggestion list box 317 includes a plurality of suggestions 320 to replace the possible spelling error in the sentence 307. For example, in FIG. 3, the list of suggestions 320 includes 'engine' and 'ensign' to replace the misspelled word 315 'engin'." ('206 Patent, Col. 12, Lines 1-7) "Still referring to FIG. 3, the Change button 340 is positioned below the Add button 335 in the combined spelling and grammar dialog box 300. If the user selects the Change button 340, the misspelled word 315 will be replaced with the word that has been selected by the user from the suggestions 320 in the suggestion list box 317." ('206 Patent, Col. 12, Lines 59-64) "If the user selects the Change button 440, then the grammatical error will be replaced with the word that has been selected by the user from the suggestions 420 in the suggestion list box 417." ('206 Patent, Col. 14, Lines 42-45)

Exhibit P

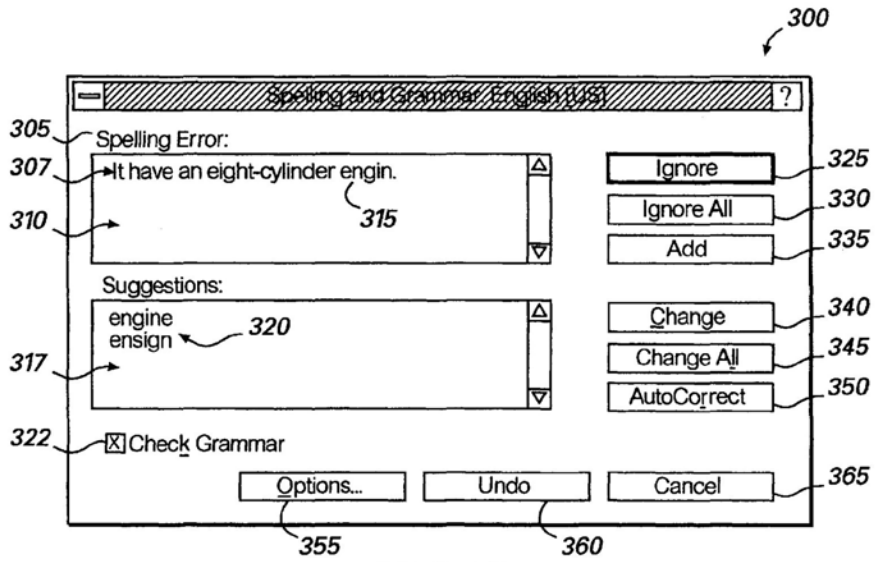


FIG.3

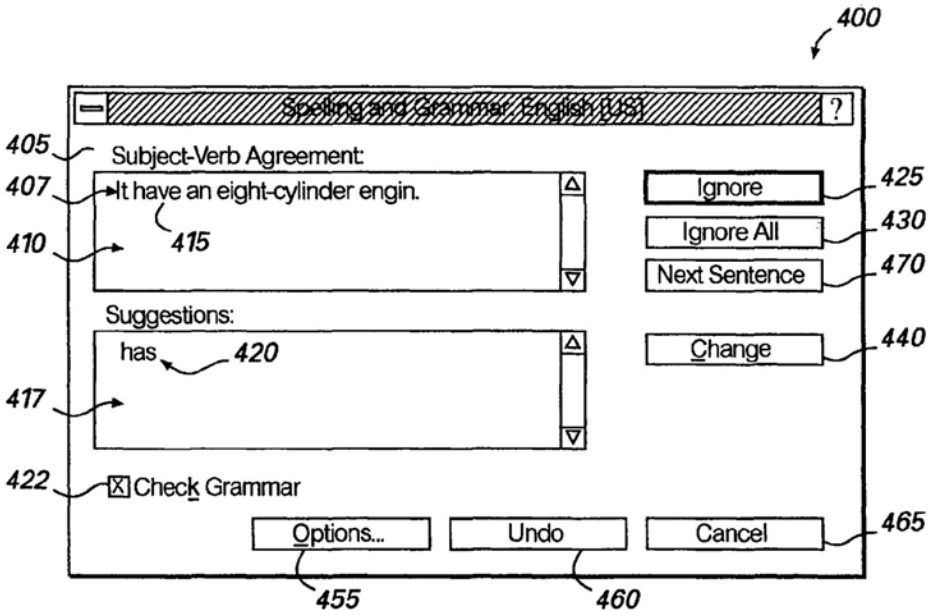


FIG.4

For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.

Claim 23	
At least one non-transitory computer readable medium encoded with instructions which,	Domini discloses this element. *See* claim 1, above.

Exhibit P

when loaded on a computer, establish processes for finding data related to the contents of a document using a first computer program running on a computer, the processes comprising:	
displaying the document electronically using the first computer program;	Domini discloses this element. *See* claim 1, above.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Domini discloses this element. *See* claim 1, above.
retrieving the first information;	Domini discloses this element. *See* claim 1, above.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Domini discloses this element. *See* claim 1, above.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order	Domini discloses this element. *See* claim 1, above.

Exhibit P

to find second information related to the search term; and	
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Domini discloses this element. *See* claim 1, above.
Claim 30	
At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising: providing a prompt for updating the information source to include the first information.	Domini discloses claim 23. *See* claim 23 above. Domini further discloses this element. *See* claim 8, above.

Exhibit Q

Claim Chart Applying Hachamovitch Against the '843 Patent

U.S. Patent No. 6,377,965 to Hachamovitch et al. ("Hachamovitch") was filed on November 7, 1997, and issued on April 23, 2002. It therefore constitutes prior art under pre-AIA 35 U.S.C. §§ 102(a), (b) and (e). As shown below, Hachamovitch anticipates and/or renders obvious claims 1, 8, 13, 15, 17-19, 23, and 30 of the '843 patent.

"Obviousness Statement" - To the extent that the Judge or Jury finds that Hachamovitch does not teach an element either expressly or inherently, then the claim element is obvious to a POSITA based on the state of the art (*see, e.g.*, Section V of my Report), including the admissions of the prior art functionalities and motivations to combine those prior art functionalities in the '843 patent, as well as the motivations to combine and understandings of a POSITA discussed in my Report (*see, e.g.*, Section IX of my Report and Exhibit U), in light of the teachings of, at least, the prior art listed and discussed in Exhibit U, and each prior art system and/or reference listed in my Report, including, without limitation, Pandit, Chalas, Domini, Hachamovitch, Tso, Person, CyberDesk System (including specific publications describing aspects of the CyberDesk System), Eudora System (including specific publications describing aspects of the Eudora System), Apple Data Detectors System (including specific publications describing aspects of the Apple Data Detectors System), LiveDoc System (including specific publications describing aspects of the LiveDoc System), Newton System (including specific publications describing aspects of the Newton System), Microsoft Outlook 97 (including specific publications describing aspects of Microsoft Outlook 97), Selection Recognition Agent System (including specific publications describing aspects of the Selection Recognition Agent System), and Microsoft Word 97 (including specific publications describing aspects of Microsoft Word 97).

'843 Patent Claims	**Disclosure**
Claim 1	
A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:	To the extent the preamble is limiting, Hachamovitch discloses the preamble. See, e.g.:

Exhibit Q

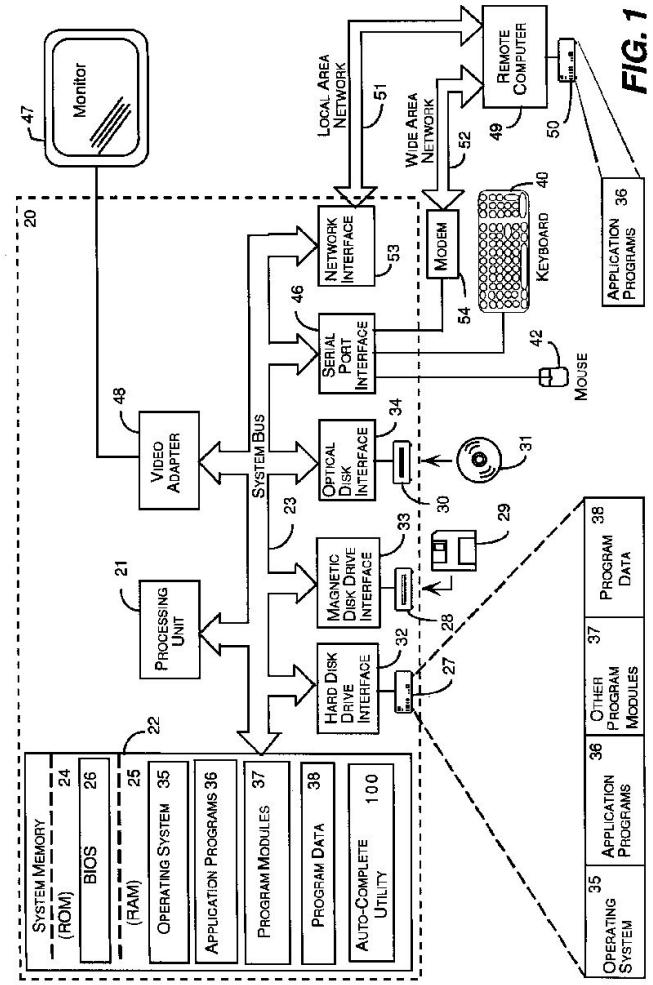


FIG. 1
Monitor
47
20
Local Area Network
51
Wide Area Network
52
Remote Computer
49
50
Application Programs
36
Keyboard
40
Network Interface
53
Modem
54
Serial Port Interface
46
Mouse
42
Optical Disk Interface
34
31
30
System Bus
23
Video Adapter
48
Magnetic Disk Drive Interface
33
29
28
Processing Unit
21
Hard Disk Drive Interface
32
27
22
System Memory
24
(ROM)
BIOS
26
(RAM)
25
Operating System
35
Application Programs
36
Program Modules
37
Program Data
38
Auto-Complete Utility
100
Program Data
38
Other Program Modules
37
Application Programs
36
Operating System
35

Exhibit Q

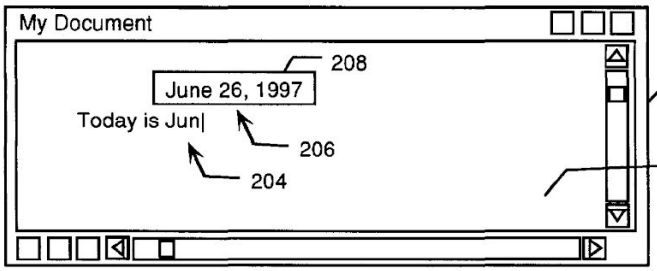


FIG. 2A

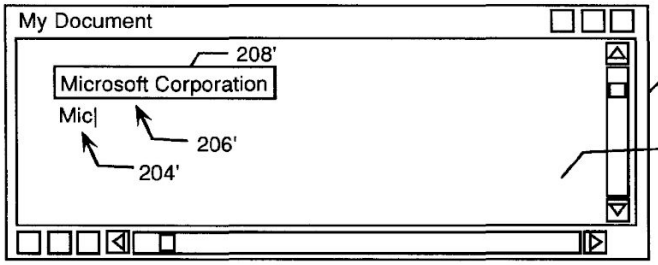


FIG. 2B

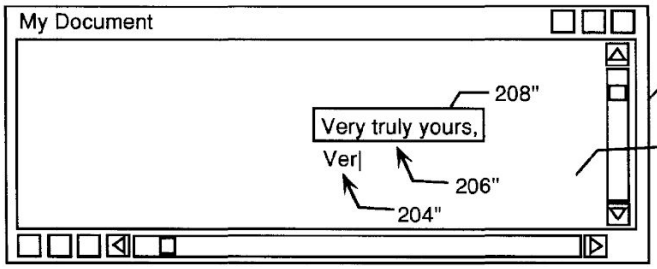


FIG. 2C

300

NAME	COMPLETION	CONTEXT	CAPITALIZATION
Key(Date)	Key(Date)	Any	Any
Microsoft Corporation	Microsoft Corporation One Microsoft Way Redmond, Wa 98052	Addresse	Initial Cap Only
Very truly yours,	Very truly yours,	Salutation	Initial Cap Only
⋮	⋮	⋮	⋮
Symposium	Save The Whales Symposium	Any	Initial Cap Only

302 304 306 308

FIG. 3

Exhibit Q

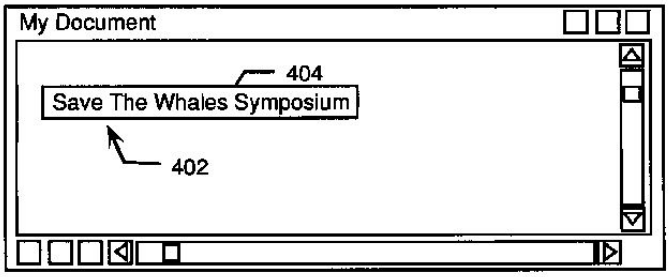


FIG. 4A

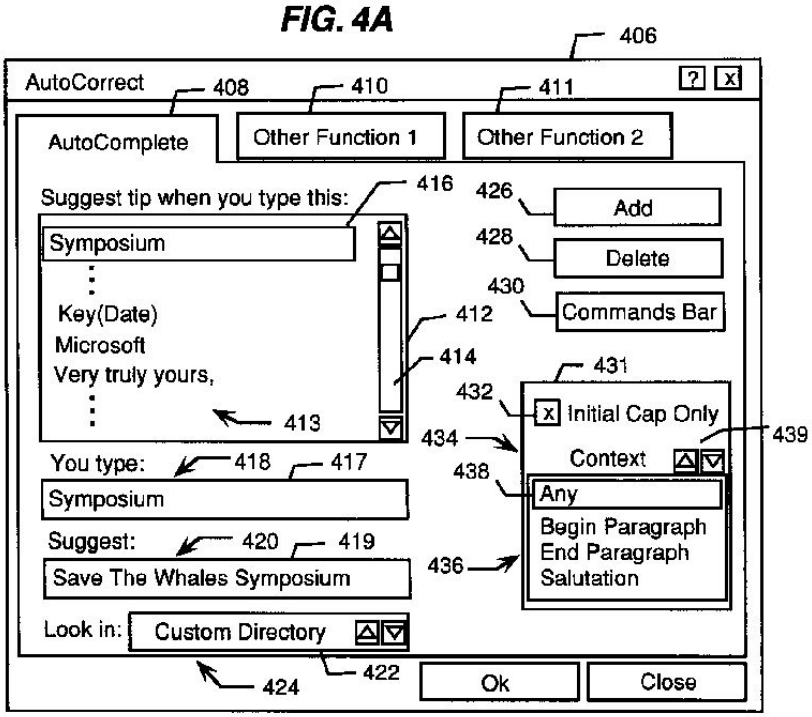


FIG. 4B

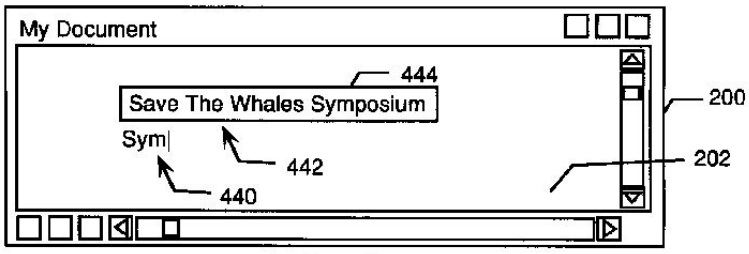


FIG. 4C

Exhibit Q

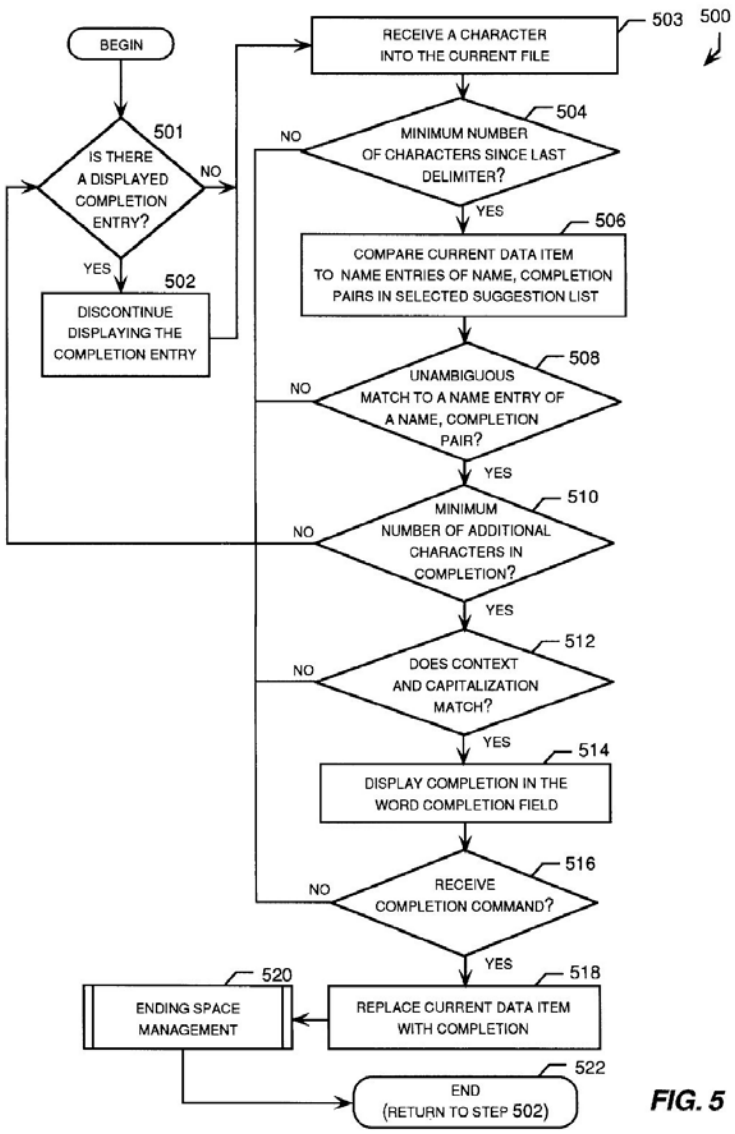


FIG. 5

Exhibit Q

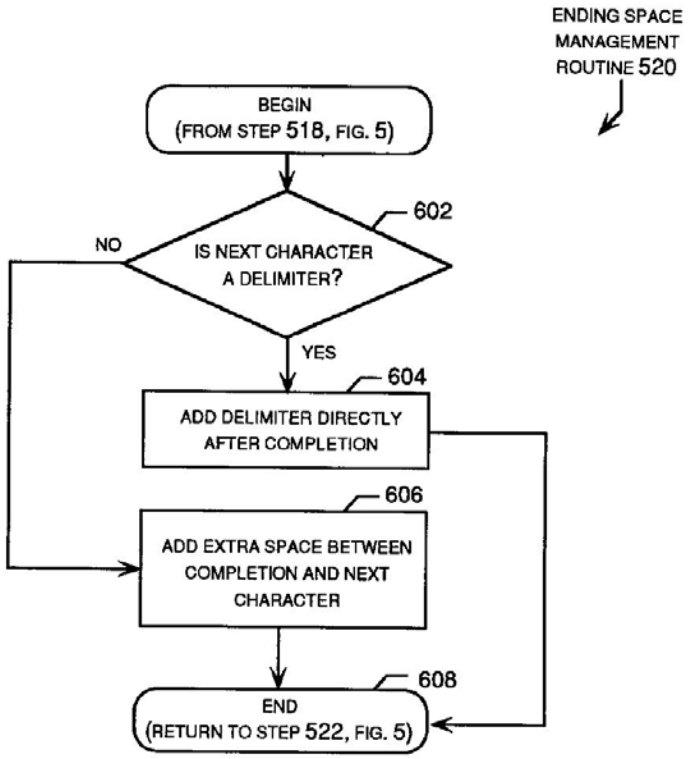


FIG. 6

Exhibit Q

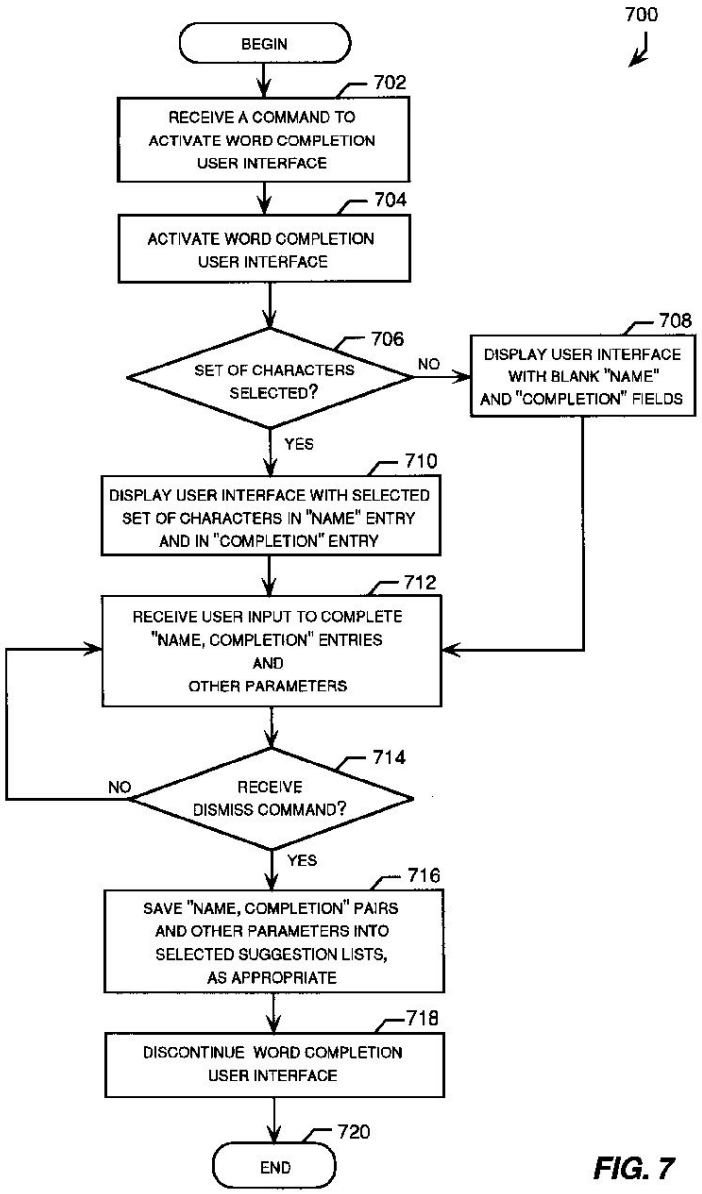


FIG. 7

"A word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file. The word completion system applies prediction criteria to avoid annoying the user by displaying an excessive number of wrong suggestions. Suggested word completions, which may change as the user types a partial data entry, are displayed in a non-disruptive manner and selected using traditional acceptance keystrokes, such as the "tab" key or the "enter" key. The word completion system may be deployed on an individual application program basis or on a application-independent basis. Because different word suggestion lists may be appropriate for

Exhibit Q

	different application programs, and for different data files created with the same application program, the word completion system allows the user to select one or more suggestion lists for use with each data file. A user interface allows the user to customize each suggestion list on an on-going basis. Each suggestion list may contain dynamic word completions that are tied to dynamic parameters maintained by the computer system, such as the time, date, registered user, and so forth. Each suggestion list may also be tied to contextual information, such as structured data fields or context labels assigned manually or by a document-creation aid known as a "wizard." Hachamovitch at Abstract. "This invention relates generally to the field of data entry systems and, more particularly, to automated word completion systems for operating with unstructured data files, such as word processing documents and e-mail messages." *Id.* at 1:5-8. "For many users, the most time consuming computer activity is the entry of large amounts of text into various data files, such as word processing files and e-mail files. Regardless of the input method used, the speed at which the text can be entered into the computer is a major factor governing the user's efficiency. The designers of text-intensive application programs have therefore developed text-input aids to assist users in entering text into the computer. A word prediction system is an example of such a text-input aid. Generally stated, a word prediction system predicts and suggests complete data entries based on partial data entries. This allows the user to type in a partial data entry and then accept a predicted word completion with a single keystroke, thus avoiding the keystrokes that would have been required to type the complete data entry. For example, a word prediction system may be configured to recognize a user's name so that the user's complete name, "Dean Hachamovitch" for instance, may be predicted after the user types the first few letters, "Dea" in this example. Creating word prediction systems that exhibit acceptable memory-use and performance characteristics, and that are not overly disruptive or annoying to the user, is an on-going challenge for software developers. Three techniques have traditionally been used to meet this challenge: (1) organizing the user's document into structured fields; (2) restricting the data space used to predict word completions; and (3) requiring the user to request a word prediction when desired. As the drawbacks associated with each of these techniques are described below, it will become clear

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	that there is a continuing need for word prediction systems that automatically predict unrestricted word completions for data entries in an unstructured portion of a data file, such as the body of a word processing document or e-mail message." Because there are a limited number of words available in any given language, many of the words forming the vocabulary of the language are used frequently. This is particularly true for data files that include structured fields for certain data entries, such as the "from" and "to" fields of an e-mail message, or the "payee" and "amount" fields of a bank check. A structured field supplies a context for data to be entered into the field. This context can be used to limit the choice of word predictions for the field, and increase the likelihood that a suggested word completion is correct. Word prediction systems therefore work well for structured data fields because the choice of words used in a particular structured field can often be sufficiently limited so that the word prediction system can offer reasonably likely suggestions within acceptable memory-use and performance characteristics. Most-recently-used (MRU) text completion has been deployed in connection with structured data fields to speed text entry and also serve as a memory aid for repetitive data entries. These word prediction methods use an MRU data entry list for each structured field to provide a list of word prediction choices for the field. That is, a list of the most recent items entered into the structured field is used to suggest word completions for partial data entries entered into the field. For example, a personal finance program may maintain a record of a person's previous bank checks. In order to speed entry of the check payee on a new check, the program keeps an MRU list of prior check payees. This list is used to automatically suggest a completion for the payee name after the first few letters of the payee have been typed by the user. For instance, if a user has previously written checks to "Georgia Power," the complete data entry "Georgia Power" may be suggested after the letters "Ge" have been typed into the check payee field. In MRU word prediction systems, an input character may be analyzed, with respect to the prior history of text entered, to predict the text likely to follow the input character or string of characters. Because MRU word prediction systems are based upon a prior history of text entered, the search time and amount of storage required for the systems are important parameters. Either a linear or a binary search is typically used to scan the text history in order to provide a text prediction. A linear search operates by sequentially examining each element in a list until the target element is found or the list has been completely processed. Because every entry

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	must be analyzed, linear searches are primarily used with very short lists." *Id.* at 1:26-2:39. "Dictionary-based word prediction systems, such as those found in spell-checking utilities, have also been used in prior word prediction systems. With a dictionary-based word prediction system, the user must activate the spell-checking utility to obtain a suggested spelling for a particular data entry." *Id.* at 3:18-23. "The word prediction systems discussed above are usually deployed on an individual application program basis. That is, each word prediction system is typically customized to work only with one particular application program. For example, the check writing word prediction system discussed previously works only with the check writing application program, and not with other application programs, such as a word processor or e-mail program running on the same computer system. This causes wasteful duplication of software when similar word prediction systems are implemented by several different application programs. Duplication of items stored in memory can also result. For example, duplicate items may be stored in memory when several different applications keep separate MRU histories or dictionaries. Another problem is that repetitive data entries cannot be identified across several application programs. As a result, the user may have to "teach" several word predictions systems the same set of commonly-used data entries, such as the user's name, address, business name, etc. Thus, there is a need in the art for a word prediction system that automatically predicts unrestricted word completions for data entries in an unstructured portion of a data file, such as the body of a word processing document or e-mail message. There is a further need for a text prediction system that may operate with multiple application programs with little or no application-specific programming." *Id.* at 3:49-4:7. "The present invention is a word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file, such as the body of a word processing document or email message." *Id.* at 4:10-13. "The word completion system may be deployed on an individual application program basis or on an application-independent basis. Application independence is the ability of the same word completion

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	system to work with several different application programs, such as a word processing program, an e-mail program, a spreadsheet program, and so forth. Because different word suggestion lists may be appropriate for different application programs, and for different data files within the same application program, the word completion system allows the user to select one or more suggestion lists for use with each data file. In addition, the individual entries of a word completion list may be limited so that they are only used in certain context-based situations. These context-based limitations effectively allow each word completion list to be subdivided into a group of context-sensitive lists. A word completion user interface allows the user to customize each suggestion list with user-defined name-completion pairs on an on-going basis. Each suggestion list may also contain certain word completions that are tied to dynamic parameters maintained by the computer system, such as the time, date, registered user, etc. Each suggestion list may also be limited to name-completion pairs in which the completion entries have a predefined property, such as initial letter capitalized, all letters capitalized, occurring at the start of a paragraph, occurring at the end of a paragraph, and so forth. Each suggestion list may also be limited to name-completion pairs that are tied to contextual information, such as structured data fields or context labels assigned manually or by a document-creation aid known as a "wizard." Generally stated, the invention is a computer-readable medium having computer-executable instructions for running a word completion utility on a computer system. The word completion utility monitors data entry into a data file associated with a program module running on the computer system. The word completion utility identifies a partial data entry in an unstructured portion of the data file, such as the body of a word processing document or e-mail message. The word completion utility selects a suggestion list including a plurality of associated name-completion pairs, each name-completion pair including a name entry and a completion entry. The word completion utility identifies a particular one of the name entries in the suggestion list that corresponds to the partial data entry. The word completion utility then applies prediction criteria to the particular name entry, the particular completion entry, and the partial data entry. If the prediction criteria are met, the word completion utility displays the associated completion entry as a word completion suggestion for the partial data entry. Advantageously, the suggestion list, as well as name-completion pairs within the suggestion list, may be specified by the user. The word completion utility may then receive a command indicating acceptance of the completion entry. In response, the word completion

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	utility replaces the partial data entry with the completion entry in the data file. The word completion utility may then identify a character immediately following the command indicating acceptance of the completion entry. In response, the word completion utility determines whether the character is a delimiter character. If the character is a not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character. According to an aspect of the invention, a suggestion list may limited to name-completion pairs in which the completion entries have a predefined property, such as initial letter capitalized, all letters capitalized, occurring at the start of a paragraph, occurring at the end of a paragraph, and so forth. In addition, the partial data entry may be received in a portion of the data file that has been assigned a context label. In this case, a particular suggestion list may be associated with the context label. For example, a document-creation aid known as a "wizard" may assign paragraph style labels to the various paragraphs in a business letter. Thus, the greeting paragraph may be assigned a "greeting" context label, the body paragraphs may be assigned a "body" context label, and the complimentary closing paragraph may be assigned a "complimentary closing" context label. This allows the suggestion list for the complimentary closing paragraph, for instance, to be limited to a relatively small set of conventional complimentary closing phrases, such as "Sincerely yours," "Very truly yours," "Cordially yours," and the like. According to another aspect of the invention, the completion entry may be tied to a dynamic parameter maintained by the computer system, such as the current date, the current time, or the registered user of the computer system. This allows a current date name entry, for example, to be tied to the computer system's clock. Thus, the current date, "June 26, 1997," for instance, may be automatically suggested whenever the user enters the first few letters of the corresponding month, "Jun" in this case. According to yet another aspect of the invention, the prediction criteria includes a first condition that the partial data entry include a certain number of characters. The prediction criteria may also include a second condition that the completion entry include a certain number of characters more than the partial data entry. The prediction criteria may further include a third condition that the partial data entry unambiguously correspond to the particular name entry with respect to all of the name entries in the suggestion list. The prediction criteria increases the likelihood that each word completion suggestion will be correct, which avoids annoying the user with an excessive number of wrong suggestions." *Id.* at 4:21-5:57.

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	"The invention may be implemented as a word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file. Unrestricted word completions need not be selected from a suggestion list that is limited to a particular data space, such as a data range or a predefined naming syntax. Rather, unrestricted word completions may be based on a suggestion list including virtually any number of user-defined name-completion pairs. Because different word suggestion lists may be appropriate for different application programs, and for different data files within the same application program, the word completion system allows the user to select one or more suggestion lists for use with each data file." *Id.* at 6:39-52. "The word completion system implements intelligent ending space management. Specifically, the word completion system receives a command indicating acceptance of the completion entry. In response, the word completion utility replaces the partial data entry with the completion entry in the data file. The word completion utility may then identify a character immediately following the acceptance command. The word completion utility determines whether the character is a delimiter character and, if the character is a not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character. A pop-up word completion user interface allows the user to customize each suggestion list with user-defined name-completion pairs on an on-going basis. Each suggestion list may also contain certain word completions that are tied to dynamic parameters maintained by the computer system, such as the time, date, registered user, etc. For example, this allows a current date name entry to be tied to the computer system's clock. Thus, the current date, 'June 26, 1997,' for instance, may be automatically be suggested whenever the user enters the first few letters of the corresponding month—'Jun' in this case. In addition, the user may preferably suggest the format in which the data will be displayed, for example, 'June 26, 1997,' '26 June 1997,' or '9/26/97.' " *Id.* at 7:6-30. "Each suggestion list may also be limited to name-completion pairs that are tied to contextual information, such as structured data fields. For example, an e-mail address book may be used as the suggestion list when a user is typing within a structured address frame of an e-mail user interface.

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	The suggestion list may also be limited to name-completion pairs that are tied to context labels assigned manually or by a document-creation aid known as a "wizard." A letter wizard, for example, may assign paragraph style labels to the various paragraphs in a business letter. Thus, the greeting paragraph may be assigned a "greeting" context label, the body paragraphs may be assigned a "body" context label, and the complimentary closing paragraph may be assigned a "complimentary closing" context label. This allows the suggestion list for the complimentary closing paragraph, for instance, to be limited to a relatively small set of conventional complimentary closing phrases, such as "Sincerely yours," "Very truly yours," "Cordially yours," and the like. The word completion system may be deployed within an individual application program, particularly a word processing application program or an e-mail application program. Alternatively, the word completion system may be deployed within an operating system or as a stand-alone utility that may operate on an application-independent basis. Application independence is the ability of the same word completion system to work with several different application programs, such as a word processing program, an e-mail program, a spreadsheet program, a personal calendar program, and so forth. To deploy the word completion system as an application-independent utility, an interface is defined within each application program through which the word completion utility may communicate with each application program. This allows the word completion utility to monitor the entry of characters into the application program user interface, to determine the location within the user interface to display the word completion frame, and to determine when the user had invoked the word completion user interface. The only potential drawback of an application-independent deployment may be a slight reduction in the speed at which the word completion system performs its operations. Exemplary Operating Environment FIG. **1** and the following discussion are intended to provide a brief, general description of a suitable computing environment in which the invention may be implemented. While the invention will be described in the general context of an application program that runs on an operating system in conjunction with a personal computer, those skilled in the art will recognize that the invention also may be implemented in combination with other program modules. Generally, program modules include routines, programs, components, data structures, etc. that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the invention may

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	be practiced with other computer system configurations, including hand-held devices, multiprocessor systems, microprocessor-based or programmable consumer electronics, minicomputers, mainframe computers, and the like. The invention may also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules may be located in both map entity and remote memory storage devices." *Id.* at 7:41-8:40. "Exemplary embodiments of the present invention are incorporated into the MICROSOFT OFFICE 97 suite of application programs sold by Microsoft Corporation on CD-ROM for use with personal computer systems such as the illustrative personal computer **20**. The invention may be deployed within, or in connection with, the OFFICE 97 suite of application programs including, among others, a WORD 97 word processing application program and an OUTLOOK 97 e-mail application program. It will be appreciated that the principles of the invention are not limited word processing and e-mail application programs, but could equivalently be applied to any computer-implemented system that involves a substantial amount of text entry. For example, it is anticipated that the invention may be deployed in connection with future versions of Microsoft's personal calendar applications programs, spread sheet programs, database programs, and so forth. It will be further appreciated that the invention could equivalently be implemented on host computers other than personal computers, and could equivalently be transmitted to the host computer by means other than a CD-ROM, for example, by way of the network connection port **24**." *Id.* at 9:44-64. "FIG. 2A illustrates a graphical user interface **200** for a data file including a word completion suggestion in which the completion entry of a name-completion pair is tied to a dynamic system parameter. The graphical user interface **200** includes an unstructured area **202** into which the user may enter free text using the keyboard **40** or another suitable text entry device. For example, the unstructured area **202** may be the body portion of an e-mail message, the input area of a word processing document, the notes area of a personal calendar file, etc. As the user types text into the unstructured area **202**, the Auto-Complete utility **100** identifies a partial data entry **204**, which is defined as a contiguous set of characters following a word boundary, such as a delimiter character. The host application program causes the partial data entry to be displayed in the usual manner, and the Auto-Complete utility **100** causes a completion suggestion **206** to be displayed in association with the partial data entry in a non-disruptive word

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	completion field, such as a pop-up word completion frame **208** that appears directly above the partial data entry. As discussed in more detail with reference to FIG. 3 below, the word completion suggestion **206** is identified by comparing the partial data entry **204** to the name entries in a suggestion list that includes a group of name-completion pairs. If the partial data entry **204** corresponds to the name entry of a name-completion pair within certain prediction criteria, the completion entry of the name-completion pair is displayed as the completion suggestion **206** in the word completion frame **208**. The completion suggestion **206** is displayed in vertical alignment with the partial data entry **204**. This makes it easy for the user to compare the completion suggestion **206** to the partial data entry **204**. If the completion suggestion **206** is too long to display directly above the partial data entry **204**, it is truncated with ellipses (i.e., . . .) so that the completion suggestion **206** and the partial data entry **204** are still displayed in vertical alignment. The user accepts a suggestion using a traditional acceptance keystroke, such as the "tab" key or the "enter" key. In the example illustrated in FIG. 2A, the completion suggestion **206** is tied to a dynamic system parameter. Specifically, the completion suggestion **206** is the current date, shown as "June 26, 1997," which is tied to the computer system's clock. This allows the complete current date to be automatically suggested whenever the user enters the first few letters of the corresponding month, "Jun" in the example illustrated in FIG. **2**A. Other completion suggestions may be tied to other dynamic system parameters, such as the time, the registered user's name, the registered user's business address, a logged-in user's name, a list of recent applications or documents, a most-recently-used (MRU) text buffer, an MRU e-mail address buffer, the computer's file directory, etc. FIG. 2B illustrates a completion suggestion **206′** selected from a suggestion list that is limited to name-completion pairs in which the completion entries have a predefined property, such as initial letter capitalized, all letters capitalized, occurring at the start of a paragraph, occurring at the end of a paragraph, and so forth. In this example, the word completion "Microsoft Corporation" is only suggested when the partial data entry begins with the "M" capitalized. Thus, the Auto-Complete utility **100** does not suggest "Microsoft Corporation" when the user types "mic" on the way to typing "microphone" or "microcomputer." FIG. 2C illustrates a word completion suggestion **206″** selected from a suggestion list in which the name-completion pairs are limited to

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	contextual information. In this example, the suggestion list is limited to name-completion pairs that are tied to context labels assigned by a document-creation aid known as a "letter wizard" that assigns paragraph style labels to the various paragraphs in a business letter. Thus, the greeting paragraph may be assigned a "greeting" context label, the body paragraphs may be assigned a "body" context label, and the complimentary closing paragraph may be assigned a "complimentary closing" context label. This allows the suggestion list for the complimentary closing paragraph, as shown in FIG. 2C, to be limited to a relatively small set of conventional complimentary closing phrases, such as "Sincerely yours," "Very truly yours," "Cordially yours," and the like. Each suggestion list may also be limited to name-completion pairs that are tied to other types of contextual information, such as structured data fields. For example, an e-mail address book may be used as the suggestion list when a user is typing within a structured address frame of an e-mail user interface. FIG. 3 is a diagram illustrating a word completion suggestion list **300** with context-based and capitalization-based suggestion limitations. Each item in the suggestion list **300** includes a name entry **302** that is associated with a completion entry **304**, thus forming a name-completion pair. The name entry **302** is compared against a partial data entry, which may have been entered by a user into a structured field or into an unstructured area of a data file. As noted previously, if the name entry **302** corresponds to the partial data entry within certain prediction criteria, the completion entry **304** associated with the name entry **302** is displayed as a completion suggestion for the partial data entry within the data file. The user may then accept the completion suggestion by entering a familiar data acceptance keystroke, such as the "tab" key or the "enter" key. As shown in FIG. 3, each name-completion pair **302**-**304** may be associated with a context limitation **306** and/or a capitalization limitation **308**. Within a data file, a partial data entry may be assigned a context. The context limitation **306** is used to denote a contextual limitation to allow each suggestion list to be limited to name-completion pairs **302**-**304** that are tied to contextual information. As noted previously, these contextual limitations may correspond to structured data fields in the data file, such as an e-mail address book when a user is typing within a structured address frame of an e-mail user interface. The suggestion list may also be limited to name-completion pairs **302**-**304** that are tied to context labels, such as those assigned by a

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	document-creation aid that assigns paragraph style labels to the various paragraphs in a business letter." *Id.* at 10:18-11:65. "The series FIGS. 4A-C shows an example illustrating a procedure for including a user-defined name-completion pair in a word completion suggestion list. In this example, the data entry "Symposium" is entered as the name entry and the data entry "Save the Whales Symposium" is entered as the completion entry of a name-completion pair. Creating this name-completion pair allows the user the type "Symposium" as a short-hand data entry that triggers the display "Save the Whales Symposium" as a completion suggestion. This example illustrates how the Auto-Complete utility **100** may be used as a user-defined keyboard accelerator. FIG. 4A is a diagram illustrating a "Save the Whales Symposium" data entry **402**, which a user has typed into an unrestricted area in a data file. The user then selects the data entry **402**, as indicated by the selection indicator **404**. Although the selection indicator **404** is shown as a box in FIG. 4A, selected text is typically indicated by inverting the visual display (e.g., if the document includes black text on a white background, the selected text is shown as white text on a black background). To use the data entry **402** in a name-completion pair for a word completion suggestion list, the user activates a user interface for the Auto-Complete utility **100**, typically by entering "Alt-F3" or another predefined keystroke or keystroke combination., or by selecting a predefined user-interface control item This command causes a pop-up word completion user interface **406** to be displayed. FIG. 4B is a diagram illustrating the word completion user interface **406**, which is used to include the selected data entry **402** in a suggestion list. The word completion user interface **406** is typically one of several "AutoCorrect" user interfaces. The user selects the "Auto-Complete" selection tab **408** to invoke the word completion user interface **406**. The user may invoke other Auto-Complete user interfaces, for example, by selecting the "Other Function 1" selection tab **410** or the "Other Function 2" selection tab **411**. The selection tabs **408**, **410**, **411** are conveniently depicted as tabs on file folders to simulate a familiar file folder system. The word completion user interface **406** includes a name entry item **412**, which displays a scrollable list **413** of the name entries of a suggestion list. The user may use a scroll bar **414** to scroll through the list **413**. The selected data entry **402**, "Save the Whales Symposium," is automatically entered into the name entry list **413**, in which it appears as the selected name entry, as indicated by the selection indicator **416**. The selected

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	name entry also automatically appears in a name entry edit box **417** as a selected name entry **418**. In our example, the user has changed the selected name **418** entry from "Save the Whales Symposium" to "Symposium" in order to create the desired name-completion pair by modifying the contents of the name entry edit box **417**. The word completion user interface **406** also includes a completion entry edit box **419**, which displays a selected completion entry **420** associated with the selected name entry **418** (i.e., the completion entry associated with the name entry item **412** indicated by the selection indicator **416**). The selected data entry **402**, "Save the Whales Symposium," is also automatically entered into a completion entry edit box **419** as the selected completion entry **420**. Thus, the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") is ready to be saved in a selected suggestion list. Of course, the user may also edit the completion entry **420** by modifying the contents of the completion entry edit box **419**, if desired. The word completion user interface **406** also includes a an item, the suggestion list field **422**, that allows the user to select different suggestion lists (i.e., different lists of name-completion pairs) or to create new suggestion lists. The suggestion list field **422** displays a selected suggestion list **424**. The user may scroll through a number of suggestion lists or create a new suggestion list for the desired name-completion pair using the suggestion list field **422**. The user may also scroll through the suggestion list field **422** to select one or more suggestion lists to be used to generate word completion suggestions as the user enters data into a particular data file (i.e., the data file the was active when the user word completion user interface **406** was invoked). For our example, the user has selected a suggestion list entitled "Custom Directory" as the list for the "Symposium, Save the Whales Symposium" name-completion pair. When a new suggestion list selected in the suggestion list field **422**, the contents of the selected list appears in the scroll list **413**. This allows the user to browse through the contents of the various suggestion lists. The word completion user interface **406** also includes an "Add" button **426**, which is used in our example to add the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") into the selected suggestion list (i.e., "Custom Directory"). A "Delete" button **428** may be selected to delete a selected name-completion pair from a selected suggestion list. In addition, a "Commands Bar" button **430** may be selected to invoke other functions of the user interface **406**, such as capitalization and context limitation." *Id.* at 12:26-13:53.

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	"FIG. 4C is a diagram illustrating use of the "Symposium, Save the Whales Symposium" name-completion pair after it has been included in the "Custom Directory" suggestion list. As the user types a partial data entry **440** corresponding to the name entry, initially capitalized "Sym" for our example, the associated completion entry **442**, "Save the Whales Symposium" for our example, is automatically displayed in the word completion frame **444**. The user may then accept the word completion suggestion **442** by entering a traditional acceptance keystroke, such as the "tab" key or the "enter" key. In this case, the partial data entry **440** "Sym" is replaced by the completion entry **442** "Save the Whales Symposium," and the word completion frame **444** is discontinued. FIG. 5 is a logic flow diagram illustrating a routine **500** for operating the Auto-Complete utility **100**, which is configured to monitor the entry of data into a current file, such as a word processing or e-mail file. In step **501**, the Auto-Complete utility **100** determines whether there a completion entry is currently displayed. If a completion entry is currently displayed, the "YES" branch is followed to step **502**, in which the display is discontinued. Step **502** and the "NO" branch from step **501** are followed by step **503**, in which the Auto-Complete utility **100** receives a character. The purpose of steps **501** and **502** is to update the suggested word completion while the user changes the partial data entry. For example, after the user types "Jun" the suggested word completion may be "June 26, 1997." If the user then types an "i" so that the partial data entry is "Juni," the suggested word completion "June 26, 1997" will be discontinued and a new suggested word completion, "Juniper" for instance, may be displayed. Preferably, the suggested word completion does not blink or flash if the user inputs a letter that is consistent with the previously displayed suggestion. To illustrate this using the previous example, the suggestion "June 26, 1997" preferably does not blink if the user follows the partial data entry "Jun" by typing the letter "e." In step **503**, the current file receives a character, typically a keyboard or other text entry. In the following steps **504-512**, the Auto-Complete utility **100** applies prediction criteria to determine whether to display a word completion suggestion for the current data item. The Auto-Complete utility **100** applies the prediction criteria to avoid annoying the user by displaying an excessive number of wrong suggestions. For this purpose, the current data item may be a partial data entry including the characters received since the last delimiter character, including the character received in step **504**. A delimiter character is a

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	character that signifies the end of a word, such as a space character or punctuation mark. In step **504**, the Auto-Complete utility **100** determines whether a minimum number of characters has been entered since the last delimiter character. That is, the Auto-Complete utility **100** determines whether the current data item includes at least a minimum number of characters. The minimum number of characters for step **504** is preferably a user-definable parameter with a default value of three. If the minimum number of characters has not been entered since the last delimiter character, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the minimum number of characters has been entered since the last delimiter character, the "YES" branch is followed to step **506**, in which the Auto-Complete utility **100** compares the current data item to the name entries of name-completion pairs in a selected suggestion list. In step **508**, the AutoComplete utility **100** determines whether the current data item unambiguously corresponds to one of the name entries in the suggestion list. That is, rather than selecting a best guess from a set of ambiguously-identified name entries, the Auto-Complete utility **100** waits until the current data item includes a sufficient number of characters to unambiguously correspond to a name entry." *Id.* at 14:5-15:10. 15 If the current data item does unambiguously correspond to one of the name entries in the suggestion list, the "YES" branch is followed to step **510**, in which the Auto-Complete utility **100** determines whether the associated completion entry includes at least a minimum number of characters more than the current data item. The minimum number of additional characters for step **510** is preferably a user-definable parameter with a default value of three. If the completion entry does not include at least a minimum number of characters more than the current data item, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the completion entry does include at least a minimum number of characters more than the current data item, the "YES" branch is followed to step **512**, in which the Auto-Complete utility **100** determines whether the current data item matches all capitalization and context limitations associated with the corresponding name-completion pair. If the current data item does not match all capitalization and context limitations associated with the corresponding name-completion pair, the "NO" branch is followed back to step **501**, in which the data file receives

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	another character. If the current data item does match all capitalization and context limitations associated with the corresponding name-completion pair, the "YES" branch is followed to step **514**, in which the Auto-Complete utility **100** displays the completion entry in the data file as a word completion suggestion for the current data item. Step **514** is followed by step **516**, in which the Auto-Complete utility **100** determines whether a completion command, such as the "tab" key or the "enter" key, is received as the next user input. The completion command indicates acceptance of the suggested word completion. If the completion command is not received as the next user input, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the completion command is received as the next user input, the "YES" branch is followed to step **518**, in which the Auto-Complete utility **100** replaces the current data with the completion entry from the corresponding name-completion pair and discontinues the display of the word completion suggestion. Step **518** is followed by routine **520**, in which the Auto-Complete utility **100** implements ending space management. Routine **520** is described below with reference to FIG. **6**. Routine **520** is followed by the "END" step **522**, which returns to step **501**, in which the data file receives another character. Thus, routine **500** may continue while the user enters text into the data file. FIG. 6 is a logic flow diagram illustrating routine **520** for ending space management. Routine **520** follows step **518**, shown on FIG. **5**. In step **602**, the Auto-Complete utility **100** determines whether the next character received by the data file is a delimiter character. If the next character received by the data file is a delimiter character, the "YES" branch is followed to step **604**, in which the Auto-Complete utility **100** allows the delimiter character to be added directly after the completion entry. If the next character received by the data file is not a delimiter character, such as a space character or punctuation mark, the "NO" branch is followed to step **606**, in which the Auto-Complete utility **100** adds a space character between the completion entry and the next character. Steps **604** and **606** are followed by the "END" step **608**, which returns to step **522** shown on FIG. **5**. FIG. 7 is a logic flow diagram illustrating routine **700** for including a user-defined name-completion pair in a word completion suggestion list. In step **702**, the Auto-Complete utility **100** receives a predefined command, such as "Alt-F3" or another predefined keystroke or keystroke combination, for activating a word completion user interface while a data file is active. In step **704**, the Auto-Complete utility **100** causes the word

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	completion user interface to be displayed on the monitor **47**. In step **706**, the Auto-Complete utility **100** determines whether a set of characters is selected in the data file. If a set of characters is not selected in the data file, the "NO" branch is followed to step **708**, in which the word completion user interface is shown with blank name and completion entries. If a set of characters is selected in the data file, the "YES" branch is followed from step **706** to step **710**, in which the name entry and the completion entry of the word completion user interface are shown with the selected set of characters entered. To illustrate, if the data entry "Save the Whales Symposium" is selected in the data file, "Save the Whales Symposium" is automatically entered as both the name entry and the completion entry of a new name, completion pair in the word completion user interface. This facilitates creating name-completion pairs in which the name and completion entries are the same. This type of name-completion pair is particularly useful because the first few letters of a long word or phrase may be used to trigger the entire word or phrase as the suggested completion. Steps **708** and **710** and followed by step **712**, in which the Auto-Complete utility **100** may receive user input within the word completion user interface to complete or alter name and completion entries, select suggestion lists, define capitalization and context limitations, and access other functionality provided by the word completion user interface. In step **714**, the Auto-Complete utility **100** determines whether a dismiss command, such as an "OK" or "Cancel" command, has been received. If a dismiss command has not been received, the "NO" branch is followed back to step **712**, in which the Auto-Complete utility **100** receives additional user input within the word completion user interface. If a dismiss command has been received, the "YES" branch is followed from step **714** to step **716**, in which the Auto-Complete utility **100** saves the data entered into the word completion user interface, as appropriate. Step **716** is followed by step **718**, in which the Auto-Complete utility **100** discontinues the display of the word completion user interface. Step **718** is followed by the "END" step, which returns the user to the data file that was active when the word completion user interface was invoked in step **702**. In view of the foregoing, it will be appreciated that the present invention provides a word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file. Although complete words are phrases are the suggested

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	word completions in the examples described above, the invention may also be used to insert other types of data may into a data file, such as foreign language words and phrases, hypertext links, graphics, video data, sound data, and so forth. It should be understood that the foregoing relates only to the exemplary embodiments of the present invention, and that numerous changes may be made therein without departing from the spirit and scope of the invention as defined by the following claims." *Id.* at 15:23-17:18. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 1, 9, and 18.
displaying the document electronically using the first computer program;	Hachamovitch discloses this element. See, e.g.: Claim 1 disclosures. "A word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file. The word completion system applies prediction criteria to avoid annoying the user by displaying an excessive number of wrong suggestions. Suggested word completions, which may change as the user types a partial data entry, are displayed in a non-disruptive manner and selected using traditional acceptance keystrokes, such as the "tab" key or the "enter" key. The word completion system may be deployed on an individual application program basis or on a application-independent basis. Because different word suggestion lists may be appropriate for different application programs, and for different data files created with the same application program, the word completion system allows the user to select one or more suggestion lists for use with each data file. A user interface allows the user to customize each suggestion list on an on-going basis. Each suggestion list may contain dynamic word completions that are tied to dynamic parameters maintained by the computer system, such as the time, date, registered user, and so forth. Each suggestion list may also be tied to contextual information, such as structured data fields or context labels assigned manually or by a document-creation aid known as a "wizard." Hachamovitch at Abstract. "This invention relates generally to the field of data entry systems and, more particularly, to automated word completion systems for operating with unstructured data files, such as word processing documents and e-mail messages." *Id.* at 1:5-8.

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	"The present invention is a word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file, such as the body of a word processing document or email message." *Id.* at 4:10-13. "The word completion system may be deployed on an individual application program basis or on an application-independent basis. Application independence is the ability of the same word completion system to work with several different application programs, such as a word processing program, an e-mail program, a spreadsheet program, and so forth. Because different word suggestion lists may be appropriate for different application programs, and for different data files within the same application program, the word completion system allows the user to select one or more suggestion lists for use with each data file. In addition, the individual entries of a word completion list may be limited so that they are only used in certain context-based situations. These context-based limitations effectively allow each word completion list to be subdivided into a group of context-sensitive lists." *Id.* at 4:21-36. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Hachamovitch discloses this element. See, e.g.: Claim 1 disclosures. "In MRU word prediction systems, an input character may be analyzed, with respect to the prior history of text entered, to predict the text likely to follow the input character or string of characters." Hachamovitch at 2:26-29. "The word completion utility monitors data entry into a data file associated with a program module running on the computer system." *Id.* at 4:55-58. "The word completion utility may then receive a command indicating acceptance of the completion entry. In response, the word completion utility replaces the partial data entry with the completion entry in the data file. The word completion utility may then identify a character immediately following the command indicating acceptance of the

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	completion entry. In response, the word completion utility determines whether the character is a delimiter character. If the character is a not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character." *Id.* at 5:7-17. "The word completion utility determines whether the character is a delimiter character and, if the character is a not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character." *Id.* at 7:13-17. "FIG. 5 is a logic flow diagram illustrating a routine **500** for operating the Auto-Complete utility **100**, which is configured to monitor the entry of data into a current file, such as a word processing or e-mail file. In step **501**, the Auto-Complete utility **100** determines whether there a completion entry is currently displayed. If a completion entry is currently displayed, the "YES" branch is followed to step **502**, in which the display is discontinued. Step **502** and the "NO" branch from step **501** are followed by step **503**, in which the Auto-Complete utility **100** receives a character. The purpose of steps **501** and **502** is to update the suggested word completion while the user changes the partial data entry. For example, after the user types "Jun" the suggested word completion may be "June 26, 1997." If the user then types an "i" so that the partial data entry is "Juni," the suggested word completion "June 26, 1997" will be discontinued and a new suggested word completion, "Juniper" for instance, may be displayed. Preferably, the suggested word completion does not blink or flash if the user inputs a letter that is consistent with the previously displayed suggestion. To illustrate this using the previous example, the suggestion "June 26, 1997" preferably does not blink if the user follows the partial data entry "Jun" by typing the letter "e." In step **503**, the current file receives a character, typically a keyboard or other text entry. In the following steps **504-512**, the Auto-Complete utility **100** applies prediction criteria to determine whether to display a word completion suggestion for the current data item. The Auto-Complete utility **100** applies the prediction criteria to avoid annoying the user by displaying an excessive number of wrong suggestions. For this purpose, the current data item may be a partial data entry including the characters received since the last delimiter character, including the character received in step **504**. A delimiter character is a character that signifies the end of a word, such as a space character or punctuation mark.

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	In step **504**, the Auto-Complete utility **100** determines whether a minimum number of characters has been entered since the last delimiter character. That is, the Auto-Complete utility **100** determines whether the current data item includes at least a minimum number of characters. The minimum number of characters for step **504** is preferably a user-definable parameter with a default value of three. If the minimum number of characters has not been entered since the last delimiter character, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the minimum number of characters has been entered since the last delimiter character, the "YES" branch is followed to step **506**, in which the Auto-Complete utility **100** compares the current data item to the name entries of name-completion pairs in a selected suggestion list. In step **508**, the AutoComplete utility **100** determines whether the current data item unambiguously corresponds to one of the name entries in the suggestion list. That is, rather than selecting a best guess from a set of ambiguously-identified name entries, the Auto-Complete utility **100** waits until the current data item includes a sufficient number of characters to unambiguously correspond to a name entry." *Id.* at 14:18-65. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 11, 14, and 15.
retrieving the first information;	Hachamovitch discloses this element. See, e.g.: Claim 1 disclosures. "The word completion utility monitors data entry into a data file associated with a program module running on the computer system. The word completion utility identifies a partial data entry in an unstructured portion of the data file, such as the body of a word processing document or e-mail message." Hachamovitch at 4:55-60. "The word completion utility may then identify a character immediately following the command indicating acceptance of the completion entry." *Id.* at 5:10-13. "As the user types text into the unstructured area 202, the Auto-Complete utility 100 identifies a partial data entry 204, which is defined as a contiguous set of characters following a word boundary, such as a delimiter character." *Id.* at 10:27-31.

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	"In step 503, the current file receives a character, typically a keyboard or other text entry." *Id.* at 14:42-43. "If the minimum number of characters has not been entered since the last delimiter character, the "NO" branch is followed back to step 501, in which the data file receives another character." *Id.* at 14:61-65.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Hachamovitch discloses this element. See, e.g.: Claim 1 disclosures. "Generally stated, the invention is a computer-readable medium having computer-executable instructions for running a word completion utility on a computer system. The word completion utility monitors data entry into a data file associated with a program module running on the computer system. The word completion utility identifies a partial data entry in an unstructured portion of the data file, such as the body of a word processing document or e-mail message. The word completion utility selects a suggestion list including a plurality of associated name-completion pairs, each name-completion pair including a name entry and a completion entry. The word completion utility identifies a particular one of the name entries in the suggestion list that corresponds to the partial data entry. The word completion utility then applies prediction criteria to the particular name entry, the particular completion entry, and the partial data entry. If the prediction criteria are met, the word completion utility displays the associated completion entry as a word completion suggestion for the partial data entry. Advantageously, the suggestion list, as well as name-completion pairs within the suggestion list, may be specified by the user. The word completion utility may then receive a command indicating acceptance of the completion entry. In response, the word completion utility replaces the partial data entry with the completion entry in the data file. The word completion utility may then identify a character immediately following the command indicating acceptance of the completion entry. In response, the word completion utility determines whether the character is a delimiter character. If the character is a not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character. According to an aspect of the invention, a suggestion list may limited to name-completion pairs in which the completion entries have a predefined property, such as initial letter capitalized, all letters capitalized, occurring

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	at the start of a paragraph, occurring at the end of a paragraph, and so forth. In addition, the partial data entry may be received in a portion of the data file that has been assigned a context label. In this case, a particular suggestion list may be associated with the context label. For example, a document-creation aid known as a "wizard" may assign paragraph style labels to the various paragraphs in a business letter. Thus, the greeting paragraph may be assigned a "greeting" context label, the body paragraphs may be assigned a "body" context label, and the complimentary closing paragraph may be assigned a "complimentary closing" context label. This allows the suggestion list for the complimentary closing paragraph, for instance, to be limited to a relatively small set of conventional complimentary closing phrases, such as "Sincerely yours," "Very truly yours," "Cordially yours," and the like. According to another aspect of the invention, the completion entry may be tied to a dynamic parameter maintained by the computer system, such as the current date, the current time, or the registered user of the computer system. This allows a current date name entry, for example, to be tied to the computer system's clock. Thus, the current date, "June 26, 1997," for instance, may be automatically suggested whenever the user enters the first few letters of the corresponding month, "Jun" in this case. According to yet another aspect of the invention, the prediction criteria includes a first condition that the partial data entry include a certain number of characters. The prediction criteria may also include a second condition that the completion entry include a certain number of characters more than the partial data entry. The prediction criteria may further include a third condition that the partial data entry unambiguously correspond to the particular name entry with respect to all of the name entries in the suggestion list. The prediction criteria increases the likelihood that each word completion suggestion will be correct, which avoids annoying the user with an excessive number of wrong suggestions." *Id.* at 4:53-5:57. "FIG. 2A illustrates a graphical user interface **200** for a data file including a word completion suggestion in which the completion entry of a name-completion pair is tied to a dynamic system parameter. The graphical user interface **200** includes an unstructured area **202** into which the user may enter free text using the keyboard **40** or another suitable text entry device. For example, the unstructured area **202** may be the body portion of an e-mail message, the input area of a word processing document, the notes area of a personal calendar file, etc. As the user types text into the unstructured area **202**, the Auto-Complete utility **100** identifies a partial data entry **204**, which is defined as a

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	contiguous set of characters following a word boundary, such as a delimiter character. The host application program causes the partial data entry to be displayed in the usual manner, and the Auto-Complete utility **100** causes a completion suggestion **206** to be displayed in association with the partial data entry in a non-disruptive word completion field, such as a pop-up word completion frame **208** that appears directly above the partial data entry. As discussed in more detail with reference to FIG. 3 below, the word completion suggestion **206** is identified by comparing the partial data entry **204** to the name entries in a suggestion list that includes a group of name-completion pairs. If the partial data entry **204** corresponds to the name entry of a name-completion pair within certain prediction criteria, the completion entry of the name-completion pair is displayed as the completion suggestion **206** in the word completion frame **208**. The completion suggestion **206** is displayed in vertical alignment with the partial data entry **204**. This makes it easy for the user to compare the completion suggestion **206** to the partial data entry **204**. If the completion suggestion **206** is too long to display directly above the partial data entry **204**, it is truncated with ellipses (i.e., . . .) so that the completion suggestion **206** and the partial data entry **204** are still displayed in vertical alignment. The user accepts a suggestion using a traditional acceptance keystroke, such as the "tab" key or the "enter" key. In the example illustrated in FIG. 2A, the completion suggestion **206** is tied to a dynamic system parameter. Specifically, the completion suggestion **206** is the current date, shown as "June 26, 1997," which is tied to the computer system's clock. This allows the complete current date to be automatically suggested whenever the user enters the first few letters of the corresponding month, "Jun" in the example illustrated in FIG. **2**A. Other completion suggestions may be tied to other dynamic system parameters, such as the time, the registered user's name, the registered user's business address, a logged-in user's name, a list of recent applications or documents, a most-recently-used (MRU) text buffer, an MRU e-mail address buffer, the computer's file directory, etc. FIG. 2B illustrates a completion suggestion **206′** selected from a suggestion list that is limited to name-completion pairs in which the completion entries have a predefined property, such as initial letter capitalized, all letters capitalized, occurring at the start of a paragraph, occurring at the end of a paragraph, and so forth. In this example, the word completion "Microsoft Corporation" is only suggested when the partial data entry begins with the "M" capitalized. Thus, the Auto-Complete utility **100** does not suggest "Microsoft Corporation"

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	when the user types "mic" on the way to typing "microphone" or "microcomputer." FIG. 2C illustrates a word completion suggestion **206″** selected from a suggestion list in which the name-completion pairs are limited to contextual information. In this example, the suggestion list is limited to name-completion pairs that are tied to context labels assigned by a document-creation aid known as a "letter wizard" that assigns paragraph style labels to the various paragraphs in a business letter. Thus, the greeting paragraph may be assigned a "greeting" context label, the body paragraphs may be assigned a "body" context label, and the complimentary closing paragraph may be assigned a "complimentary closing" context label. This allows the suggestion list for the complimentary closing paragraph, as shown in FIG. 2C, to be limited to a relatively small set of conventional complimentary closing phrases, such as "Sincerely yours," "Very truly yours," "Cordially yours," and the like. Each suggestion list may also be limited to name-completion pairs that are tied to other types of contextual information, such as structured data fields. For example, an e-mail address book may be used as the suggestion list when a user is typing within a structured address frame of an e-mail user interface. FIG. 3 is a diagram illustrating a word completion suggestion list **300** with context-based and capitalization-based suggestion limitations. Each item in the suggestion list **300** includes a name entry **302** that is associated with a completion entry **304**, thus forming a name-completion pair. The name entry **302** is compared against a partial data entry, which may have been entered by a user into a structured field or into an unstructured area of a data file. As noted previously, if the name entry **302** corresponds to the partial data entry within certain prediction criteria, the completion entry **304** associated with the name entry **302** is displayed as a completion suggestion for the partial data entry within the data file. The user may then accept the completion suggestion by entering a familiar data acceptance keystroke, such as the "tab" key or the "enter" key. As shown in FIG. 3, each name-completion pair **302-304** may be associated with a context limitation **306** and/or a capitalization limitation **308**. Within a data file, a partial data entry may be assigned a context. The context limitation **306** is used to denote a contextual limitation to allow each suggestion list to be limited to name-completion pairs **302-304** that are tied to contextual information. As noted previously, these contextual limitations may correspond to structured data fields in the data file, such as an e-mail address book when a user is typing within a structured address frame of an e-mail user interface. The suggestion list

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	may also be limited to name-completion pairs **302-304** that are tied to context labels, such as those assigned by a document-creation aid that assigns paragraph style labels to the various paragraphs in a business letter." *Id.* at 10:18-11:65. "The series FIGS. 4A-C shows an example illustrating a procedure for including a user-defined name-completion pair in a word completion suggestion list. In this example, the data entry "Symposium" is entered as the name entry and the data entry "Save the Whales Symposium" is entered as the completion entry of a name-completion pair. Creating this name-completion pair allows the user the type "Symposium" as a short-hand data entry that triggers the display "Save the Whales Symposium" as a completion suggestion. This example illustrates how the Auto-Complete utility **100** may be used as a user-defined keyboard accelerator. FIG. 4A is a diagram illustrating a "Save the Whales Symposium" data entry **402**, which a user has typed into an unrestricted area in a data file. The user then selects the data entry **402**, as indicated by the selection indicator **404**. Although the selection indicator **404** is shown as a box in FIG. 4A, selected text is typically indicated by inverting the visual display (e.g., if the document includes black text on a white background, the selected text is shown as white text on a black background). To use the data entry **402** in a name-completion pair for a word completion suggestion list, the user activates a user interface for the Auto-Complete utility **100**, typically by entering "Alt-F3" or another predefined keystroke or keystroke combination., or by selecting a predefined user-interface control item This command causes a pop-up word completion user interface **406** to be displayed. FIG. 4B is a diagram illustrating the word completion user interface **406**, which is used to include the selected data entry **402** in a suggestion list. The word completion user interface **406** is typically one of several "AutoCorrect" user interfaces. The user selects the "Auto-Complete" selection tab **408** to invoke the word completion user interface **406**. The user may invoke other Auto-Complete user interfaces, for example, by selecting the "Other Function 1" selection tab **410** or the "Other Function 2" selection tab **411**. The selection tabs **408**, **410**, **411** are conveniently depicted as tabs on file folders to simulate a familiar file folder system. The word completion user interface **406** includes a name entry item **412**, which displays a scrollable list **413** of the name entries of a suggestion list. The user may use a scroll bar **414** to scroll through the list **413**. The selected data entry **402**, "Save the Whales Symposium," is automatically

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	entered into the name entry list **413**, in which it appears as the selected name entry, as indicated by the selection indicator **416**. The selected name entry also automatically appears in a name entry edit box **417** as a selected name entry **418**. In our example, the user has changed the selected name **418** entry from "Save the Whales Symposium" to "Symposium" in order to create the desired name-completion pair by modifying the contents of the name entry edit box **417**. The word completion user interface **406** also includes a completion entry edit box **419**, which displays a selected completion entry **420** associated with the selected name entry **418** (i.e., the completion entry associated with the name entry item **412** indicated by the selection indicator **416**). The selected data entry **402**, "Save the Whales Symposium," is also automatically entered into a completion entry edit box **419** as the selected completion entry **420**. Thus, the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") is ready to be saved in a selected suggestion list. Of course, the user may also edit the completion entry **420** by modifying the contents of the completion entry edit box **419**, if desired. The word completion user interface **406** also includes a an item, the suggestion list field **422**, that allows the user to select different suggestion lists (i.e., different lists of name-completion pairs) or to create new suggestion lists. The suggestion list field **422** displays a selected suggestion list **424**. The user may scroll through a number of suggestion lists or create a new suggestion list for the desired name-completion pair using the suggestion list field **422**. The user may also scroll through the suggestion list field **422** to select one or more suggestion lists to be used to generate word completion suggestions as the user enters data into a particular data file (i.e., the data file the was active when the user word completion user interface **406** was invoked). For our example, the user has selected a suggestion list entitled "Custom Directory" as the list for the "Symposium, Save the Whales Symposium" name-completion pair. When a new suggestion list selected in the suggestion list field **422**, the contents of the selected list appears in the scroll list **413**. This allows the user to browse through the contents of the various suggestion lists. The word completion user interface **406** also includes an "Add" button **426**, which is used in our example to add the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") into the selected suggestion list (i.e., "Custom Directory"). A "Delete" button **428** may be selected to delete a selected name-completion pair from a selected suggestion list. In addition, a "Commands Bar" button **430** may be selected to invoke other functions of the user interface **406**, such as capitalization and context limitation."

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	Id. at 12:26-13:53. "FIG. 4C is a diagram illustrating use of the "Symposium, Save the Whales Symposium" name-completion pair after it has been included in the "Custom Directory" suggestion list. As the user types a partial data entry **440** corresponding to the name entry, initially capitalized "Sym" for our example, the associated completion entry **442**, "Save the Whales Symposium" for our example, is automatically displayed in the word completion frame **444**. The user may then accept the word completion suggestion **442** by entering a traditional acceptance keystroke, such as the "tab" key or the "enter" key. In this case, the partial data entry **440** "Sym" is replaced by the completion entry **442** "Save the Whales Symposium," and the word completion frame **444** is discontinued. FIG. 5 is a logic flow diagram illustrating a routine **500** for operating the Auto-Complete utility **100**, which is configured to monitor the entry of data into a current file, such as a word processing or e-mail file. In step **501**, the Auto-Complete utility **100** determines whether there a completion entry is currently displayed. If a completion entry is currently displayed, the "YES" branch is followed to step **502**, in which the display is discontinued. Step **502** and the "NO" branch from step **501** are followed by step **503**, in which the Auto-Complete utility **100** receives a character. The purpose of steps **501** and **502** is to update the suggested word completion while the user changes the partial data entry. For example, after the user types "Jun" the suggested word completion may be "June 26, 1997." If the user then types an "i" so that the partial data entry is "Juni," the suggested word completion "June 26, 1997" will be discontinued and a new suggested word completion, "Juniper" for instance, may be displayed. Preferably, the suggested word completion does not blink or flash if the user inputs a letter that is consistent with the previously displayed suggestion. To illustrate this using the previous example, the suggestion "June 26, 1997" preferably does not blink if the user follows the partial data entry "Jun" by typing the letter "e." In step **503**, the current file receives a character, typically a keyboard or other text entry. In the following steps **504-512**, the Auto-Complete utility **100** applies prediction criteria to determine whether to display a word completion suggestion for the current data item. The Auto-Complete utility **100** applies the prediction criteria to avoid annoying the user by displaying an excessive number of wrong suggestions. For this purpose, the current data item may be a partial data entry including the characters received since the last delimiter character, including the character received in step **504**. A delimiter character is a character that signifies the end of a word, such as a space character or punctuation mark.

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	In step **504**, the Auto-Complete utility **100** determines whether a minimum number of characters has been entered since the last delimiter character. That is, the Auto-Complete utility **100** determines whether the current data item includes at least a minimum number of characters. The minimum number of characters for step **504** is preferably a user-definable parameter with a default value of three. If the minimum number of characters has not been entered since the last delimiter character, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the minimum number of characters has been entered since the last delimiter character, the "YES" branch is followed to step **506**, in which the Auto-Complete utility **100** compares the current data item to the name entries of name-completion pairs in a selected suggestion list. In step **508**, the AutoComplete utility **100** determines whether the current data item unambiguously corresponds to one of the name entries in the suggestion list. That is, rather than selecting a best guess from a set of ambiguously-identified name entries, the Auto-Complete utility **100** waits until the current data item includes a sufficient number of characters to unambiguously correspond to a name entry." *Id.* at 14:5-15:10. "If the current data item does not unambiguously correspond to one of the name entries in the suggestion list, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the current data item does unambiguously correspond to one of the name entries in the suggestion list, the "YES" branch is followed to step **510**, in which the Auto-Complete utility **100** determines whether the associated completion entry includes at least a minimum number of characters more than the current data item. The minimum number of additional characters for step **510** is preferably a user-definable parameter with a default value of three. If the completion entry does not include at least a minimum number of characters more than the current data item, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the completion entry does include at least a minimum number of characters more than the current data item, the "YES" branch is followed to step **512**, in which the Auto-Complete utility **100** determines whether the current data item matches all capitalization and context limitations associated with the corresponding name-completion pair. If the current data item does not match all capitalization and context limitations associated with the corresponding name-completion pair, the

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	"NO" branch is followed back to step **501**, in which the data file receives another character. If the current data item does match all capitalization and context limitations associated with the corresponding name-completion pair, the "YES" branch is followed to step **514**, in which the Auto-Complete utility **100** displays the completion entry in the data file as a word completion suggestion for the current data item. Step **514** is followed by step **516**, in which the Auto-Complete utility **100** determines whether a completion command, such as the "tab" key or the "enter" key, is received as the next user input. The completion command indicates acceptance of the suggested word completion. If the completion command is not received as the next user input, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the completion command is received as the next user input, the "YES" branch is followed to step **518**, in which the Auto-Complete utility **100** replaces the current data with the completion entry from the corresponding name-completion pair and discontinues the display of the word completion suggestion. Step **518** is followed by routine **520**, in which the Auto-Complete utility **100** implements ending space management. Routine **520** is described below with reference to FIG. **6**. Routine **520** is followed by the "END" step **522**, which returns to step **501**, in which the data file receives another character. Thus, routine **500** may continue while the user enters text into the data file. FIG. 6 is a logic flow diagram illustrating routine **520** for ending space management. Routine **520** follows step **518**, shown on FIG. **5**. In step **602**, the Auto-Complete utility **100** determines whether the next character received by the data file is a delimiter character. If the next character received by the data file is a delimiter character, the "YES" branch is followed to step **604**, in which the Auto-Complete utility **100** allows the delimiter character to be added directly after the completion entry. If the next character received by the data file is not a delimiter character, such as a space character or punctuation mark, the "NO" branch is followed to step **606**, in which the Auto-Complete utility **100** adds a space character between the completion entry and the next character. Steps **604** and **606** are followed by the "END" step **608**, which returns to step **522** shown on FIG. **5**. FIG. 7 is a logic flow diagram illustrating routine **700** for including a user-defined name-completion pair in a word completion suggestion list. In step **702**, the Auto-Complete utility **100** receives a predefined command, such as "Alt-F3" or another predefined keystroke or keystroke combination, for activating a word completion user interface while a data

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	file is active. In step **704**, the Auto-Complete utility **100** causes the word completion user interface to be displayed on the monitor **47**. In step **706**, the Auto-Complete utility **100** determines whether a set of characters is selected in the data file. If a set of characters is not selected in the data file, the "NO" branch is followed to step **708**, in which the word completion user interface is shown with blank name and completion entries. If a set of characters is selected in the data file, the "YES" branch is followed from step **706** to step **710**, in which the name entry and the completion entry of the word completion user interface are shown with the selected set of characters entered. To illustrate, if the data entry "Save the Whales Symposium" is selected in the data file, "Save the Whales Symposium" is automatically entered as both the name entry and the completion entry of a new name, completion pair in the word completion user interface. This facilitates creating name-completion pairs in which the name and completion entries are the same. This type of name-completion pair is particularly useful because the first few letters of a long word or phrase may be used to trigger the entire word or phrase as the suggested completion. Steps **708** and **710** and followed by step **712**, in which the Auto-Complete utility **100** may receive user input within the word completion user interface to complete or alter name and completion entries, select suggestion lists, define capitalization and context limitations, and access other functionality provided by the word completion user interface. In step **714**, the Auto-Complete utility **100** determines whether a dismiss command, such as an "OK" or "Cancel" command, has been received. If a dismiss command has not been received, the "NO" branch is followed back to step **712**, in which the Auto-Complete utility **100** receives additional user input within the word completion user interface. If a dismiss command has been received, the "YES" branch is followed from step **714** to step **716**, in which the Auto-Complete utility **100** saves the data entered into the word completion user interface, as appropriate. Step **716** is followed by step **718**, in which the Auto-Complete utility **100** discontinues the display of the word completion user interface. Step **718** is followed by the "END" step, which returns the user to the data file that was active when the word completion user interface was invoked in step **702**. In view of the foregoing, it will be appreciated that the present invention provides a word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file. Although complete words are phrases are the suggested

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	word completions in the examples described above, the invention may also be used to insert other types of data may into a data file, such as foreign language words and phrases, hypertext links, graphics, video data, sound data, and so forth. It should be understood that the foregoing relates only to the exemplary embodiments of the present invention, and that numerous changes may be made therein without departing from the spirit and scope of the invention as defined by the following claims." *Id.* at 15:23-17:18. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 6, 8, 9, 11, 12, 14, 19, and 20.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Hachamovitch discloses this element. See, e.g.: Claim 1 disclosures. "The word completion utility selects a suggestion list including a plurality of associated name-completion pairs, each name-completion pair including a name entry and a completion entry. The word completion utility identifies a particular one of the name entries in the suggestion list that corresponds to the partial data entry. The word completion utility then applies the prediction criteria to the particular name entry, the particular completion entry, and the partial data entry." Hachamovitch at 4:60-5:1. "As discussed in more detail with reference to FIG. 3 below, the word completion suggestion 206 is identified by comparing the partial data entry 204 to the name entries in a suggestion list that includes a group of name-completion pairs." *Id.* at 10:38-42. "If the minimum number of characters has been entered since the last delimiter character, the "YES" branch is followed to step 506, in which the Auto-Complete utility 100 compares the current data item to the name entries of name-completion pairs in a selected suggestion list. In step 508, the AutoComplete utility 100 determines whether the current data item unambiguously corresponds to one of the name entries in the suggestion list." *Id.* at 14:66-15:6. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 10, and 19.
if searching finds any second information related to the search	Hachamovitch discloses this element.

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term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	See, e.g.: Claim 1 disclosures. "A word completion user interface allows the user to customize each suggestion list with user-defined name-completion pairs on an on-going basis. Each suggestion list may also contain certain word completions that are tied to dynamic parameters maintained by the computer system, such as the time, date, registered user, etc. Each suggestion list may also be limited to name-completion pairs in which the completion entries have a predefined property, such as initial letter capitalized, all letters capitalized, occurring at the start of a paragraph, occurring at the end of a paragraph, and so forth. Each suggestion list may also be limited to name-completion pairs that are tied to contextual information, such as structured data fields or context labels assigned manually or by a document-creation aid known as a 'wizard.'" Hachamovitch at 4:38-52. "If the prediction criteria are met, the word completion utility displays the associated completion entry as a word completion suggestion for the partial data entry." *Id.* at 5:1-4. "In response, the word completion utility replaces the partial data entry with the completion entry in the data file." *Id.* at 5:8-10. "If the character is not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character." *Id.* at 5:14-17. "If the partial data entry 204 corresponds to the name entry of a name-completion pair within certain prediction criteria, the completion entry of the name-completion pair is displayed as the completion suggestion 206 in the word completion frame 208." *Id.* at 42-46. "The word completion user interface **406** also includes a completion entry edit box **419**, which displays a selected completion entry **420** associated with the selected name entry **418** (i.e., the completion entry associated with the name entry item **412** indicated by the selection indicator **416**). The selected data entry **402**, "Save the Whales Symposium," is also automatically entered into a completion entry edit box **419** as the selected completion entry **420**. Thus, the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") is ready to be saved in a selected suggestion list. Of course, the user may also edit the completion

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	entry **420** by modifying the contents of the completion entry edit box **419**, if desired." *Id.* at 13:11-23. "The word completion user interface **406** also includes an "Add" button **426**, which is used in our example to add the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") into the selected suggestion list (i.e., "Custom Directory"). A "Delete" button **428** may be selected to delete a selected name-completion pair from a selected suggestion list. In addition, a "Commands Bar" button **430** may be selected to invoke other functions of the user interface **406**, such as capitalization and context limitation." *Id.* at 13:44-53. "If the current data item does not unambiguously correspond to one of the name entries in the suggestion list, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the current data item does unambiguously correspond to one of the name entries in the suggestion list, the "YES" branch is followed to step **510**, in which the Auto-Complete utility **100** determines whether the associated completion entry includes at least a minimum number of characters more than the current data item. The minimum number of additional characters for step **510** is preferably a user-definable parameter with a default value of three. If the completion entry does not include at least a minimum number of characters more than the current data item, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the completion entry does include at least a minimum number of characters more than the current data item, the "YES" branch is followed to step **512**, in which the Auto-Complete utility **100** determines whether the current data item matches all capitalization and context limitations associated with the corresponding name-completion pair. If the current data item does not match all capitalization and context limitations associated with the corresponding name-completion pair, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the current data item does match all capitalization and context limitations associated with the corresponding name-completion pair, the "YES" branch is followed to step **514**, in which the Auto-Complete utility **100** displays the completion entry in the data file as a word completion suggestion for the current data item." *Id.* at 15:23-54. "If a set of characters is selected in the data file, the "YES" branch is followed from step **706** to step **710**, in which the name entry and the

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	completion entry of the word completion user interface are shown with the selected set of characters entered. To illustrate, if the data entry "Save the Whales Symposium" is selected in the data file, "Save the Whales Symposium" is automatically entered as both the name entry and the completion entry of a new name, completion pair in the word completion user interface. This facilitates creating name-completion pairs in which the name and completion entries are the same. This type of name-completion pair is particularly useful because the first few letters of a long word or phrase may be used to trigger the entire word or phrase as the suggested completion." *Id.* at 16:37-50. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 12 and 17.
Claim 8	
A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.	Hachamovitch discloses claim 1. *See* claim 1 above. Hachamovitch further discloses this element. See, e.g.: Claim 1 disclosures. "The word completion user interface **406** also includes an "Add" button **426**, which is used in our example to add the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") into the selected suggestion list (i.e., "Custom Directory"). A "Delete" button **428** may be selected to delete a selected name-completion pair from a selected suggestion list. In addition, a "Commands Bar" button **430** may be selected to invoke other functions of the user interface **406**, such as capitalization and context limitation." Hachamovitch at 13:44-53. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 4, 5, and 17.
Claim 13	
A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.	Hachamovitch discloses claim 1. *See* claim 1 above. Hachamovitch further discloses this element. See, e.g.: Claim 1 disclosures.

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	"Generally stated, the invention is a computer-readable medium having computer-executable instructions for running a word completion utility on a computer system. The word completion utility monitors data entry into a data file associated with a program module running on the computer system. The word completion utility identifies a partial data entry in an unstructured portion of the data file, such as the body of a word processing document or e-mail message. The word completion utility selects a suggestion list including a plurality of associated name-completion pairs, each name-completion pair including a name entry and a completion entry. The word completion utility identifies a particular one of the name entries in the suggestion list that corresponds to the partial data entry. The word completion utility then applies prediction criteria to the particular name entry, the particular completion entry, and the partial data entry. If the prediction criteria are met, the word completion utility displays the associated completion entry as a word completion suggestion for the partial data entry. Advantageously, the suggestion list, as well as name-completion pairs within the suggestion list, may be specified by the user. The word completion utility may then receive a command indicating acceptance of the completion entry. In response, the word completion utility replaces the partial data entry with the completion entry in the data file. The word completion utility may then identify a character immediately following the command indicating acceptance of the completion entry. In response, the word completion utility determines whether the character is a delimiter character. If the character is a not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character. According to an aspect of the invention, a suggestion list may limited to name-completion pairs in which the completion entries have a predefined property, such as initial letter capitalized, all letters capitalized, occurring at the start of a paragraph, occurring at the end of a paragraph, and so forth. In addition, the partial data entry may be received in a portion of the data file that has been assigned a context label. In this case, a particular suggestion list may be associated with the context label. For example, a document-creation aid known as a "wizard" may assign paragraph style labels to the various paragraphs in a business letter. Thus, the greeting paragraph may be assigned a "greeting" context label, the body paragraphs may be assigned a "body" context label, and the complimentary closing paragraph may be assigned a "complimentary closing" context label. This allows the suggestion list for the complimentary closing paragraph, for instance, to be limited to a relatively small set of conventional complimentary closing phrases, such as "Sincerely yours," "Very truly yours," "Cordially yours," and the like.

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	According to another aspect of the invention, the completion entry may be tied to a dynamic parameter maintained by the computer system, such as the current date, the current time, or the registered user of the computer system. This allows a current date name entry, for example, to be tied to the computer system's clock. Thus, the current date, "June 26, 1997," for instance, may be automatically suggested whenever the user enters the first few letters of the corresponding month, "Jun" in this case. According to yet another aspect of the invention, the prediction criteria includes a first condition that the partial data entry include a certain number of characters. The prediction criteria may also include a second condition that the completion entry include a certain number of characters more than the partial data entry. The prediction criteria may further include a third condition that the partial data entry unambiguously correspond to the particular name entry with respect to all of the name entries in the suggestion list. The prediction criteria increases the likelihood that each word completion suggestion will be correct, which avoids annoying the user with an excessive number of wrong suggestions." *Id.* at 4:53-5:57. "FIG. 2A illustrates a graphical user interface **200** for a data file including a word completion suggestion in which the completion entry of a name-completion pair is tied to a dynamic system parameter. The graphical user interface **200** includes an unstructured area **202** into which the user may enter free text using the keyboard **40** or another suitable text entry device. For example, the unstructured area **202** may be the body portion of an e-mail message, the input area of a word processing document, the notes area of a personal calendar file, etc. As the user types text into the unstructured area **202**, the Auto-Complete utility **100** identifies a partial data entry **204**, which is defined as a contiguous set of characters following a word boundary, such as a delimiter character. The host application program causes the partial data entry to be displayed in the usual manner, and the Auto-Complete utility **100** causes a completion suggestion **206** to be displayed in association with the partial data entry in a non-disruptive word completion field, such as a pop-up word completion frame **208** that appears directly above the partial data entry. As discussed in more detail with reference to FIG. 3 below, the word completion suggestion **206** is identified by comparing the partial data entry **204** to the name entries in a suggestion list that includes a group of name-completion pairs. If the partial data entry **204** corresponds to the name entry of a name-completion pair within certain prediction criteria,

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	the completion entry of the name-completion pair is displayed as the completion suggestion **206** in the word completion frame **208**. The completion suggestion **206** is displayed in vertical alignment with the partial data entry **204**. This makes it easy for the user to compare the completion suggestion **206** to the partial data entry **204**. If the completion suggestion **206** is too long to display directly above the partial data entry **204**, it is truncated with ellipses (i.e., . . .) so that the completion suggestion **206** and the partial data entry **204** are still displayed in vertical alignment. The user accepts a suggestion using a traditional acceptance keystroke, such as the "tab" key or the "enter" key. In the example illustrated in FIG. 2A, the completion suggestion **206** is tied to a dynamic system parameter. Specifically, the completion suggestion **206** is the current date, shown as "June 26, 1997," which is tied to the computer system's clock. This allows the complete current date to be automatically suggested whenever the user enters the first few letters of the corresponding month, "Jun" in the example illustrated in FIG. **2**A. Other completion suggestions may be tied to other dynamic system parameters, such as the time, the registered user's name, the registered user's business address, a logged-in user's name, a list of recent applications or documents, a most-recently-used (MRU) text buffer, an MRU e-mail address buffer, the computer's file directory, etc. FIG. 2B illustrates a completion suggestion **206′** selected from a suggestion list that is limited to name-completion pairs in which the completion entries have a predefined property, such as initial letter capitalized, all letters capitalized, occurring at the start of a paragraph, occurring at the end of a paragraph, and so forth. In this example, the word completion "Microsoft Corporation" is only suggested when the partial data entry begins with the "M" capitalized. Thus, the Auto-Complete utility **100** does not suggest "Microsoft Corporation" when the user types "mic" on the way to typing "microphone" or "microcomputer." FIG. 2C illustrates a word completion suggestion **206″** selected from a suggestion list in which the name-completion pairs are limited to contextual information. In this example, the suggestion list is limited to name-completion pairs that are tied to context labels assigned by a document-creation aid known as a "letter wizard" that assigns paragraph style labels to the various paragraphs in a business letter. Thus, the greeting paragraph may be assigned a "greeting" context label, the body paragraphs may be assigned a "body" context label, and the complimentary closing paragraph may be assigned a "complimentary closing" context label. This allows the suggestion list for the

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	complimentary closing paragraph, as shown in FIG. 2C, to be limited to a relatively small set of conventional complimentary closing phrases, such as "Sincerely yours," "Very truly yours," "Cordially yours," and the like. Each suggestion list may also be limited to name-completion pairs that are tied to other types of contextual information, such as structured data fields. For example, an e-mail address book may be used as the suggestion list when a user is typing within a structured address frame of an e-mail user interface. FIG. 3 is a diagram illustrating a word completion suggestion list **300** with context-based and capitalization-based suggestion limitations. Each item in the suggestion list **300** includes a name entry **302** that is associated with a completion entry **304**, thus forming a name-completion pair. The name entry **302** is compared against a partial data entry, which may have been entered by a user into a structured field or into an unstructured area of a data file. As noted previously, if the name entry **302** corresponds to the partial data entry within certain prediction criteria, the completion entry **304** associated with the name entry **302** is displayed as a completion suggestion for the partial data entry within the data file. The user may then accept the completion suggestion by entering a familiar data acceptance keystroke, such as the "tab" key or the "enter" key. As shown in FIG. 3, each name-completion pair **302-304** may be associated with a context limitation **306** and/or a capitalization limitation **308**. Within a data file, a partial data entry may be assigned a context. The context limitation **306** is used to denote a contextual limitation to allow each suggestion list to be limited to name-completion pairs **302-304** that are tied to contextual information. As noted previously, these contextual limitations may correspond to structured data fields in the data file, such as an e-mail address book when a user is typing within a structured address frame of an e-mail user interface. The suggestion list may also be limited to name-completion pairs **302-304** that are tied to context labels, such as those assigned by a document-creation aid that assigns paragraph style labels to the various paragraphs in a business letter." *Id.* at 10:18-11:65. "The series FIGS. 4A-C shows an example illustrating a procedure for including a user-defined name-completion pair in a word completion suggestion list. In this example, the data entry "Symposium" is entered as the name entry and the data entry "Save the Whales Symposium" is entered as the completion entry of a name-completion pair. Creating this name-completion pair allows the user the type "Symposium" as a short-hand data entry that triggers the display "Save the Whales

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	Symposium" as a completion suggestion. This example illustrates how the Auto-Complete utility **100** may be used as a user-defined keyboard accelerator. FIG. 4A is a diagram illustrating a "Save the Whales Symposium" data entry **402**, which a user has typed into an unrestricted area in a data file. The user then selects the data entry **402**, as indicated by the selection indicator **404**. Although the selection indicator **404** is shown as a box in FIG. 4A, selected text is typically indicated by inverting the visual display (e.g., if the document includes black text on a white background, the selected text is shown as white text on a black background). To use the data entry **402** in a name-completion pair for a word completion suggestion list, the user activates a user interface for the Auto-Complete utility **100**, typically by entering "Alt-F3" or another predefined keystroke or keystroke combination., or by selecting a predefined user-interface control item This command causes a pop-up word completion user interface **406** to be displayed. FIG. 4B is a diagram illustrating the word completion user interface **406**, which is used to include the selected data entry **402** in a suggestion list. The word completion user interface **406** is typically one of several "AutoCorrect" user interfaces. The user selects the "Auto-Complete" selection tab **408** to invoke the word completion user interface **406**. The user may invoke other Auto-Complete user interfaces, for example, by selecting the "Other Function 1" selection tab **410** or the "Other Function 2" selection tab **411**. The selection tabs **408**, **410**, **411** are conveniently depicted as tabs on file folders to simulate a familiar file folder system. The word completion user interface **406** includes a name entry item **412**, which displays a scrollable list **413** of the name entries of a suggestion list. The user may use a scroll bar **414** to scroll through the list **413**. The selected data entry **402**, "Save the Whales Symposium," is automatically entered into the name entry list **413**, in which it appears as the selected name entry, as indicated by the selection indicator **416**. The selected name entry also automatically appears in a name entry edit box **417** as a selected name entry **418**. In our example, the user has changed the selected name **418** entry from "Save the Whales Symposium" to "Symposium" in order to create the desired name-completion pair by modifying the contents of the name entry edit box **417**. The word completion user interface **406** also includes a completion entry edit box **419**, which displays a selected completion entry **420** associated with the selected name entry **418** (i.e., the completion entry associated with the name entry item **412** indicated by the selection indicator **416**). The selected data entry **402**, "Save the Whales Symposium," is also

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	automatically entered into a completion entry edit box **419** as the selected completion entry **420**. Thus, the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") is ready to be saved in a selected suggestion list. Of course, the user may also edit the completion entry **420** by modifying the contents of the completion entry edit box **419**, if desired. The word completion user interface **406** also includes a an item, the suggestion list field **422**, that allows the user to select different suggestion lists (i.e., different lists of name-completion pairs) or to create new suggestion lists. The suggestion list field **422** displays a selected suggestion list **424**. The user may scroll through a number of suggestion lists or create a new suggestion list for the desired name-completion pair using the suggestion list field **422**. The user may also scroll through the suggestion list field **422** to select one or more suggestion lists to be used to generate word completion suggestions as the user enters data into a particular data file (i.e., the data file the was active when the user word completion user interface **406** was invoked). For our example, the user has selected a suggestion list entitled "Custom Directory" as the list for the "Symposium, Save the Whales Symposium" name-completion pair. When a new suggestion list selected in the suggestion list field **422**, the contents of the selected list appears in the scroll list **413**. This allows the user to browse through the contents of the various suggestion lists. The word completion user interface **406** also includes an "Add" button **426**, which is used in our example to add the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") into the selected suggestion list (i.e., "Custom Directory"). A "Delete" button **428** may be selected to delete a selected name-completion pair from a selected suggestion list. In addition, a "Commands Bar" button **430** may be selected to invoke other functions of the user interface **406**, such as capitalization and context limitation." *Id.* at 12:26-13:53. "FIG. 4C is a diagram illustrating use of the "Symposium, Save the Whales Symposium" name-completion pair after it has been included in the "Custom Directory" suggestion list. As the user types a partial data entry **440** corresponding to the name entry, initially capitalized "Sym" for our example, the associated completion entry **442**, "Save the Whales Symposium" for our example, is automatically displayed in the word completion frame **444**. The user may then accept the word completion suggestion **442** by entering a traditional acceptance keystroke, such as the "tab" key or the "enter" key. In this case, the partial data entry **440** "Sym" is replaced by the completion entry **442** "Save the Whales Symposium," and the word completion frame **444** is discontinued.

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	FIG. 5 is a logic flow diagram illustrating a routine **500** for operating the Auto-Complete utility **100**, which is configured to monitor the entry of data into a current file, such as a word processing or e-mail file. In step **501**, the Auto-Complete utility **100** determines whether there a completion entry is currently displayed. If a completion entry is currently displayed, the "YES" branch is followed to step **502**, in which the display is discontinued. Step **502** and the "NO" branch from step **501** are followed by step **503**, in which the Auto-Complete utility **100** receives a character. The purpose of steps **501** and **502** is to update the suggested word completion while the user changes the partial data entry. For example, after the user types "Jun" the suggested word completion may be "June 26, 1997." If the user then types an "i" so that the partial data entry is "Juni," the suggested word completion "June 26, 1997" will be discontinued and a new suggested word completion, "Juniper" for instance, may be displayed. Preferably, the suggested word completion does not blink or flash if the user inputs a letter that is consistent with the previously displayed suggestion. To illustrate this using the previous example, the suggestion "June 26, 1997" preferably does not blink if the user follows the partial data entry "Jun" by typing the letter "e." In step **503**, the current file receives a character, typically a keyboard or other text entry. In the following steps **504-512**, the Auto-Complete utility **100** applies prediction criteria to determine whether to display a word completion suggestion for the current data item. The Auto-Complete utility **100** applies the prediction criteria to avoid annoying the user by displaying an excessive number of wrong suggestions. For this purpose, the current data item may be a partial data entry including the characters received since the last delimiter character, including the character received in step **504**. A delimiter character is a character that signifies the end of a word, such as a space character or punctuation mark. In step **504**, the Auto-Complete utility **100** determines whether a minimum number of characters has been entered since the last delimiter character. That is, the Auto-Complete utility **100** determines whether the current data item includes at least a minimum number of characters. The minimum number of characters for step **504** is preferably a user-definable parameter with a default value of three. If the minimum number of characters has not been entered since the last delimiter character, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the minimum number of characters has been entered since the last delimiter character, the "YES" branch is followed to step **506**, in which

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	the Auto-Complete utility **100** compares the current data item to the name entries of name-completion pairs in a selected suggestion list. In step **508**, the AutoComplete utility **100** determines whether the current data item unambiguously corresponds to one of the name entries in the suggestion list. That is, rather than selecting a best guess from a set of ambiguously-identified name entries, the Auto-Complete utility **100** waits until the current data item includes a sufficient number of characters to unambiguously correspond to a name entry." *Id.* at 14:5-15:10. "If the current data item does not unambiguously correspond to one of the name entries in the suggestion list, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the current data item does unambiguously correspond to one of the name entries in the suggestion list, the "YES" branch is followed to step **510**, in which the Auto-Complete utility **100** determines whether the associated completion entry includes at least a minimum number of characters more than the current data item. The minimum number of additional characters for step **510** is preferably a user-definable parameter with a default value of three. If the completion entry does not include at least a minimum number of characters more than the current data item, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the completion entry does include at least a minimum number of characters more than the current data item, the "YES" branch is followed to step **512**, in which the Auto-Complete utility **100** determines whether the current data item matches all capitalization and context limitations associated with the corresponding name-completion pair. If the current data item does not match all capitalization and context limitations associated with the corresponding name-completion pair, the "NO" branch is followed back to step **501**, in which the data file receives another character. If the current data item does match all capitalization and context limitations associated with the corresponding name-completion pair, the "YES" branch is followed to step **514**, in which the Auto-Complete utility **100** displays the completion entry in the data file as a word completion suggestion for the current data item. Step **514** is followed by step **516**, in which the Auto-Complete utility **100** determines whether a completion command, such as the "tab" key or the "enter" key, is received as the next user input. The completion command indicates acceptance of the suggested word completion. If the completion command is not received as the next user input, the "NO" branch is followed back to step **501**, in which the data file receives

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	another character. If the completion command is received as the next user input, the "YES" branch is followed to step **518**, in which the Auto-Complete utility **100** replaces the current data with the completion entry from the corresponding name-completion pair and discontinues the display of the word completion suggestion. Step **518** is followed by routine **520**, in which the Auto-Complete utility **100** implements ending space management. Routine **520** is described below with reference to FIG. **6**. Routine **520** is followed by the "END" step **522**, which returns to step **501**, in which the data file receives another character. Thus, routine **500** may continue while the user enters text into the data file. FIG. 6 is a logic flow diagram illustrating routine **520** for ending space management. Routine **520** follows step **518**, shown on FIG. **5**. In step **602**, the Auto-Complete utility **100** determines whether the next character received by the data file is a delimiter character. If the next character received by the data file is a delimiter character, the "YES" branch is followed to step **604**, in which the Auto-Complete utility **100** allows the delimiter character to be added directly after the completion entry. If the next character received by the data file is not a delimiter character, such as a space character or punctuation mark, the "NO" branch is followed to step **606**, in which the Auto-Complete utility **100** adds a space character between the completion entry and the next character. Steps **604** and **606** are followed by the "END" step **608**, which returns to step **522** shown on FIG. **5**. FIG. 7 is a logic flow diagram illustrating routine **700** for including a user-defined name-completion pair in a word completion suggestion list. In step **702**, the Auto-Complete utility **100** receives a predefined command, such as "Alt-F3" or another predefined keystroke or keystroke combination, for activating a word completion user interface while a data file is active. In step **704**, the Auto-Complete utility **100** causes the word completion user interface to be displayed on the monitor **47**. In step **706**, the Auto-Complete utility **100** determines whether a set of characters is selected in the data file. If a set of characters is not selected in the data file, the "NO" branch is followed to step **708**, in which the word completion user interface is shown with blank name and completion entries. If a set of characters is selected in the data file, the "YES" branch is followed from step **706** to step **710**, in which the name entry and the completion entry of the word completion user interface are shown with the selected set of characters entered. To illustrate, if the data entry "Save the Whales Symposium" is selected in the data file, "Save the Whales Symposium" is automatically entered as both the name entry and the

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	completion entry of a new name, completion pair in the word completion user interface. This facilitates creating name-completion pairs in which the name and completion entries are the same. This type of name-completion pair is particularly useful because the first few letters of a long word or phrase may be used to trigger the entire word or phrase as the suggested completion. Steps **708** and **710** and followed by step **712**, in which the Auto-Complete utility **100** may receive user input within the word completion user interface to complete or alter name and completion entries, select suggestion lists, define capitalization and context limitations, and access other functionality provided by the word completion user interface. In step **714**, the Auto-Complete utility **100** determines whether a dismiss command, such as an "OK" or "Cancel" command, has been received. If a dismiss command has not been received, the "NO" branch is followed back to step **712**, in which the Auto-Complete utility **100** receives additional user input within the word completion user interface. If a dismiss command has been received, the "YES" branch is followed from step **714** to step **716**, in which the Auto-Complete utility **100** saves the data entered into the word completion user interface, as appropriate. Step **716** is followed by step **718**, in which the Auto-Complete utility **100** discontinues the display of the word completion user interface. Step **718** is followed by the "END" step, which returns the user to the data file that was active when the word completion user interface was invoked in step **702**. In view of the foregoing, it will be appreciated that the present invention provides a word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file. Although complete words are phrases are the suggested word completions in the examples described above, the invention may also be used to insert other types of data may into a data file, such as foreign language words and phrases, hypertext links, graphics, video data, sound data, and so forth. It should be understood that the foregoing relates only to the exemplary embodiments of the present invention, and that numerous changes may be made therein without departing from the spirit and scope of the invention as defined by the following claims." *Id.* at 15:23-17:18. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 2.
Claim 15	
A method according to claim 1,	Hachamovitch discloses claim 1. *See* claim 1 above.

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further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.	Hachamovitch further discloses this element. See, e.g.: Claim 1 disclosures. "The word completion user interface **406** also includes a completion entry edit box **419**, which displays a selected completion entry **420** associated with the selected name entry **418** (i.e., the completion entry associated with the name entry item **412** indicated by the selection indicator **416**). The selected data entry **402**, "Save the Whales Symposium," is also automatically entered into a completion entry edit box **419** as the selected completion entry **420**. Thus, the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") is ready to be saved in a selected suggestion list. Of course, the user may also edit the completion entry **420** by modifying the contents of the completion entry edit box **419**, if desired. The word completion user interface **406** also includes a an item, the suggestion list field **422**, that allows the user to select different suggestion lists (i.e., different lists of name-completion pairs) or to create new suggestion lists. The suggestion list field **422** displays a selected suggestion list **424**. The user may scroll through a number of suggestion lists or create a new suggestion list for the desired name-completion pair using the suggestion list field **422**. The user may also scroll through the suggestion list field **422** to select one or more suggestion lists to be used to generate word completion suggestions as the user enters data into a particular data file (i.e., the data file the was active when the user word completion user interface **406** was invoked). For our example, the user has selected a suggestion list entitled "Custom Directory" as the list for the "Symposium, Save the Whales Symposium" name-completion pair. When a new suggestion list selected in the suggestion list field **422**, the contents of the selected list appears in the scroll list **413**. This allows the user to browse through the contents of the various suggestion lists." Hachamovitch at 13:11-43. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 7, 17, and 20.
Claim 17	
A method according to claim 1, wherein the information source is associated with the second computer program and is available	Hachamovitch discloses claim 1. *See* claim 1 above. Hachamovitch further discloses this element.

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through the computer.	See, e.g.: Claim 1 disclosures. "According to another aspect of the invention, the completion entry may be tied to a dynamic parameter maintained by the computer system, such as the current date, the current time, or the registered user of the computer system. This allows a current date name entry, for example, to be tied to the computer system's clock. Thus, the current date, "June 26, 1997," for instance, may be automatically suggested whenever the user enters the first few letters of the corresponding month, "Jun" in this case." Hachamovitch at 5:37-45. "A pop-up word completion user interface allows the user to customize each suggestion list with user-defined name-completion pairs on an on-going basis. Each suggestion list may also contain certain word completions that are tied to dynamic parameters maintained by the computer system, such as the time, date, registered user, etc. For example, this allows a current date name entry to be tied to the computer system's clock. Thus, the current date, 'June 26, 1997,' for instance, may be automatically be suggested whenever the user enters the first few letters of the corresponding month—'Jun' in this case. In addition, the user may preferably suggest the format in which the data will be displayed, for example, 'June 26, 1997,' '26 June 1997,' or '9/26/97.' " *Id.* at 7:18-30. "In the example illustrated in FIG. 2A, the completion suggestion **206** is tied to a dynamic system parameter. Specifically, the completion suggestion **206** is the current date, shown as "June 26, 1997," which is tied to the computer system's clock. This allows the complete current date to be automatically suggested whenever the user enters the first few letters of the corresponding month, "Jun" in the example illustrated in FIG. **2**A. Other completion suggestions may be tied to other dynamic system parameters, such as the time, the registered user's name, the registered user's business address, a logged-in user's name, a list of recent applications or documents, a most-recently-used (MRU) text buffer, an MRU e-mail address buffer, the computer's file directory, etc." *Id.* at 10:57-11:3. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action	Hachamovitch discloses claim 1. *See* claim 1 above.

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includes causing insertion of at least part of the second information into the document.	Hachamovitch further discloses this element. See, e.g.: Claim 1 disclosures. "The user accepts a suggestion using a traditional acceptance keystroke, such as the 'tab' key or the 'enter' key." Hachamovitch at 10:54-56. "A user may then accept the word completion suggestion 442 by entering a traditional acceptance keystroke, such as the 'tab' key or the 'enter' key. In this case, the partial data entry 440 'Sym' is replaced by the completion entry 442 'Save the Whales Symposium,' and the word completion frame 444 is discontinued." *Id.* at 14:12-17. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 19	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.	Hachamovitch discloses claim 1. *See* claim 1 above. Hachamovitch further discloses this element. See, e.g.: Claim 1 disclosures. "The user accepts a suggestion using a traditional acceptance keystroke, such as the 'tab' key or the 'enter' key." Hachamovitch at 10:54-56. "A user may then accept the word completion suggestion 442 by entering a traditional acceptance keystroke, such as the 'tab' key or the 'enter' key. In this case, the partial data entry 440 'Sym' is replaced by the completion entry 442 'Save the Whales Symposium,' and the word completion frame 444 is discontinued." *Id.* at 14:12-17. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 23	
At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data	To the extent the preamble is limiting, Hachamovitch discloses the preamble. See, e.g.:

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related to the contents of a document using a first computer program running on a computer, the processes comprising:	Disclosure to Claim 1.
displaying the document electronically using the first computer program;	Hachamovitch discloses this element. See, e.g.: Disclosure to Claim 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Hachamovitch discloses this element. See, e.g.: Disclosure to Claim 1.
retrieving the first information;	Hachamovitch discloses this element. See, e.g.: Disclosure to Claim 1.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Hachamovitch discloses this element. See, e.g.: Disclosure to Claim 1.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term	Hachamovitch discloses this element. See, e.g.:

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in the information source, using a second computer program, in order to find second information related to the search term; and	Disclosure to Claim 1.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Hachamovitch discloses this element. See, e.g.: Disclosure to Claim 1.
Claim 30	
At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising:	Hachamovitch discloses claim 23. *See* claim 23. Hachamovitch further discloses this element. See, e.g.: Disclosure to Claims 1 and 23.
providing a prompt for updating the information source to include the first information.	Hachamovitch discloses this element. See, e.g.: Disclosures to Claim 1, 8, and 23.

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Claim Chart Applying U.S. Patent No. 5,392,386 Against the '843 Patent

U.S. Patent No. 5,392,386 issued to Chalas ("Chalas") was filed on Feb. 3, 1994 and was issued on Feb. 21, 1995. It therefore constitutes prior art under pre-AIA 35 U.S.C. § 102(b). As shown below, Chalas anticipates and/or renders obvious claims 1, 8, 13, 15, 17, 18, 19, 23, and 30 of the '843 patent.

"Obviousness Statement" - To the extent that the Judge or Jury finds that Chalas does not teach an element either expressly or inherently, then the claim element is obvious to a POSITA based on the state of the art (*see, e.g.*, Section V of my Report), including the admissions of the prior art functionalities and motivations to combine those prior art functionalities in the '843 patent, as well as the motivations to combine and understandings of a POSITA discussed in my Report (*see, e.g.*, Section IX of my Report and Exhibit U), in light of the teachings of, at least, the prior art listed and discussed in Exhibit U, and each prior art system and/or reference listed in my Report, including, without limitation, Pandit, Chalas, Domini, Hachamovitch, Tso, Person, CyberDesk System (including specific publications describing aspects of the CyberDesk System), Eudora System (including specific publications describing aspects of the Eudora System), Apple Data Detectors System (including specific publications describing aspects of the Apple Data Detectors System), LiveDoc System (including specific publications describing aspects of the LiveDoc System), Newton System (including specific publications describing aspects of the Newton System), Microsoft Outlook 97 (including specific publications describing aspects of Microsoft Outlook 97), Selection Recognition Agent System (including specific publications describing aspects of the Selection Recognition Agent System), and Microsoft Word 97 (including specific publications describing aspects of Microsoft Word 97).

'843 Patent Claims	**Disclosure**
Claim 1	
A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:	To the extent that this preamble is found to be limiting, Chalas discloses this preamble. For example, Chalas states: "A system for adding functions to an existing application program executing in a computer system having a graphical user interface that includes a clipboard. . . . The invention intercepts communications between the operating system and the application program and determines when the user is invoking one of the added functions." Abstract. *See also* 1:8-14, 2:38-44. Chalas further states: "Fig. 5 shows text, including format codes, at 454 where the word 'style' at 453 in lines 452 has been translated to the German word 'Stil' at 455 in lines 454.

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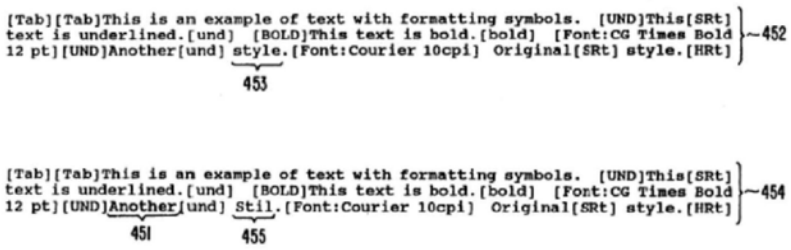
	10:3-6. Figure 5 of Chalas depicts, at least in part, the following:  Figure 5. Chalas further states: "Once a completed word is detected, the spelling of the word is checked instantly against a dictionary database as the user continues typing. If the word is spelled incorrectly, WAYS simulates an appropriate number of backspace keypresses to move the cursor to an insertion point and simulates further keypresses to complete the correct spelling of the word." 1:60-66. Chalas further states: "The present invention uses a 'capture mechanism' as illustrated by capture mechanism 322 of FIG. 3. The capture mechanism serves to monitor the communication between operating system 312 and application program 310 of FIG. 3." 5:26-30.

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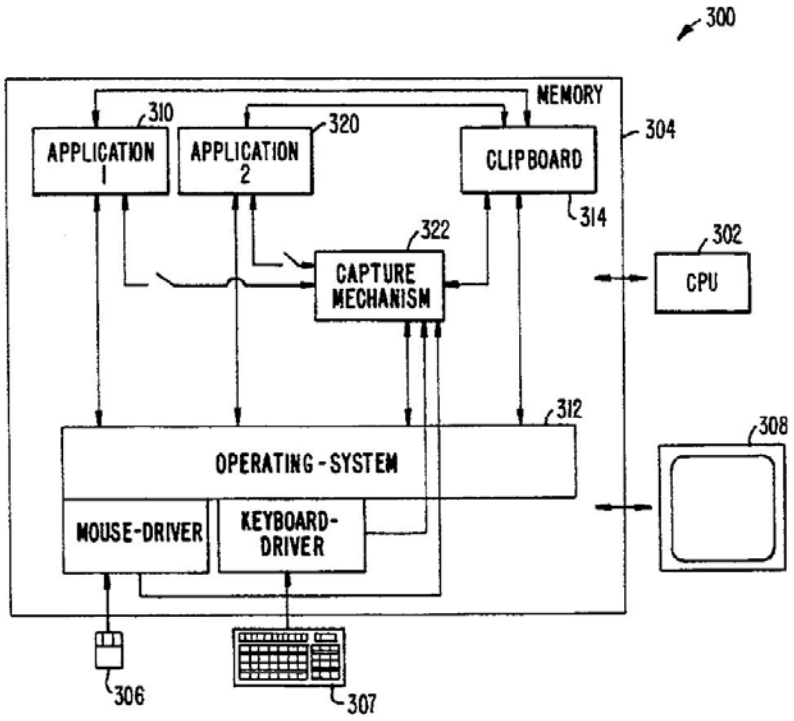

FIG. 3.

Figure 3.

Chalas further states:

> "Note that FIG. 3 shows the capture mechanism selectively in communication with either application program 310 or application program 320. This shows that the add-on functionality provided by the invention can be used with different application programs. This conserves memory and storage space since functionality is provided without duplicating code in two different application programs. That is, spell correction can be provided to both a word processing application program and a database application program by the same add-on software. Additionally, the add-on software can provide functionality that involves the transfer of information between application programs."

6:7-19.

Chalas further states:

> "Assuming application program 310 is a word processor …"

4:58-62.

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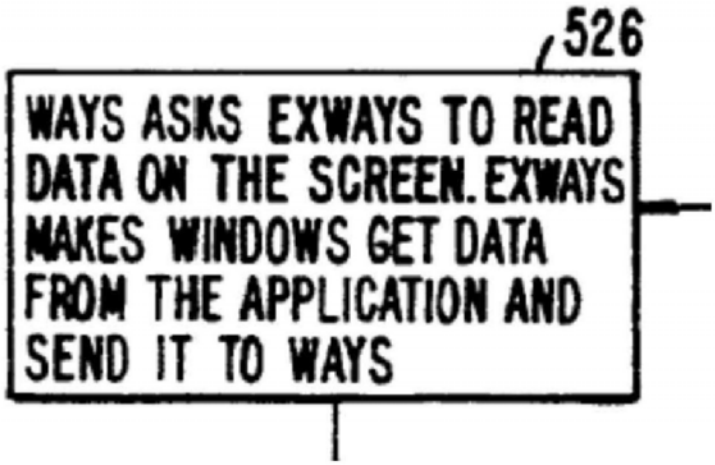
	Chalas also states: "Alternatively, some functions may require that information be read from the screen by EXWAYS as shown at 526." 14:36-38. Figure 7 of Chalas depicts, at least in part, the following:  Figure 7. Chalas further states: "[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65.

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	"Chalas discloses a system for adding functions to an existing application program (*e.g.*, Microsoft Word) (Abstract). Chalas describes clipboard that is used to transfer information between application programs (2:38-44). Chalas discloses a 'capture mechanism' that monitors communications between the operating system and an application program (5:26-30). The capture mechanism also simulates user input commands from user input devices to the operating system, and simulates commands from the operating system to the application program (5:64-68; *See also* 15:20-25). By simulating the commands and messages, Chalas is able to 1) transfer information that has been selected by the user from the application program to the clipboard, 2) modify that information, and 3) transfer the modified information back to the application program (6:1-6). In this manner, Chalas imparts add-on functionality to the document editing program (8:39-43). For example, Chalas can impart real-time spell checking (8:43-54) and translation (6:54-56). Additional functions includes detecting zip codes and providing the name of town and state (12:51-53) or detecting key phrases that designated to be replaced by a picture in the text (12:57-60)." *See also* Figure 4B, copied below. Accelerated Examination Support Document for Appl. No. 12/841,302 ("Accelerated Exam.") at 101. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 1, 9, and 18.
displaying the document electronically using the first computer program;	Chalas discloses this element. For example, Chalas states:

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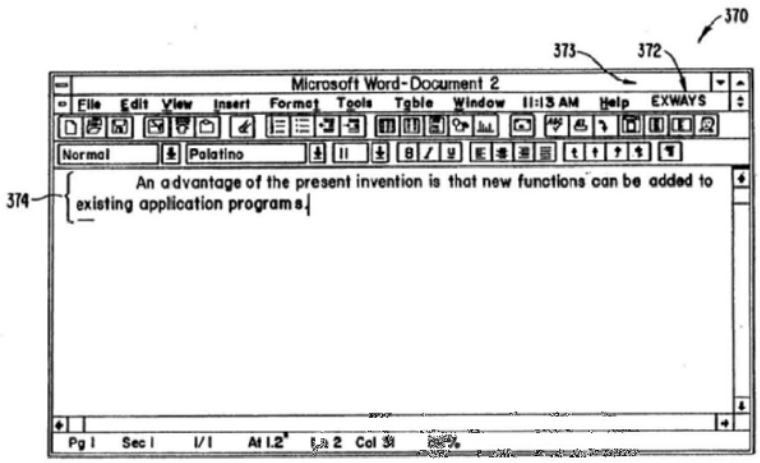

FIG. 4B.

Figure 4B.

Chalas further recites:

> "The types of additional functions that EXWAYS provides each involve reading text information from the display screen as created by the WORD word processing program."

7:13-16.

Figure 5 of Chalas depicts, at least in part, the following:

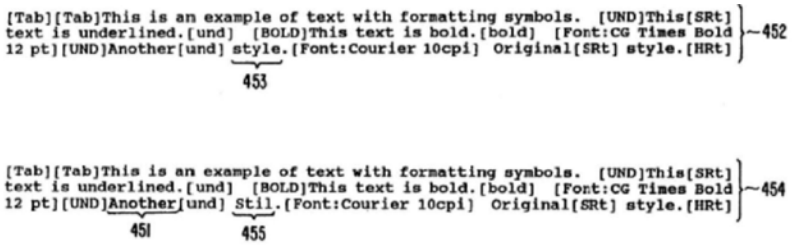

Figure 5.

> "Assuming the application program 310 is a word processor …"

4:58-62.

Chalas further states:

> "Alternatively, some functions may require that information be read from the screen by EXWAYS as shown at 526."

14:36-38.

Figure 7 of Chalas depicts, at least in part, the following:

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	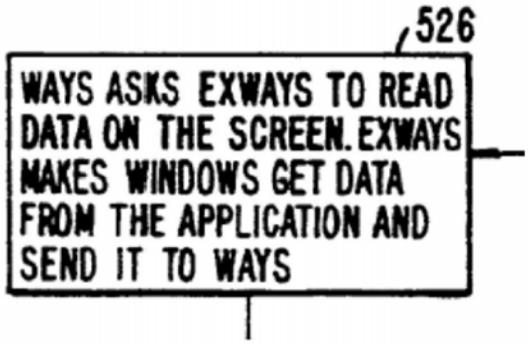 Figure 7. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Chalas discloses this element. For example, Chalas states: "In a preferred embodiment, capture mechanism 322 is a product called "EXWAYS' that operates with an application program, Microsoft WORD." 6:27-29. Chalas further states: "Once a completed word is detected, the spelling of the word is checked instantly against a dictionary database as the user continues typing. If the word is spelled incorrectly, WAYS simulates an appropriate number of backspace keypresses to move the cursor to an insertion point and simulates further keypresses to complete the correct spelling of the word." 1:60-66. Chalas further states: "The present invention uses a 'capture mechanism' as illustrated by capture mechanism 322 of FIG. 3. The capture mechanism serves to monitor the communication between operating system 312 and application program 310 of FIG. 3." 5:26-30. Chalas states:

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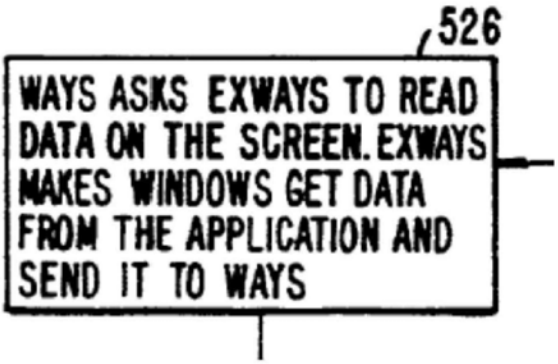
	"Alternatively, some functions may require that information be read from the screen by EXWAYS as shown at 526." 14:36-38. Figure 7 of Chalas depicts, at least in part, the following:  Figure 7. Chalas further states: "[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. Chalas further states: "EXWAYS handles formatted text in a special way so that the formatting information is preserved regardless of the format codes used. FIG. 5 shows two lines of text at 450 from the word processing program "Word Perfect" to show

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	how underlined text, emboldened text and text of a different font appear when printed. The lines at 452 show the same text with embedded format codes shown in square brackets. The format codes are actually one or more numbers that are known to the application program. For convenience they are shown as terms in square brackets. The numbers are generally unknown to the add-on program, that is, it is impossible for the add-on program to discern characters from format codes, much less identify what the format codes mean without putting special information into the addon program on a case-by-case basis depending on the current type and version of word processing program that the add-on program is being used with. Instead, EXWAYS processes the text one word at a time so as to bypass format codes from its processing. Every word processing program allows a single word to be transferred to the clipboard. By transferring a single word, the format information that is adjacent to, or outside of the word, is not transferred to the clipboard. Thus, EXWAYS is able to modify, replace or eliminate the word without having to take special steps to preserve format information in the form of format codes." 9:17-44. Chalas further states: "Fig. 5 shows text, including format codes, at 454 where the word 'style' at 453 in lines 452 has been translated to the German word 'Stil' at 455 in lines 454. 10:3-6. Figure 5 of Chalas depicts, at least in part, the following: [Tab][Tab]This is an example of text with formatting symbols. [UND]This[SRt] text is underlined.[und] [BOLD]This text is bold.[bold] [Font:CG Times Bold 12 pt][UND]Another[und] style.[Font:Courier 10cpi] Original[SRt] style.[HRt] ~452 453 [Tab][Tab]This is an example of text with formatting symbols. [UND]This[SRt] text is underlined.[und] [BOLD]This text is bold.[bold] [Font:CG Times Bold 12 pt][UND]Another[und] Stil.[Font:Courier 10cpi] Original[SRt] style.[HRt] ~454 451 455 Figure 5. "Chalas discloses a 'capture mechanism' that monitors communications between the operating system and an application program (5:26-30). The capture mechanism also

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	simulates user input commands from user input devices to the operating system, and simulates commands from the operating system to the application program (5:64-68; *See also* 15:20-25). By simulating the commands and messages, Chalas is able to 1) transfer information that has been selected by the user from the application program to the clipboard, 2) modify that information, and 3) transfer the modified information back to the application program (6:1-6). In this manner, Chalas imparts add-on functionality to the document editing program (8:39-43). For example, Chalas can impart real-time spell checking (8:43-54) and translation (6:54-56). Additional functions includes detecting zip codes and providing the name of town and state (12:51-53) or detecting key phrases that designated to be replaced by a picture in the text (12:57-60)." Accelerated Exam. for Patent Appl. No. 12/841,302 at 101. *Further, see also* 8:59-63. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 11, 14, and 15.
retrieving the first information;	Chalas discloses this element. For example, Chalas states: "By using the proper combination of user input signals EXWAYS can obtain all or a portion of the text currently being displayed, and can cause undisplayed portions of text to be displayed so that additional text can be transferred to the clipboard." 7:37-42. Chalas further states: "Alternatively, some functions may require that information be read from the screen by EXWAYS as shown at 526." 14:36-38. Figure 7 of Chalas depicts, at least in part, the following:

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	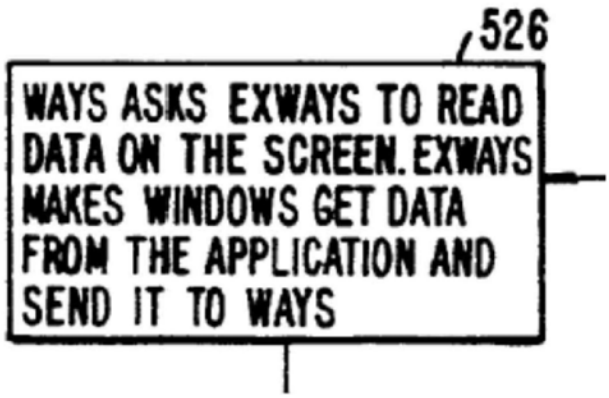 Figure 7. Chalas further states: "In Microsoft WORD, as is typical of word processing programs, once text has been entered the text may be "spell checked" to automatically detect and correct spelling errors." 8:16-20. Chalas further states: "[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65.
providing an input device, configured by the first computer program, that allows a user to enter a user command	Chalas discloses this element. For example, Chalas states:

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to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	"A preferred embodiment of EXWAYS provides options on the added menu such as "check and correct spelling' and "translate into German." When one of these options is selected, WINDOWS attempts to send notification of the selection to the application program but EXWAYS intercepts the message notification." 6:54-59. Chalas further states: "Note that FIG. 3 shows the capture mechanism selectively in communication with either application program 310 or application program 320. This shows that the add-on functionality provided by the invention can be used with different application programs. This conserves memory and storage space since functionality is provided without duplicating code in two different application programs. That is, spell correction can be provided to both a word processing application program and a database application program by the same add-on software. Additionally, the add-on software can provide functionality that involves the transfer of information between application programs." 6:7-19. Chalas further states: "EXWAYS uses the function 'PostMessage' and the (unofficial WINDOWS system file 'USER.EXE'. As an example, to generate user input signals to transfer a word at the current cursor position to the clipboard EXWAYS generates the sequence of commands as follows: WM_LButtonDown with VK_Control WM_LButtonDown with VK_Insert WM_LButtonUp with VK_Insert WM_LButtonUp with VK_Control EXWAYS uses the function 'GetClipboardData' to pick up the information for subsequent processing to accomplish the added functions." 7:43-56. Chalas states: "FIG. 4B shows a word processing user interface window 370 similar to window 350 at FIG. 4A. In FIG.

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	4B, main menu bar 372 includes an extra menu called "EXWAYS" which is the name of the add-on program in this example." 8:25-30 Chalas states: "The invention modifies the main menu bar by inserting the EXWAYS menu header and allows the user to click on the EXWAYS menu header to provide a list of menu items for invoking additional functions in the Microsoft WORD word processor. One such additional function is "Dynamic Spell Checking'. This can be thought of as on-the-fly spell checking in that the spell checking is done automatically as the user completes the typing of each word. In other words, in the sentence displayed at 374 of FIG. 4B, spell checking would be performed for each word as it is typed in so that "An' is checked prior to, or concurrently with, the user entering in the next characters to spell the next word, "advantage' and so on. This is added functionality since the original application program, Microsoft WORD, does not provide for on-the-fly spell checking." 8:39-50. Chalas states: "[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to

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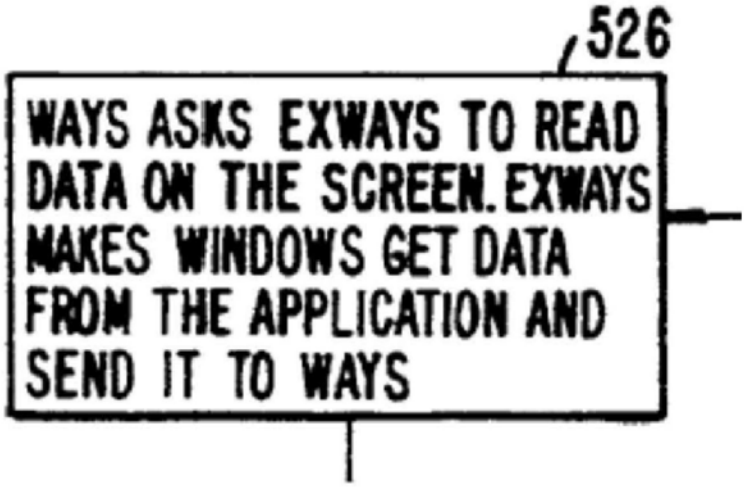
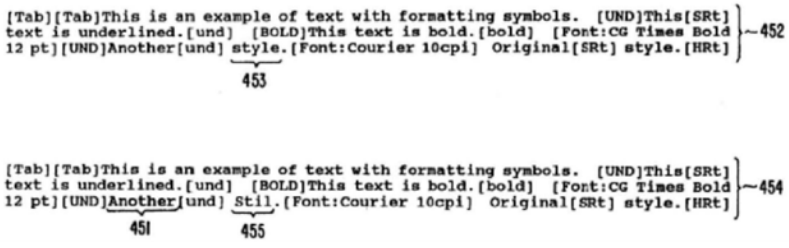
	invoke a search program to access additional data based on the key word or phrase." 12:47-65. Chalas further states: "Alternatively, some functions may require that information be read from the screen by EXWAYS as shown at 526." 14:36-38. Figure 7 of Chalas depicts, at least in part, the following:  Figure 7. Chalas further states: "Fig. 5 shows text, including format codes, at 454 where the word 'style' at 453 in lines 452 has been translated to the German word 'Stil' at 455 in lines 454. 10:3-6. Figure 5 of Chalas depicts, at least in part, the following:  Figure 5. Chalas further states:

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	"Other possibilities for adding functionality by using the method and apparatus of the present invention do not require that information be modified and rewritten back to the application program. For example, once a word has been selected it can be used to look up information in a compact disk read only memory (CD-ROM). Thus, when the user has selected, or highlighted, a word such as 'Chicago' and a predefined menu command is activated in the add-on menu the add-on software retrieves the information from the CD-ROM and displays it on the screen. The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:46-65. Chalas further states: "One such additional function is 'Dynamic Spell Checking'. This can be thought of as on-the-fly spell checking in that the spell checking is done automatically as the user completes the typing of each word." 8:43-47. Chalas further states: "WAYS determines when a word has been completely typed in by detecting "whitespace" characters such as a space, tab or carriage return before and after a sequence of characters." 1:56-59. Chalas further states: " ... and replacing the original information by issuing a predetermined third communication to the application program wherein the third communication includes user input commands that cause the modified information to be stored in place of the original information. " 3:5-10. Chalas further states:

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	"The communications that demand action on the part of WAYS/EXWAYS are those where the user is invoking the added functionality provided by the invention. " 14:30-34. Chalas further states: " ... wherein the third communication includes user input commands that cause the modified information to be stored in place of the first information. " 16:13-16. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 6, 8, 9, 11, 12, 14, 19, and 20.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Chalas discloses this element. *See* claim 1 above. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 10, and 19.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Chalas discloses this element. *See* claim 1 above. If the Judge or Jury finds that Chalas does not disclose this element, the element and the claim are still rendered obvious for the reasons stated in Exhibit U, Table 12. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 12 and 17.
Claim 8	
A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.	Chalas discloses claim 1. *See* claim 1 above. Chalas further discloses this element. "Once a completed word is detected, the spelling of the word is checked instantly against a dictionary database as the user continues typing. If the word is spelled incorrectly, WAYS simulates an appropriate number of backspace keypresses to

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	move the cursor to an insertion point and simulates further keypresses to complete the correct spelling of the word." 1:60-66. "Note that FIG. 3 shows the capture mechanism selectively in communication with either application program 310 or application program 320. This shows that the add-on functionality provided by the invention can be used with different application programs. This conserves memory and storage space since functionality is provided without duplicating code in two different application programs. That is, spell correction can be provided to both a word processing application program and a database application program by the same add-on software. Additionally, the add-on software can provide functionality that involves the transfer of information between application programs." 6:7-19. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 4, 5, and 17.
Claim 13	
A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.	Chalas discloses claim 1. *See* claim 1 above. Chalas further discloses this element. Chalas states: "EXWAYS uses the function 'PostMessage' and the (unofficial WINDOWS system file 'USER.EXE.'. As an example, to generate user input signals to transfer a word at the current cursor position to the clipboard EXWAYS generates the sequence of commands as follows: WM_LButtonDown with VK_Control WM_LButtonDown with VK_Insert WM_LButtonUp with VK_Insert WM_LButtonUp with VK_Control

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	EXWAYS uses the function 'GetClipboardData' to pick up the information for subsequent processing to accomplish the added functions." 7:43-56. Chalas states: "The invention modifies the main menu bar by inserting the EXWAYS menu header and allows the user to click on the EXWAYS menu header to provide a list of menu items for invoking additional functions in the Microsoft WORD word processor. One such additional function is "Dynamic Spell Checking'. This can be thought of as on-the-fly spell checking in that the spell checking is done automatically as the user completes the typing of each word. In other words, in the sentence displayed at 374 of FIG. 4B, spell checking would be performed for each word as it is typed in so that "An' is checked prior to, or concurrently with, the user entering in the next characters to spell the next word, "advantage' and so on. This is added functionality since the original application program, Microsoft WORD, does not provide for on-the-fly spell checking." 8:39-50. Chalas states: "[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to

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	invoke a search program to access additional data based on the key word or phrase." 12:47-65. Chalas further states: "Other possibilities for adding functionality by using the method and apparatus of the present invention do not require that information be modified and rewritten back to the application program. For example, once a word has been selected it can be used to look up information in a compact disk read only memory (CD-ROM). Thus, when the user has selected, or highlighted, a word such as 'Chicago' and a predefined menu command is activated in the add-on menu the add-on software retrieves the information from the CD-ROM and displays it on the screen. The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:46-65. Chalas further states: "EXWAYS sends user input signals to transfer text from the application program to the clipboard. In a preferred embodiment the user has highlighted the text to be processed and the highlighted text is transferred to the clipboard. In an alternate embodiment, the text to be transferred can be indicated in other ways such as by taking all of the text within a page of a document, within character delimiters or other boundaries, etc. The capture mechanism, or add-on program, such as EXWAYS, could also make a decision to automatically transfer text to the clipboard." 7:16-27. Chalas further states: "WAYS determines when a word has been completely typed in by detecting "whitespace" characters such as a

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	space, tab or carriage return before and after a sequence of characters." 1:56-59. Chalas further states: " ... and replacing the original information by issuing a predetermined third communication to the application program wherein the third communication includes user input commands that cause the modified information to be stored in place of the original information. " 3:5-10. Chalas further states: "The communications that demand action on the part of WAYS/EXWAYS are those where the user is invoking the added functionality provided by the invention. " 14:30-34. Chalas further states: " ... wherein the third communication includes user input commands that cause the modified information to be stored in place of the first information. " 16:13-16. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 2.
Claim 15	
A method according to claim 1, further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.	Chalas discloses claim 1. *See* claim 1, above. Chalas further discloses this element. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 7, 17, and 20 (e.g., Schabes and Domini).
Claim 17	
A method according to claim 1, wherein the information source is associated with the second computer program and	Chalas discloses claim 1. *See* claim 1, above. Chalas further discloses this element.

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is available through the computer.	For example, Chalas states: "A preferred embodiment of EXWAYS provides options on the added menu such as "check and correct spelling' and "translate into German." When one of these options is selected, WINDOWS attempts to send notification of the selection to the application program but EXWAYS intercepts the message notification." 6:54-59. Chalas states: "FIG. 4B shows a word processing user interface window 370 similar to window 350 at FIG. 4A. In FIG. 4B, main menu bar 372 includes an extra menu called "EXWAYS" which is the name of the add-on program in this example." 8:25-30 Chalas states: "The invention modifies the main menu bar by inserting the EXWAYS menu header and allows the user to click on the EXWAYS menu header to provide a list of menu items for invoking additional functions in the Microsoft WORD word processor. One such additional function is "Dynamic Spell Checking'. This can be thought of as on-the-fly spell checking in that the spell checking is done automatically as the user completes the typing of each word. In other words, in the sentence displayed at 374 of FIG. 4B, spell checking would be performed for each word as it is typed in so that "An' is checked prior to, or concurrently with, the user entering in the next characters to spell the next word, "advantage' and so on. This is added functionality since the original application program, Microsoft WORD, does not provide for on-the-fly spell checking." 8:39-50. Chalas states: "[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key

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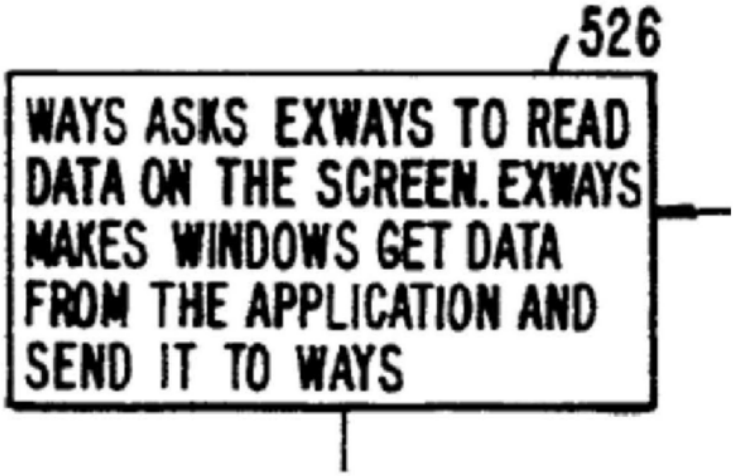
	words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. Chalas further states: "Alternatively, some functions may require that information be read from the screen by EXWAYS as shown at 526." 14:36-38. Figure 7 of Chalas depicts, at least in part, the following:  Figure 7. Chalas further states: "Fig. 5 shows text, including format codes, at 454 where the word 'style' at 453 in lines 452 has been translated to the German word 'Stil' at 455 in lines 454. 10:3-6.

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	Chalas further states: "Other possibilities for adding functionality by using the method and apparatus of the present invention do not require that information be modified and rewritten back to the application program. For example, once a word has been selected it can be used to look up information in a compact disk read only memory (CD-ROM). Thus, when the user has selected, or highlighted, a word such as 'Chicago' and a predefined menu command is activated in the add-on menu the add-on software retrieves the information from the CD-ROM and displays it on the screen. The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:46-65. Chalas further states: " ... and replacing the original information by issuing a predetermined third communication to the application program wherein the third communication includes user input commands that cause the modified information to be stored in place of the original information. " 3:5-10. Chalas further states: "The communications that demand action on the part of WAYS/EXWAYS are those where the user is invoking the added functionality provided by the invention. " 14:30-34. Chalas further states: " ... wherein the third communication includes user input commands that cause the modified information to be stored in place of the first information. " 16:13-16.

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	For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.	Chalas discloses claim 1. *See* claim 1, above. Chalas further discloses this element. For example, Chalas states: "A preferred embodiment of EXWAYS provides options on the added menu such as "check and correct spelling' and "translate into German." When one of these options is selected, WINDOWS attempts to send notification of the selection to the application program but EXWAYS intercepts the message notification." 6:54-59. Chalas states: "[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. Chalas further states:

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	"Fig. 5 shows text, including format codes, at 454 where the word 'style' at 453 in lines 452 has been translated to the German word 'Stil' at 455 in lines 454. 10:3-6. Chalas further states: "At step 426 the add-on software simulates user signals to write the modified data from the clipboard back to the target application program. Typically, the data will be written in place of the original data as copied from the application program. In a preferred embodiment, this means that, for example, where a spelling correction has taken place, the user sees the corrected word or words on the display screen substantially corresponding to the positions of the original misspelled word or words. Similarly, where the added functionality is in a word-for-word translation, the user will see, e.g., German words exchanged on the screen for the original English words." 13:1-13. Chalas further states: " ... and replacing the original information by issuing a predetermined third communication to the application program wherein the third communication includes user input commands that cause the modified information to be stored in place of the original information. " 3:5-10. Chalas further states: " ... wherein the third communication includes user input commands that cause the modified information to be stored in place of the first information. " 16:13-16. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 19	
A method according to claim 1, wherein performing the action includes causing	Chalas discloses claim 1. *See* claim 1, above. Chalas further discloses this element. *See* claim 18.

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insertion of at least part of the second information into the document by the first computer program.	For example, Chalas states: "A preferred embodiment of EXWAYS provides options on the added menu such as "check and correct spelling' and "translate into German." When one of these options is selected, WINDOWS attempts to send notification of the selection to the application program but EXWAYS intercepts the message notification." 6:54-59. Chalas further states: "EXWAYS uses the function 'PostMessage' and the (unofficial WINDOWS system file 'USER.EXE.'. As an example, to generate user input signals to transfer a word at the current cursor position to the clipboard EXWAYS generates the sequence of commands as follows: WM_LButtonDown with VK_Control WM_LButtonDown with VK_Insert WM_LButtonUp with VK_Insert WM_LButtonUp with VK_Control EXWAYS uses the function 'GetClipboardData' to pick up the information for subsequent processing to accomplish the added functions." 7:43-56. Chalas states: "[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or

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	performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. Chalas further states: "Fig. 5 shows text, including format codes, at 454 where the word 'style' at 453 in lines 452 has been translated to the German word 'Stil' at 455 in lines 454. 10:3-6. Chalas further states: "At step 426 the add-on software simulates user signals to write the modified data from the clipboard back to the target application program. Typically, the data will be written in place of the original data as copied from the application program. In a preferred embodiment, this means that, for example, where a spelling correction has taken place, the user sees the corrected word or words on the display screen substantially corresponding to the positions of the original misspelled word or words. Similarly, where the added functionality is in a word-for-word translation, the user will see, e.g., German words exchanged on the screen for the original English words." 13:1-13. Chalas further states: " ... and replacing the original information by issuing a predetermined third communication to the application program wherein the third communication includes user input commands that cause the modified information to be stored in place of the original information. " 3:5-10. Chalas further states: " ... wherein the third communication includes user input commands that cause the modified information to be stored in place of the first information. " 16:13-16. For example (and without limitation to the Obviousness

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	Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 23	
At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data related to the contents of a document using a first computer program running on a computer, the process comprising:	Chalas discloses this element. *See* claim 1, above. Chalas discloses a computer system, processor, memory, input device, operating system, application program, communications between the operating system and application program, user input commands, and storing modified information in place of the original information. 2:50-3:10 Chalas further discloses non-transitory computer readable media and storage devices, transfer between processor and system memory, executable programs in memory, processes, and both word processing and data base programs. 3:43-58, 4:3-22. *See also* Chalas Claim 1. *See* claim 1 above.
displaying the document electronically using the first computer program;	Chalas discloses this element. *See* claim 1 above.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Chalas discloses this element. *See* claim 1 above.
retrieving the first information;	Chalas discloses this element. *See* claim 1 above.

Exhibit R

providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Chalas discloses this element. *See* claim 1 above.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Chalas discloses this element. *See* claim 1 above.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	Chalas discloses this element. *See* claim 1 above.
Claim 30	

Exhibit R

At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising: providing a prompt for updating the information source to include the first information.	Chalas discloses claim 23. *See* claim 23, above. Chalas further discloses this element. *See* claim 8, above.

Exhibit S

Claim Chart Applying The Selection Recognition Agent Against the '843 Patent

Intel's Selection Recognition Agent ("SRA") was offered for sale, sold and/or publicly used in the United States by at least March 1997.[1] It therefore constitutes prior art under pre-AIA 35 U.S.C. §§ 102(a), 102(b) and 103. As shown below, SRA anticipates and/or renders obvious claims 1, 8, 13, 15, 17, 18, 19, 23, and 30 of the '843 patent.

"Obviousness Statement" - To the extent that the Judge or Jury finds that SRA does not teach an element either expressly or inherently, then the claim element is obvious to a POSITA based on the state of the art (*see, e.g.*, Section V of my Report), including the admissions of the prior art functionalities and motivations to combine those prior art functionalities in the '843 patent, as well as the motivations to combine and understandings of a POSITA discussed in my Report (*see, e.g.*, Section IX of my Report and Exhibit U), in light of the teachings of, at least, the prior art listed and discussed in Exhibit U, and each prior art system and/or reference listed in my Report, including, without limitation, Pandit, Chalas, Domini, Hachamovitch, Tso, Person, CyberDesk System (including specific publications describing aspects of the CyberDesk System), Eudora System (including specific publications describing aspects of the Eudora System), Apple Data Detectors System (including specific publications describing aspects of the Apple Data Detectors System), LiveDoc System (including specific publications describing aspects of the LiveDoc System), Newton System (including specific publications describing aspects of the Newton System), Microsoft Outlook 97 (including specific publications describing aspects of Microsoft Outlook 97), Selection Recognition Agent System (including specific publications describing aspects of the Selection Recognition Agent System), and Microsoft Word 97 (including specific publications describing aspects of Microsoft Word 97).

Evidence of the availability of SRA includes the following:

- Intel News Release, "Intel Makes Exploratory Internet Technologies Available," Intel.com Pressroom (March 4, 1997)

Evidence of the design and operation of SRA include the following:

- "The Selection Recognition Agent: Instant Access to Relevant Information and Operations" by Pandit and Kalbag (1997) ("SRA: Instant Access")
- Presentation of "The Selection Recognition Agent: Instant Access to Relevant Information and Operations" in January 1997 at the International Conference on Intelligent User Interfaces in Orlando, Florida. (*See* http://hcibib.org/IUI97#S1). ("The SRA Proceedings")
- U.S. Patent No. 5,859,636 ("the Pandit '636 patent")

[1] Defendants reserve the right to rely on earlier versions of SRA that have similar functionality, to the extent any are uncovered throughout the course of discovery.

Exhibit S

'843 Patent Claims	Disclosure
Claim 1	
A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:	To the extent the preamble is limiting, SRA discloses the preamble. For example, SRA: Instant Access states: "[T]he Selection Recognition Agent (SRA), a personal computer application which recognizes meaningful words and phrases in text, and enables useful operations on them. The SRA includes six recognition modules for geographic names, dates, and email addresses, phone numbers, Usenet newsgroup name components, and URLs, as well as a module that enables useful operations on text in general. The SRA runs on Microsoft Windows 95 and Windows NT* and is currently available free from Intel's home page (http://www.intel.com)" (SRA: Instant Access, p. 47) The Pandit '636 patent also discloses this preamble: "The present invention will benefit any application which displays text to a user, regardless of the origin of the text. The invention expands the operations which may be performed using recognized text by allowing a user to intuitively exploit the presence of certain classes or types of text in any document by transforming the text into an interface to other functions or operations. Cl:42-49 The present invention can be embodied in the form of computer-implemented processes and apparatuses for practicing those processes. The present invention also can be embodied in the form of computer program code embodied in tangible media, such as floppy diskettes, CD-ROMS, hard drives, or any other computer-readable storage medium, wherein, when the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing the invention. The present invention can also be embodied in the form of computer program code, for example, whether stored in a storage medium, loaded into and/or executed by a computer, or transmitted over some transmission medium, such as over electrical wiring or cabling, through fiber optics, or via electromagnetic radiation, wherein, when the computer program code is loaded into and executed by a computer, the computer

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	becomes an apparatus for practicing the invention." 5:25-42 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 1, 9, and 18.
displaying the document electronically using the first computer program;	SRA discloses this element. For example, SRA: Instant Access states: "The SRA provides, on the fly, an object-oriented interface to all text objects visible on the desktop." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "When initially executed, the SRA displays an eyeball (Figure 1) on the screen, to suggest that it is now observing the user's selections and other desktop activities. It provides options to place this icon in the desktop area with other application windows, to set one of two sizes for it, to place it in the taskbar notification area, to animate it, to position it with respect to the active application window, to cause it to float above other application windows, or to cause it to appear only when the SRA recognizes something. When it is displayed with other windows in the desktop, the SRA can be moved by dragging it using the left mouse button. When the user right-clicks on the SRA, a context menu appears (Figure 2) showing operations that are currently available. These features are consistent with Windows 95 user interface guidelines. The SRA acquires text for recognition in one of two ways. The first way is by monitoring user actions in other applications. In most applications, when the user selects text by dragging the mouse to highlight it, the SRA acquires the text and attempts to recognize meaningful objects within it. The application need not be aware of the existence of the SRA. The second way is by monitoring the clipboard. When text is copied to the clipboard, the SRA attempts to recognize meaningful objects within it."

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	(SRA: Instant Access, p. 48) The Pandit '636 patent also discloses this element: "The present invention will benefit any application which displays text to a user, regardless of the origin of the text. The invention expands the operations which may be performed using recognized text by allowing a user to intuitively exploit the presence of certain classes or types of text in any document by transforming the text into an interface to other functions or operations." l:42-49 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	SRA discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA, Instant Access further states: "The SRA currently uses simple lookup tables, hand-generated parsers, and parsers generated using GNU Flex and Bison to classify text strings. The strength of this approach is that the SRA's recognition processes are fast and predictable." (SRA: Instant Access, p. 48) SRA, Instant Access also states:

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	"The SRA can recognize multiple objects within selected text. Furthermore, it can classify a single object in multiple ways. For example, the string 'June 14, 1996' can be classified both as a date, or more generally as a piece of text. When multiple objects or a single object with multiple classifications are recognized, the SRA adds submenus for each class of operations to its context menu (Figure 5). The icon and main menu refer to the most specific classification of the first recognized object in the text. (Specificity is defined by class hierarchy discussed later.) The SRA can be configured to perform a default operation—the first operation in the main menu—when the user double-clicks on its icon." (SRA: Instant Access, p. 49) SRA, Instant Access also states: "As currently implemented, the SRA can recognize the following kinds of objects in text: ● The SRA can recognize over 1700 names of cities, states, countries, or continents. The SRA provides an option to visit a CityNet web site containing information about the recognized geographical location. ● The SRA can recognize dates in a variety of formats. The SRA provides an option to start the calendar program of the user's choice. The user has the option to use the recognized date in a canonical format as a command line parameter. The date is also placed on the clipboard. ● The SRA can recognize electronic mail addresses. The SRA provides an option to start the email program of the user's choice. The user has the option to use the recognized email address in a canonical format as a command line parameter. The phone number also is placed on the clipboard. ● The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site.

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	• The SRA can recognize URLs. It provides an option to visit the website, either in a running browser or in a new instance of the browser. • In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text." (SRA: Instant Access, p. 49) The Pandit '636 patent also discloses this element: "The invention selectively recognizes text and performs relevant operations based on the recognition. Referring to FIG. la and FIG. 2, for example, a date 11 in text appearing on a video monitor is accented (step 21 of FIG. 2) for example by shading, underlining or pointing to and clicking on the text. The invention recognizes the accented text (step 22), and provides a menu bar 13 in which the name of menu 12 corresponding to the class of text accented is highlighted or shown in bold type, thereby showing that the menu is enabled (step 23). In the example of FIG. la, the Date menu 12 is shown in bold type, signifying that the invention includes a menu of operations and/or programs which are relevant to dates." 2:3-15

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	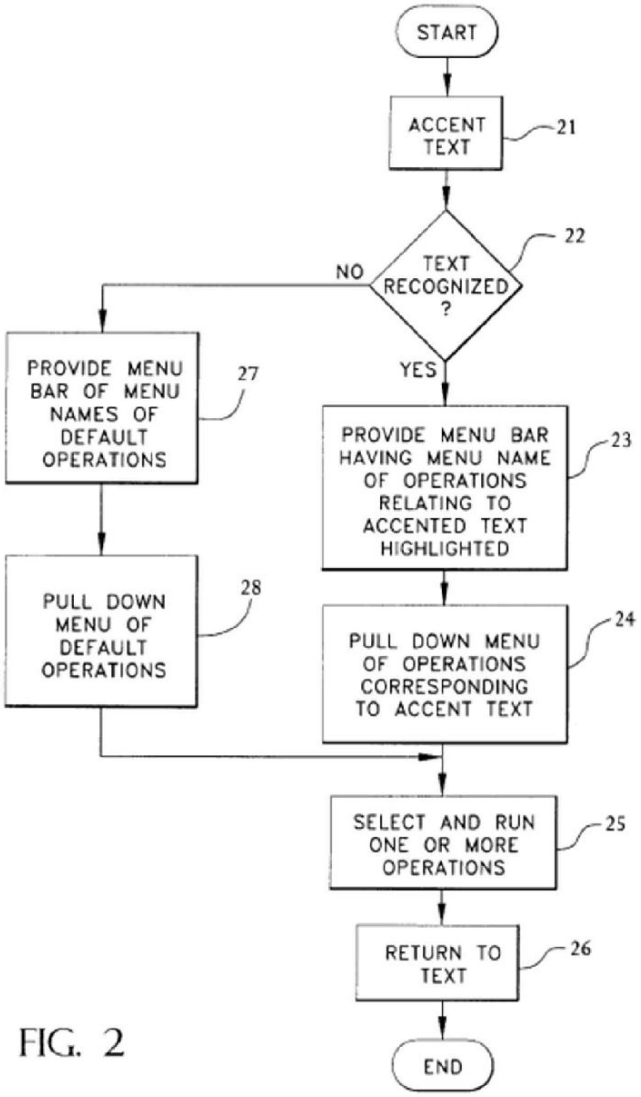 FIG. 2 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 11, 14, and 15.
retrieving the first information;	SRA discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected

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	text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "The SRA coordinates the operation of multiple recognizers, each of which recognizes and provides relevant operations for a single class of text. Recognizers are modular. All recognizers are accessed by the SRA through an identical interface. The list of available recognizers is retrieved from registry information during initialization of the program. As a result, additional recognizers may be implemented and added to the SRA without recompiling the entire system. The date and phone number recognizers use parsers generated by GNU Flex and Bison to recognize dates and phone numbers in diverse formats. The electronic mail address and URL recognizers use hand-written parsers to recognize email addresses and URLs in one or two standard formats. The city and key word recognizers maintain large lists of recognizable cities and key words, which are accessed quickly using hash tables." (SRA: Instant Access, p. 49) SRA: Instant Access also states: "The SRA acquires text in the following manner: It first registers with the operating system to receive notification

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	whenever the contents of the clipboard change. It then uses a system hook procedure to receive notification whenever the right mouse button is released in any window. When such a notification arrives, it backs up the current contents of the clipboard and sends a special message to the window. Most windows respond to this message by copying any selected text to the clipboard. When the clipboard-change notification arrives, the SRA submits the clipboard text to the recognizers and then restores the previous contents of the clipboard. In this manner, text can be acquired from most applications, without disturbing the clipboard, immediately after it is highlighted. In other applications, copying the text to the clipboard is sufficient for the SRA to try recognizing it. When the SRA acquires text, either from another application or from the clipboard, it submits the text to each recognizer to determine if any of them recognize objects within the text. A recognizer is activated when as soon as it recognizes an object within the text. If more than one recognizer is activated, the SRA chooses the most specific one. The SRA asks this recognizer for its icon, and for the names of operations it supports. The SRA changes its icon to that of the recognizer, and adds the recognizer's operations to its context menu. If less specific recognizers were also activated, the SRA asks them for the names of operations they support, and adds these to sub-menus of its context menu." (SRA: Instant Access, p. 50) The Pandit '636 patent also discloses this element: "Referring now to FIG. 1e, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax

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	numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure." 2:2:64-3:10
providing a device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	SRA discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "The SRA provides, on the fly, an object-oriented interface to all text objects visible on the desktop." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "When the user selects an operation from the context menu, the SRA asks the appropriate recognizer to perform the appropriate operation on the last object it recognized." (SRA: Instant Access, p. 50)

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SRA: Instant Access discloses the ability to perform searches using at least part of the first information. For example, SRA states:

- The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site.

- In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text."

(SRA: Instant Access, p. 49)

SRA: Instant Access also discloses:

View FAQs regarding tennis

Without SRA	With SRA
Locate browser	Select word

Start browser	Select SRA menu item
Direct browser to rtfm.mit.edu/pub/usenet-by-name	
Search for newsgroups mentioning tennis	
Click on newsgroup name	
Retrieve FAQ	

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Perform web search on "agents"

Without SRA	With SRA
Select word	Select word
Locate browser	Select SRA menu item
Start browser	
Direct browser to search engine	
Select paste menu item	
Start search	

The Pandit '636 patent also discloses this element:

"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes for example an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menuI9isshowninFIG.ld. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address

Exhibit S

	storage may be included as within the scope of this invention. Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure." 2:2:32-3: 10 "Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to

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	telephone and telefax numbers, as shown in FIGS. Ib-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4: 1-31

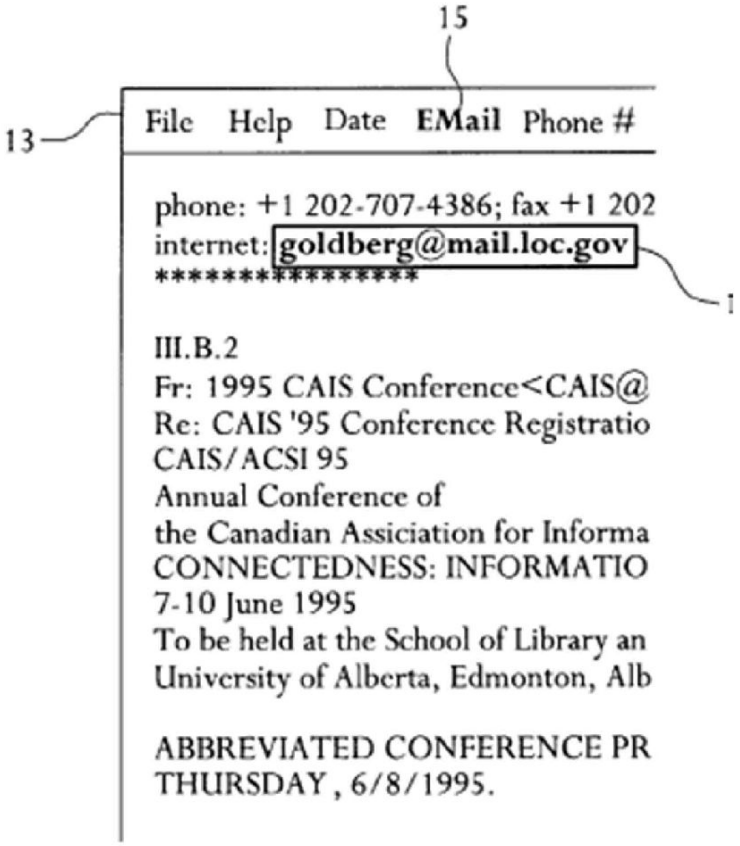

FIG. 1c

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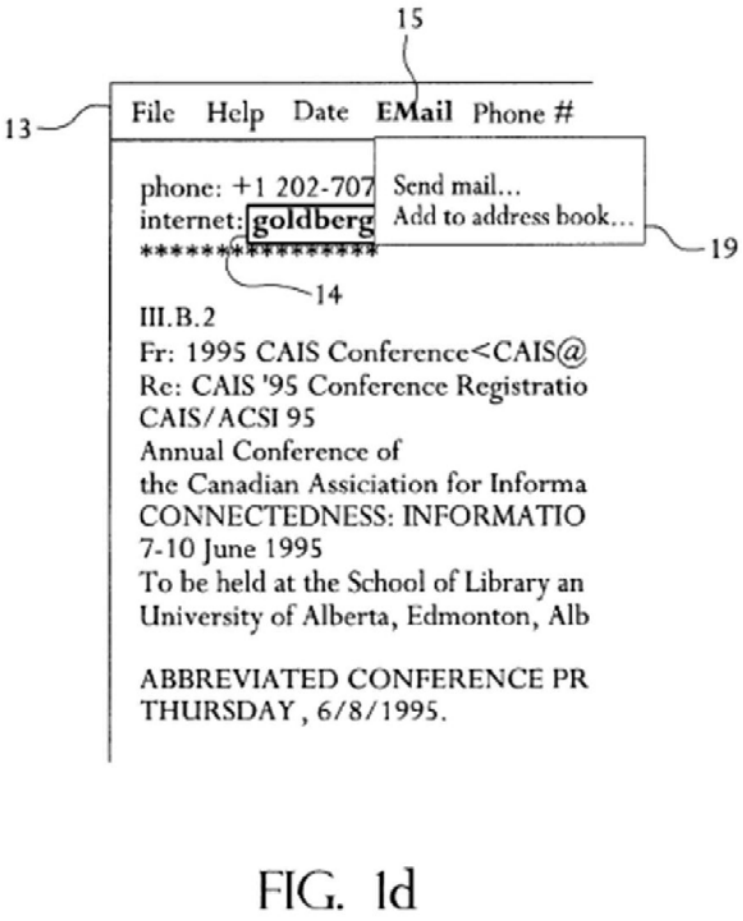

FIG. 1d

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	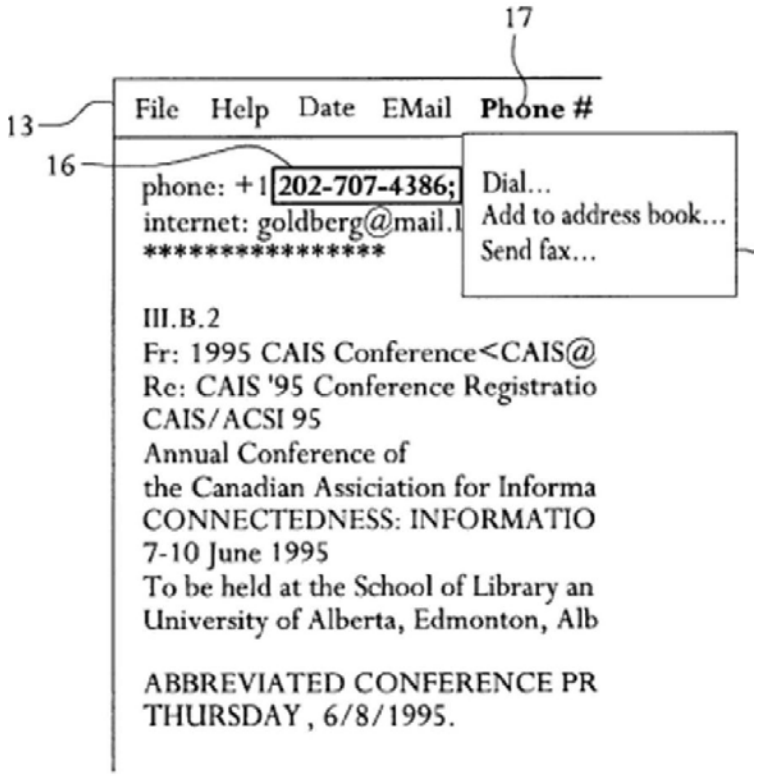 FIG. 1f For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 6, 8, 9, 11, 12, 14, 19, and 20.

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in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	SRA discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "The tool tip (a small window which appears when the pointer rests on the icon) changes to indicate the class of the object recognized. Operations relevant to the class of the recognized object now appear in the context menu (Figure 4). In most cases, the operation involves launching a program. The selected object is either placed in the command line or on the clipboard in a canonical format useable by the program. Thus, the SRA operates in a cycle of selection of text by the user, recognition of an object within text, and operation on the object." (SRA: Instant Access, p. 48-49.) Furthermore, SRA: Instant Access discloses the element, "a search for a search term in the information source." For example, SRA states:

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- The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site.

- In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text."

(SRA: Instant Access, p. 49)

SRA: Instant Access also discloses:

View FAQs regarding tennis

Without SRA	With SRA
Locate browser	Select word

Start browser	Select SRA menu item
Direct browser to rtfm.mit.edu/pub/usenet-by-name	
Search for newsgroups mentioning tennis	
Click on newsgroup name	
Retrieve FAQ	

Perform web search on "agents"

Without SRA	With SRA
Select word	Select word
Locate browser	Select SRA menu item
Start browser	
Direct browser to search engine	
Select paste menu item	
Start search	

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	The Pandit '636 patent also discloses this element: "The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. Id. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a

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	writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:2:32-3: 1O Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc. 4: 1-31

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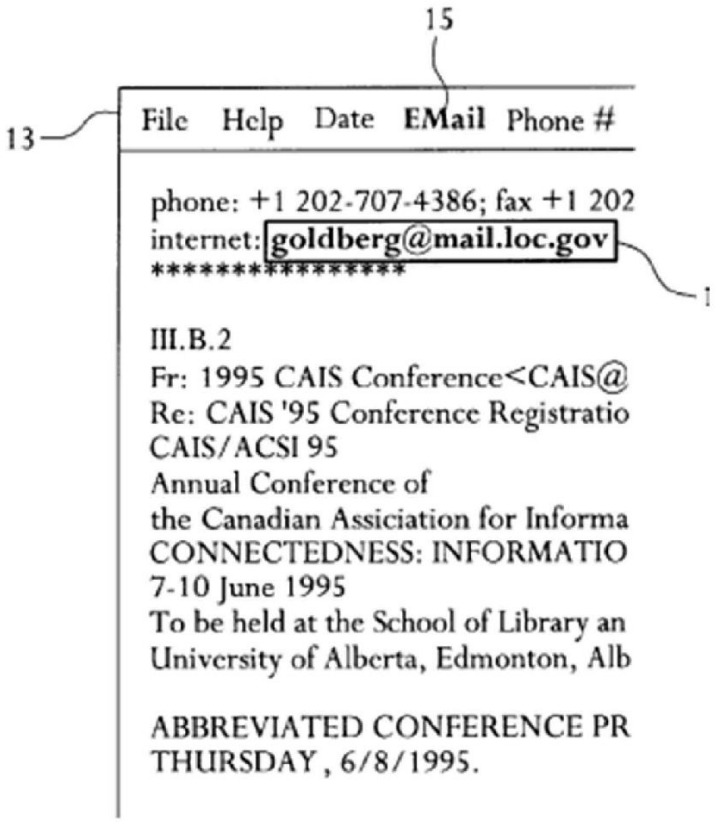

FIG. 1c

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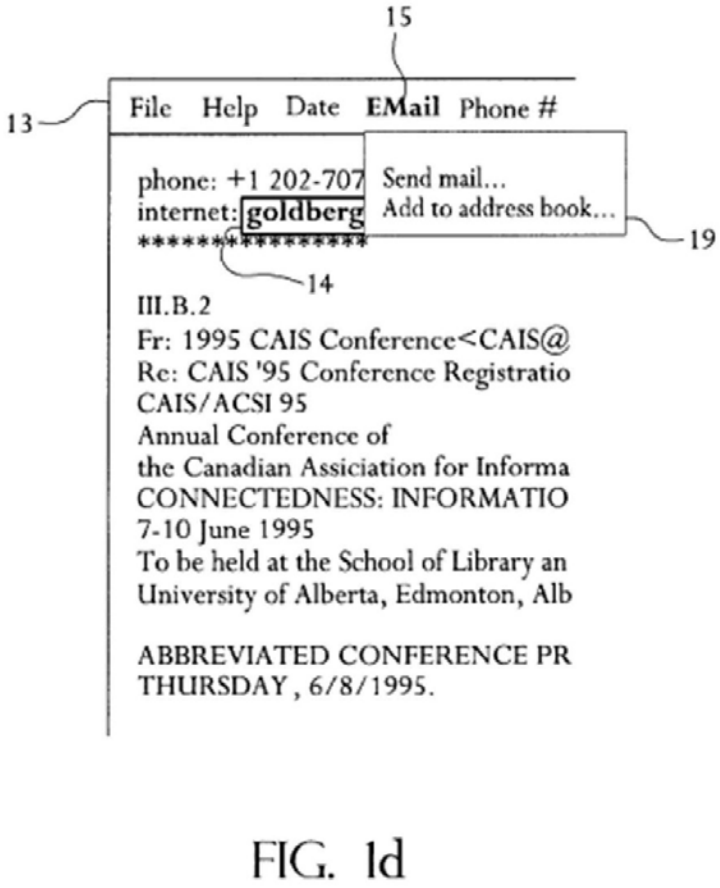
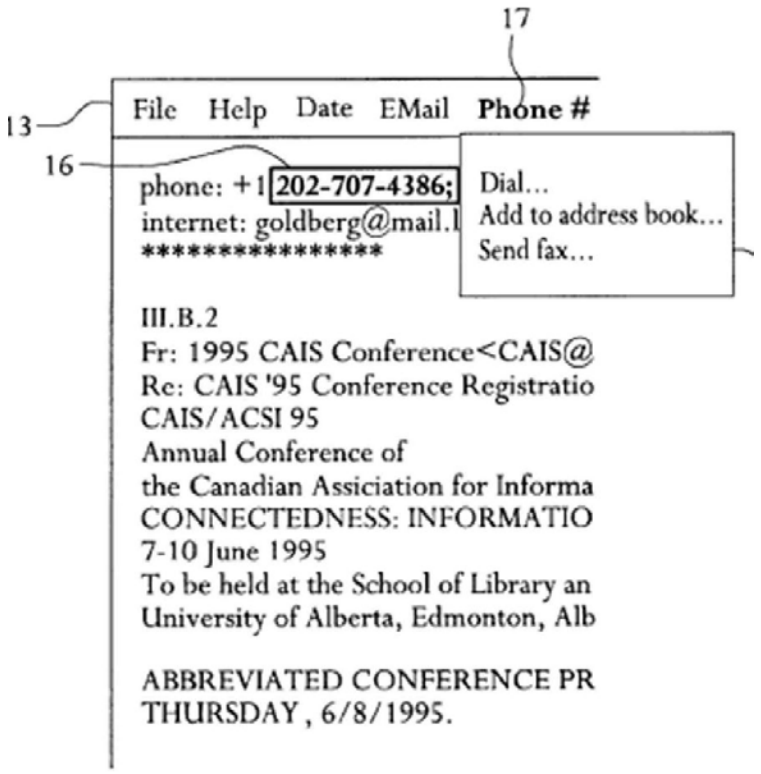


FIG. 1d

Exhibit S

	 FIG. 1f For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 2, 10, and 19.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	SRA discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the

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	recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "As currently implemented, the SRA can recognize the following kinds of objects in text: ● The SRA can recognize over 1700 names of cities, states, countries, or continents. The SRA provides an option to visit a CityNet web site containing information about the recognized geographical location. ● The SRA can recognize dates in a variety of formats. The SRA provides an option to start the calendar program of the user's choice. The user has the option to use the recognized date in a canonical format as a command line parameter. The date is also placed on the clipboard. ● The SRA can recognize electronic mail addresses. The SRA provides an option to start the email program of the user's choice. The user has the option to use the recognized email address in a canonical format as a command line parameter. The phone number also is placed on the clipboard. ● The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site.

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	• The SRA can recognize URLs. It provides an option to visit the website, either in a running browser or in a new instance of the browser. • In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text." (SRA: Instant Access, p. 49) The Pandit '636 patent also discloses this element: The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. Id. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other

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	program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:2:32-3: 10 Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the

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	invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc. 4: 1-31 The Pandit '636 patent further discloses that "the invention preferably includes as default operations such programs as spell-checkers, grammar-checkers, a thesaurus, a dictionary, execution of an Email program to transmit the text, programs to store the text and any other programs relating to words in general." 3:23-35. A search for first information is inherent with the use of spell-checkers, grammar-checkers, a thesaurus and/or a dictionary. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 12 and 17.
Claim 8	
A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.	SRA discloses claim 1. *See* claim 1 above. SRA further discloses this element. The Pandit '636 patent discloses the element of "providing a prompt for updating the information source to include the first information."

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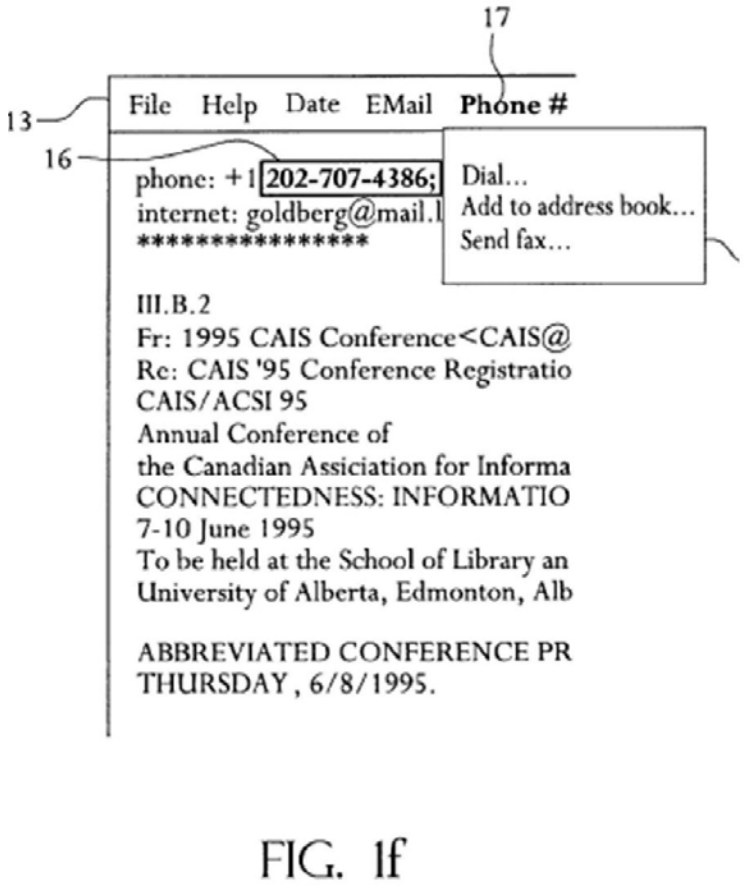
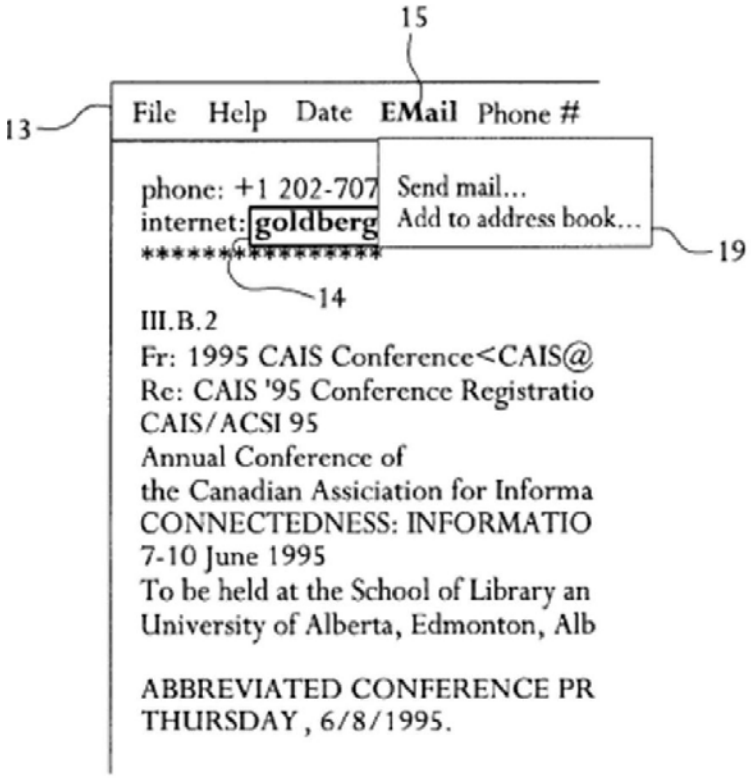


FIG. 1f

Exhibit S

	 FIG. 1d For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 4, 5, and 17.
Claim 13	
A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.	SRA discloses claim 1. *See* claim 1 above. SRA further discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and

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	phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "The SRA provides, on the fly, an object-oriented interface to all text objects visible on the desktop." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "When the user selects an operation from the context menu, the SRA asks the appropriate recognizer to perform the appropriate operation on the last object it recognized." (SRA: Instant Access, p. 50) SRA: Instant Access discloses the ability to perform searches using at least part of the first information. For example, SRA states: ● The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site. ● In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text." (SRA: Instant Access, p. 49)

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SRA: Instant Access also discloses:

View FAQs regarding tennis

Without SRA	With SRA
Locate browser	Select word

Start browser	Select SRA menu item
Direct browser to rtfm.mit.edu/pub/usenet-by-name	
Search for newsgroups mentioning tennis	
Click on newsgroup name	
Retrieve FAQ	

Perform web search on "agents"

Without SRA	With SRA
Select word	Select word
Locate browser	Select SRA menu item
Start browser	
Direct browser to search engine	
Select paste menu item	
Start search	

The Pandit '636 patent also discloses this element:

"Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the

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	identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. Ib-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4: 1-31

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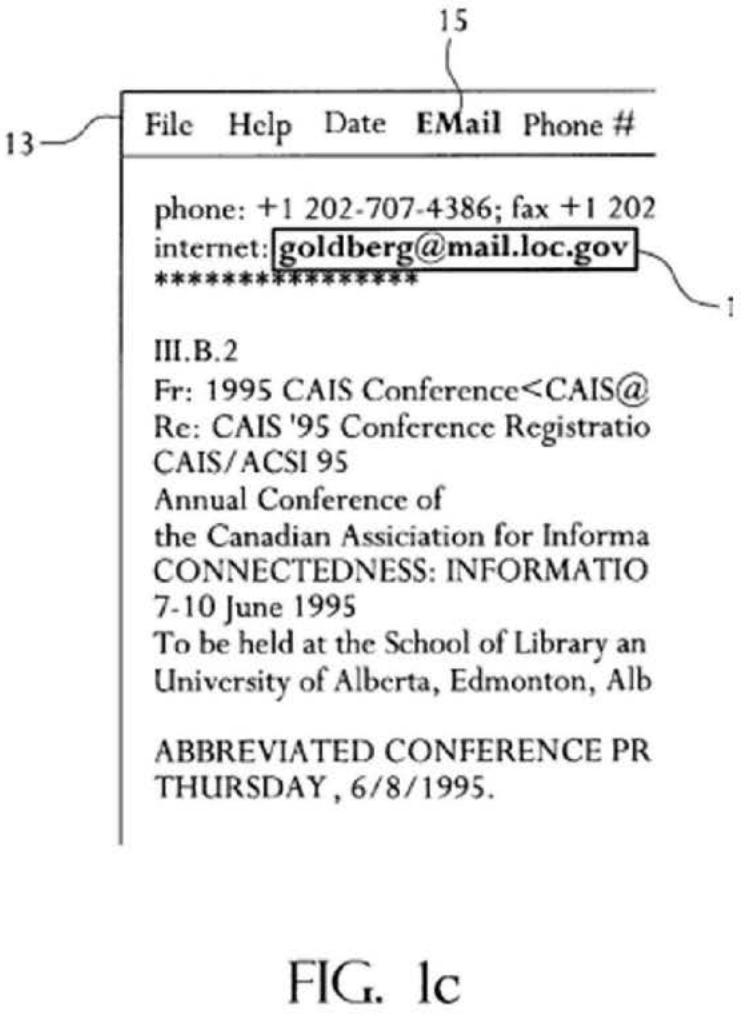

FIG. 1c

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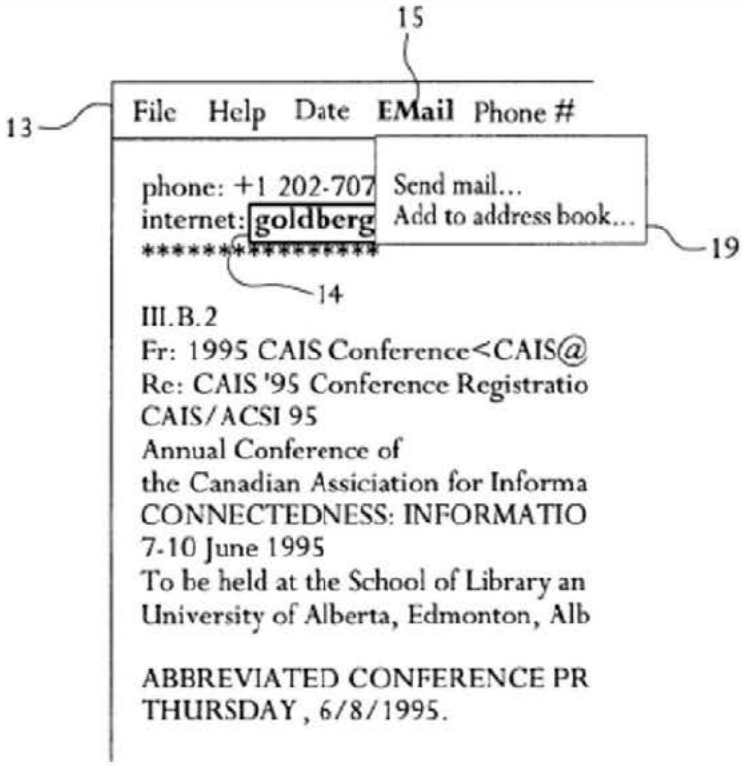
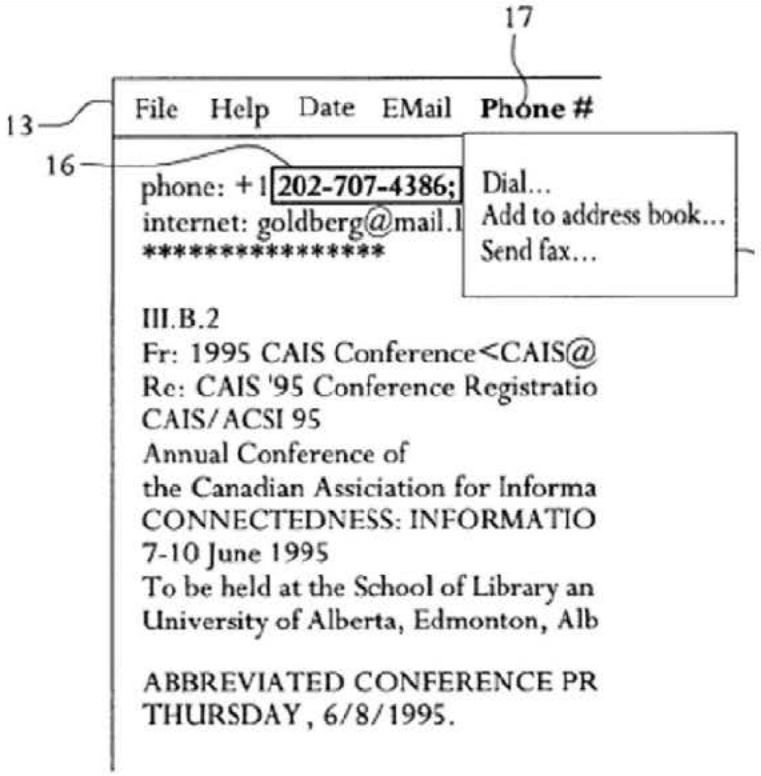


FIG. 1d

Exhibit S

	 FIG. 1f For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 2.
Claim 15	
A method according to claim 1, further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.	SRA discloses claim 1. *See* claim 1 above. SRA further discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical

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names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47)

SRA: Instant Access further states:

"The SRA provides, on the fly, an object-oriented interface to all text objects visible on the desktop." (SRA: Instant Access, p. 47)

SRA: Instant Access also states:

"When the user selects an operation from the context menu, the SRA asks the appropriate recognizer to perform the appropriate operation on the last object it recognized." (SRA: Instant Access, p. 50)

SRA: Instant Access also discloses:

View FAQs regarding tennis

Without SRA	With SRA
Locate browser	Select word

Start browser	Select SRA menu item
Direct browser to rtfm.mit.edu/pub/usenet-by-name	
Search for newsgroups mentioning tennis	
Click on newsgroup name	
Retrieve FAQ	

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Perform web search on "agents"

Without SRA	With SRA
Select word	Select word
Locate browser	Select SRA menu item
Start browser	
Direct browser to search engine	
Select paste menu item	
Start search	

The Pandit '636 patent also discloses this element:

"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes for example an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menuI9isshowninFIG.ld. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address

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	storage may be included as within the scope of this invention. Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure." 2:2:32-3: 10 "Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to

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	telephone and telefax numbers, as shown in FIGS. Ib-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4: 1-31

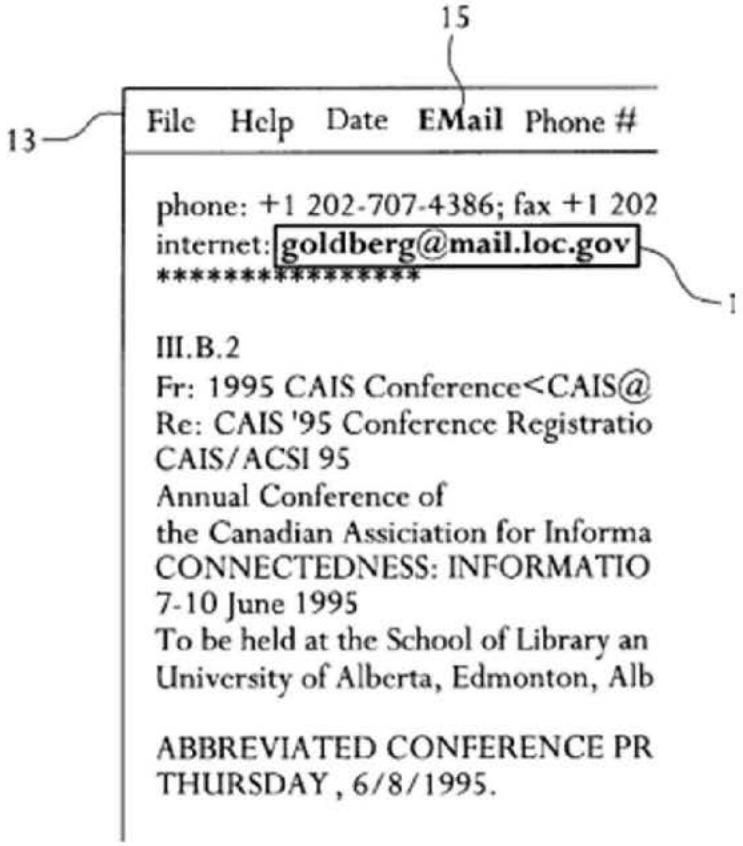

FIG. lc

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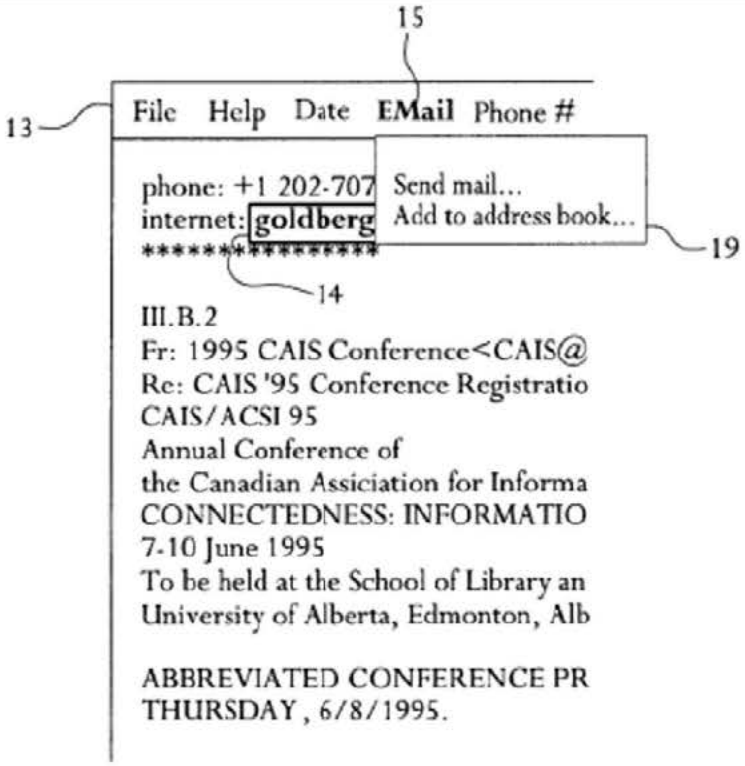

FIG. 1d

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	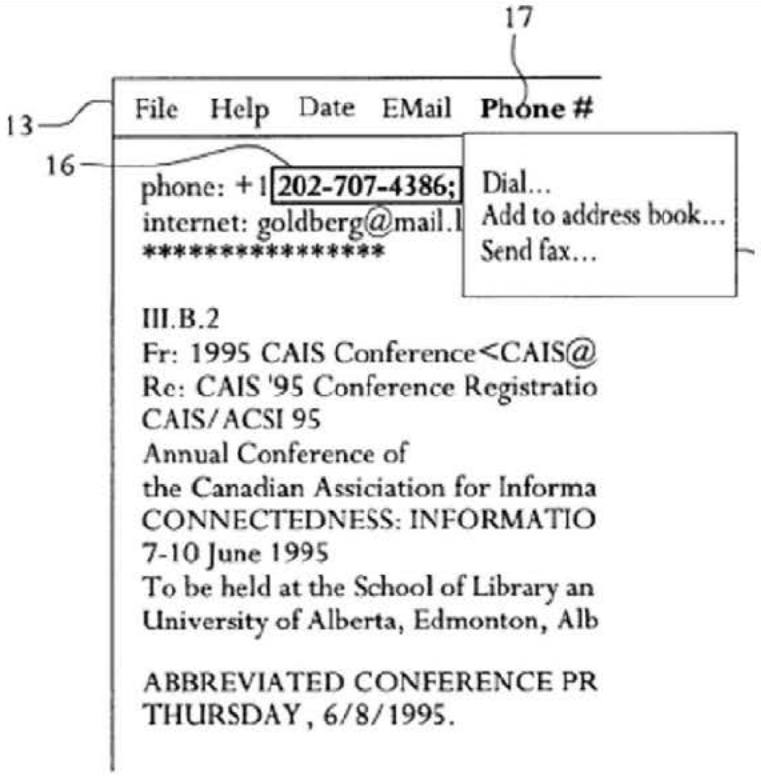 FIG. 1f For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 7, 17, and 20.
Claim 17	
A method according to claim 1, wherein the information source is associated with the second computer program and is available through the computer.	SRA discloses claim 1. *See* claim 1 above. SRA further discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical

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	names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "The SRA provides, on the fly, an object-oriented interface to all text objects visible on the desktop." (SRA: Instant Access, p. 47) SRA further states: • The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site. • In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text." (SRA: Instant Access, p. 49) SRA: Instant Access also discloses: **View FAQs regarding tennis** Without SRA | With SRA Locate browser | Select word

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Start browser	Select SRA menu item
Direct browser to rtfm.mit.edu/pub/usenet-by-name	
Search for newsgroups mentioning tennis	
Click on newsgroup name	
Retrieve FAQ	

Perform web search on "agents"

Without SRA	With SRA
Select word	Select word
Locate browser	Select SRA menu item
Start browser	
Direct browser to search engine	
Select paste menu item	
Start search	

The Pandit '636 patent also discloses this element:

"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user

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	may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes for example an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menuI9isshowninFIG.ld. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure." 2:2:32-3: 10 "Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases,

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	anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. Ib-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4: 1-31

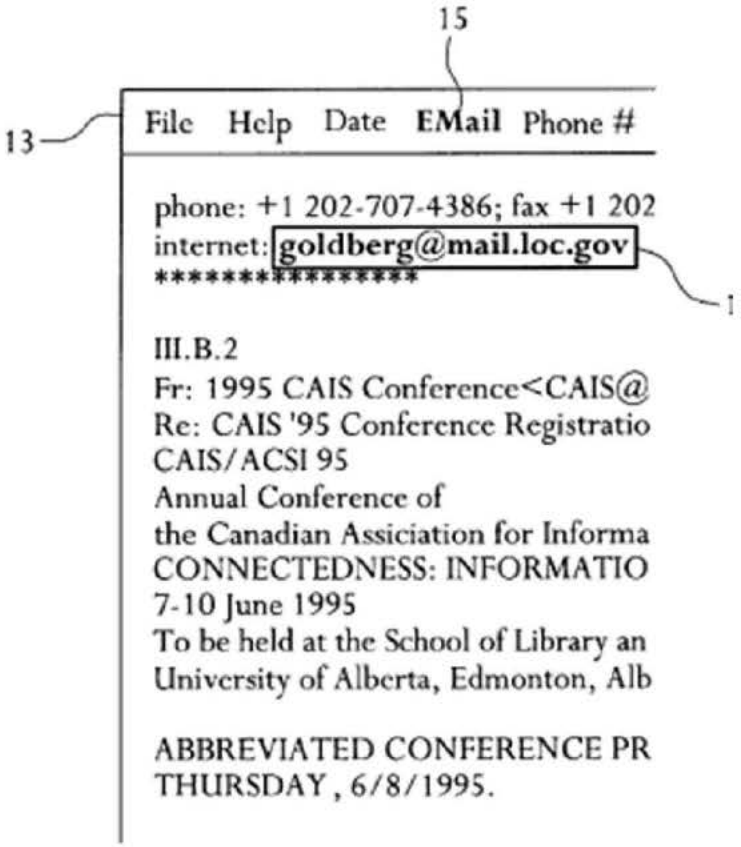

FIG. lc

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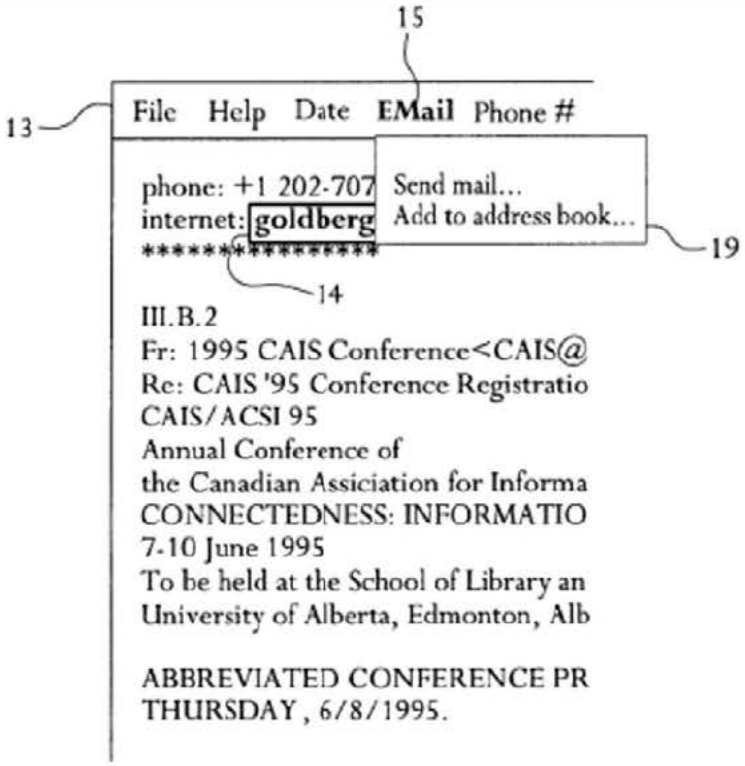

FIG. 1d

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	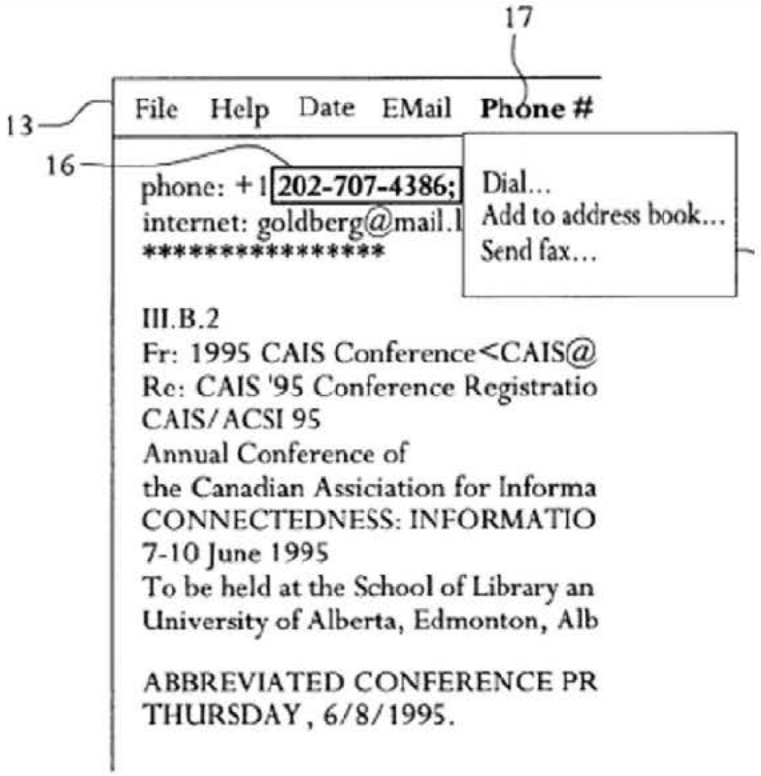 FIG. 1f For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.	SRA discloses claim 1. *See* claim 1 above. SRA further discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical

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names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47)

SRA: Instant Access further states:

"The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47)

SRA: Instant Access also discloses:

View FAQs regarding tennis

Without SRA	With SRA
Locate browser	Select word

Start browser	Select SRA menu item
Direct browser to rtfm.mit.edu/pub/usenet-by-name	
Search for newsgroups mentioning tennis	
Click on newsgroup name	
Retrieve FAQ	

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Perform web search on "agents"

Without SRA	With SRA
Select word	Select word
Locate browser	Select SRA menu item
Start browser	
Direct browser to search engine	
Select paste menu item	
Start search	

The Pandit '636 patent also discloses this element:

"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes for example an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menuI9isshowninFIG.ld. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address

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	storage may be included as within the scope of this invention. Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure." 2:2:32-3: 10 "Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to

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	telephone and telefax numbers, as shown in FIGS. Ib-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4: 1-31

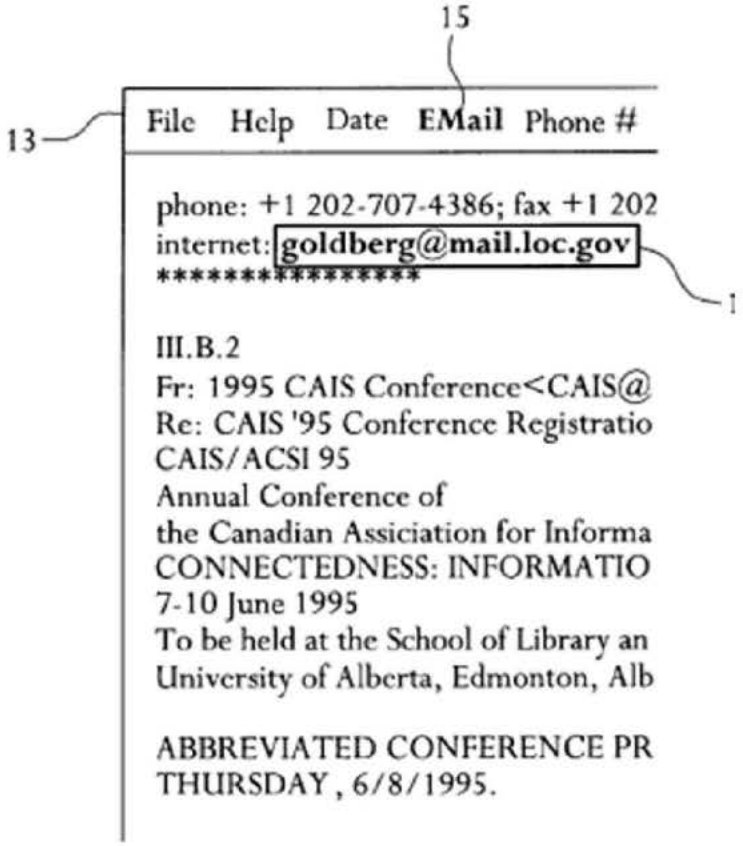

FIG. lc

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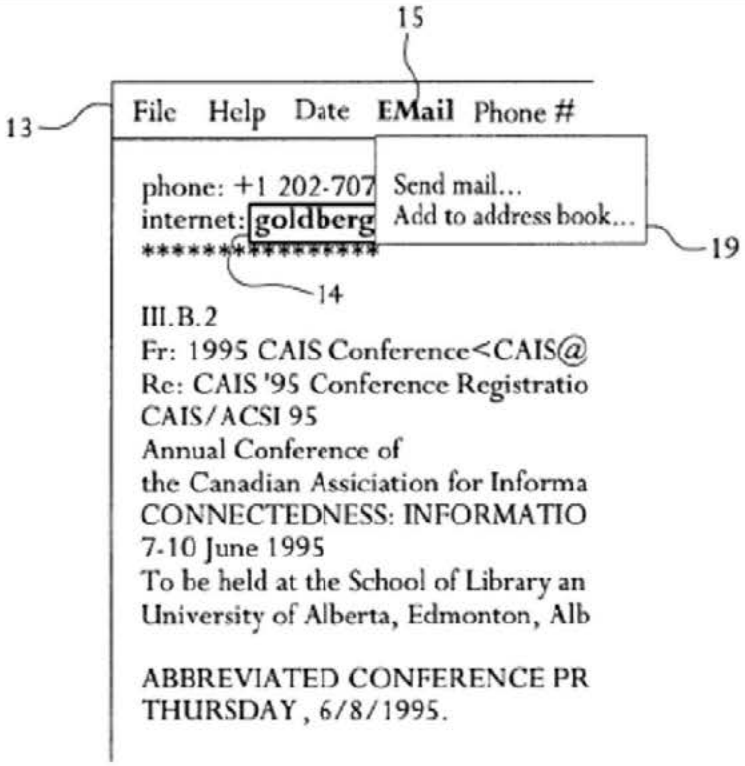

FIG. 1d

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	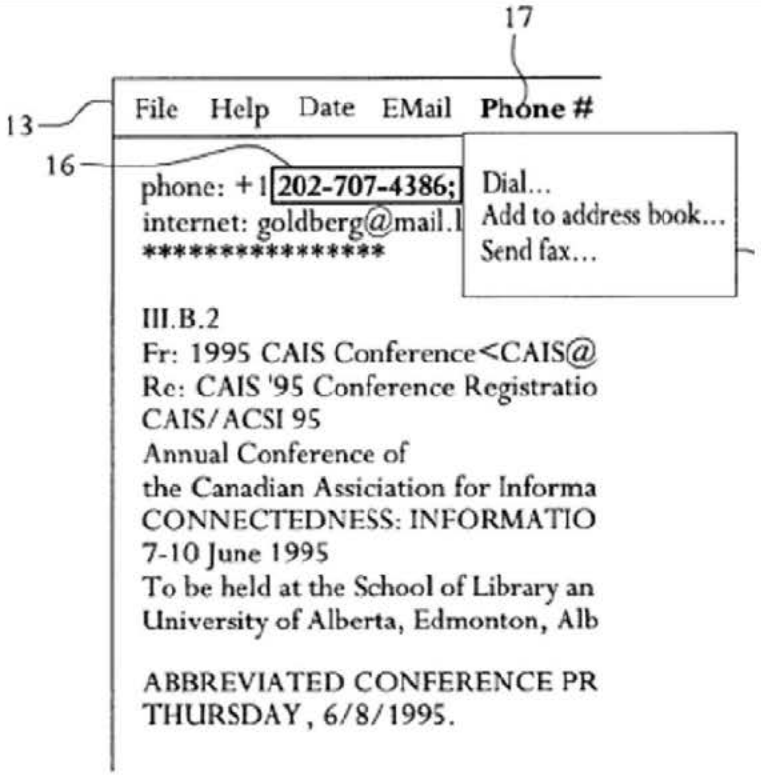 FIG. 1f For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 19	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.	SRA discloses claim 1. *See* claim 1 above. SRA further discloses this element. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical

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names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47)

SRA: Instant Access further states:

"The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47)

SRA: Instant Access also discloses:

View FAQs regarding tennis

Without SRA	With SRA
Locate browser	Select word

Start browser	Select SRA menu item
Direct browser to rtfm.mit.edu/pub/usenet-by-name	
Search for newsgroups mentioning tennis	
Click on newsgroup name	
Retrieve FAQ	

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Perform web search on "agents"

Without SRA	With SRA
Select word	Select word
Locate browser	Select SRA menu item
Start browser	
Direct browser to search engine	
Select paste menu item	
Start search	

The Pandit '636 patent also discloses this element:

"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes for example an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menuI9isshowninFIG.ld. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address

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	storage may be included as within the scope of this invention. Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure." 2:2:32-3: 10 "Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to

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	telephone and telefax numbers, as shown in FIGS. Ib-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4: 1-31

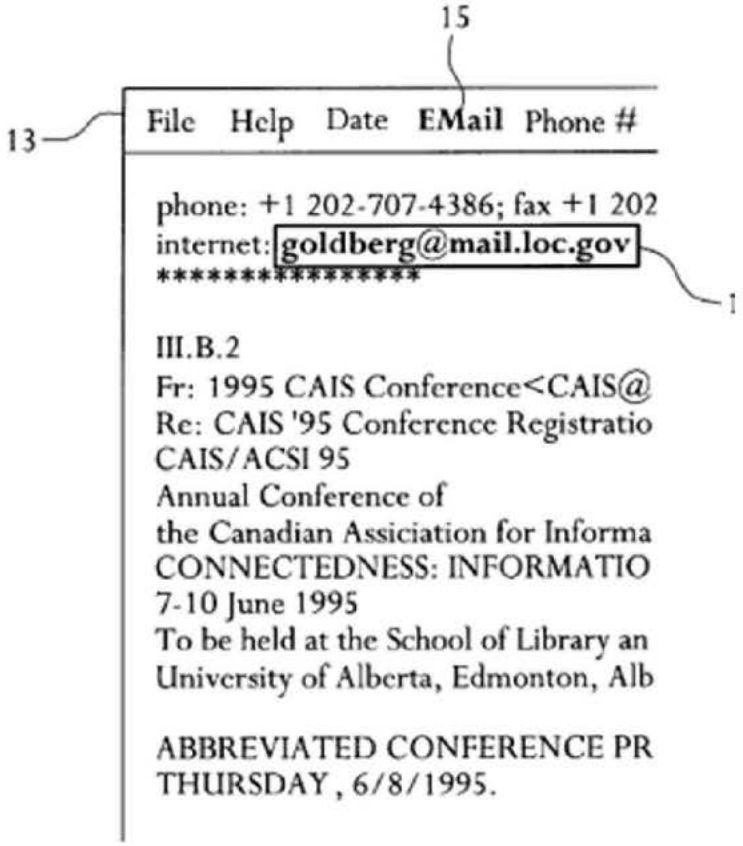

FIG. lc

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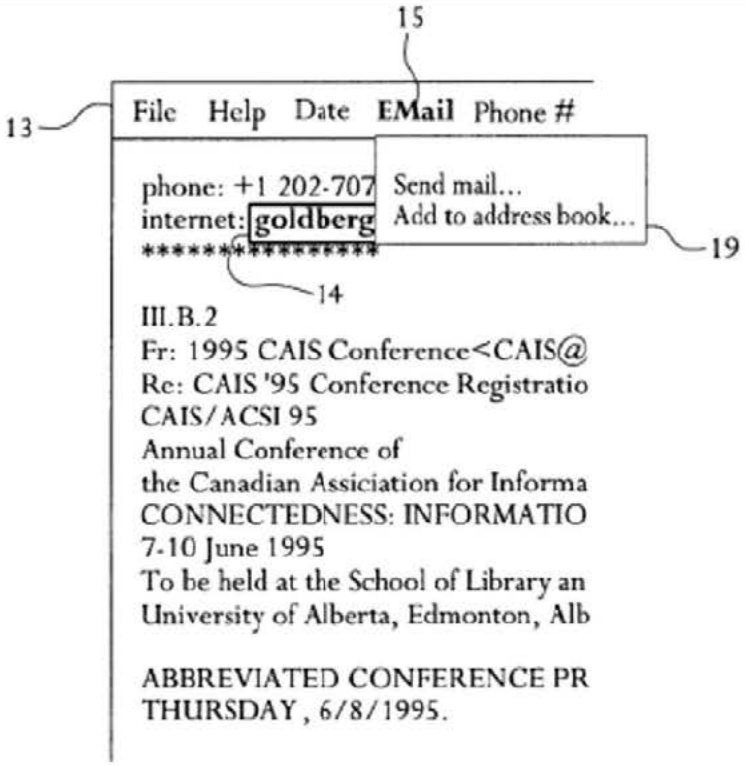

FIG. 1d

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	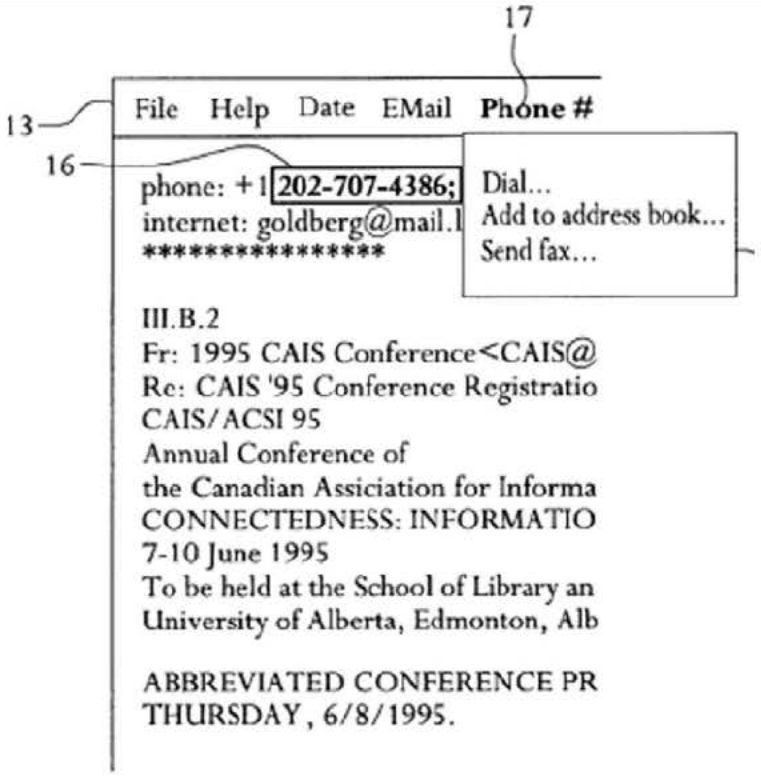 FIG. 1f For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 3, 12, 13, 18, and 21.
Claim 23	
At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data related to the contents of a document using a first computer program running on a computer, the processes comprising:	To the extent the preamble is limiting, SRA discloses the preamble. *See* claim 1. For example, SRA: Instant Access states: "[T]he Selection Recognition Agent (SRA), a personal computer application which recognizes meaningful words and phrases in text, and enables useful operations on them. The SRA includes six recognition modules for geographic names, dates, and email addresses, phone

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	numbers, Usenet newsgroup name components, and URLs, as well as a module that enables useful operations on text in general. The SRA runs on Microsoft Windows 95 and Windows NT* and is currently available free from Intel's home page (http://www.intel.com)" (SRA: Instant Access, p. 47) The Pandit '636 patent also discloses this preamble: "The present invention will benefit any application which displays text to a user, regardless of the origin of the text. The invention expands the operations which may be performed using recognized text by allowing a user to intuitively exploit the presence of certain classes or types of text in any document by transforming the text into an interface to other functions or operations. Cl:42-49 The present invention can be embodied in the form of computer-implemented processes and apparatuses for practicing those processes. The present invention also can be embodied in the form of computer program code embodied in tangible media, such as floppy diskettes, CD-ROMS, hard drives, or any other computer-readable storage medium, wherein, when the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing the invention. The present invention can also be embodied in the form of computer program code, for example, whether stored in a storage medium, loaded into and/or executed by a computer, or transmitted over some transmission medium, such as over electrical wiring or cabling, through fiber optics, or via electromagnetic radiation, wherein, when the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing the invention." 5:25-42
displaying the document electronically using the first computer program;	SRA discloses this element. *See* claim 1. For example, SRA: Instant Access states: "The SRA provides, on the fly, an object-oriented interface to all text objects visible on the desktop." (SRA: Instant Access, p. 47)

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	SRA: Instant Access further states: "When initially executed, the SRA displays an eyeball (Figure 1) on the screen, to suggest that it is now observing the user's selections and other desktop activities. It provides options to place this icon in the desktop area with other application windows, to set one of two sizes for it, to place it in the taskbar notification area, to animate it, to position it with respect to the active application window, to cause it to float above other application windows, or to cause it to appear only when the SRA recognizes something. When it is displayed with other windows in the desktop,m the SRA can be moved by dragging it using the left mouse button. When the user right-clicks on the SRA, a context menu appears (Figure 2) showing operations that are currently available. These features are consistent with Windows 95 user interface guidelines. The SRA acquires text for recognition in one of two ways. The first way is by monitoring user actions in other applications. In most applications, when the user selects text by dragging the mouse to highlight it, the SRA acquires the text and attempts to recognize meaningful objects within it. The application need not be aware of the existence of the SRA. The second way is by monitoring the clipboard. When text is copies to the clipboard, the SRA attempts to recognize meaningful objects within it." (SRA: Instant Access, p. 48) The Pandit '636 patent also discloses this element: "The present invention will benefit any application which displays text to a user, regardless of the origin of the text. The invention expands the operations which may be performed using recognized text by allowing a user to intuitively exploit the presence of certain classes or types of text in any document by transforming the text into an interface to other functions or operations." 1:42-49

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while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	SRA discloses this element. *See* claim 1. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA, Instant Access further states: "The SRA currently uses simple lookup tables, hand-generated parsers, and parsers generated using GNU Flex and Bison to classify text strings. The strength of this approach is that the SRA's recognition processes are fast and predictable." (SRA: Instant Access, p. 48) SRA, Instant Access also states: "The SRA can recognize multiple objects within selected text. Furthermore, it can classify a single object in multiple ways. For example, the string 'June 14, 1996' can be classified both as a date, or more generally as a piece of text. When multiple objects or a single object with multiple classifications are recognized, the SRA adds submenus for each class of operations to its context menu (Figure 5). The icon and main menu refer to the most specific classification of the first recognized object in the text. (Specificity is defined by class hierarchy discussed later.) The SRA can be configured to perform a default operation—the first operation in the main

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	menu—when the user double-clicks on its icon." (SRA: Instant Access, p. 49) SRA, Instant Access also states: "As currently implemented, the SRA can recognize the following kinds of objects in text: • The SRA can recognize over 1700 names of cities, states, countries, or continents. The SRA provides an option to visit a CityNet web site containing information about the recognized geographical location. • The SRA can recognize dates in a variety of formats. The SRA provides an option to start the calendar program of the user's choice. The user has the option to use the recognized date in a canonical format as a command line parameter. The date is also placed on the clipboard. • The SRA can recognize electronic mail addresses. The SRA provides an option to start the email program of the user's choice. The user has the option to use the recognized email address in a canonical format as a command line parameter. • The SRA can recognize phone numbers in a variety of formats. The SRA provides an option to start the phone book program of the user's choice. The user has the option to use the recognized phone number in a canonical format as a command line parameter. The phone number also is placed on the clipboard. • The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site. • The SRA can recognize URLs. It provides an option to visit the website, either in a running browser or in a new instance of the browser.

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	• In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text." (SRA: Instant Access, p. 49) The Pandit '636 patent also discloses this element: "The invention selectively recognizes text and performs relevant operations based on the recognition. Referring to FIG. la and FIG. 2, for example, a date 11 in text appearing on a video monitor is accented (step 21 of FIG. 2) for example by shading, underlining or pointing to and clicking on the text. The invention recognizes the accented text (step 22), and provides a menu bar 13 in which the name of menu 12 corresponding to the class of text accented is highlighted or shown in bold type, thereby showing that the menu is enabled (step 23). In the example of FIG. la, the Date menu 12 is shown in bold type, signifying that the invention includes a menu of operations and/or programs which are relevant to dates." 2:3-15

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	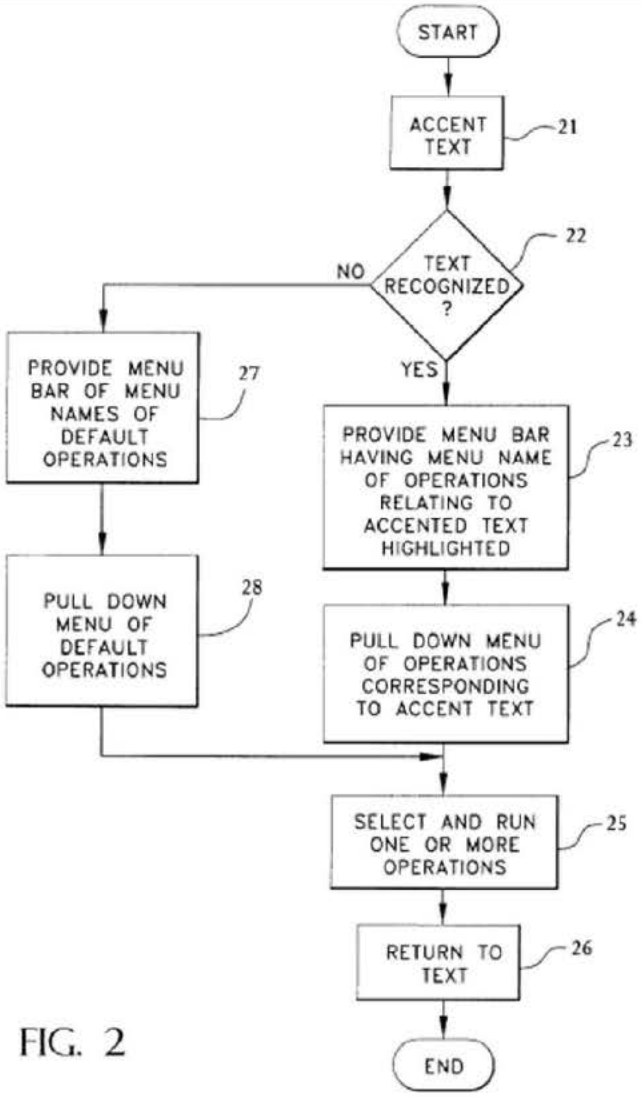 FIG. 2
retrieving the first information;	SRA discloses this element. *See* claim 1. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in

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	the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "The SRA coordinates the operation of multiple recognizers, each of which recognizes and provides relevant operations for a single class of text. Recognizers are modular. All recognizers are accessed by the SRA through an identical interface. The list of available recognizers is retrieved from registry information during initialization of the program. As a result, additional recognizers may be implemented and added to the SRA without recompiling the entire system. The date and phone number recognizers use parsers generated by GNU Flex and Bison to recognize dates and phone numbers in diverse formats. The electronic mail address and URL recognizers use hand-written parsers to recognize email addresses and URLs in one or two standard formats. The city and key word recognizers maintain large lists of recognizable cities and key words, which are accessed quickly using hash tables." (SRA: Instant Access, p. 49) SRA: Instant Access also states: "The SRA acquires text in the following manner: It first registers with the operating system to receive notification whenever the contents of the clipboard change. It then uses a system hook procedure to receive notification whenever the right mouse button is released in any window. When such a notification arrives, it backs up

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	the current contents of the clipboard and sends a special message to the window. Most windows respond to this message by copying any selected text to the clipboard. When the clipboard-change notification arrives, the SRA submits the clipboard text to the recognizers and then restores the previous contents of the clipboard. In this manner, text can be acquired from most applications, without disturbing the clipboard, immediately after it is highlighted. In other applications, copying the text to the clipboard is sufficient for the SRA to try recognizing it. When the SRA acquires text, either from another application or from the clipboard, it submits the text to each recognizer to determine if any of them recognize objects within the text. A recognizer is activated when as soon as it recognizes an object within the text. If more than one recognizer is activated, the SRA chooses the most specific one. The SRA asks this recognizer for its icon, and for the names of operations it supports. The SRA changes its icon to that of the recognizer, and adds the recognizer's operations to its context menu. If less specific recognizers were also activated, the SRA asks them for the names of operations they support, and adds these to sub-menus of its context menu." (SRA: Instant Access, p. 50) The Pandit '636 patent also discloses this element: "Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure." 2:2:64-3:10

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providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	SRA discloses this element. *See* claim 1. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "The SRA provides, on the fly, an object-oriented interface to all text objects visible on the desktop." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "When the user selects an operation from the context menu, the SRA asks the appropriate recognizer to perform the appropriate operation on the last object it recognized." (SRA: Instant Access, p. 50) SRA: Instant Access discloses the ability to perform searches using at least part of the first information. For example, SRA states:

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- The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site.

- In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text."

(SRA: Instant Access, p. 49)

SRA: Instant Access also discloses:

View FAQs regarding tennis

Without SRA	With SRA
Locate browser	Select word

Start browser	Select SRA menu item
Direct browser to rtfm.mit.edu/pub/usenet-by-name	
Search for newsgroups mentioning tennis	
Click on newsgroup name	
Retrieve FAQ	

Perform web search on "agents"

Without SRA	With SRA
Select word	Select word
Locate browser	Select SRA menu item
Start browser	
Direct browser to search engine	
Select paste menu item	
Start search	

The Pandit '636 patent also discloses this element:

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	"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes for example an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menuI9isshowninFIG.ld. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax

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	numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure." 2:2:32-3: 10 "Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. Ib-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4: 1-31

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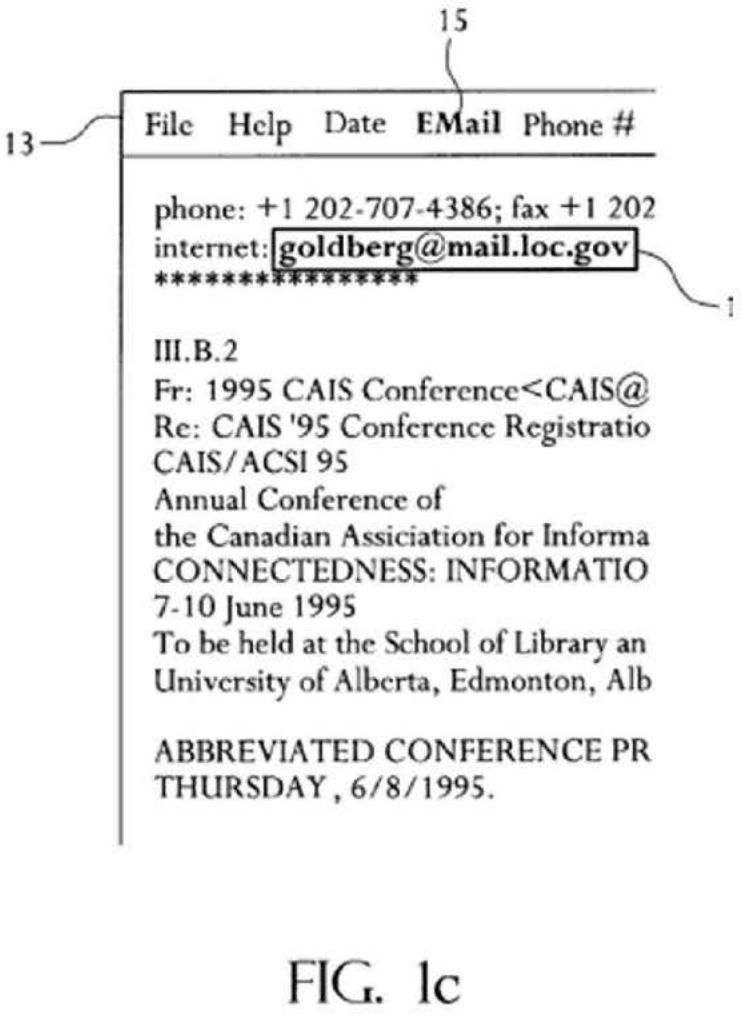

FIG. 1c

Exhibit S

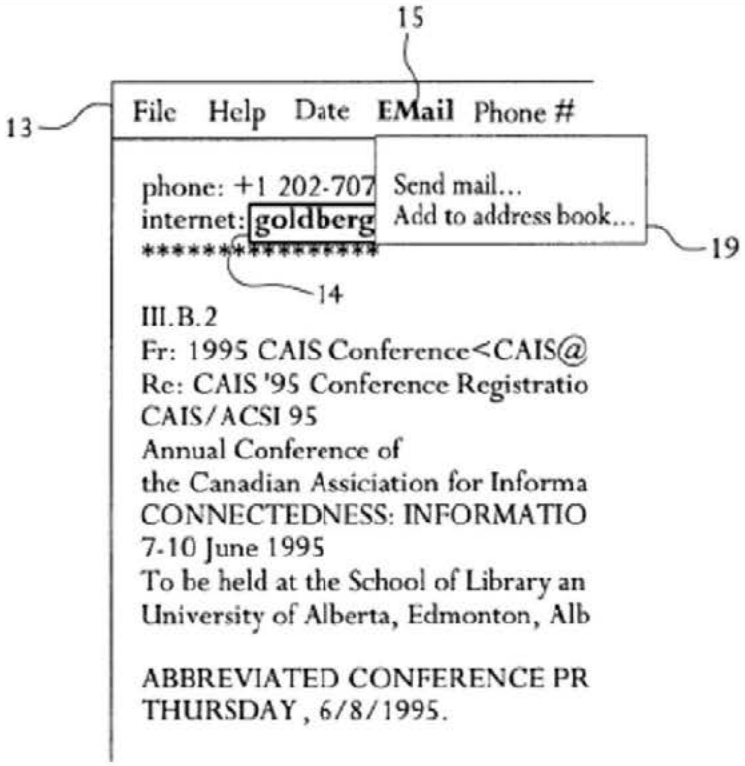

FIG. 1d

Exhibit S

	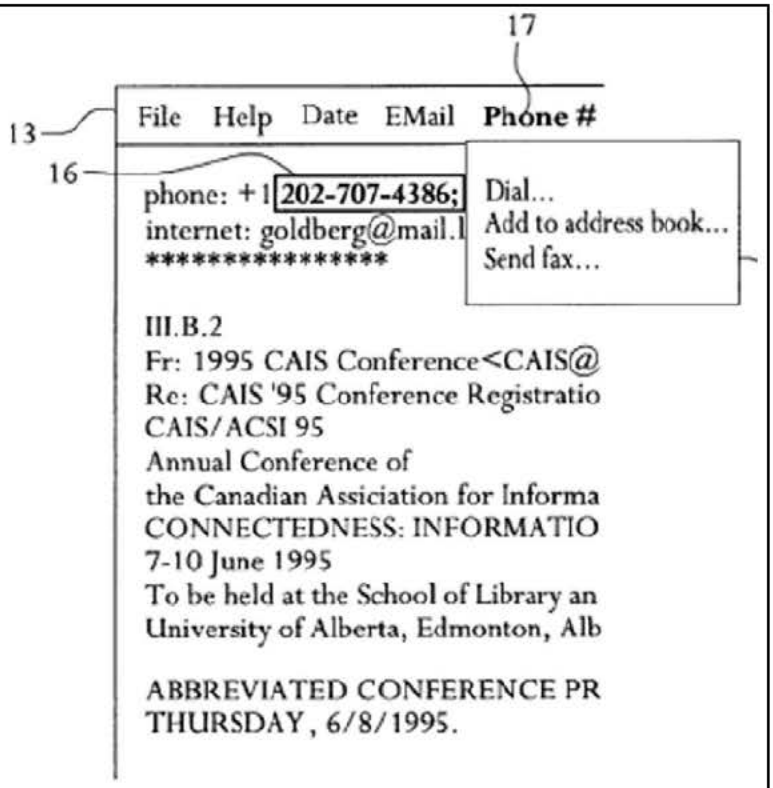 FIG. 1f
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	SRA discloses this element. *See* claim 1. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or

Exhibit S

	download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "The tool tip (a small window which appears when the pointer rests on the icon) changes to indicate the class of the object recognized. Operations relevant to the class of the recognized object now appear in the context menu (Figure 4). In most cases, the operation involves launching a program. The selected object is either placed in the command line or on the clipboard in a canonical format useable by the program. Thus, the SRA operates in a cycle of selection of text by the user, recognition of an object within text, and operation on the object." (SRA: Instant Access, p. 48-49.) Furthermore, SRA: Instant Access discloses the element, "a search for a search term in the information source." For example, SRA states: • The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site. • In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text." (SRA: Instant Access, p. 49) SRA: Instant Access also discloses:

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View FAQs regarding tennis

Without SRA	With SRA
Locate browser	Select word

Start browser	Select SRA menu item
Direct browser to rtfm.mit.edu/pub/usenet-by-name	
Search for newsgroups mentioning tennis	
Click on newsgroup name	
Retrieve FAQ	

Perform web search on "agents"

Without SRA	With SRA
Select word	Select word
Locate browser	Select SRA menu item
Start browser	
Direct browser to search engine	
Select paste menu item	
Start search	

The Pandit '636 patent also discloses this element:

"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down

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	menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. Id. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:2:32-3: 1O Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value

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	returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc. 4: 1-31

Exhibit S

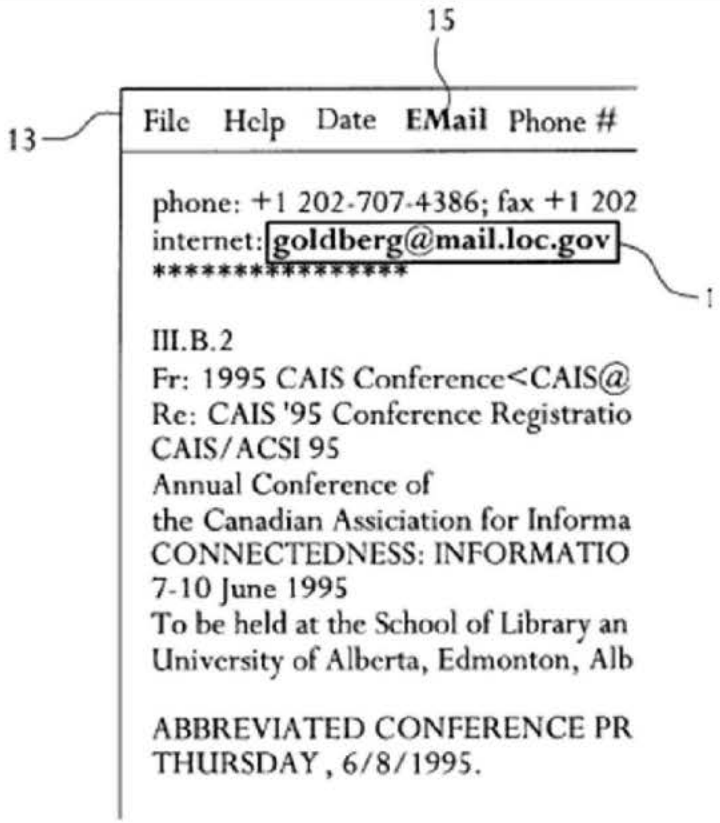

FIG. 1c

Exhibit S

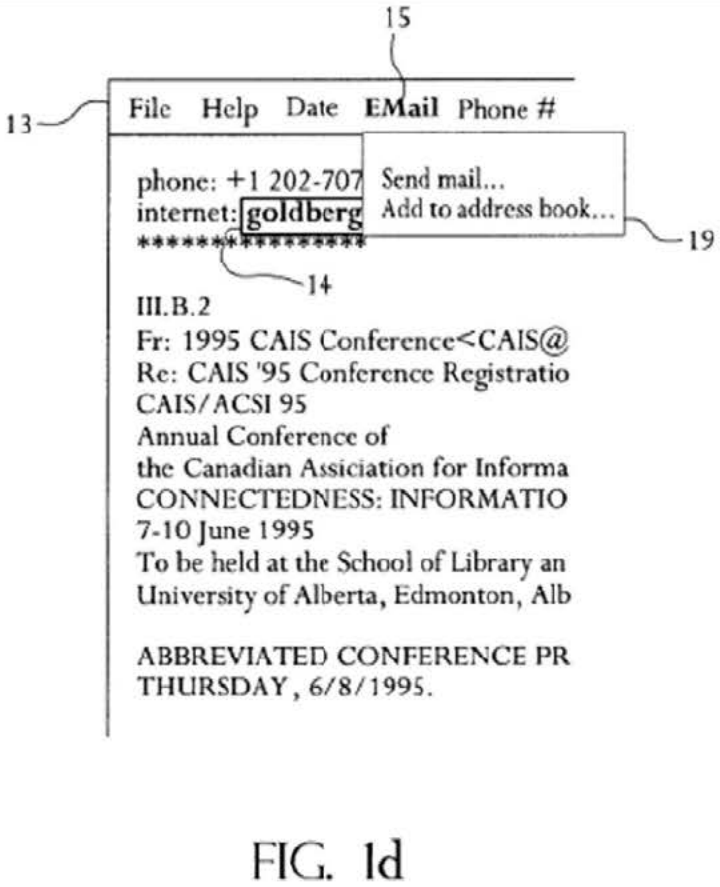

FIG. 1d

Exhibit S

	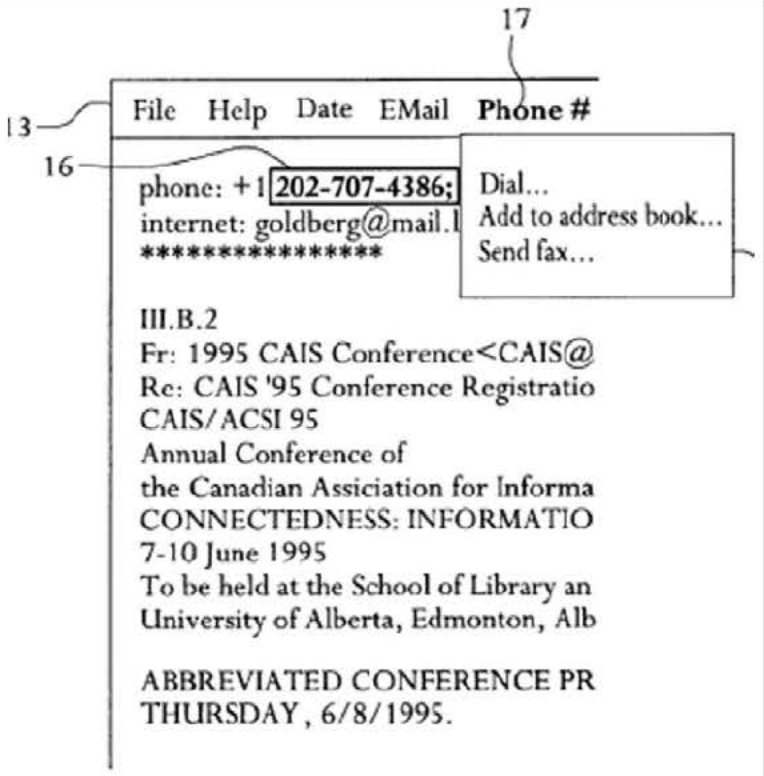 FIG. 1f
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	SRA discloses this element. *See* claim 1. For example, SRA: Instant Access states: "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or

Exhibit S

	download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47) SRA: Instant Access further states: "The SRA automatically turns plain text into a kind of hypertext, by quickly recognizing selected text, and then linking it to related information and applications. Thus, the SRA turns the entire desktop into a kind of hypertext document." (SRA: Instant Access, p. 47) SRA: Instant Access also states: "As currently implemented, the SRA can recognize the following kinds of objects in text: • The SRA can recognize over 1700 names of cities, states, countries, or continents. The SRA provides an option to visit a CityNet web site containing information about the recognized geographical location. • The SRA can recognize dates in a variety of formats. The SRA provides an option to start the calendar program of the user's choice. The user has the option to use the recognized date in a canonical format as a command line parameter. The date is also placed on the clipboard. • The SRA can recognize electronic mail addresses. The SRA provides an option to start the email program of the user's choice. The user has the option to use the recognized email address in a canonical format as a command line parameter. The phone number also is placed on the clipboard. • The SRA can recognize words which are the components of Usenet Newsgroup names. The SRA provides an option to retrieve the FAQ for those newsgroups from ftp://rtfm.mit.edu or a mirror site. • The SRA can recognize URLs. It provides an option to visit the website, either in a running browser or in a new instance of the browser.

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	• In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text." (SRA: Instant Access, p. 49) The Pandit '636 patent also discloses this element: The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. la where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. lc, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. Id. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention.

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	Referring now to FIG. Ie, a telephone number 16 is accented. The pull down menu named Phone # 17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. If on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:2:32-3: 10 Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries Band C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to

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	EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-lf. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc. 4: 1-31 The Pandit '636 patent further discloses that "the invention preferably includes as default operations such programs as spell-checkers, grammar-checkers, a thesaurus, a dictionary, execution of an Email program to transmit the text, programs to store the text and any other programs relating to words in general." 3:23-35. A search for first information is inherent with the use of spell-checkers, grammar-checkers, a thesaurus and/or a dictionary.
Claim 30	
At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising:	SRA discloses claim 23. *See* claim 23 above.
providing a prompt for updating the information source to include the first information.	SRA discloses this element. See claim 8 above.

Exhibit S

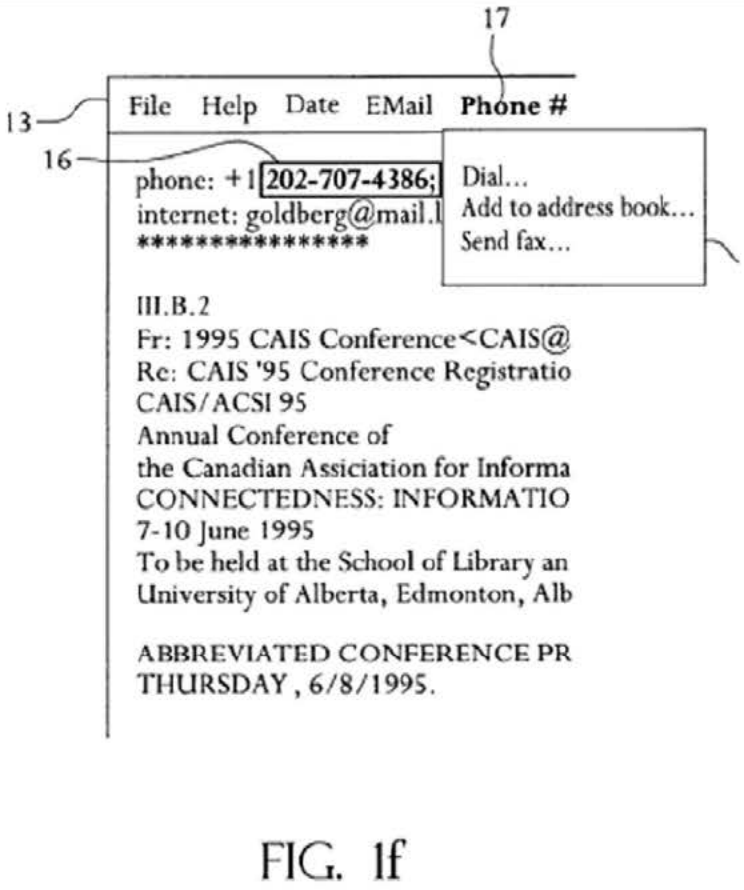

FIG. 1f

Exhibit S

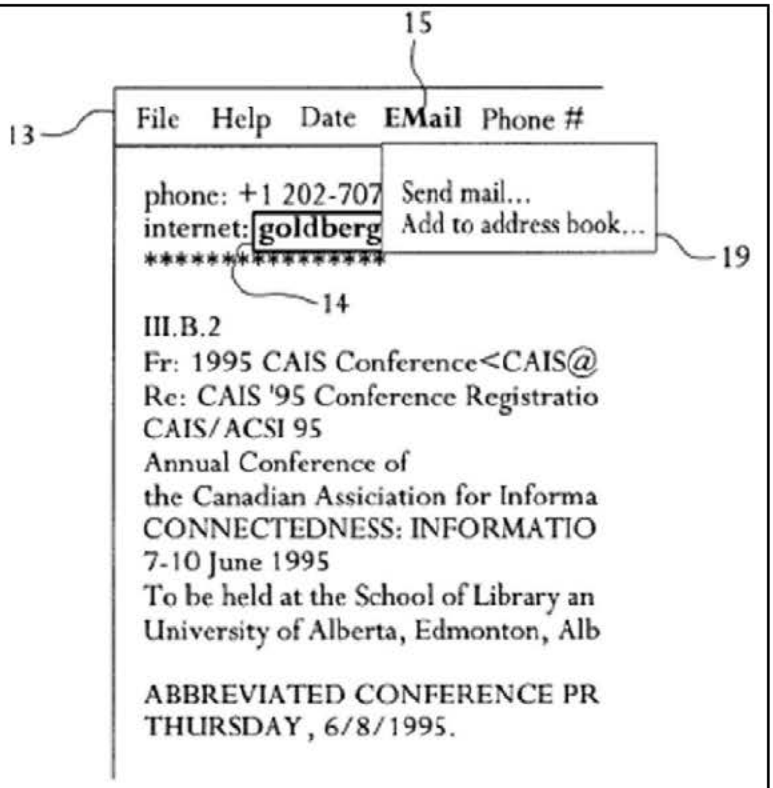

FIG. 1d

Exhibit T

Claim Chart Applying U.S. Patent No. 5,859,636 Against the '843 Patent

U.S. Patent No. 5,859,636 ("Pandit") was filed on December 27, 1995 and was issued on January 12, 1999. It therefore constitutes prior art under pre-AIA 35 U.S.C. § 102. As shown below, Pandit anticipates and renders obvious claims 1, 8, 13, 15, 17, 18, 19, 23, and 30 of the '843 patent.

"Obviousness Statement" - To the extent that the Judge or Jury finds that Pandit does not teach an element either expressly or inherently, then the claim element is obvious to a POSITA based on the state of the art (*see, e.g.*, Section V of my Report), including the admissions of the prior art functionalities and motivations to combine those prior art functionalities in the '843 patent, as well as the motivations to combine and understandings of a POSITA discussed in my Report (*see, e.g.*, Section IX of my Report and Exhibit U), in light of the teachings of, at least, the prior art listed and discussed in Exhibit U, and each prior art system and/or reference listed in my Report, including, without limitation, Pandit, Chalas, Domini, Hachamovitch, Tso, Person, CyberDesk System (including specific publications describing aspects of the CyberDesk System), Eudora System (including specific publications describing aspects of the Eudora System), Apple Data Detectors System (including specific publications describing aspects of the Apple Data Detectors System), LiveDoc System (including specific publications describing aspects of the LiveDoc System), Newton System (including specific publications describing aspects of the Newton System), Microsoft Outlook 97 (including specific publications describing aspects of Microsoft Outlook 97), Selection Recognition Agent System (including specific publications describing aspects of the Selection Recognition Agent System), and Microsoft Word 97 (including specific publications describing aspects of Microsoft Word 97).

'843 Patent Claims	**Disclosure**
Claim 1	
A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:	To the extent the preamble is limiting, Pandit discloses the preamble. The present invention will benefit any application which displays text to a user, regardless of the origin of the text. The invention expands the operations which may be performed using recognized text by allowing a user to intuitively exploit the presence of certain classes or types of text in any document by transforming the text into an interface to other functions or operations. 1:42-49 The present invention can be embodied in the form of computer-implemented processes and apparatuses for practicing those processes. The present invention also can be embodied in the form of computer program code embodied in tangible media, such as floppy diskettes, CD-ROMS, hard drives, or any other computer-readable storage medium, wherein, when the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing the invention. The present invention can also be embodied in the form of computer program code, for example, whether stored in a storage medium, loaded into and/or executed by a computer, or transmitted over some transmission medium, such as over electrical

Exhibit T

	wiring or cabling, through fiber optics, or via electromagnetic radiation, wherein, when the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing the invention. 5:25-42 *Further, see also* 1:9-10, 4:20-31, 5:12-24 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 1, 9, and 18.
displaying the document electronically using the first computer program;	Pandit discloses this element. The present invention will benefit any application which displays text to a user, regardless of the origin of the text. The invention expands the operations which may be performed using recognized text by allowing a user to intuitively exploit the presence of certain classes or types of text in any document by transforming the text into an interface to other functions or operations. 1:42-49 *Further, see also* Fig. 1 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 1.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Pandit discloses this element. The invention selectively recognizes text and performs relevant operations based on the recognition. Referring to FIG. 1a and FIG. 2, for example, a date 11 in text appearing on a video monitor is accented (step 21 of FIG. 2) for example by shading, underlining or pointing to and clicking on the text. The invention recognizes the accented text (step 22), and provides a menu bar 13 in which the name of menu 12 corresponding to the class of text accented is highlighted or shown in bold type, thereby showing that the menu is enabled (step 23). In the example of FIG. 1a, the Date menu 12 is shown in bold type, signifying that the invention includes a menu of operations and/or programs which are relevant to dates. 2:3-15

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	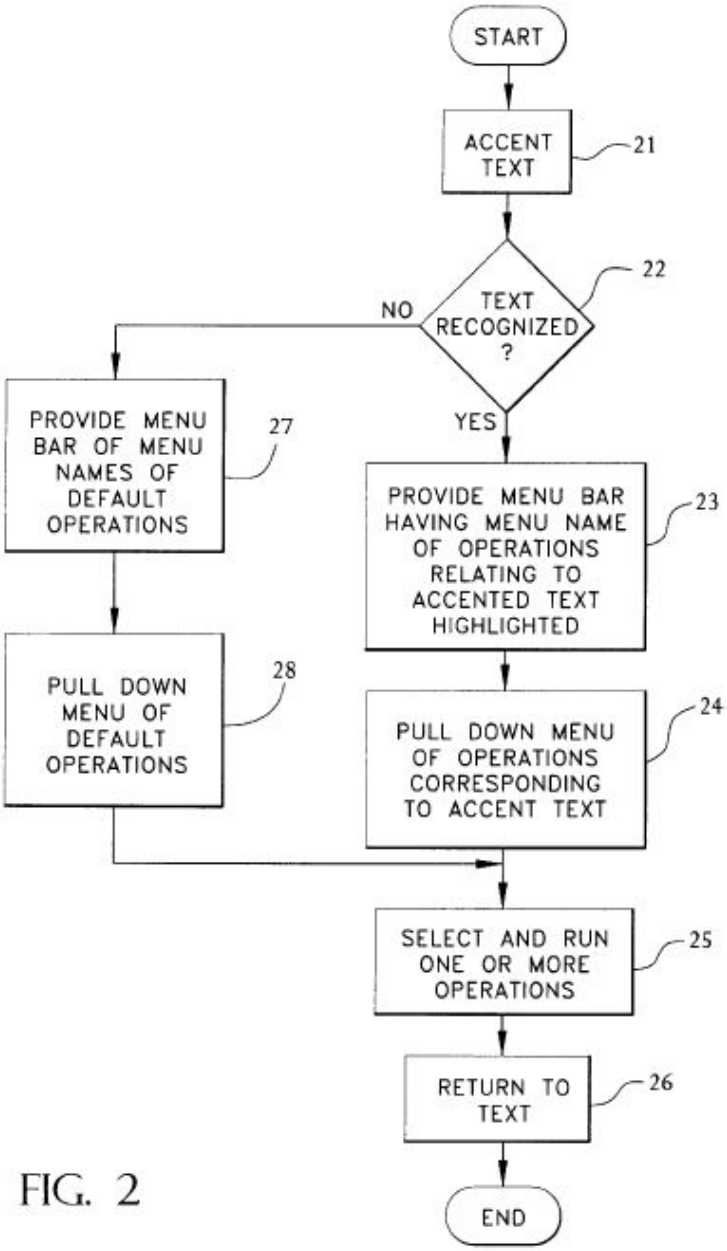 FIG. 2 Fig. 2 and accompanying text. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 11, 14, and 15.
retrieving the first information;	Pandit discloses this element. As shown in FIGS. 1c-1f, the invention is not limited to the recognition of dates in text and preferred embodiments of the invention can recognize e-mail addresses and telephone numbers. In fact, there is no limit on the type of text which can be recognized by the invention and

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	additional embodiments can recognize such classes of text as Uniform Resource Locators, nouns, verbs, names, street addresses, etc. 2:25-32. Referring now to FIG. 1e, a telephone number 16 is accented. The pull down menu named Phone #17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. 1f on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:2:64-3:10 Where the invention is capable of recognizing nouns or verbs, pull-down menus can, for example, identify executable programs which provide the meaning of the highlighted word, appropriate synonyms and the singular or plural version of the noun or conjugation of the verb. 3:11-16
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Pandit discloses this element. The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. 1c, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail

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	addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. 1d. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. 1e, a telephone number 16 is accented. The pull down menu named Phone #17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. 1f on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:2:32-3:11 Where the invention is capable of recognizing nouns or verbs, pull-down menus can, for example, identify executable programs which provide the meaning of the highlighted word, appropriate synonyms and the singular or plural version of the noun or conjugation of the verb. As noted above the invention preferably includes a library enabling recognition of Uniform Resource Locators (URLs) in text. Consequently, preferred programs which appear on and can be run from the pull-down menu in response to the accenting and subsequent recognition of a URL include World-Wide Web browser programs, such as "NETSCAPE" or "NCSA MOSAIC." In a preferred embodiment, in the event the accented text is not recognized, i.e., the text is not of the specific type or class recognizable by any of the libraries provided, a menu bar having a list of one or more menu names of default operations can be made to appear (step 27). The invention preferably includes as default operations such programs as spell-checkers, grammar-checkers, a thesaurus, a dictionary, execution of an EMail program to transmit the text, programs to store the text and any other programs relating to words in general. Of course, the names of the default programs appear on one or more pull-down menus (step 28) corresponding to the one or more menu names.

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	3:12-34 Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries B and C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-1f. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc. 4:1-31

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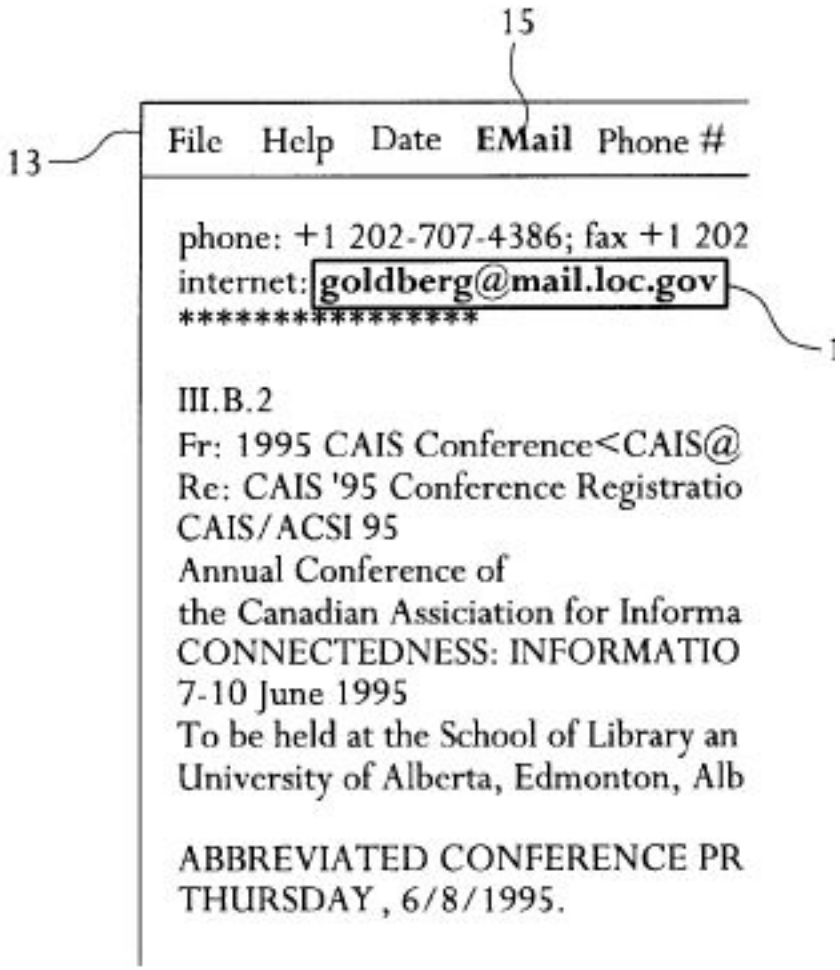

FIG. 1c

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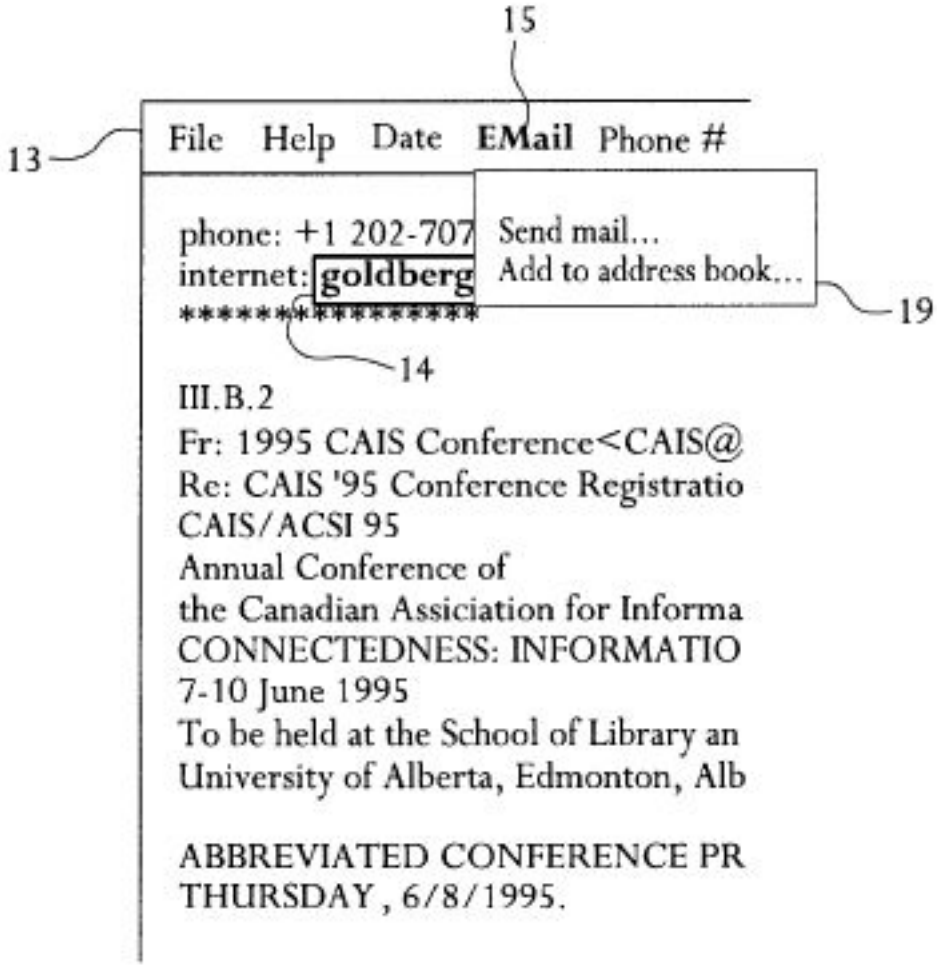

FIG. 1d

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	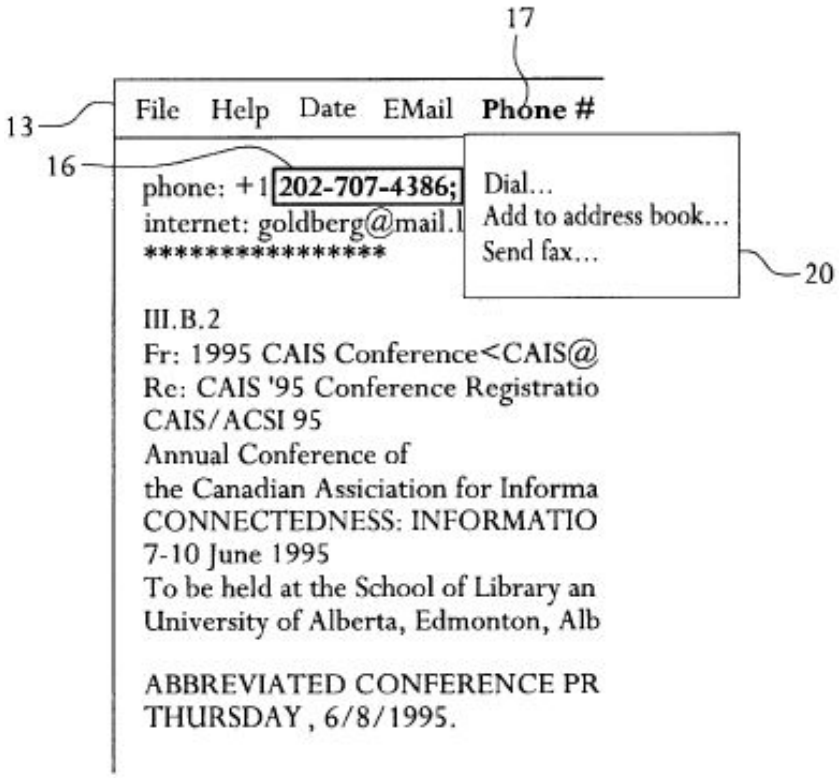 FIG. 1f Figs. 1c, 1d, and 1f and accompanying text. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 9, 19, and 20. Pandit and the prior art references and systems set forth in Exhibit U, Tables 9, 19, and 20 (e.g., Goodwin, LiveDoc Version 0.8 System, Newton), relate to the same field of art, which is personal communication devices and methods. Specifically, Pandit and certain prior art references and systems set forth in Exhibit U, Tables 9, 19, and 20 (e.g., Goodwin, LiveDoc Version 0.8 System, Newton) relate to the human-computer interaction of managing an address book or contact database in a personal communication device. A POSITA would have reasonable expectation of success to achieve predictable results in combining Pandit and the prior art references and systems in Exhibit U. A POSITA would have recognized advantages and benefits to have Pandit search for information in an address book that is related to recognized contact information, including but not limited to e-mail address or telephone number.
in consequence of receipt by the	Pandit discloses this element.

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first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to Pandit discloses this element. The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. 1c, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. 1d. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. 1e, a telephone number 16 is accented. The pull

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	down menu named Phone #17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. 1f on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:2:32-3:11 Where the invention is capable of recognizing nouns or verbs, pull-down menus can, for example, identify executable programs which provide the meaning of the highlighted word, appropriate synonyms and the singular or plural version of the noun or conjugation of the verb. As noted above the invention preferably includes a library enabling recognition of Uniform Resource Locators (URLs) in text. Consequently, preferred programs which appear on and can be run from the pull-down menu in response to the accenting and subsequent recognition of a URL include World-Wide Web browser programs, such as "NETSCAPE" or "NCSA MOSAIC." In a preferred embodiment, in the event the accented text is not recognized, i.e., the text is not of the specific type or class recognizable by any of the libraries provided, a menu bar having a list of one or more menu names of default operations can be made to appear (step 27). The invention preferably includes as default operations such programs as spell-checkers, grammar-checkers, a thesaurus, a dictionary, execution of an EMail program to transmit the text, programs to store the text and any other programs relating to words in general. Of course, the names of the default programs appear on one or more pull-down menus (step 28) corresponding to the one or more menu names. 3:12-34 Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List,

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	Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries B and C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-1f. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc. 4:1-31

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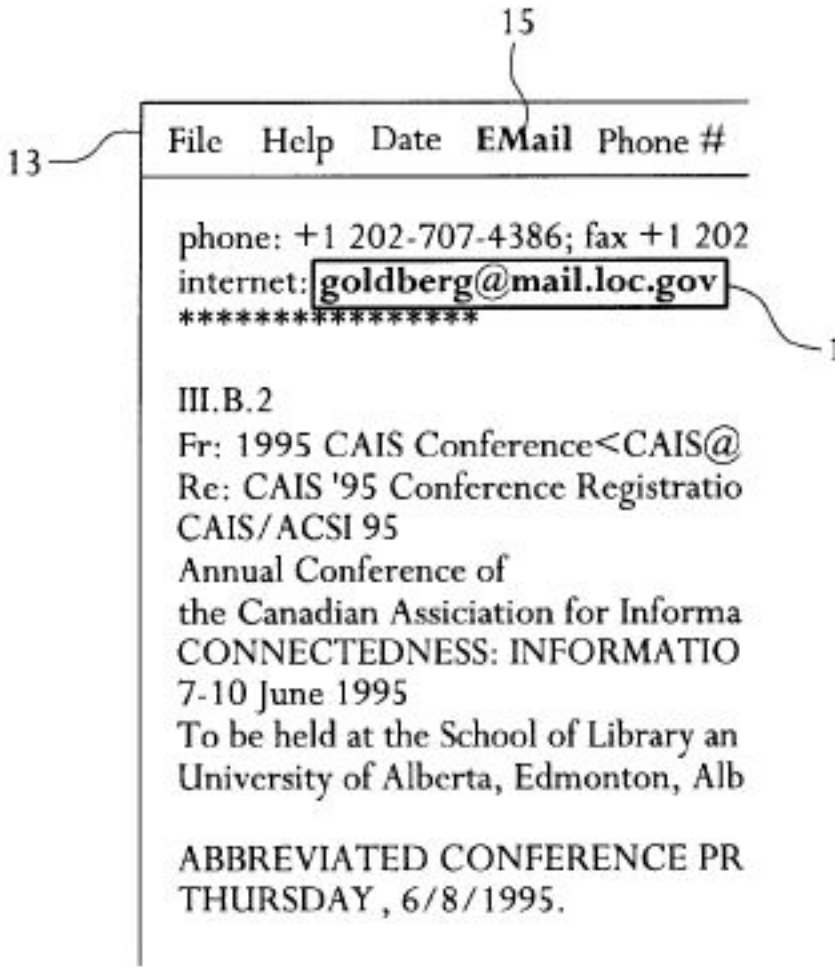

FIG. 1c

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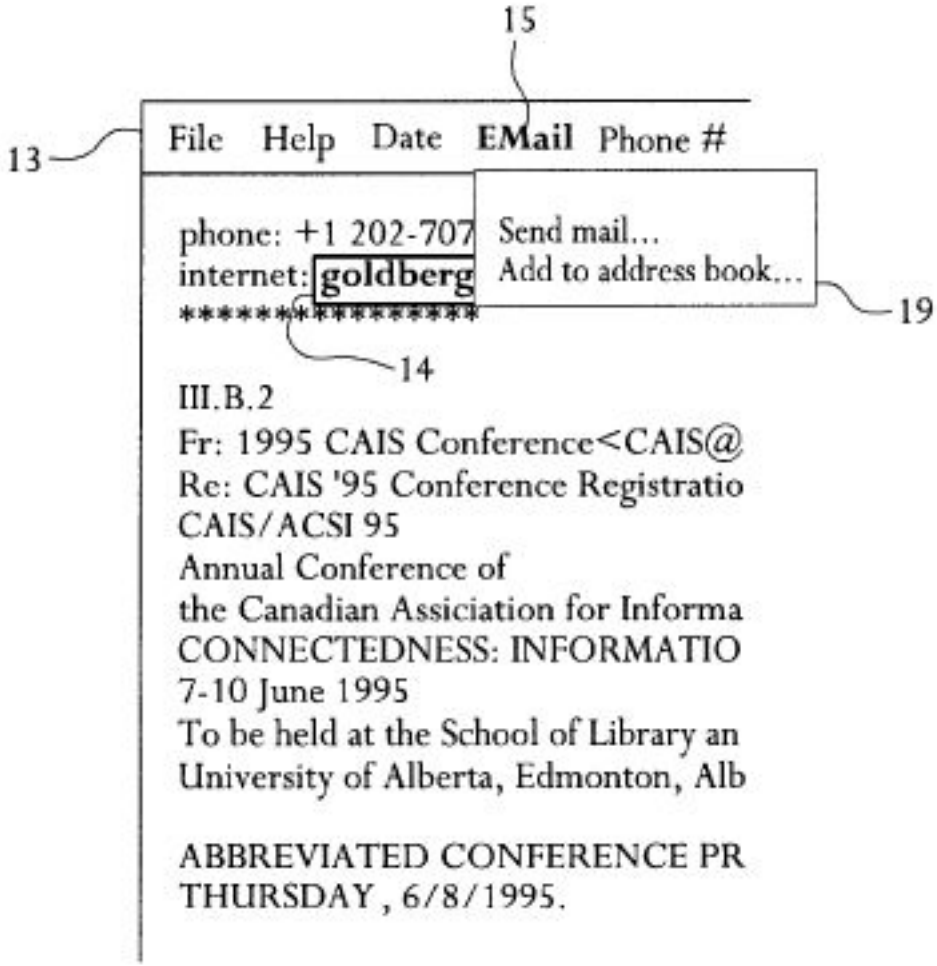

FIG. 1d

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	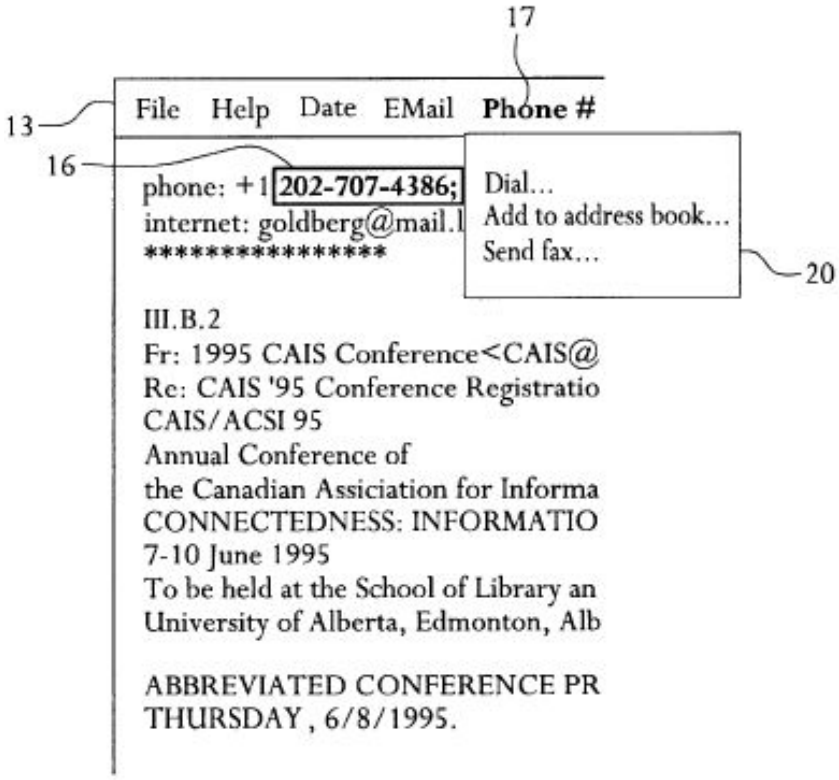 FIG. 1f Figs. 1c, 1d, and 1f and accompanying text. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), the element and the claim are rendered obvious for the reasons stated in Exhibit U, Tables 9 and 19. Pandit and the prior art references and systems set forth in Exhibit U, Tables 9, 19 (e.g., Goodwin, LiveDoc Version 0.8 System, Newton), relate to the same field of art, which is personal communication devices and methods. Specifically, Pandit and certain prior art references and systems set forth in Exhibit U, Tables 9, 19 (e.g., Goodwin, LiveDoc Version 0.8 System, Newton) relate to the human-computer interaction of managing an address book or contact database in a personal communication device. A POSITA would have reasonable expectation of success to achieve predictable results in combining Pandit and the prior art references and systems in Exhibit U. A POSITA would have recognized advantages and benefits to have Pandit search for information in an address book that is related to recognized e-mail address or telephone number address book.
if searching finds any second	Pandit discloses this element.

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information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.	The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to Pandit discloses this element. The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc .... A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. 1c, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. 1d. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. 1e, a telephone number 16 is accented. The pull

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	down menu named Phone #17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. 1f on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:2:32-3:11 Where the invention is capable of recognizing nouns or verbs, pull-down menus can, for example, identify executable programs which provide the meaning of the highlighted word, appropriate synonyms and the singular or plural version of the noun or conjugation of the verb. As noted above the invention preferably includes a library enabling recognition of Uniform Resource Locators (URLs) in text. Consequently, preferred programs which appear on and can be run from the pull-down menu in response to the accenting and subsequent recognition of a URL include World-Wide Web browser programs, such as "NETSCAPE" or "NCSA MOSAIC." In a preferred embodiment, in the event the accented text is not recognized, i.e., the text is not of the specific type or class recognizable by any of the libraries provided, a menu bar having a list of one or more menu names of default operations can be made to appear (step 27). The invention preferably includes as default operations such programs as spell-checkers, grammar-checkers, a thesaurus, a dictionary, execution of an EMail program to transmit the text, programs to store the text and any other programs relating to words in general. Of course, the names of the default programs appear on one or more pull-down menus (step 28) corresponding to the one or more menu names. 3:12-34 Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List,

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	Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries B and C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-1f. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc. 4:1-31

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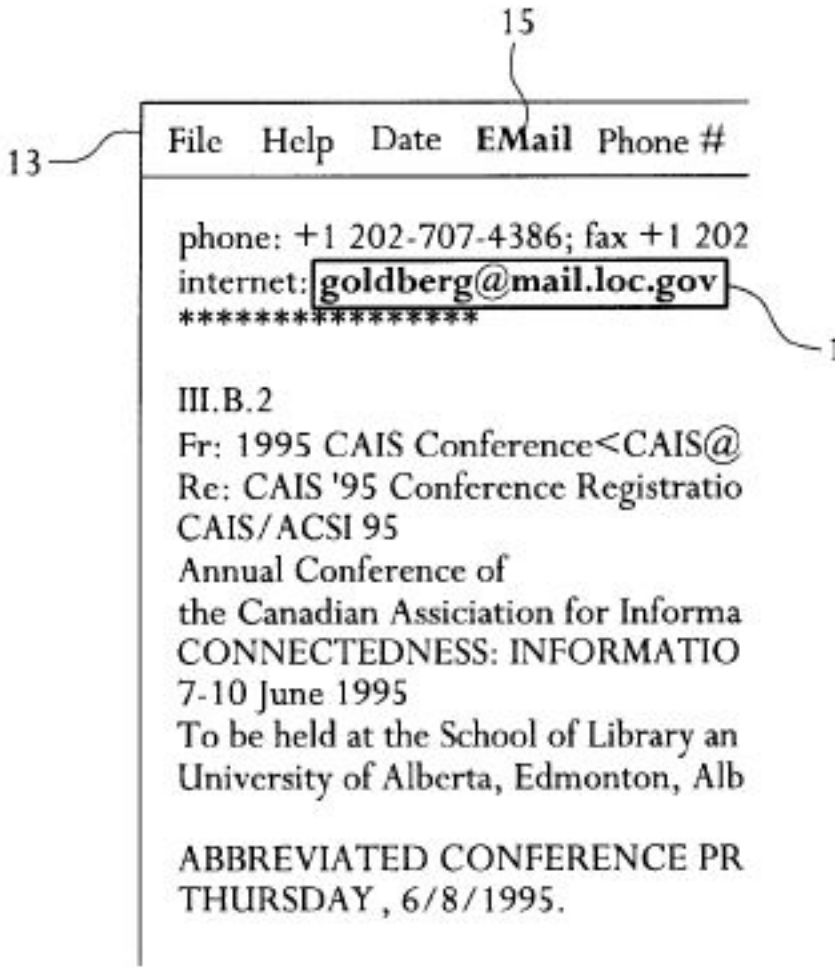

FIG. 1c

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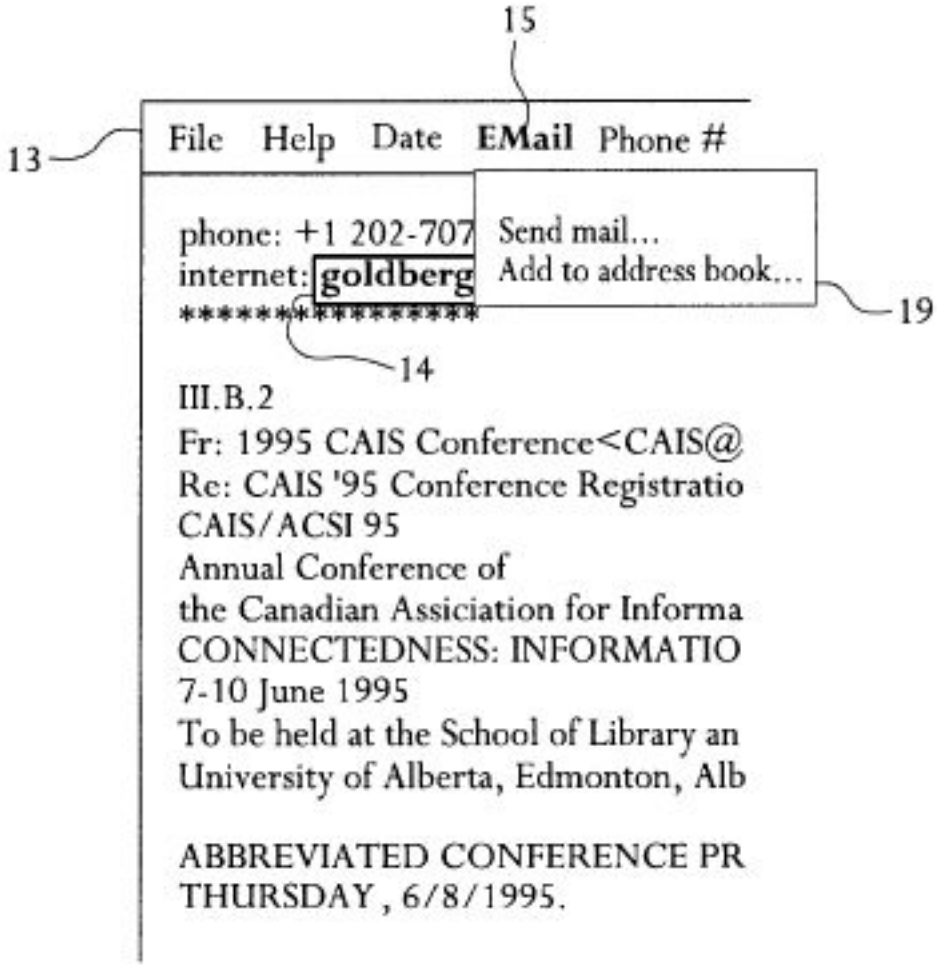

FIG. 1d

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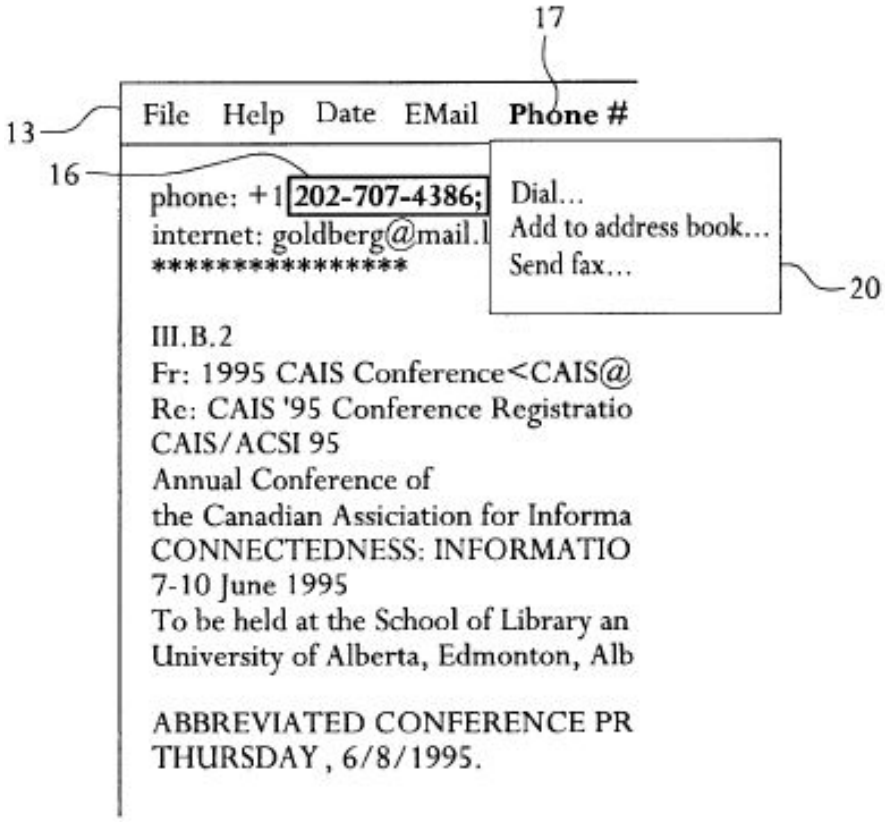

FIG. 1f

Figs. 1c, 1d, and 1f and accompanying text.

For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), the element and the claim are rendered obvious for the reasons stated in Exhibit U, Tables 12, 20. Pandit and the prior art references and systems set forth in Exhibit U, Tables 12, 20 (e.g., LiveDoc Version 0.8 System, Newton), relate to the same field of art, which is personal communication devices and methods. Specifically, Pandit and certain prior art references and systems set forth in Exhibit U, Tables 12, 20 (e.g., LiveDoc Version 0.8 System, Newton) relate to the human-computer interaction of managing an address book or contact database in a personal communication device. A POSITA would have reasonable expectation of success to achieve predictable results in combining Pandit and the prior art references and systems in Exhibit U. A POSITA would have recognized advantages and benefits to have Pandit perform the action recited in this element.

Claim 8	

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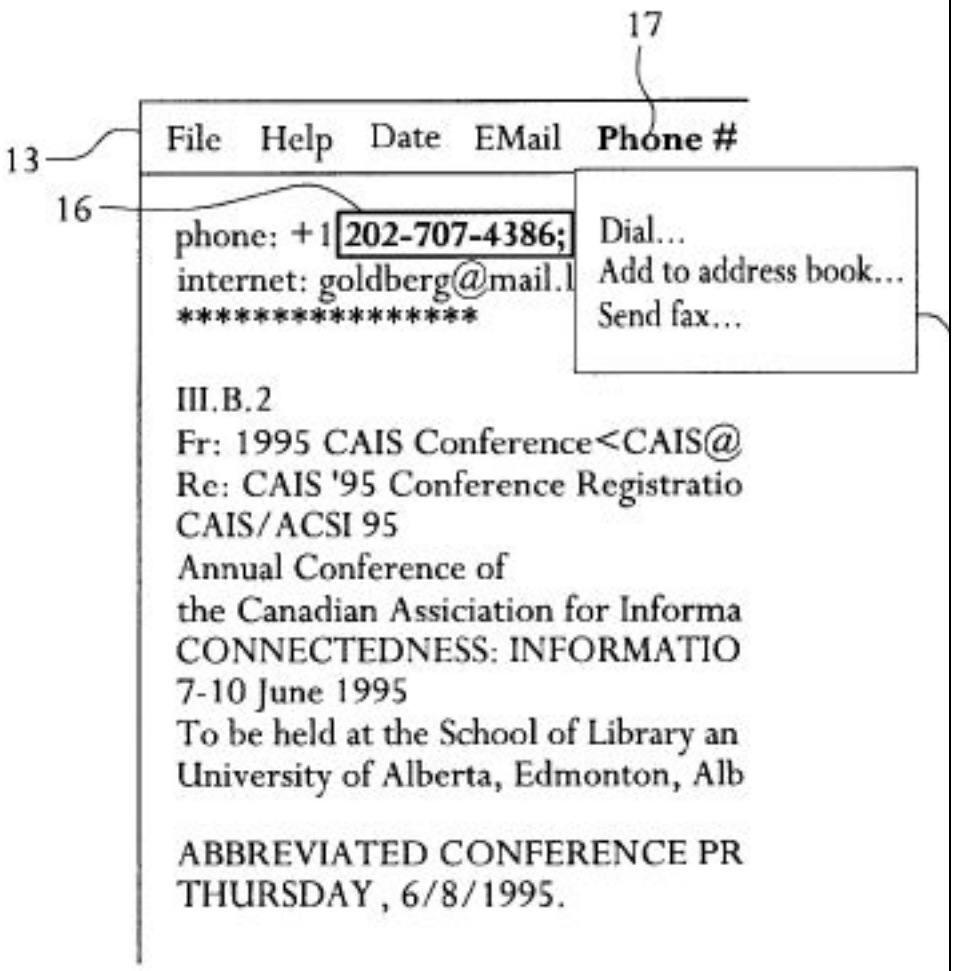
A method according to claim 1, further comprising, providing a prompt for updating the information source to include the first information.	Pandit discloses claim 1. *See* claim 1 above. Pandit further discloses this element.  FIG. 1f

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	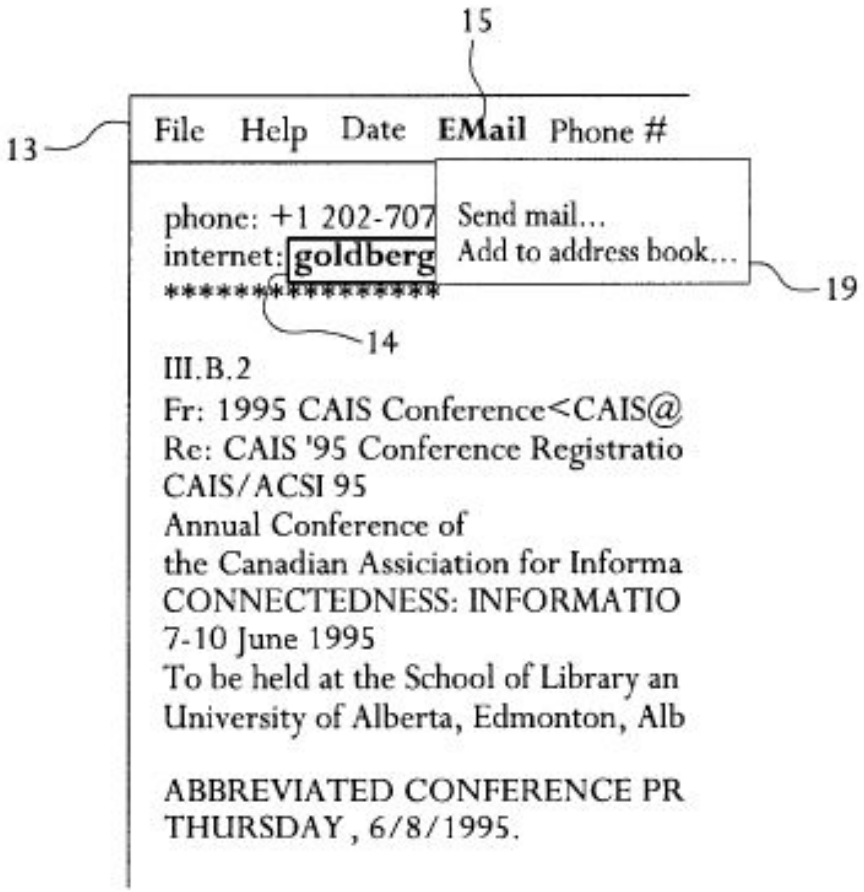 FIG. 1d Figs. 1f, and 1d and accompanying text. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 4, 5, and 17.
Claim 13	
A method according to claim 1, wherein the user command is the only command from a user necessary to initiate performing the operation.	Pandit discloses claim 1. *See* claim 1 above. Pandit further discloses this element. A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key

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	strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. 1c, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. 1d. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. 1e, a telephone number 16 is accented. The pull down menu named Phone #17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. 1f on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:41-3:10 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 2.
Claim 15	
A method according to claim 1, further comprising, if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.	Pandit discloses claim 1. *See* claim 1 above. Pandit further discloses this element. See, e.g.: Claim 1 disclosures. For example (and without limitation to the Obviousness Statement that is

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	incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 7, 17, and 20.
Claim 17	
A method according to claim 1, wherein the information source is associated with the second computer program and is available through the computer.	Pandit discloses claim 1. *See* claim 1 above. Pandit further discloses this element. See, e.g.: Claim 1 disclosures. The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. 1c, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. 1d. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. 1e, a telephone number 16 is accented. The pull down menu named Phone #17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. 1f on pulled-down menu 20, possible programs include a writable computer database of telephone and

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	telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure. 2:2:32-3:11 Where the invention is capable of recognizing nouns or verbs, pull-down menus can, for example, identify executable programs which provide the meaning of the highlighted word, appropriate synonyms and the singular or plural version of the noun or conjugation of the verb. As noted above the invention preferably includes a library enabling recognition of Uniform Resource Locators (URLs) in text. Consequently, preferred programs which appear on and can be run from the pull-down menu in response to the accenting and subsequent recognition of a URL include World-Wide Web browser programs, such as "NETSCAPE" or "NCSA MOSAIC." In a preferred embodiment, in the event the accented text is not recognized, i.e., the text is not of the specific type or class recognizable by any of the libraries provided, a menu bar having a list of one or more menu names of default operations can be made to appear (step 27). The invention preferably includes as default operations such programs as spell-checkers, grammar-checkers, a thesaurus, a dictionary, execution of an EMail program to transmit the text, programs to store the text and any other programs relating to words in general. Of course, the names of the default programs appear on one or more pull-down menus (step 28) corresponding to the one or more menu names. 3:12-34 Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A

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	performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries B and C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-1f. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names, street addresses, etc. 4:1-31 For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Tables 10 and 19.
Claim 18	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document.	Pandit discloses claim 1. *See* claim 1 above. Pandit further discloses this element. See, e.g.: Claim 1 disclosures. The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). 2:32-49.

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	For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 3 (e.g., Schulman, Domini, and Schabes). See also '843 patent at 1:17-42; My Report at paragraphs 187-189.
Claim 19	
A method according to claim 1, wherein performing the action includes causing insertion of at least part of the second information into the document by the first computer program.	Pandit discloses claim 1. *See* claim 1 above. Pandit further discloses this element. See, e.g.: Claim 1 disclosures. The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). 2:32-49. For example (and without limitation to the Obviousness Statement that is incorporated into each element in this chart), this element is rendered obvious for the reasons stated in Exhibit U, Table 3 (e.g., Schulman, Domini, and Schabes). See also '843 patent at 1:17-42; My Report at paragraphs 187-189.
Claim 23	
At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for finding data related to the contents of a document using a first computer program running on a computer, the processes comprising:	Pandit discloses this element. *See* claim 1 above.

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displaying the document electronically using the first computer program;	Pandit discloses this element. *See* claim 1 above.
while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;	Pandit discloses this element. *See* claim 1 above.
retrieving the first information;	Pandit discloses this element. *See* claim 1 above.
providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;	Pandit discloses this element. *See* claim 1 above.
in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and	Pandit discloses this element. *See* claim 1 above.
if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type	Pandit discloses this element. *See* claim 1 above.

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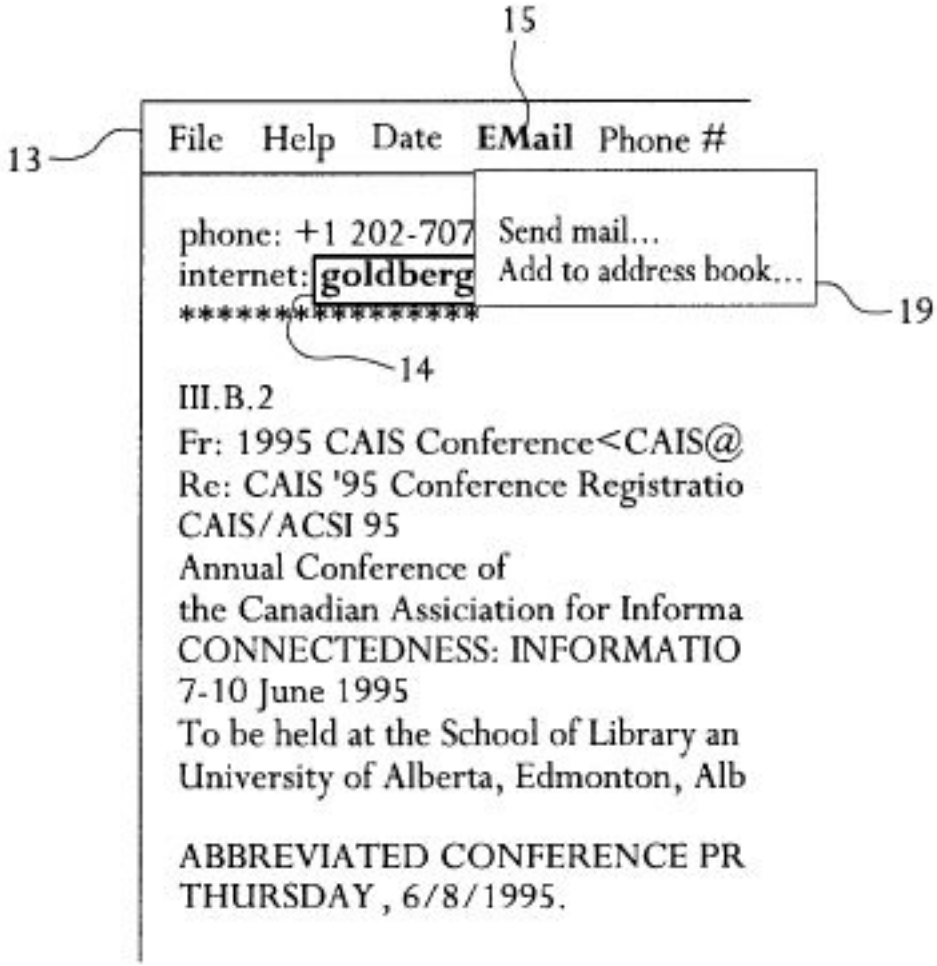
depending at least in part on the type or types of the first information.	
Claim 30	
At least one non-transitory computer readable medium according to claim 23, the instructions establishing processes comprising:	Pandit discloses claim 23. *See* claim 23 above.
providing a prompt for updating the information source to include the first information.	Pandit discloses this element. *See* Claim 8.  FIG. 1d

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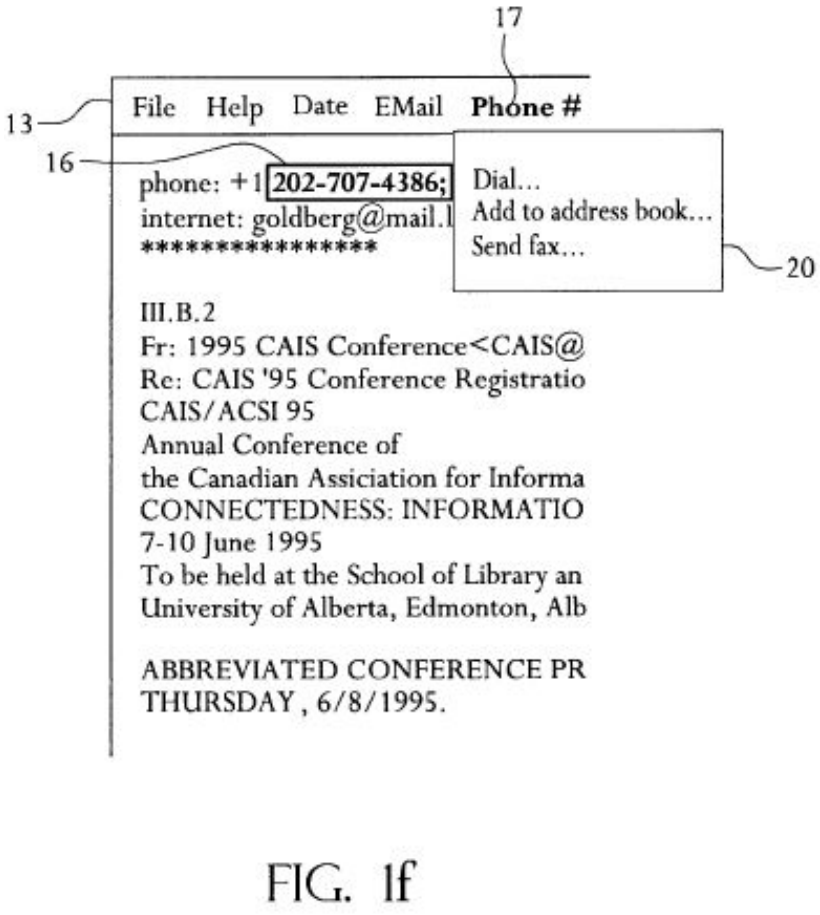

FIG. 1f

Figs.1d, and 1f and accompanying text.

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OBVIOUSNESS MODIFICATIONS AND COMBINATIONS

Motivation to Combine References

Under *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007), there is no longer a rigid requirement regarding motivation to combine. Nevertheless, in the Tables that follow, Defendants provide various examples of motivations for the combinations of prior art and modifications to prior art.

In addition, multiple teachings, suggestions, motivations, and/or reasons to modify any of the references and/or to combine any two or more of the references come from many sources, including the prior art (specific and as a whole), common knowledge, predictability, expectations, industry trends, design incentives or need, market demand or pressure, market forces, obviousness to try, the nature of the problem faced, and/or knowledge possessed by a person of ordinary skill. In addition, it would have been obvious to try combining the prior art references identified above because there were only a finite number of predictable solutions and/or because known work in one field of endeavor prompted variations based on predictable design incentives and/or market forces either in the same field or a different one. The combination of the prior art references identified above also would have been obvious because the combination represents the known potential options with a reasonable expectation of success.

Furthermore, one of ordinary skill in the art would been motivated to combine any of the references using: known methods to yield predictable results; known techniques in the same way; a simple substitution of one known, equivalent element for another to obtain predictable results; and/or a teaching, suggestion, or motivation in the reference or in the prior art generally.

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One having ordinary skill in the art additionally would have been motivated to combine any references in order to: provide a better user experience, decrease user mistakes, automate a manual process, decrease the number of user steps required to complete a task or otherwise increase user efficiency, improve usability, improve software performance, improve software reliability, adopt more accurate algorithms, access new types or sources of data, improve or achieve compatibility or integration with popular software, add additional features to modular system, take advantage of new or unexploited features accessible through an API, object model or other publicly exposed library or interface, take advantage of the expanding capabilities of personal computer hardware, adopt the features of competing products, follow trends in industry, or satisfy market demand or pressure.

Further, one skilled in the art would have looked to the references identified in the tables below to modify and/or combine with any of the primary or obviousness references because the references relate to the same general field of technology.

Exhibit U - Table 1: document

Numerous claims require a "document." There is nothing novel or nonobvious about a document. To the extent a primary or obviousness reference does not disclose a document, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques

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disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because applying the techniques of the prior art to documents would result in a useful and easy application for users.

Additional motivation is found in U.S. Patent No. 6,741,994 ("Kang"), where it states: "It is also not preposterous to have such an organize function in a word processing application like Microsoft Word available from Microsoft Corporation (Redmond, Wash., USA). A user of such an application may do a lot of word processing on information like names and addresses and will certainly welcome a feature allowing the user to capture the information in a contact database." 9:51-57. A POSITA would know that Microsoft Word allows text to be entered, and so would understand, according to the Court's Construction, that this refers to a "document."

Additional motivation is found in U.S. Patent No. 5,649,222 ("Mogilevsky") where it states: "While an embodiment of the invention is described in the context of Word, the invention can be implemented in a variety of word processor or text processing applications." 4:3-6.

Additional motivation is found in U.S. Patent No. 6,026,233 ("Shulman") where it states: "An intelligent real time tool to assist a computer programmer during the writing and/or maintenance of a computer program." Abstract. Also, "The statement generating and information tool is operable in any computing environment in the range of environments from a personal computer to a workstation and mainframe, provided that the computing environment supports a programming language compiler either directly or by way of a network connection." 5:57-62.

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Reference	Exemplary Disclosures[1]
Knowledge of One of Ordinary Skill in the Art	Documents were well-known to those of ordinary skill in the art. Handling documents has long been one of the primary applications of computer systems. Such systems generally have a word processing and/or spreadsheet application, and have files in which text can be entered. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that it operated upon documents.
LiveDoc version 0.8 ("LiveDoc Version 0.8")	LiveDoc version 0.8 included LiveSimpleText. "LiveSimpleText is a version of SimpleText that has been modified to use the LiveDoc API and, thereby, the Structure Detectors background application. When 'LiveDoc' mode is activated (via the Edit menu), the text shown in the window is analyzed by Structure Detectors to find meaningful patterns and phrases." "Read me! 0.8" file for LiveDoc version 0.8, available for inspection at DLA Piper
U.S. Pat. No. 6,026,233 ("Shulman")	*See, e.g.,* Figures 2-9. *Further, see also* Abstract, 2:12-24, 4:50-60, 4:66-5:18, 5:36-62, 6:64-7:3, 7:10-66, 8:3-67, 9:11-12, 9:25-35, 9:62-66, 10:10-54, 11:6-17, 11:53-60, 12:12-32, 12:63-13:9, 14:10-17, 14:33-54, 15:10-15, 16:6-52, 18:5-12, 18:25-47, Claims 1, 7, 8, Figs. 11-13
U.S. Pat. No. 5,649,222 ("Mogilevsky")	"A method for checking spelling in a word processor integrates spell checking with the editing process. During idle periods of the word processor, the spell checker scans an open document, and maintains a table of spelling status data, including codes to identify checked, unchecked, or edited ranges of characters. Spelling errors can be highlighted during an editing session. Spelling status data is maintained with the document so that spell checked portions of the document do not need to be re-checked." Abstract.

[1] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	See, e.g., 1:53-67; 3:66-4:16; 4:24-33; 4:43-51; 5:1-9; 5:62-6:11; 6:18-29. *Further, see also* Figs. 2, 5, 6; 2:2-6; 3:56-4:16; 4:34-40; 5:39-49; 5:62-6:29; 7:16-20; 7:50-8:6; 8:14-39; 9:15-24; 9:40-10:13; 11:46-59; 14:17-20. Claim 18.
U.S. Pat. No. 6,493,006 ("Gourdol")	"In the particular example illustrated in FIG. 2, the user has selected one word within the text document, namely the word "Select", as indicated by the highlighting." 5:7-9. *See, e.g.*, Figures 1-9; 1:41-54; 4:54-5:6. *Further, see also* Abstract; 1:61-64; 2:21-32; 2:50-65; 3:13-52; 4:22-25; 4:42-53; 5:12-35; 5:54-6:3; 6:21-52; 6:59-7:24; 7:37-9:15; 9:38-41; 9:46-65; 10:5-10; 10:41-46; 12:1-9.
U.S. Patent No. 5,946,647 ("Miller")	"Since the program may be executed during the run-time of another program, i.e. the application which presents the document, such as Microsoft Word, an application program interface provides mechanisms for interprogram communications." 2:42-46. *See also* Fig. 5, 2:28; 3:36-38; 5:19-22; 5:64-66.
U.S. Pat. No. 5,966,652 ("Coad")	*See, e.g.,* 6:5-9: "In step 210, the message generator 109 inserts the predetermined termination delimiter immediately following the text data portion. Thus, a call-back telephone number is embedded within a text message." *Further, see also Abstract;* 1:8-11; 7:9-15; 8:60-9:48; 10:42-51; Figs. 5A-D
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 1-3: "With the communicator interface's text editor, you can create new texts in many applications (Notes, Fax, SMS, E-mail, Calendar). The editor, however, works in each application in a way that corresponds to the

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	sending format of that application. For example, because short messages cannot contain text formatting, the SMS editor removes text formatting before opening any document. For this reason, the text editor is called Note editor in the Notes application, E-mail editor in the E-mail application, and so on." *Further, see also* 9000i Owner's Manual pp. 2-7, 2-10, 2-11, 2-13, 3-1, 6-4, 6-5, 7-7, 7-8, 7-11, 7-13, 7-14, 7-17, 8-2, 10-9; Fig. 2-10, 2-13, 3-1, 7-3, 7-5, 7-7. *Further, see also* 2110 User's Guide pp. 53, 55-56.
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 1:16-33: "… As disclosed in the just noted application, a personal communications device SIMON, announced by the IBM Corporation in 1994, includes many features for facilitating personal communications. As shown in FIGS. 1 and 2, the SIMON personal communications device 2 resembles, and is, a cellular telephone. Further, it is an electronic pager. In addition, it is capable of facsimile transmission and reception, as well as electronic mail sending and receiving. Moreover, a computer note pad, address book and calendar are all provided within system 2." *Further, see also* Abstract; 2:8-25; 2:30-32; 4:8-36; 4:50-53; 5:41-6:20; Figs. 6, 7
U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 2:16-32: "Now such a device and a method has been invented, with which the utilizing of information from a character-based message relating to different applications is made more convenient compared with the above." *Further, see also* 1:10-32; 2:48-60; 2:61-3:7; 3:33-60; 4:26-56; 6:30-45; 8:56-67; 9:8-24; FIG. 1c
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:31-58: "…Electronic mail processing application 18 is depicted within client 14 and is utilized as an interface between client 14 and electronic mail distribution system 10 to transmit and receive electronic mail items…."

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	*Further, s*ee also 1:16-28; 4:19-42; Figs. 1-5
U.S. Patent No. 6,741,994 ("Kang")	"It is also not preposterous to have such an organize function in a word processing application like Microsoft Word available from Microsoft Corporation (Redmond, Wash., USA). A user of such an application may do a lot of word processing on information like names and addresses and will certainly welcome a feature allowing the user to capture the information in a contact database." 9:51-57. *Further, see also* Figs. 2, 4, 5, 7; Abstract; 6:10-19; 7:9-15; 8:47-9:14; 10:10-20.
U.S. Patent No. 6,085,206 ("Domini")	"Generally described, in one aspect, the present invention provides a method for verifying the accuracy of spelling and grammatical composition of sentences in an electronic document. The method includes extracting one of the sentences from the document. The spelling of the words in the document are checked. Next, the grammatical composition of the sentence is checked. These tasks are repeated for each sentence in the document until all of the sentences in the document have been checked for spelling and grammar or until the process is interrupted by the user." 3:32-40.
U.S. Patent No. 6,377,965 ("Hachamovitch")	"The present invention is a word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file, such as the body of a word processing document or email message. The word completion system applies prediction criteria to avoid annoying the user by displaying an excessive number of wrong suggestions. Suggested word completions, which may change as the user types a partial data entry, are displayed in a non- disruptive manner and selected using traditional acceptance keystrokes, such as the "tab" key or the "enter" key." 4:10-21.
U.S. Patent No. 5,483,352 ("Fukuyama")	"In a computer linked to a terminal display, and an input device such as a keyboard, being able to transmit and receive electronic mail by using a transmitting and

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	receiving part for transmitting and receiving electronic mail consists of a random access memory for storing received electronic mail, a display controller for displaying the contents of an electronic mail stored in the memory originally provided in the computer…" Abstract. *Further, see also* 8:31-67, Fig. 5
U.S. Patent No. 5,859,636 ("Pandit")	"The present invention will benefit any application which displays text to a user, regardless of the origin of the text. The invention expands the operations which may be performed using recognized text by allowing a user to intuitively exploit the presence of certain classes or types of text in any document by transforming the text into an interface to other functions or operations." 1:42-49. *Further, see also* Fig. 1
U.S. Patent No. 6,029,171 ("Smiga")	"Because the present invention provides a means for parsing natural language into structured information liked to project objects, contact objects, date/time calendar event objects, or list objects, the structured information thereby produced can be easily integrated to a word processor application, a calendaring application, a database application, a project management application, or an electronic mail application. The present invention thereby allows the user to input an unstructured text expression which can be parsed into structured information which is thereafter provided as input to this variety of conventional software applications." 9:10-21. *Further, see also* 2:58-3:14, 6:44-65, 7:1-56, 8:20-56, 9:22-59, Fig. 2
User Manual for AddressMate and AddressMate Plus, AddressMate	See, e.g., pp. 6-43—6-47: "Retrieving an Address. You can retrieve an address from the AddressMate Plus database and insert it in a document. You can retrieve the address automatically or manually. If you know the

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Plus for Windows User's Manual ("AddressMate Plus")	name of the address you want to receive, you can type part of the address and then tell AddressMate Plus to search the current database and copy the specified address into the letter. If you are unsure of the spelling in an address or which address you want, you can use the Address Book feature to quickly switch to the AddressMate Plus database and select the address you want from the Database List." *Further, see also* 1-1; 1-2; 1-4—1-5; 2-7; 3-18—3-19; 4-25; 5-31; 5-36—5-39; 8-101—8-102; 8-111—8-112; 8-118—8-121; 11-144—11-146
Apple Internet Address Detectors ("IAD") product, also referred to as "Data Detectors"	The Apple Internet Address Detectors ("IAD") product, also referred to as "Data Detectors," could operate with the SimpleText application. *See* Apple Internet Address Detectors User Manual, August 28, 1997, at pp. 1-4.
"From Documents to Object: An Overview of LiveDoc" ("LiveDoc") and "Drop Zones: An Extension of LiveDoc" ("Drop Zones")	The publication that includes the articles "From Documents to Object: An Overview of LiveDoc" ("LiveDoc") and "Drop Zones: An Extension of LiveDoc" ("Drop Zones") discloses a document created with a text entry application program. *See* Figure 2 in LiveDoc and Drop Zones.
U.S. Patent No. 6,424,983 ("Schabes")	"According to another aspect, the present invention is a word processing system for creating and editing text documents. The word processing system inputs text into a text document, spell-checks the text so as to replace misspelled words in the text with correctly-spelled words, and outputs the document. The spell-checking performed by the system comprises detecting misspelled words in the text, and, for each misspelled word, determining a list of alternative words for the misspelled word, ranking the list of alternative words based on a context in the text, selecting one of the alternative words from the list, and replacing the misspelled word in the text with the selected one of the alternative words." 3:18-31. *See also, e.g.*, 3:18-4:10; 4:55-5:2; 5:39-57; 7:21-64. *Further, see also* Abstract, 2:33-6:8; 8:27-25:52; 25:61-32:55; Figs. 1-25

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CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM 0- 89791-881-9/97/10 ("CyberDesk Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	See, e.g., CyberDesk Technical Report at 4, cols. 1-2: "All of the desktop applets currently being used in CyberDesk (2 e-mail browsers, contact manager, 2 calendar managers/schedulers, scratchpad) were previously written by other Georgia Tech students." See, e.g., CyberDesk Summary at 75 (including Figure 1): "The user receives an e-mail message (see Figure 1) with the name Andy Wood in it. She highlights the name with her mouse (a) and is shown a list of suggested actions she can perform (b). This list includes searching for the selected text using the AltaVista web search service, looking up a phone number for the selected name using the Switchboard web service, or looking up the selected name in the desktop contact manager. The user chooses the second option and retrieves Andy's phone number and mailing address from the web (c). She wants to update her contact information for Andy, so she chooses the last option which loads Andy Wood's contact information in the contact manager (d)."
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"Application program 310 is a process that performs a word processing, data base, or other specific task in communication with operating system 312." 4:20-24. "When EXWAYS detects that the target application, e.g., WORD, is activated EXWAYS modifies the menu displays of the application program to place a new menu in the user interface of the application program that allows the user to select the new functions." 6:42-46. "In Microsoft WORD, as is typical of word processing programs, once text has been entered the text may be "spell checked" to automatically detect and correct spelling errors" 8:16-20. "The invention modifies the main menu bar by inserting the EXWAYS menu header and allows the user to click on the EXWAYS menu header to provide a list of

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	menu items for invoking additional functions in the Microsoft WORD word processor." 8:39-43. *See also* 8:39-55; 12:47-65; 13:41-65; 14:29-47.
Pensoft Perspective Handbook ("Pensoft")	"Within Perspective information is displayed in *documents*. A document is like a predesigned piece of paper with areas to hold a particular kind of information. Each document gives you a different view of your information. Documents are collected in a *notebook*. Perspective comes in its own notebook, the *Perspective Notebook*, with documents which have been set up for you." p. 8. *Further, see also* pp. iv, 11, 14, 17, 36-38, 59-62
Luciw '735	"In operation, information is input into the pen-based computer system 10 by 'writing' on the screen of display assembly 20 with the stylus 38." 5:29-31. "The screen illustrated in FIG. 2 is referred to as the 'notepad', and is preferably an application program running under the operating system of the pen based computer system 10. In this preferred embodiment, the notepad is a special or 'base' application which is always available beneath higher level applications." 6:49-54. *See also, e.g.,* 6:24-31, 7:19-20, FIG. 2. *Further, see also* 1:25-28, 8:15-18; 8:30-43, 8:51-53, 9:8-10:5, 10:15-20; 10:36-60, 11:33-13:12; 13:27-36; 13:52-14:22; 14:29-34; 14:43-61, 15:9-13, FIG. 3, 4a-b, 5, 6a-6c, 7a-7c, 8a-b, 11c, 13, Claim 6
U.S. Patent No. 4,544,276 ("Horodeck")	"The system is adapted to retrieve the stored kanji symbols and insert them into a text on instructions from the microprocessor, by responding to hiragana input by the operator, comparing that input to the

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	contents of the dictionary, and inserting the kanji identified by the hiragana into output text." 7:24-30. *Further, see also* Abstract, 15:7-14, 23:45-68, Fig. 4c
International Patent No. WO 199837474 ("Allen")	"Figure 2 illustrates in block diagram form the main components of the preferred embodiment of the present invention. A user provides natural language text expressions (i.e., keynotes) representing notes, thoughts, or action requests which are provided to user interface 200." Page 11. *Further, see also* Abstract, 10, 19-22, 40-43, 52-53 Figs. 3-8, 15-18
Eudora	"The spelling checker starts at the beginning of the document." Eudora MacManual at page 43.

Exhibit U - Table 2: wherein the user command is the only command from a user necessary to initiate performing the operation

Numerous claims contain the element "wherein the user command is the only command from a user necessary to initiate performing the operation." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the

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techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have be motivated to make the modifications and/or combinations described because causing the actions described in the prior art to occur "wherein the user command is the only command from a user necessary to initiate performing the operation" would result in a useful and efficient application for users.

Additional motivation is found in Claris Emailer: Getting Started (version 2.0) where it states: "Keyboard shortcuts are key sequences that you can press instead of choosing, selecting, and clicking software items with your mouse." 3-5.

Additional motivation is found in European Patent Application Number 91304533.2, Publication Number 0458563A2 ("Lahtinen") where it states: "The invention may still further provide an arrangement of this type, the use of which requires as little attention and as few key operations as possible and which is thus suitable for use in, for example, automobile radio telephones." 2:15-20.

Additional motivation is found in U.S. Patent No. 6,026,233 ("Shulman") where it states: "A selected menu item can also be committed by double clicking the select key on a mouse while the directional screen pointer is pointing to the desired menu item. The set of designated commit keys can vary from programming language to programming language and can include, but is not limited to, any keyboard key or combination of keys." 9:32-38.

Additional motivation is found in U.S. Patent No. 6,493,006 ("Gourdol") where it states: "Therefore, it is desirable to provide a graphical user interface which makes it easier for users to

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discover the commands that are appropriate in a given context, as well as give the user a more efficient means for quickly executing the commands." 3:6-10.

Additional motivation is found in U.S. Patent No. 6,005,549 ("Forest"), which states that minimizing operations taken by the user can accommodate persons that lack normal motor capabilities. *See* Forest at Abstract, 38:6-13.

Reference	**Exemplary Disclosures**[2]
Knowledge of One of Ordinary Skill in the Art	It was well known to those of ordinary skill in the art that a single user command could be used to initiate performance of an operation. It was also well known to those of ordinary skill in the art that a single execute command could be used to initiate an operation. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that either a single execute command or a single user command could initiate performance of an operation.
U.S. Pat. No. 6,026,233 ("Shulman")	"Another general use of an informational display assist window is when a programmer returns to a previously completed programming language statement and places the character position cursor somewhere within the programming language statement. By manually requesting information about the object entity on which the character position cursor rests, the statement building tool will display any information that is relevant to that point in the programming language statement." 12:63-13:4. *See, e.g.*, 7:38-59; 8:49-67; 9:31-35; 10:10-19; 14:44-54; 22:5-12.
U.S. Pat. No. 6,493,006 ("Gourdol")	"Generally speaking, a contextual menu is a pop-up menu that is displayed by an application whenever a user carries out a particular action. For example, this action might be the clicking of a special mouse button, or clicking a regular mouse button in

[2] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	combination with the depression of a particular key on a keyboard. In response to this action, an application program associated with the selected item provides a menu of appropriate commands, which are based on the current context, selection and cursor location. In one embodiment of the invention, the commands which appear in the contextual menu are those which are most frequently used with a particular type of object." 3:15- 26. *See, e.g.*, Abstract; 5:54-6:3; 7:48-8:4; 8:55-9:15; 9:38-40.
U.S. Patent No. 5,644,735 ("Luciw")	"If an explicit assist has been indicated at step 110, then a step 130 determines, if a particular selection as to the explicit assistance has been made. … Since no objects have specifically been selected, the objects to be entered into the assistant are selected automatically by a delimiter process." 9:16-10:5 *See, e.g.*, Figs. 7a-7c, 12:7-40.
U.S. Pat. No. 5,966,652 ("Coad")	*See, e.g.,* 7:9-15: "Alternatively, as will be discussed in detail below, the cellular telephone 102 can automatically extract text data portions corresponding to a call-back telephone number from a text message and store the extracted call-back telephone number in the dialed digits storage area 120. In this case, the user simply activates the SEND key 20a without having to manually enter the destination telephone number."
U.S. Pat. No. 6,049,796 ("Siitonen")	*See, e.g.,* 2:51-67: "As the user types in the search key, the PDA virtually instantly displays the items matching the search found in the contact data base. The user can refine the search by adding additional search criteria until finally producing for viewing a minimum number of data base records matching the search criteria. For example, if the user types the letter "j" all records having names beginning with the letter "j" appear. The user may continue to type additional letters defining a name, for example, the pair of letters "on" chooses records such as "Jones" but not records such as "Jackson". Further typing the letter "a" would eliminate "Jones" as a possibility and display any names having as their

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	first four letters "jona" such as "Jonathan". This method of searching is referred to as an active search, and is distinguished from a passive search where the search begins only after the search key has been entered, the search function actuated, and a completed compilation produced." *Further, see also* Abstract, 5:2-7, 5:29-38, 6:5-39, 7:11-17, Figs. 2B, 4A-C, 5A-7B
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 6-5: "When you press Menu in an opened received message, the following options become available…" *See, e.g.,* 9000i Owner's Manual at 7-14: "Navigating in WWW If there are hyperlinks or hotspots in the part of the WWW document shown in the application window, one will always be selected (see Figure 7-7). Hyperlinks are links to other documents or images, used to send or receive information from the World Wide Web."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 4:50-53: "For the instant invention, instead of having to copy the desired text, the user can directly mark the text on the screen for further application. The inventive method is discussed with reference to FIG. 7a- 7c…."
U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 2:48-60: "The executing of the command determined by a character combination is performed in a device according to the invention preferably in such a way that the user tells the program that the user wants the command menu to be displayed, in which case the program at first performs the above presented search of the character combination and adds the command based upon the character combination found the search to the command menu, after which the command menu is brought in the display for viewing by the user, from which menu the user can select a command to be executed. When the user does this, the program activates the application determined by the command and executes the function according to the command in the activated application."
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 4:19-42: "Referring now to FIG. 4 … Block 42 depicts a determination of whether or not an

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	electronic mail "event" has occurred. … Still referring to block 42, in the event an electronic mail event has occurred, the process passes to block 44."
U.S. Patent No. 6,471,994 ("Kang")	"When the user completes the input data 402 entry, the user activates either the organize button 408 or cancel button 410, for example with the stylus 108. This selection of buttons may be carried out at a time convenient to the user. The input data, once captured in the ACCEPT INPUT step 304, will not be lost but remain in the input buffer. The buttons should not be construed as the only means for activating or canceling the organize function. Other well-known means such as a key depression or a voice command may also be used." 6:10-19.
U.S. Patent No. 5,708,804 ("Goodwin")	"The user can input, as a search string, whatever he wants to search for and that could be a phone number, a name, or any other kind of information. The search string can in effect be an abbreviated name or things that he remembers with respect to the entry or entries that he wants to retrieve from the address book database, or any other databases of the device. When the input string is complete, the user presses the "Done" key at the bottom of the screen which brings on the screen shown in FIG. 8. The screen shown in FIG. 8 is simply a "Please Wait" screen which, as its name implies, asks the user to wait while the searching algorithm searches for the entry (entries) that the user is seeking. Upon completion of the search, the screen shown in FIG. 9 is displayed. Here, all entries that match the search string entered by the user in one way or the other are shown." 4:61-5:11. *Further, see also* 1:61-2:65; 3:61-65; 5:7-35; 5:51-6:6; 6:55-65; Figs. 6-10
U.S. Patent No. 5,483,352 ("Fukuyama")	"At step 603, it is determined whether or not the telephone connection request is input from an operator (the receiver of the electronic mail). If the operator wants to reply to the sender of the mail, the operator

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	inputs a telephone connection request via the keyboard 18 or the mouse 19. Then the operator detects the sender of the mail, and moves the cursor to select the name of the sender in the same way as the telephone number was selected in FIG. 5B at step 902. This step may be executed automatically by the remote telephone number reading part 25. When the telephone connection request and the name of the sender are input to the telephone connection request receiving part 24, the remote telephone number reading part 25 is activated to retrieve the telephone number of the sender of the electronic mail from the electronic mail ID code to telephone numbers table storing memory 31 in accordance with the name of the sender at step 902. For example, the telephone number '123-4567' is indexed to the ID code 'bc@flab. ABC. Co. jp.'" 8:31-49.
U.S. Patent No. 5,859,636 ("Pandit")	"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26)." 2:32-50.
User Manual for AddressMate and AddressMate Plus, AddressMate	See, e.g., pp. 5-36—5-37: "If you are using Microsoft Word for Windows, the macros supplied with

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Plus for Windows User's Manual ("AddressMate Plus")	AddressMate Plus allow you to save, correct, print, and retrieve addresses using the AddressMate Plus database. . . . Once you load the appropriate file, you can choose AddressMate Plus macro commands from the Amate menu in the Word for Windows menu bar. You can also assign AddressMate Plus macros to buttons on the Word for Windows toolbar. . . . An Amate item is added to the Word menu bar. You can use this item to access the commands used to retrieve, correct, and save addresses and print documents and envelopes." See, e.g., pp. 5-37—5-39: "Optional: Assigning Macros to Word for Windows Toolbar Buttons. You can assign each of the AddressMate Plus macros to a button and place the buttons on a toolbar in Word for Windows. By assigning a macro to a button, you can retrieve, correct, or save an address, print an envelope, or print both a letter and an envelope by just clicking on the appropriate button. . . . You can now simply click the button you defined to execute an AddressMate Plus macro. See your Microsoft Word User's Guide for more information about toolbar buttons."
U.S. Patent No. 5,946,647 ("Miller")	"As shown in FIG. 7, upon recognition of a mouse-down operation over a structure, user interface 240 presents a pop-up menu 710. In this example, pop-up menu 710 displays the candidate actions linked to the selected telephone number grammar 410, including dialing the number and putting the number into an electronic telephone book." 5:38-43.
U.S. Patent No. 6,005,549 ("Forest")	"A menu option may be selected by clicking on the associated selectable region, by dwelling on it for a selection threshold period or by a cursor path toward the selectable region, or by a combination thereof." Abstract; *see also* 38:6-13. *Further, see also* 38:14-19, Fig. 15
U.S. Patent No. 6,424,983	"To begin, text 50 is input to spell checking module 64. Spell checking module 64 is identical to that described

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("Schabes")	above in the interactive mode, except that, in this mode, spell checking module 64 searches through all of text 50 in order to detect all misspelled words. Which mode (i.e., interactive or automatic) spell checking module 64 operates in is set beforehand, e.g., in response to a user input. Once all misspelled words have been detected, spell checking module 64 outputs text 66 with the incorrectly-spelled words appropriately identified." 10:42-51 "Next, text 66, i.e., the text with the incorrectly spelled words identified, is provided to spelling suggestion module 52. Spelling suggestion module 52 is identical to that described above, except that, in this mode, spelling suggestion module 52 determines and outputs a list of correctly-spelled alternative (or "replacement") words for every misspelled word in text 50, rather than for just one misspelled word. Which mode (i.e., interactive or automatic) spelling suggestion module 52 operates in is set beforehand, e.g., in response to a user input." 10:52-61. *See* Interactive Mode, 8:42-10:33 (and described figures) *See* Automatic Mode, 10:34-11:20 (and described figures) *See* Spelling Suggestion Module, 11:21-16:13 (and described figures) *See* Automaton Conversion Module, 16:14-17:60 (and described figures) *See* Contextual Ranking Module, 17:61-19:12 (and described figures) *See* Morphology Module, 19:13-20:49 (and described figures) *See* Construction of Grammar FST 20:50-22:30 (and described figures) *See* Word Processing, 22:31-62 (and described figures) *See* Machine Translation, 22:63-23:40 (and described figures)

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	See Optical Character Recognition, 23:41-24:9 (and described figures) *See* Text Indexing and Retrieval, 24:10-33 (and described figures) *See* Client-Server Configuration, 24:34-25:27 (and described figures) See Client-Server Information Retrieval System, 25:28-52 (and described figures); Figs. 2-23.
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	"From the user's point of view, the software operates in one of two modes: a contextual prompting mode, and an interactive graphical interface mode. In the first mode, the software continuously predicts a likely completion as the user writes out a note. It offers this as a default for the user. The location and presentation of this default must balance conflicting requirements to be convenient yet unobtrusive. For example, the hand should not hide the indicated default while the user is writing. Our solution is to have a small, colored completion button follow to the left and below where the user is writing. In this location, it is visible to either right- or left-handed people as they write out notes. The user can reposition the button to another location if they prefer. The default text is displayed to the immediate right of this button in a smaller font. The completion button is green; the text is black. The completion button saturation ranges from 1 (appearing green), when the software is highly confident of the predicted value, to 0 (appearing white), when the software lacks confidence. The button has a light gray frame, so it is visible even when the software has no prediction." Schlimmer 1at 63; see also *id*. at 64-65. "**8. Related Work** Self-customizing software agents have several subjective dimensions on which they can be evaluated and compared:

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	• *Anticipation*—Does the system present alternatives without the user having to request them? • *User interface*—Is the system graphical, or is it command-line oriented? • *User control*—Can the user override or choose to ignore predictive actions? • Modality—If the system has a number of working modes, can the user work in any mode without explicitly selecting one of them? • Learning update—Is learning incremental, continuous and/or real-time? • User adjustable—Can the user tune the system parameters manually? Here we describe related systems that exhibit properties in each of these agent dimensions. Our note taking software utilizes the anticipation user interface technique pioneered by Eager (Cypher, 1991). Eager is a non-intrusive system that learns to perform iterative procedures by watching the user. As such, it is a learning apprentice, a software agent, and an example of programming by example or demonstration. Situated within the HyperCard environment, it continuously watches a user's actions. When it detects the second cycle of an iteration, it presents an execute icon for the user's notice. It also visually indicates the anticipated next action by highlighting the appropriate button, menu item, or text selection in green. As the user performs their task, they can verify that Eager has learned the correct procedure by comparing its anticipations to their actions. When the user is confident enough, they can click on the execution icon, and Eager will run the iterative procedure to completion. Eager is highly anticipatory, uses a graphical interface, is non-

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	obtrusive, non-modal, and learns in real-time, but is not user adjustable." Schlimmer 1 at 83-85. *Further, see also* Abstract, 61, 65-72; Figs. 2, 4-9; Tables 1-2
U.S. Patent No. 5,786,819 ("Weiser")	A method for one button searching long lists is initiated by depressing a first search button to initiate a first mode scrolling search of a plurality of list members ordered in a list. Each list member is sequentially displayed on a small display, with the display typically being a handheld device capable of simultaneously displaying ten lines of alphanumeric characters. A second mode scrolling search is initiated after maintenance of the first search button in a depressed state and elapse of a first predetermined time interval of about one second. In the second mode scrolling search, a selected subset of list members, each having a same first letter, is ordered by their second letters for sequential display. A third mode scrolling search commences after maintenance of the first search button in a depressed state and elapse of another second, with selected subset of list members ordered by their first letter for sequentially display. Upon button release in either second or third mode, the search mode reverts to the next lower mode, with third mode going to second mode, and second mode going to first mode. Abstract *See, e.g.*, 2:12-3:32; 5:15-36; 7:15-27; 9:10-21; Figs. 1, 7 *Further, see also* 10:46-12:4 (claims 10, 11).
U.S. Patent No. 6,189,026 ("Birrell")	"Main Window Menu Bar This menu bar includes buttons for the following functions. The functions are enabled by clicking on the button.

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	Add: This button is used to add a selected label to a message. Relabel: This button combines the functions of the unlabel and add functions. Delete: With this button, a deleted label is added to a message. Unlabel: Used to remove a single label mentioned in a query from a message. Next: Selects a next message. Prev: Selects a preceding message. Newmail: Issues a query for all message having the inbox label. Query: Presents a dialog to compose and issue a query. Message Display Button Bar This button bar is used to perform the following functions. Detach: Generate a new top-level window to display selected messages. Compose: Generate a window for composing new mail messages. Forward: This function sets up a window for composing a new message. A selected message is attached to the new message. The attached messages are forwarded without the need of down-loading the messages to the client computer. Reply To All: This function sets up a window for composing a new message with the same recipients as those in a selected message. Reply To Sender: Set up a window for composing a new message to the sender of a selected message." 14:11-40. *Further, see also* Abstract (including "dynamic address book"), 1:65-2:19; 2:42-3:55; 5:54-62; 8:7-56;

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	9:40-10:20; 10: 27-61; 12:15-34; 59-65; 13:9-14; 13:24-43; 14:41-15:21; Figs. 1-3, 7-10.
U.S. Patent No. 5,434,777 ("Luciw '777)	"The view system automatically handles "taps" and other gestures of the stylus 38 on the screen 52 by returning information concerning the tap or gesture and any object to which it may be related." Luciw '777, 8:42-45. *Further, see also* Abstract, 3:29-32, 3:44-57, 6:36-41, 7:44-52, 8:56-61, 9:1-5, 10:36-54, 12:12-15, 19:25-40, 19:54-64, 21:11-22
U.S. Patent No. 5,477,447 ("Luciw '447)	"However, implicit assist may be indicated not just by entry of an indication in a smart field, but by the happening of any of a number of predefined allowable events which lead to a query of the database at process step 106. A user entry made into a smart field is not the only way computer system 10 is caused to undertake an implicit assist operation. Certain kinds of events on screen 52, for example, such as the writing of a particular indication or word on screen 52 outside of a particular smart field may trigger an implicit assist. In general, implicit assist can be triggered by the happening of any of a number of predefined allowable events." Luciw '447, 8:31-43. *Further, see also*, 3:12-18, 10:16-22, 11:64-12:10, 12:45-67, Figs. 3, 6b, 6c, 8a, 8b
CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM	See, e.g., CyberDesk Technical Report at 2, cols. 1-2 (including figures): "The CyberDesk system has a simple but innovative architecture. It is based on an event-driven model, where components act as even sources and/or event sinks. Events, in this current version, are generated from explicit user interaction with the system. The system consists of five core components: the Locator, the IntelliButton, the ActOn Button Bar, the desktop and network services, and the type converters. The Locator maintains the registry of event sources and sinks. This allows the IntelliButton to automatically find matches between event sources and even sinks based on a given input event, a task

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0- 89791-881-9/97/10 ("CyberDesk Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	normally required of the system or service designer. The IntelliButton displays the matches in the form of suggestions to the user, via the ActOn Button Bar. It is through the ActOn Button Bar that the user accesses the integrating functionality of CyberDesk. The services are the even sources and sinks themselves, and are the tools the user ultimately wants to use. The type converters provide more powerful integrating behavior by converting given events into other events, allowing for a greater number of matches. The five components are discussed in greater detail below."
U.S. Patent No. 5,946,687 ("Gehani")	"The display also includes a number of buttons for requesting different types of geographic information, such as maps, directions, weather and yellow pages information. When the user clicks on one of the buttons, the personal information manager utilizes an address or other location identifier associated with the contact name to format a request to a geographic information server. The server uses the location identifier to retrieve the appropriate geographic information for that location, and sends the information to the personal information manager for display." Abstract. *Further, see also* 1:55-2:27; 3:58-62; 4:46-52; 4:67-5:12; 5:54-67; 6:1-16; Fig. 4,6,7
Pensoft	"You can, however, individually link items entered when the Associate was off. Simply circle the description of the item entered when the Associate was off and tap OK. Any links appear in bold." p. 37.
Microsoft Outlook 97	

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	Help file entry for "Manually check names before sending a message."
Eudora	"To check your spelling in Eudora, select **Check Spelling** from the **Edit** menu. The spelling checker starts at the beginning of the document." Eudora Mac Manual at 43.
Hachamovitch '965	"The word completion utility may then receive a command indicating acceptance of the completion entry. In response, the word completion utility replaces the partial data entry with the completion entry in the data file. The word completion utility may then identify a character immediately following the command indicating acceptance of the completion entry. In response, the word completion utility determines whether the character is a delimiter character. If the character is a not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character." Hachamovitch at 5:7-17.
U.S. Patent No. 5,392,386 ("Chalas")	"The invention modifies the main menu bar by inserting the EXWAYS menu header and allows the user to click on the EXWAYS menu header to provide a list of menu items for invoking additional functions in the Microsoft WORD word processor. One such additional function is "Dynamic Spell Checking'. This can be thought of as on-the-fly spell checking in that the spell checking is done automatically as the user completes the typing of each word. In other words, in the sentence displayed at 374 of FIG. 4B, spell checking would be performed for each word as it is typed in so that "An' is checked prior to, or concurrently with, the user entering in the next characters to spell the next word, "advantage' and so on. This is added functionality since the original application program, Microsoft WORD, does not provide for on-the-fly spell checking." 8:39-50.

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Exhibit U - Table 3: causing insertion of at least part of the second information into the document or causing insertion of at least part of the second information into the document by the first computer program

Numerous claims contain the element "causing insertion of at least part of the second information into the document" or "causing insertion of at least part of the second information into the document by the first computer program." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have be motivated to make the modifications and/or combinations described because "causing insertion of at least part of the second information into the document" or "causing insertion of at least part of the second information into the document by the first computer program" would result in a useful and efficient application for users because it would insert information into a document for the user, which would save the user the trouble of looking up the information and typing it in or copying and pasting it into the document.

Reference	Exemplary Disclosures[3]

[3] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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Knowledge of One of Ordinary Skill in the Art	Inserting information into a document was well known to those of ordinary skill in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that it inserted information that had already been identified into the document. Such would simply be another obvious operation of entering related information into the document.
U.S. Pat. No. 6,026,233 ("Shulman")	"A menu item being displayed in a selection menu can be accepted by the programmer in a manner that results in the selected menu item being automatically inserted into the immediate programming language statement at the present character position cursor location" 4:54-58. *See, e.g.*, Figures 3-6, 11-12; 4:66-5:18; 7:38-66; 8:27-67; 9:25-28; 9:32-35; 9:62-66; 10:10-19; 10:26-54; 15:9-15; 16:6-52.
U.S. Pat. No. 5,799,302 ("Johnson")	"Turning to FIG. 3H, Path G enters at step 226. Step 226 is a query which asks if a selected duplicate record is to have any blank fields filled in with data to be selected from other duplicate records within its duplicate set. If the response to the query is "NO," then the system advances directly to step 232 and displays the Duplicate Record List. Once the Duplicate Record List is displayed, the system deletes the duplicate records from the original list and the method advances to step 234 where the system operator exits the Duplicate Detection program. If, however, the response to the query at step 226 is "YES," then the system displays, at step 228, the duplicate address records of each set in a sequence order (sequence can be alphabetical, numerical, chronological, etc.). The method advances to step 230 where the system brings forward into any blank fields of the first record of the set, from the next subsequent record, any data found in a field that corresponds to the blank field of the first record. The newly "created" first record is retained and the system displays the list of duplicate addresses at step 232. At step 234, the system operator exits the Duplicate Detection program while the system saves

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	all duplicate detection information to the Mail List Setup file at step 236." 6:63-7:17. *See also*, FIG. 3H. *Further, see also* 3:9-16.
U.S. Patent No. 6,085,206 ("Domini")	"Still referring to FIG. 3, the Change button 340 is positioned below the Add button 335 in the combined spelling and grammar dialog box 300. If the user selects the Change button 340, the misspelled word 315 will be replaced with the word that has been selected by the user from the suggestions 320 in the suggestion list box 317. However, in the preferred application program, if the user has made changes to the sentence 307 in the rich text edit control 310, then selecting the Change button will incorporate these changes into the document. For example, in FIG. 3, if the user has selected the suggestion "engine" from the suggestion list box 317 and then selects the Change button, without editing the sentence in the rich text edit control field, then the misspelled word "engin" will be replaced with the suggestion "engine". However, again referring to FIG. 3, if the user has edited the sentence 307 in the rich text edit control field, then selecting the Change button 340 will incorporate these changes into the document." 12:61-13:9.
U.S. Patent No. 6,377,965 ("Hachamovitch")	"Suggested word completions, which may change as the user types a partial data entry, are displayed in a non-disruptive manner. Specifically, a word suggestion field appears in a word completion frame above the partial data entry such that the suggestion and the partial data entry are vertically aligned. This makes it easy for the user to compare the suggestion to the partial data entry. If the suggestion is too long to display directly above the partial data entry, it is truncated with ellipses (i.e., . . .) so that the suggestion and the partial data entry are still displayed in vertical alignment. The user accepts a suggestion using traditional acceptance keystrokes, such as the "tab" key or the "enter" key." 6:61-7:5.
U.S. Pat. No. 5,784,001 ("DeLuca")	*See, e.g.,* 6:22-24: "…the data communication receiver 100 recognizes key words in conventional messages then, when the messages are displayed, images

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	associated with the key words are displayed as well to supplement the message."
U.S. Pat. No. 5,966,652 ("Coad")	*See, e.g.,* 1:8-11: "More particularly, the present invention relates to a novel and improved system and method for the insertion and extraction of telephone numbers from a wireless alphanumeric text message."
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 7-8: "Add recipient — Displayed as a choice if the cursor is over the To or CC fields. You may enter an address in either the To or the CC field, whichever was selected when Add recipient was pressed. Highlight a contact from the E-mail directory, and press Select." *See, e.g.,* 9000i Owner's Manual at 7-11: "Autoload images — Yes / No (default). If the autoload images option is Yes, inline (JPG or GIF) images on the WWW page are downloaded automatically. When the setting is No, WWW pages are downloaded without the images and shown much faster."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:59-6:20: "…For example, the marked telephone number illustrated in FIGS. 7A-7C may be inserted to the address book, and particularly into the Joe Smith address. Or, for that matter, the marked text may be routed to the "To Do" directory file for future calling of Joe Smith, if the user deems it more appropriate to call Joe Smith at a later time."
U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 2:16-32: "…The invention relates to a device which is capable of supporting several different applications and which is capable of receiving and displaying different character-based messages and which device has means for searching certain character combinations in a character-based message and means for recognizing character combinations connected with the different applications in said character-based message, which message may comprise character combinations connected with several different applications, and means for activating or launching an application determined by a certain character combination contained in said message, based upon said character combination and for executing the

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	command connected with said character combination in the activated application." *See, e.g.,* 8:56-67: "…The programs can control (run by the processor) other programs or transfer data between different programs, like the CSA-engine does in a way presented in FIG. 4."
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:52-57: "As is typical in such situations an intuitive "nickname" or "alias" is often utilized and thus, the user may simply address an electronic mail item to "Tom" and electronic mail processing application 18 will, in conjunction with existing address list 22, convert the name "Tom" into an appropriate electronic mail address."
U.S. Patent No. 5,859,636 ("Pandit")	"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26). Referring to FIG. 1c, an e-mail address 14 is accented. In this example, a user may click on the highlighted menu name EMail 15 to pull-down the menu. The EMail menu preferably includes, for example, an identification of programs and operations related to EMail and EMail addresses. An embodiment of pulled-down EMail menu 19 is shown in FIG. 1d. Included in pulled-down Email menu 19 are such programs as a writable Email or general address book database and an EMail template

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	and transmitting program, preferably automatically addressed with the accented address recognized in the text, etc. Any other program related to EMail sending or address storage may be included as within the scope of this invention. Referring now to FIG. 1e, a telephone number 16 is accented. The pull down menu named Phone #17 is highlighted and preferably identifies the executable operations and/or programs which are relevant to telephone and telefax numbers. As shown in FIG. 1f on pulled-down menu 20, possible programs include a writable computer database of telephone and telefax numbers, a program which instructs a properly equipped computer to dial the number accented, a program which generates a template for the preparation of a fax message and which subsequently causes a properly equipped computer to transmit the message to the accented number, etc. Again, any program related to telephone or telefax numbers can be included in pulled-down menu 20 for direct accessing in accordance with the teachings of this disclosure." 2:32-3:10
U.S. Patent No. 5,483,352 ("Fukuyama")	"When the telephone connection request and the name of the sender are input to the telephone connection request receiving part 24, the remote telephone number reading part 25 is activated to retrieve the telephone number of the sender of the electronic mail from the electronic mail ID code to telephone numbers table storing memory 31 in accordance with the name of the sender at step 902. For example, the telephone number "123-4567" is indexed to the ID code "bc@flab. ABC. Co. jp". Then the own (i.e. receiver) telephone number reading part 26 is activated to read the own (i.e. receiver) telephone number from the own (i.e. receiver) telephone number storing memory 27 at step 605. The order of steps 902 and 605 can be reversed. When the telephone numbers of the sender and the receiver are obtained, the telephone connection request receiving part 24 outputs a telephone connection request signal including the telephone numbers of the sender of the electronic mail and the own telephone number to the PBX interface controller 28 at step 606.

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	The PBX interface controller 28 controls the PBX interface 29 to connect the own telephone to the telephone of the sender of the mail. Then, the own telephone 6 and the telephone of the sender of the electronic mail are connected by PBX at step 607. In this way the telephone 6 of the receiver of the electronic mail and the telephone 51, 61, or 71 are automatically connected by the computer 20." 8:41-67
U.S. Patent No. 6,029,171 ("Smiga")	"Referring now to FIG. 7, the keynote and shadow region 210 is illustrated after the shadow region 230 has been brought to the foreground using the cursor control device 123 or a pre-specified keyboard 122 entry. Region 250 of shadow 230 illustrates the structured information output produced as a result of parsing the sample input keynote 222 shown in FIG. 6. As a result of parsing input keynote 222, parser 300 has linked the reference to "wilson deal" in input keynote 222 to the previously specified "Wilson Account" project object. The linked project object "Wilson Account" is displayed in region 250 adjacent to corresponding icon I1. Similarly, parser 300 has linked the reference to "Paul" in input keynote 222 to the previously specified contact object "Paul Jones". The linked contact object "Paul Jones" is displayed in region 250 adjacent to its corresponding icon I2. The parser 300 has linked a date/time calendar event object as a result of parsing the "next Thursday" text in keynote 222. This processed time/date calendar event object is displayed in region 250 of shadow 230 adjacent to the corresponding icon I4. Finally, parser 300 has linked the keyword "call" in input keynote 222 to the previously specified "Calls" list previously defined as a list object. The identification of the linked Calls list is displayed in region 250 of shadow 230 adjacent to the corresponding icon I5. Drop down list indicators 260 are provided to cause a list to expand downward so a multiple line list of objects or information is displayed in a drop down portion of region 250. Conventional

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	methods exist for providing drop down list indicators on a computer display device. Thus, user interface 200 and its corresponding keynote and shadow regions 210 provide a means and method for receiving a natural language text expression from a user and for concisely and efficiently displaying the parsed and linked structured output of the text expression in an area on display device 121. In the following sections, the detailed description of the processing performed by parser 300 and lexical analysis tool 400 is provided." 8:20-56
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., p. 1-2: "When writing a letter, with the click of the mouse you can retrieve an address from AddressMate Plus' built-in database and have it pasted automatically into your letter. . . . AddressMate Plus' powerful database links allow you to import names and addresses from other database applications directly into AddressMate Plus' built-in database. . . . AddressMate Plus performs address correction and verification (including correcting misspelled street and city names), and replaces 5-digit ZIP codes with 9-digit ZIP+4 codes for faster, more reliable mail delivery."
U.S. Patent No. 6,424,983 ("Schabes")	"The present invention addresses the foregoing needs by providing a system which corrects both the spelling and grammar of words using finite state machines, such as finite state transducers and finite state automata. For each word in a text sequence, the present invention provides a list of alternative words ranked according to a context of the text sequence, and then uses this list to correct words in the text (either interactively or automatically). The invention has a variety of uses, and is of particular use in the fields of word processing, machine translation, text indexing and retrieval, and optical character recognition, to name a few." 2:34-44 Fig. 3 (Replacement Module 62, Text Replacement 63). Fig. 5 (Character Replacement Module) Figs. 20-23 (Replace Grammatically-Incorrect Words with Grammatically-Correct Words)

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	See Interactive Mode, 8:42-10:33 (and described figures) *See* Automatic Mode, 10:34-11:20 (and described figures) *See* Spelling Suggestion Module, 11:21-16:13 (and described figures) *See* Automaton Conversion Module, 16:14-17:60 (and described figures) *See* Contextual Ranking Module, 17:61-19:12 (and described figures) *See* Morphology Module, 19:13-20:49 (and described figures) *See* Construction of Grammar FST, 20:50-22:30 (and described figures) *See* Word Processing, 22:31-62 (and described figures) *See* Machine Translation, 22:63-23:40 (and described figures) *See* Optical Character Recognition, 23:41-24:9 (and described figures) *See* Text Indexing and Retrieval, 24:10-33 (and described figures) *See* Client-Server Configuration, 24:34-25:27 (and described figures) *See* Client-Server Information Retrieval System, 25:28-52 (and described figures) "A method of correcting a misspelled word in input text, …" *See, e.g.,* 25:61-29:8; 30:27-31:10; 32:19-55. "A method of retrieving text from a source …" *See, e.g.,* 29:9-30:26. "A method of spell-checking input text ..." *See, e.g.,* 31:11-32:18; *see also* Figs. 20-23.

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"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	"To support the goal of allowing users to record and retrieve information, this paper describes an interactive note-taking system for pen-based computers with two distinctive features. First, it actively predicts what the user is going to write. Second, it automatically constructs a custom, button-box user interface on request. The system is an example of a learning-apprentice software-agent. A machine learning component characterizes the syntax and semantics of the user's information. A performance system uses this learned information to generate completion strings and construct a user interface." Schlimmer 1 at Abstract. "**8. Related Work** Self-customizing software agents have several subjective dimensions on which they can be evaluated and compared: • *Anticipation*—Does the system present alternatives without the user having to request them? • *User interface*—Is the system graphical, or is it command-line oriented? • *User control*—Can the user override or choose to ignore predictive actions? • *Modality*—If the system has a number of working modes, can the user work in any mode without explicitly selecting one of them? • *Learning update*—Is learning incremental, continuous and/or real-time? • *User adjustable*—Can the user tune the system parameters manually? Here we describe related systems that exhibit properties in each of these agent dimensions. Our note taking software utilizes the *anticipation* user interface technique pioneered by Eager (Cypher, 1991). Eager is a non-intrusive system that learns to perform iterative procedures by watching the user. As such, it is a learning apprentice, a software agent, and

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	an example of programming by example or demonstration. Situated within the HyperCard environment, it continuously watches a user's actions. When it detects the second cycle of an iteration, it presents an execute icon for the user's notice. It also visually indicates the anticipated next action by highlighting the appropriate button, menu item, or text selection in green. As the user performs their task, they can verify that Eager has learned the correct procedure by comparing its anticipations to their actions. When the user is confident enough, they can click on the execution icon, and Eager will run the iterative procedure to completion. Eager is highly anticipatory, uses a graphical interface, is non- obtrusive, non-modal, and learns in real-time, but is not user adjustable." • Schlimmer 1 at 83-85.
U.S. Patent No. 6,189,026 ("Birrell")	"Embedded Links When displaying retrieved messages, the system 200 heuristically locates text strings which have the syntax of e-mail addresses. If the user click on one of these addresses, then the system will display a composition window, described below, so that the user can easily generate a reply message to the selected e-mail address(es). Similarly, when displaying retrieved messages, the system 200 heuristically locates text strings that have the syntax of an URL, and makes the string a hot-link. When the user clicks on the hot-link, the URL is passed to the browser, which will retrieve the contents over the network, and process the content in the normal manner. The system also attempts to detect components in messages, such as explicitly "attached" or implicitly "embedded" files. The files can be in any number of possible formats. The content of these files are displayed by the browser 115. The specific display actions used will depend on how the browser is configured to respond to different component file formats.

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	For some file formats, for example Graphics Interface Format (GIF) and Joint Photographic Experts Group (JPEG) the component can directly be displayed. It is also possible to configure the browser with a "helper" applet to "display" attached files having specific format types as "icons." For example, the message may be in the form of an audio message, in which case, the message needs to be "said," and not displayed. For some message formats, the browser may store some of the content in file system of the client computer." 12:15-34; 59-65; *see also* 14:41-15:21.
WO 98/24031 ("Treider")	"The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference user is acquainted; ranking a level of acquaintance with each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users; and reporting matches in the compared accessible information. In the preferred embodiment, information is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a reference user via a wireless device, such as any form of cellular telephones, beepers, palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24
Luciw '777	"When the substring "Bill" is queried to a database and found, the database query processor recognizes through the knowledge base that "Bill" is a name and

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	therefore information for this substring will be found in the <PERSON> type frame. As is well known to those skilled in the art, a description of the knowledge base frames can be accessed to interpret the database query. For example, the query "Bill" can be found in the knowledge base description to refer to a <PERSON> type frame. Once the <PERSON> type frame is accessed, the instance frames <PERSON-1>, <PERSON-2>, and <PERSON-3> can be accessed. If information about a specific "Bill" is required, one of the "Bill" instance frames must be chosen, since there are three Bill instance frames in the database shown in the example of FIG. 11." Luciw '777, 19:25-40. "A <RESTAURANT> type frame 200 is used to trace restaurant names queried to a database. For example, the CPU would receive the query "Chez Sovan" and can examine a <PLACE> type frame (not shown) to find the <RESTAURANT> type frame 200 in a similar process to that described above. The <RESTAURANT> type frame 200 includes the instance frames <RESTAURANT-1> and <RESTAURANT-2>. <RESTAURANT-1> has a field that matches the substring "Chez Sovan" and a semantic attribute tag referring to the <PLACE> frame is returned." Luciw '777, 19:54-64.
Luciw '447	"FIG. 6b illustrates a presentation of assistance options to the user in connection with step 117 in FIG. 3. Responsive to the recognition of the name ISAAC, the assistance process has produced a list of alternatives by earlier query of the database per step 106 in FIG. 3. In particular, three ISAAC are presented for selection of one of them, the presentation being made in an overlay window 170' positioned partially over the underlying

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	window 170. The user-selected "ISAAC ASIMOV" is shown having been marked for selection by a rectangle indicating a highlighting operation. FIG. 6c illustrates the completion of the selection process, with the full name in formal font of ISAAC ASIMOV being presented in the name field 175 of window 170." Luciw '447, 11:64-12:10. "FIGS. 6a-6c show respective assist windows in successive stages of an assist process, including first a window containing a first informational level directed at the name ISAAC alone, a second window with a pop-up menu offering a user choice among several known ISAACs, and a third window showing the selection of a particular ISAAC, that is ISAAC ASIMOV, having been accomplished." Luciw '447, 3:12-18.
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The added functionality is provided by add-on software that looks for a target application program

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	and uses the clipboard provided by the operating system in a GUI environment to transfer, modify and rewrite information such as text. 13:41-45. 8:43-47; 1:56-59; 3:5-10; 14:30-34; 16:13-16; 10:3-6; Figure 5.
Horodeck Patent	"The system is adapted to retrieve the stored kanji symbols and insert them into a text on instructions from the microprocessor, by responding to hiragana input by the operator, comparing that input to the contents of the dictionary, and inserting the kanji identified by the hiragana into output text." 7:24-30.
Microsoft Outlook 97	*See* screenshots in claim charts submitted herewith.
International Patent No. WO 998037474 ("Allen")	"The present invention uses natural language parsing to identify keywords and date information amongst a free form text input expression (denoted keynote herein) entered by a user and establishes links to other information objects based on the identified words." Page 10. "Referring now to Figure 8, a block diagram illustrates internal components of parser 300 and its relationship to the user interface 200, lexical analysis tool 400, and object database 850. Parser 300 includes keyword and date/time parser 810 which receives the input natural language keynote from user interface 200. The keyword and date/time parser 810 includes a keyword parser and a date/time parser. The keyword parser of keyword and date/ time parser 810 is responsible for parsing keywords from the input keynote. Keywords, can be linked to a variety of different object types including lists, project, contact, document enclosure objects and even dates (e.g., "Dave's Birthday" = 6/25). Each of these different types of objects are maintained in parser 300. List object 820 is used to maintain user defined list objects. Project object 822 is used to maintain user defined project objects. Contact object 824 is used to maintain contact name objects. Enclosure object 826 is used to maintain enclosure or document identifier objects. Other object types 828 may similarly be provided. For each type of

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	object, the keyword parser of keyword and date/ time parser 810 links objects 820 through 828 to corresponding keywords of the input keynote in a manner described in more detail below." Pages 21-22.
Eudora	"The contents of a text file can be inserted directly into a message (and then edited if desired)." Eudora Mac Manual at 42.

Exhibit U - Table 4: entering additional data into a database

Numerous claims contain the element "entering additional data into a database." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have be motivated to make the modifications and/or combinations described because "entering additional data into a database" would result in a useful and efficient application for users because it would save the user the trouble of separately adding the information into the database.

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Reference	Exemplary Disclosures[4]
Knowledge of One of Ordinary Skill in the Art	Address book software for storing contact information was well known in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that the user could enter additional information into an address book, as address books were designed to store a variety of information about each contact.
U.S. Patent No. 5,963,964 to Nielsen	Nielsen discloses creating bookmarks in Netscape Navigator that include URLs and a corresponding user-entered name for the bookmark. (Fig. 12 at 1210; 2:9- 31.) Certain references, such as LiveDocs disclose adding a bookmark to a web browser. The bookmark list is a database containing URLs and corresponding names, which was well-known according to Nielsen. Thus, creating a bookmark enters the bookmark data into the database. *Further, see also* Abstract.
Claris Emailer: Getting Started (version 2.0)	'Claris Emailer lets you define *destinations* that help you enter recipient addresses in messages and create or change contact entries in the Address Book. Destinations also make Internet addresses more readable when viewed in Claris Emailer." 3-13. *See, e.g.*, 3-7; 3-13; Quick Reference, back cover. *Further, see also* W-1; 1-1; 1-8; 1-19; 3-1; 3-2; 3-3; 3-5; 3-6; 3-11; 3-12; 3-15; 3-16; 3-18; last page
U.S. Patent No. 5,946,647 ("Miller")	'Action processor 250 locates and opens the electronic telephone book, places the telephone number in the appropriate field and allows the user to input any additional information." 5:38-50. *See, e.g.* Figures 4, 7.

[4] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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U.S. Pat. No. 5,784,001 ("DeLuca")	*See, e.g.* Fig. 13, an "over-the-air programming" method for updating the graphics database. *See, e.g.,* 6:7-12: "When, at step 370, the received code already exists in the database 155, the received image data overwrites the image data already stored in the graphics database 155, at step 375. When the received code is not found in the graphics database 155, the processor 120 stores, at step 380, both the received code and the received image data in the database 155."
U.S. Pat. No. 6,049,796 ("Siitonen")	*See, e.g.,* 2:30-37: "In carrying out the invention, a search engine or search application program resident in the PDA memory or firmware cooperates with the PDA, which contains a display for displaying the database information. It also includes an input device such as a keypad, touch screen, or keyboard (referred to collectively as a keyboard), to allow the user to store data and retrieve data in a database, or alter the database, or input various search criteria."
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 10-9: "Contacts — The contact directory backup file cannot be edited. If you want to edit the Contacts database contents, use the Import/Export contacts application (see the next section)."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:59-6:20: "…For example, the marked telephone number illustrated in FIGS. 7A-7C may be inserted to the address book, and particularly into the Joe Smith address. Or, for that matter, the marked text may be routed to the "To Do" directory file for future calling of Joe Smith, if the user deems it more appropriate to call Joe Smith at a later time."
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 1:16-28: "An organization must maintain its database of aliases to ensure the proper delivery of electronic mail message traffic within that organization."
U.S. Patent No. 6,471,994 ("Kang")	'Upon confirmation, the application stores the data as displayed on the screen to the fields in the record of the database. The user is able to access the stored record using the separate application." Abstract.

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Pensoft Perspective	Pensoft Perspective allows users to add a contact to the Address Book contact database. 'For example, the Address Book Page in the Personal Perspective section will hold the names, addresses, and phone numbers you add." Getting Started With Your EO Personal Communicator ("Getting Started") at 14.
U.S. Patent No. 5,859,636 ("Pandit")	'A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26)." 2:41-50
U.S. Patent No. 5,708,804 ("Goodwin")	*See, e.g.*, Fig. 10.
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., p. 6-47: "Saving an Address to the AddressMate Plus Database. If you manually enter an address in a letter, you can automatically transfer the address to AddressMate Plus and save it in the AddressMate Plus database. To save an address in the AddressMate Plus database: Choose the Amate/Save Address command. A beep sounds to tell you the address was saved in the AddressMate Plus database."

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Drop Zones: An Extension of LiveDoc	‘A representation of semantics can be useful in other ways. Consider the problem of trying to invoke an action on a collection of differing terms in a document. For instance, the sender of the e-mail message in Figure 3, based on a human's reading of the message, is clearly interested in getting together for lunch. LiveDoc has identified a number of structures in the e-mail message, which, as usual, are shown with colored highlights. However, the bits of information that make up the details of this proposed meeting are spread throughout the message, and, as a result, they fail to match the rigid syntactic 'Meeting' grammar built into LiveDoc. 'Drop Zones goes beyond LiveDoc in allowing the user to select some subset of those terms and drag them as a group to the meeting assistant for interpretation. Because the Meeting Assistant contains an axiom specifying that a meeting is indicated by a date, a time, a venue, and a person's name, this collection of objects is recognized as a meeting by the Meeting Assistant. This assistant will then highlight itself when the objects are dragged over it, and an action like 'Add this meeting to your calendar' can be offered to the user via the Assistant window.” p. 62.
U.S. Patent No. 6,424,983 (“Schabes”)	‘Returning to FIG. 3, in preferred embodiments of the invention, automaton conversion module 55 also identifies predetermined words in the input text which are commonly confused, but which are correctly spelled. Examples of such word are principal and principle and who and whom. Specifically, in these embodiments of the invention, automaton conversion module 55 identifies such words by reference to a pre-stored database, and then either adds such words to the FSM or creates a new FSM specifically for these words. In other embodiments of the invention, these commonly- confused words may be identified by spelling suggestion module 52, characterized as misspelled words by virtue of their identification, and then processed in the same manner as misspelled words. In either case, the output of the automaton conversion module 55 is the same, i.e., an FSM containing arcs with

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	alternative words for a misspelled word." 9:51-67; see also Fig.3.
CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM 0- 89791-881-9/97/10 ("CyberDesk Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	See, e.g., CyberDesk Summary at 75 (including fig. 1): "The user receives an e-mail message (see Figure 1) with the name Andy Wood in it. She highlights the name with her mouse (a) and is shown a list of suggested actions she can perform (b). This list includes searching for the selected text using the AltaVista web search service, looking up a phone number for the selected name using the Switchboard web service, or looking up the selected name in the desktop contact manager. The user chooses the second option and retrieves Andy's phone number and mailing address from the web (c). She wants to update her contact information for Andy, so she chooses the last option which loads Andy Wood's contact information in the contact manager (d)." See, e.g., CyberDesk Technical Report at 3, cols. 1-2: "The IntelliButton component is really the core of the CyberDesk system, as it provides the automatic integrating behaviour. . . . So when a component generates an event, it notifies the IntelliButton and any other components that have expressed interest. . . . It uses simple type checking to identify potential services that the user may wish to call upon to operate on the data associated with the event. The matches are displayed to the user via the ActOn Button Bar, from which the user can select any or none of the integrating services suggested. If the user does choose one of the integrating services, the IntelliButton is notified and it access the correct service passing the associated data and event as parameters. In the above scenario, when the user highlighted the e-mail address, the IntelliButton used that even information to determine what services were available (send an e-mail, save the contact information, etc.) and suggested them."

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Luciw '777	"If the task can be executed, the process continues to step 228, wherein the task is executed by the CPU. Thus, in the example shown from FIG. 3, 'Lunch with Bill Monday 12:30 pm at Chez Sovan', a scheduling task has been matched to the input string and the task is executed. The CPU then executes related software which has been designated for scheduling tasks. For example, the task can cause the CPU to automatically input the meeting information in a scheduling calendar program." 21:11-22. 'Eventually the size of the substring becomes small enough so that a substring can usually be mapped using a mapping routine. Substring 74, 'Monday 12:30 pm', for example, has been mapped into a database using a pattern matching mapping routine when the word window has a length of 3 and a position of 4. The brackets surrounding substring 74 in FIG. 3 indicate that the substring has been mapped. Substring 74 is stored and is removed from the input string, and the process continues with the remaining word objects of the input string. Substring 76, 'Lunch with' has been mapped using the phrasal matching mapping routine. Substrings 78 have been mapped using a database query mapping routine. The final word remaining is substring 80, 'at', which cannot be mapped using any of the mapping routines and thus is a 'residual' word from the process. The computer system then determines and implements a task according to the recognized (mapped) substrings, as detailed below with reference to FIG. 4." 10:36-54.
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
Pensoft	'If you have not previously entered a Dan, the Associate asks if you want to create a new profile for Dan." p. 38.
Microsoft Outlook 97	*See* screenshots in claim charts submitted herewith.

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Luciw ’735	‘For example, essential objects for scheduling a meeting include four objects, such as person, place, day, and time slot.” 14:9-11. 'Upon accomplishment of the selected assistance action, the database information and any linked information are updated at step 123." 9:13-15. ‘[M]eans for updating the database to contain information regarding the selected alternative.” Claim 6.
U.S. Patent App. Pub. No. 2001/0047263 (“Smith”)	‘The directory option refers to reviewing or maintaining a directory of potential called parties, such as is currently known in the art.” 0057. The directory may be reviewed and edited using known data processing systems.” 0065. If, after a given number of times, such as three times, the name provided by the user is still not recognized, then the system will verbally request the user to give a different name or add this person to their directory so that they may call the person (step 814). If the user selects to add the name to a directory then the add name data processing processing procedure known in the art will be performed (step 815).” ¶ 0066.

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International Patent No. WO 998037474 ("Allen")	"The present invention uses natural language parsing to identify keywords and date information amongst a free form text input expression (denoted keynote herein) entered by a user and establishes links to other information objects based on the identified words. These linked other objects include projects, contacts, date/time events, lists, and document identifier objects. Keywords are pre-defined one word or multiple word text strings with or without punctuation that are associated or linked to one or more related information objects. Lists are user-established collections of related keynotes. Lists can be action related or merely archived memos. The present invention further classifies the text input (i.e., keynote) as a particular type of keynote, such as an action, a memo, a personal keynote, a shared keynote, an action request, an FYI (for your information) message, or one of several other different types of keynotes." Pages 10-11.
Eudora	"The Make Address Book entry command is used to create entries in your Address Book, and is especially helpful for making group entries." Eudora Mac Manual at 99.
Hachamovitch '965	"The word completion user interface **406** also includes an "Add" button **426**, which is used in our example to add the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") into the selected suggestion list (i.e., "Custom Directory"). A "Delete" button **428** may be selected to delete a selected name-completion pair from a selected suggestion list. In addition, a "Commands Bar" button **430** may be selected to invoke other functions of the user interface **406**, such as capitalization and context limitation." Hachamovitch at 13:44-53.

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Chalas further states:	"That is, spell correction can be provided to both a word processing application program and a database application program by the same add-on software. Additionally, the add-on software can provide functionality that involves the transfer of information between application programs." 6:14-19.
Bates 043 Patent	Figs. 7, 10. Abstract: "the automated updating … in response to user input" 4:19-26, 13:8-65, 14:18-42 *Further, see also* Figs. 3, 8, 9, 12, 18; 1:45-47, 1:56-57, 2:14-20, 7:17-8:67, 10:41-11:14, 13:66-14:11, 15:1-58

Exhibit U - Table 5: providing a prompt for updating the information source to include the first information

Numerous claims contain the element "providing a prompt for updating the information source to include the first information." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques

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disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have be motivated to make the modifications and/or combinations described because "providing a prompt for updating the information source to include the first information" would result in a useful and efficient application for users because it would save the user the trouble of separately updating the information source to include the first information.

Reference	**Exemplary Disclosures**[5]
Knowledge of One of Ordinary Skill in the Art	Providing a prompt to perform an action was well known. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference to provide a prompt to update the information source. This would have been simply a matter of common knowledge at the relevant time frame. One of ordinary skill would have been able to apply a known technique (a prompt to update a data source) to yield a predictable result.
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 3-1: "The Contacts application allows you to: • Create, edit and manage all contact information: phone numbers, addresses, speed dials, etc." *See, e.g.,* 9000i Owner's Manual at 6-4: "The SMS directory contains all the contacts in the Contacts directory, but the names of contacts who have no Tel(GSM) number are dimmed and cannot be selected. To edit stored contact information and add a Tel(GSM) number, switch to the Contacts application."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 6:1-6:20: "…For example, the marked telephone number illustrated in FIGS. 7A-7C may be

[5] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	inserted to the address book, and particularly into the Joe Smith address. Or, for that matter, the marked text may be routed to the "To Do" directory file for future calling of Joe Smith, if the user deems it more appropriate to call Joe Smith at a later time."
U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 2:61-3:7: "The invention preferably relates to a device suited for mobile communication comprising or being capable of supporting several different applications, comprising for example both communication applications (such as call, facsimile, E-mail) and organizer applications (such as address information, calendar, memo (notepad)) and in which communication device a program automatically picks from a character-based message, stored in the device or arriving to it, certain information in order to be used as a command in another application. Such commands can be for example a call to a certain telephone number, a facsimile transmission to a certain telephone number, sending of electronic mail to a certain address, checking or updating of a calendar at a certain date and time."
Pensoft Perspective	Pensoft Perspective provides a prompt stating, "There is no profile named "[Name]". Create new profile?" to update the information source to include a first name information.
U.S. Patent No. 6,085,206 ("Domini")	"The Add button 335 is positioned below the Ignore All button 330 in the combined spelling and grammar dialog box 300. If the user selects the Add button 335 for a spelling error, then the misspelled word is added to the custom dictionary. The spell checking program module will then skip over every instance of the misspelled word, even in documents other than the present document that is being spell checked and even after the program module has been quit and restarted." 12:50-58.
U.S. Patent No. 5,946,647 ("Miller")	When a user selects a detected structure, the system prompts the user to select a candidate action by displaying a pop-up menu of actions. *See, e.g.*, 4:27-31 ("Upon selection of this structure, user interface 240 presents and enables selection of the linked candidate actions using any selection mechanism, such as a conventional pull-down or pop-up menu."). As shown in Fig. 4, several of these actions update an information

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	source to include first information (e.g., put in address book). *See, e.g.*, Fig. 4; 5:6-18. "Action processor 250 locates and opens the electronic telephone book, places the telephone number in the appropriate field and allows the user to input any additional information into the file." 5:47-50.
U.S. Patent No. 5,708,804 ("Goodwin")	*See, e.g.*, Fig. 10.
U.S. Patent No. 5,859,636 ("Pandit")	*See, e.g.*, Fig. 1f, Fig. 1d.
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., p. 6-47: "Saving an Address to the AddressMate Plus Database. If you manually enter an address in a letter, you can automatically transfer the address to AddressMate Plus and save it in the AddressMate Plus database."
CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM 0-89791-881-9/97/10 ("CyberDesk Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	See, e.g., CyberDesk Summary at 75 (including fig. 1): "The user receives an e-mail message (see Figure 1) with the name Andy Wood in it. She highlights the name with her mouse (a) and is shown a list of suggested actions she can perform (b). This list includes searching for the selected text using the AltaVista web search service, looking up a phone number for the selected name using the Switchboard web service, or looking up the selected name in the desktop contact manager. The user chooses the second option and retrieves Andy's phone number and mailing address from the web (c). She wants to update her contact information for Andy, so she chooses the last option which loads Andy Wood's contact information in the contact manager (d)."
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.

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Pensoft	"If you have not previously entered a Dan, the Associate asks if you want to create a new profile for Dan." p. 38.
Microsoft Outlook 97	*See* screenshots in claim charts submitted herewith.
Luciw '735	"For example, essential objects for scheduling a meeting include four objects, such as person, place, day, and time slot." 14:9-11. "If no hypothesis has been produced, as determined by the answer to the query made at 139 of FIG. 3, then the user may supply a proposed assistance course of action, as suggested at 141 of FIG. 3. This is made more explicit in FIG. 12b. For example, a user proposed course of action can be determined by the process beginning at step 270 of FIG. 12b. As a threshold step, it is asked whether the user wishes to enter a particular action, according to the step noted at step 272 of FIG. 12b. If there is no desire by the user to enter a particular course of action, operation returns to point A of FIG. 3, and the cycle of inquiring whether an implicit assist is desired is made, according to 104 of FIG. 3. Alternatively, if the user does wish to provide or enter a particular action, the process can continue for example with the presentation of a particular list of applicable actions, as indicated at step 274 of FIG. 12b. This approach is graphically illustrated in FIG. 12c, which shows presentation of the list of actions being made as a pull-down menu 170" partially superimposing over window 170." 14:43-61. "Upon accomplishment of the selected assistance action, the database information and any linked information are updated at step 123." 9:13-15. "[M]eans for updating the database to contain information regarding the selected alternative." Claim 6.

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Apple Newton MessagePad 2000 System	For example, once the call has been completed, tapping on far-right button on the row of buttons along the bottom of the screen (highlighted in black in the photograph below), results in a prompt for the user to store the name and phone number as a new Name in the Names database. See also Newton Guidelines at fig. 7-11. See also Newton Guidelines at p. 8-27.
LiveDoc Version 0.8 System	If a user selects the option "Add e-mail address to Emailer address book," the system would add the email address to the Claris Emailer address book.
U.S. Patent App. Pub. No. 2001/0047263 ("Smith")	If, after a given number of times, such as three times, the name provided by the user is still not recognized, then the system will verbally request the user to give a different name or add this person to their directory so that they may call the person (step 814). If the user selects to add the name to a directory then the add name data processing processing procedure known in the art will be performed (step 815)." ¶ 0066.
International Patent No. WO 998037474 ("Allen")	"Therefore, the parser 300 must be initialized with lists, projects, contacts, and keywords. The initialization process usually occurs during the boot time of the application that uses the parser 300, or when the application switches to another set of data. The following pseudo code illustrates a typical initialization of the parser 300 of the preferred embodiment: declare list, project, contact, keyword as strings for every

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	list in database AddList(list) for every project in object database AddProject(project) for every contact in object database AddContact(contact) for every keyword in object database AddKeyword(keyword, list, project, contact) After this initialization, the parser 300 knows about all the lists, projects, contacts, and keywords. It is now able to correctly auto-fill, parse, and suggest keywords upon request from the client. Of course, the parser 300 must be kept in synchronization with the data in the object database 850; changes in the object database 850 should be reflected in the parser 300. Updates are accomplished using Add, Delete, and Rename function calls. As an example, consider the following situation: a user deletes an existing project named "Paint Fence". The application removes the project from the object database 850 and removes (or updates) its associated keywords. This change must be reflected in the parser 300 and can be done with a single function call as follows: DeleteProject("Paint Fence"); This single function call will remove the project and any references to it from the parser 300. The project name will no longer auto-complete and all of the keywords that are associated with the "Paint Fence" project will be automatically removed or updated. Note that DeleteProjectO, AddProject(), and RenameProject() return values indicating success or failure of the function. For the sake of simplicity, the previous examples ignore the return values." Pages 40-43.
Eudora	"This dialog provides you with options for adding the word and its various forms to the dictionary." Eudora Mac Manual at 45.
Hachamovitch '965	"The word completion user interface 406 also includes an 'Add' button 426, which is used in our example to add the desired name-completion pair (i.e., 'Symposium, Save the Whales Symposium') into the selected suggestion list (i.e., 'Custom Directory')." Hachamovitch at 13:44-48.

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U.S. Patent No. 5,392,386 ("Chalas")	"That is, spell correction can be provided to both a word processing application program and a database application program by the same add-on software. Additionally, the add-on software can provide functionality that involves the transfer of information between application programs." 6:14-19.
Bates 043 Patent	Figs. 7, 10. Abstract: "the automated updating … in response to user input" 4:19-26, 13:8-65, 14:18-42

Exhibit U - Table 6: wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii)

Numerous claims contain the element "wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii)." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for

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users because enabling the user to be able to perform all three actions would save time and effort for the user and result in a more convenient system.

Reference	Exemplary Disclosures[6]
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 6-4: "The SMS directory contains all the contacts in the Contacts directory, but the names of contacts who have no Tel(GSM) number are dimmed and cannot be selected. To edit stored contact information and add a Tel(GSM) number, switch to the Contacts application." *See, e.g.,* 9000i Owner's Manual at Figures 7-3, 7-5. *See, e.g.,* 2110 User's Guide at 55-56: "If the sender of the message could be identified, the sender's phone number (and name if stored with the phone number in memory) will be displayed at the end of the message. With a message on the display, you may press a number key and then perform any memory or menu functions in the normal way, e.g. make a call to the sender of the message."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:41 - 6:20: "At the end of the marking mode the marked text is displayed in a pop-up window 70 as shown in FIG. 7C. The pop-up screen provides the user with a confirmation that the correct text has been marked. In addition to pop-up screen 70, a number of function keys also appear on the screen. The different function keys each provide an option to be taken with respect to the marked text. For example, if the user determines that the correct text has been marked, as for example the telephone number of Joe Smith, he can next instruct the system to dial that number by pressing the "Dial" function key 72 … In addition to marking telephone numbers, the present invention also is capable of marking other text. For example, if the user wants to find out the number of times Bob Jones has appeared on the text, he only needs to mark "Bob Jones" and then press the "Find" function key 76 … Moreover, the marked text may be used in a number of applications aside from the application in which the

[6] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	text is being viewed and marked. For example, the marked telephone number illustrated in FIGS. 7A-7C may be inserted to the address book, and particularly into the Joe Smith address. Or, for that matter, the marked text may be routed to the "To Do" directory file for future calling of Joe Smith, if the user deems it more appropriate to call Joe Smith at a later time." *See, e.g.,* FIG. 6.
Pensoft Perspective	Pensoft Perspective allows a user to initiate an electronic search for information, display related information, initiate electronic communication, and add or update a contact. For data entered into the Day Planner, Pensoft Prospective searches for a name in the contact database. If the name is included in the database, it displays any related contact information. A user can then update this contact information. If the name is not in the database, Pensoft Perspective allows the user to add a contact to the database. A user can also initiate an electronic communication from the Day Planner using the EO Phone capability.
Apple Newton MessagePad 2000 handheld device ("Newton")	Newton was configured to perform each of actions (i), (ii) and (iii). *See, e.g.* Newton Manual, pp. 67, 195-197, Newton Guide; pp. 18-3, 18-4, 18-8, 18-10, 18-20, 18-24, 1-9, 19-6; photographs embedded in Newton chart; Newton device available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,644,735 ("Luciw")	Luciw discloses a system configured to perform each of actions (i), (ii) and (iii). *See, e.g.* Figs. 4b, 6a-6c, 8a and 8b; 11:60-12:6; 13:52-14:4; 14:18-22; 14:29-34; 12:45-13:11; 12:61-66; 10:36-50, 12:65-13:11; 9:13-15; 12:54-60.
U.S. Patent No. 5,708,804 ("Goodwin")	*See, e.g.*, Fig. 8, Fig.10.
LiveDoc Version 0.8 System	The LiveDoc Version 0.8 System was able to perform all three of the recited actions. *See* screenshots in claim charts submitted herewith and with the invalidity contentions.

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Microsoft Outlook 97	Microsoft Outlook is configured to perform each one of actions (i), (ii) and (iii) using the first contact information. *See* screenshots and disclosures in claim charts submitted herewith.
Eudora	"The Check Spelling dialog allows you to ignore an unknown word, change it, suggest the correct spelling, add the word to your user dictionary, edit your dictionary, or change the spell checking preferences via the Options button." Eudora Windows Manual at 35.
Hachamovitch '965	"If the prediction criteria are met, the word completion utility displays the associated completion entry as a word completion suggestion for the partial data entry. . . . The word completion utility may then receive a command indicating acceptance of the completion entry. In response, the word completion utility replaces the partial data entry with the completion entry in the data file. The word completion utility may then identify a character immediately following the command indicating acceptance of the completion entry. In response, the word completion utility determines whether the character is a delimiter character. If the character is not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character." Hachamovitch at 5:1-17.
U.S. Patent No. 5,392,386 ("Chalas")	"EXWAYS uses the function 'PostMessage' and the (unofficial WINDOWS system file 'USER.EXE'. As an example, to generate user input signals to transfer a word at the current cursor position to the clipboard EXWAYS generates the sequence of commands as follows: WM_LButtonDown with VK_Control WM_LButtonDown with VK_Insert WM_LButtonUp with VK_Insert WM_LButtonUp with VK_Control

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	EXWAYS uses the function 'GetClipboardData' to pick up the information for subsequent processing to accomplish the added functions." 7:43-56.

Exhibit U - Table 7: if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action.

Numerous claims contain the element "if searching results in a plurality of distinct instances of second information, displaying such instances to enable user selection of one of them for use in performing the action." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would provide a practical way for the system to determine which information to use when there are more than one possible choices.

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Reference	Exemplary Disclosures[7]
Knowledge of One of Ordinary Skill in the Art	It would have been common knowledge that an address book would contain information such as plural email addresses (e.g., work and personal), physical addresses (e.g., home and/or work), telephone numbers (e.g., home, work, or mobile), etc. If, for example, several telephone numbers were associated with a name (i.e., "plurality of distinct instances of second information"), it would have been obvious to display the plural phone numbers to enable to the user to select one to call. This would have been simply a matter of common knowledge of a POSITA and there would have been design and market incentives to provide such functionality. One of ordinary skill would have been able to apply a known technique (displaying for selection plural results of a search) to yield a predictable result.
U.S. Pat. No. 6,026,233 ("Shulman")	"A selection menu includes at least one menu item. The set of the at least one menu item in a given selection menu is defined by the portion of the programming language statement that immediately precedes the present character position cursor location. A menu item being displayed in a selection menu can be accepted by the programmer in a manner that results in the selected menu item being automatically inserted into the immediate programming language statement at the present character position cursor location without the programmer having to type any or all of the characters of the selected menu item." 4:50-60. *See, e.g.*, Figures 3-9; Abstract; 7:22-37; 8:49-67; 9:11- 12; 12:25-30; 19:47-53 (claim 1).
U.S. Pat. No. 6,493,006 ("Gourdol")	"A contextual pop-up menu of frequently used commands is displayed by an application whenever a user carries out a particular action. The contextual menu appears at the location of a cursor, so that the displayed commands are spatially very close to an item on which an action is to be performed. The commands which are displayed in the contextual menu are not limited to those

[7] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	provided by an application associated with the selected item. Other commands, such as system level commands, for help items or other types of user assistance features, can be added to the menu before it is displayed to the user. In addition, plug-in modules can be employed to provide other commands associated with the selected item." Abstract. *See, e.g.*, Figures 5-9; 3:13-52; 5:64-65; 6:19-7:5; 7:63-8:54; 9:6-15.
U.S. Patent No. 5,644,735 ("Luciw")	"Responsive to the recognition of the name ISAAC, the assistance process has produced a list of alternatives by earlier query of the database per step 106 in FIG. 3. In particular, three ISAAC are presented for selection of one of them …". 11:60-12:6. *See, e.g.,* Fig. 6b.
U.S. Pat. No. 6,049,796 ("Siitonen")	*See, e.g.,* Abstract: "The present invention is a method and an apparatus for searching a personal digital assistant (PDA) data base utilizing a search criteria and displaying the result so that the user can determine whether the search yielded the intended result, whether the search needs to be refined, or whether the outcome should be used to initiate an electronic communication such as a telephone call."
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 6-4: "The SMS directory contains all the contacts in the Contacts directory, but the names of contacts who have no Tel(GSM) number are dimmed and cannot be selected. To edit stored contact information and add a Tel(GSM) number, switch to the Contacts application." *See, e.g.,* 9000i Owner's Manual at 7-11: "Autoload images — Yes / No (default). If the autoload images option is Yes, inline (JPG or GIF) images on the WWW page are downloaded automatically. When the setting is No, WWW pages are downloaded without the images and shown much faster."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:41-6:20: "…For example, if the user wants to find out the number of times Bob Jones has appeared on the text, he only needs to mark "Bob Jones" and then press the "Find" function key 76. The "Find" function

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	can be extended to the various messages stored in the "Mail" directory as well as other files kept at the different directories, such as the "Note Pad" and the "Address Book" directories….”
U.S. Patent No. 6,085,206 (“Domini”)	“Still referring to FIG. 3, the combined spelling and grammar dialog box 300 includes a suggestion list box 317. The suggestion list box 317 includes a plurality of suggestions 320 to replace the possible spelling error in the sentence 307. For example, in FIG. 3, the list of suggestions 320 includes “engine” and “ensign” to replace the misspelled word 315 “engin”.” 12:1-7.
U.S. Patent No. 5,483,352 (“Fukuyama”)	“Then the operator detects the sender of the mail, and moves the cursor to select the name of the sender in the same way as the telephone number was selected in FIG. 5B at step 902. This step may be executed automatically by the remote telephone number reading part 25.” 8:36-40
U.S. Patent No. 6,029,171 (“Smiga”)	“The parser 300 of the preferred embodiment receives natural language text expressions from user interface 200 and produces structured information including links to information objects, such as projects, contacts, lists, date/time calendar items, and enclosed documents corresponding to those identified to keywords in the input text expression. Although many parsing algorithms exist in the prior art, the parser 300 of the present invention is unique in its ability to effectively identify and suggest keywords and/or date/time calendar events in an input text string and respond with interactive user real-time performance. Parser 300 of the preferred embodiment accomplishes these objectives with a novel internal architecture and set of methods for processing a natural language text expression. The architecture and methods used by the parser 300 of the present invention will be described in the following sections. The present invention solves the problem of interpreting structure and meaning from natural language text. This meaning is a set of structured information related to or linked to other pertinent information known to and pre-defined by the user. The following example illustrates the operation of the present invention.

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	Suppose a user enters the following sample keynote to the user interface 200 of the present invention: "call Scott tomorrow to arrange the next Engineering meeting." The parser 300 of the present invention is used to analyze this keynote in real-time as the user enters the keynote character by character. Note that the entire keynote is parsed after the entry of each new character. After the entire keynote is entered by the user and analyzed by parser 300, the following structured information output is produced by parser 300: lists: Calls project: arrange Engineering meetings until Dennis gets back contact: Scott Jones date: tomorrow=current date+1 day" 9:22-59
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., p. 6-45: "2. Choose the *Amate/Address Book* command. The Database List in AddressMate Plus appears. 3. Double-click the address you want in the Database List. (If necessary, click on the up/down arrows to scroll through the addresses in the list.)" See, e.g., pp. 8-111—8-112: "AddressMate Plus features a search capability you can use to select entries in the Database List. This search capability, called 'hot search,' lets you locate any entry in the database based on part of the entry's name or address. . . . If there is more than one entry that matches the search characters, choose the Edit/Find Next command (CTRL+N shortcut) to step through subsequent matching records."
U.S. Patent No. 6,424,983 ("Schabes")	"In brief, the present invention determines alternatives for misspelled words, and ranks these alternatives based on a context in which the misspelled word occurs. For example, for the sentence My son thre a ball through the window, the present invention suggests the word threw as the best correction for the word thre, whereas for the sentence He broke thre window, the present invention suggests the word the as the best correction for the word thre. In its interactive mode, the invention

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	displays alternative word suggestions to a user and then corrects misspelled words in response to a user's selection of an alternative word. In contrast, in its automatic mode, the present invention determines, on its own, which of the alternatives should be used, and then implements any necessary corrections automatically (i.e., without user input)." 2:45-59.
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
Gehani	"FIG. 7 is a flow diagram illustrating the process steps involved in accessing yellow pages information via the display 50 of PIM 12. Step 100 indicates that the user clicks the YELLOW PAGES button 66 in the display 50 to request yellow pages information. The address A associated with the contact name in field 52 is then sent to the GeoServer 20. In step 102, the GeoServer 20 interacts with the user to determine additional details regarding the businesses or points of interest around A that the user would like to see. For example, the user may be permitted to request addresses and/or phone numbers for the businesses and points of interest around A. The GeoServer 20 searches for the specific yellow page information requested by the user, and sends the search results to the PIM 12. In step 104, the PIM 12 displays the search results to the user. The user may be permitted to interact with the search results to obtain a map or route directions." 6:1-16.
Pensoft	"For example, if you have two or more people named Dan in Perspective, and write Meet Dan with let the Associate ask for Help turned On, the Associate asks you which Dan you are meeting." p. 38.
Horodeck	"A possible response to the address signal, however, is the identification of more than one symbol or combination of symbols corresponding to the input kana identifier string. In this case the system displays the

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	plurality of corresponding symbols for the operator as a list of numbered choices in the assembly portion of the display, without inserting any particularly item into the text. The operator then performs manual disambiguation by selecting the item he wants to have inserted into the text by using the numbers located on the keyboard." 23:59-68.
Microsoft Outlook 97	*See* screenshots and disclosures in claim charts submitted herewith and with the invalidity contentions.
Eudora	"The Check Spelling dialog allows you to ignore an unknown word, change it, suggest the correct spelling, add the word to your user dictionary, edit your dictionary, or change the spell checking preferences via the Options button." Eudora Windows Manual at 35.
Hachamovitch '965	"The word completion user interface **406** also includes a completion entry edit box **419**, which displays a selected completion entry **420** associated with the selected name entry **418** (i.e., the completion entry associated with the name entry item **412** indicated by the selection indicator **416**). The selected data entry **402**, "Save the Whales Symposium," is also automatically entered into a completion entry edit box **419** as the selected completion entry **420**. Thus, the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") is ready to be saved in a selected suggestion list. Of course, the user may also edit the completion entry **420** by modifying the contents of the completion entry edit box **419**, if desired. The word completion user interface **406** also includes a an item, the suggestion list field **422**, that allows the user to select different suggestion lists (i.e., different lists of name-completion pairs) or to create new suggestion lists." Hachamovitch at 13:11-27.

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Exhibit U - Table 8: providing an input device configured by the first computer program

Numerous claims contain the element "providing an input device configured by the first computer program." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would allow a user to interact with the first computer program , including through different types of user interface options.

Additional motivation is found in Claris Emailer: Getting Started (version 2.0) where it states: "Keyboard shortcuts are key sequences that you can press instead of choosing, selecting, and clicking software items with your mouse." 3-5.

Additional motivation is found in U.S. Patent No. 6,493,006 ("Gourdol") where it states: "Therefore, it is desirable to provide a graphical user interface which makes it easier for users to discover the commands that are appropriate in a given context, as well as give the user a more efficient means for quickly executing the commands." 3:6-10.

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Reference	Exemplary Disclosures[8]
Knowledge of One of Ordinary Skill in the Art	It was well known to configure word processing programs to add user interface or graphical user interface (GUI) elements, such as additional menu options or button, to provide desired functionality. This would have been a predictable modification that was well within ordinary skill to perform a known function of standard wording processing programs, with no unexpected results.
U.S. Pat. No. 6,493,006 ("Gourdol")	"Generally speaking, a contextual menu is a pop-up menu that is displayed by an application whenever a user carries out a particular action. For example, this action might be the clicking of a special mouse button, or clicking a regular mouse button in combination with the depression of a particular key on a keyboard. In response to this action, an application program associated with the selected item provides a menu of appropriate commands, which are based on the current context, selection and cursor location." 3:15-23. *See, e.g.*, Figure 1; 1:61-63; 2:21-32; 2:50-65; 3:46-52; 4:22-25; 4:42-53; 5:7-29; 5"66-6:3; 6:21-52; 7:48-62; 8:20-26; 9:38-40; 12:1-9.
U.S. Patent No. 6,741,994 ("Kang")	"When the user completes the input data 402 entry, the user activates either the organize button 408 or cancel button 410, for example with the stylus 108. This selection of buttons may be carried out at a time convenient to the user. The input data, once captured in the ACCEPT INPUT step 304, will not be lost but remain in the input buffer. The buttons should not be construed as the only means for activating or canceling the organize function. Other well-known means such as a key depression or a voice command may also be used." 6:10-19.
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 2-11: "Keyboard In addition to the normal character and number keys, the

[8] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	keyboard has a number of special keys, as shown in Figure 2-13." *See, e.g.,* 9000i Owner's Manual at Figure 2-13. *See, e.g.,* 9000i Owner's Manual at 2-7: "Communicator display Indicators — Show application and system related information (see "Indicators" on page 2-10). Selection frame — The highlighted line within a menu area. You can select items by moving the selection frame with the scroll buttons to the left of the display or the up/down arrow keys on the keyboard (see "Keyboard" on page 2-11). Commands — The column of four command buttons to the right of the display. Scroll buttons — To the left of the display. Use the scroll buttons to navigate up and down through the display text. Scroll bar — Indicates your relative position within the display text."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* Abstract: "In a personal communications device having a touch sensitive display screen, text may be marked by a user to be used with different applications. … The menu of operations echoes the marked text for user confirmation. The marked text may be used by the user in a number of applications, among which include a calling application whereby the marked text is used to place a call."
U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 9:8-24: "The device generates for the user in a menu commands based upon character combinations in the character-based message, in which case the execution of a command is easy with just one key press. …"
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:31-40: "Referring now to FIG. 2 there is depicted a high-level block diagram of a client 14 within electronic mail distribution system 10 of FIG. 1. As depicted, client 14 may comprise a personal computer or data terminal and includes a processor 16 for executing the process of the present invention, as well as other data processing applications. Electronic mail processing application 18 is depicted within client 14 and is utilized

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	as an interface between client 14 and electronic mail distribution system 10 to transmit and receive electronic mail items."
U.S. Patent No. 5,708,804 ("Goodwin")	A personal communications device SIMON, announced by the IBM Corporation in 1994, includes many features for facilitating personal communications. As shown in FIGS. 1 and 2, the SIMON personal communications device 2 resembles, and is, a cellular telephone. It is further an electronic pager. In addition, it is capable of facsimile transmission and reception as well as electronic mail sending and receiving. Moreover, it further includes features among which include a computer note pad, address book and calendar. As shown, device 2 has a speaker 4, an on and off switch 6, volume adjust switches 8a and 8b, a touch sensitive display screen 10, a PCMCIA card receptacle slot 12, a PCMCIA card release switch 14, a battery pack 16, an input/output connector 18 and a microphone 20. Also provided with the system is a stylus 22, which may be used to interact with touch sensitive screen 10. It should be noted, however, that in place of stylus 22, a user can use his finger. To act as a cellular device, an antenna 24 is extendable from the body of the device 2. The device comes standard with a suite of software applications each invoked by touching the LCD screen interface. 1:61-2:18
U.S. Patent No. 5,483,352 ("Fukuyama")	"At step 603, it is determined whether or not the telephone connection request is input from an operator (the receiver of the electronic mail). If the operator wants to reply to the sender of the mail, the operator inputs a telephone connection request via the keyboard 18 or the mouse 19. Then the operator detects the sender of the mail, and moves the cursor to select the name of the sender in the same way as the telephone number was selected in FIG. 5B at step 902. This step may be executed automatically by the remote telephone number reading part 25. When the telephone connection request and the name of the sender are input to the telephone connection request receiving part 24, the remote telephone number reading part 25 is activated to retrieve the telephone number of the sender of the electronic

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	mail from the electronic mail ID code to telephone numbers table storing memory 31 in accordance with the name of the sender at step 902. For example, the telephone number "123-4567" is indexed to the ID code "bc@flab. ABC. Co. jp".” 8:31-49
U.S. Patent No. 5,859,636 (“Pandit”)	“The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a date has been recognized. The user may then quickly return to the body of text (step 26).” 2:32-50
U.S. Patent No. 6,424,983 (“Schabes”)	“FIG. 1 shows a representative embodiment of a computer system on which the present invention may be implemented. As shown in FIG. 1, PC 4 includes network connection 9 for interfacing to a network, such as a local area network ("LAN") or the World Wide Web (hereinafter "WWW"), and fax/modem connection 10 for interfacing with other remote sources. PC 4 also includes display screen 11 for displaying information to a user, keyboard 12 for inputting text and user commands, mouse 14 for positioning a cursor on display screen 11 and for inputting user commands, disk drive 16 for reading from and writing to floppy disks installed therein, and CD-ROM drive 17 for accessing information stored on CD-ROM. PC 4 may also have

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	one or more peripheral devices attached thereto, such as scanner 13 for inputting document text images, graphics images, or the like, and printer 19 for outputting images, text, or the like." 7:21-36. "Application execution and other tasks of PC 4 may be initiated using keyboard 12 or mouse 14, commands from which are transmitted to processor 38 via keyboard interface 30 and mouse interface 31, respectively. Output results from applications running on PC 4 may be processed by display interface 29 and then displayed to a user on display 11. To this end, display interface 29 preferably comprises a display processor for forming images based on data provided by processor 38 over computer bus 36, and for outputting those images to display 11. Output results from applications, such spelling and grammar checking code 49, running on PC 4 may also be provided to printer 19 via printer interface 40. In this case, processor 38 also executes print driver 24 so as to perform appropriate formatting of the output results prior to their transmission to printer 19." 8:12-26
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	This document describes an interactive note-taking software system for computers with pen-based input devices. Our software has two distinctive features: first, it actively predicts what the user is going to write and provides a default that the user may select; second, the software automatically constructs a graphical interface at the user's request. The purpose of these features is to speed up information entry and reduce user errors. Viewed in a larger context, the interactive note-taking system is a type of self-customizing software." Schlimmer 1 at 61.
U.S. Patent No. 5,786,819 ("Weiser")	See, e.g., 10:46-12:4.
U.S. Patent No. 6,189,026 ("Birrell")	"As shown for computer 112, the client includes one or more processors (P) 117, memories 118 (M), input/output interfaces (I/O) 119 connected to each other by a bus 120. The processors 117 can implement Complex Instruction Set Computing (CISC) or Reduced Instruction Set Computer (RISC) architectures in 32, 64,

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	or other bit length data structures. The memories 118 can include solid state dynamic random access memory (DRAM), and fixed and removable memories such as hard disk drives, CD-ROMs, diskettes, and tapes. The I/O 119 can be connected to input devices such as a keyboard and a mouse, and output devices such as a display and a printer. The I/O 119 can also be configured to connect to multi-media devices such as sound-cards, image processors, and the like. The I/O also provides the necessary communications links to the network 120." 3:9-24.
Microsoft Outlook 97	Help file entry for "Manually check names before sending a message." MS Office at 72. MS Office at 72. Microsoft Outlook 97 discloses adding a button to an interface associated with the first program, referred to as the "Command Button Wizard." MS Office at 521 ("Add Buttons That Open Forms and Reports", "Create command buttons to automate simple [and other] tasks"), 649, 652 ("Add a Command Button", "What other types of buttons can the wizard create?"), 653

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	("When the Command Button Wizard creates a button, it writes a Visual Basic event procedure to carry out the action you want").
U.S. Patent No. 5,946,687 ("Gehani")	"The display also includes a number of buttons for requesting different types of geographic information, such as maps, directions, weather and yellow pages information. When the user clicks on one of the buttons, the personal information manager utilizes an address or other location identifier associated with the contact name to format a request to a geographic information server. The server uses the location identifier to retrieve the appropriate geographic information for that location, and sends the information to the personal information manager for display." Abstract.
Luciw '735	"An example of an indication of user desire to have explicit assistance undertaken is the act of using pen 38 in FIG. 2 to tap or click on the assist icon or button 64." 8:51-53.
Miller	"An input device 110, such as a keyboard and mouse, and an output device 105, such as a CRT or voice module, are coupled to CPU 120." 3:26-28. "As shown in FIG. 7, upon recognition of a mouse-down operation over a structure, user interface 240 presents a pop-up menu 710. In this example, pop-up menu 710 displays the candidate actions linked to the selected telephone number grammar 410, including dialing the number and putting the number into an electronic telephone book. Upon selection of the action . . . user interface 240 transmits the corresponding telephone number and selected action to action processor 250." 5:38-47.
U.S. Patent No. 5,392,386	When EXWAYS detects that the target application, e.g.,

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("Chalas")	WORD, is activated EXWAYS modifies the menu displays of the application program to place a new menu in the user interface of the application program that allows the user to select the new functions. ('386 Patent, Col. 6, Lines 42-46) In FIG. 4B, main menu bar 372 includes an extra menu called "EXWAYS" which is the name of the add-on program in this example. ('386 Patent, Col. 8, Lines 26-29) The invention modifies the main menu bar by inserting the EXWAYS menu header and allows the user to click on the EXWAYS menu header to provide a list of menu items for invoking additional functions in the Microsoft WORD word processor. ('386 Patent, Col. 8, Lines 39-43) Step 424 is executed to process the data in the clipboard. Step 424 is the point at which the actual added functionality takes place. In EXWAYS, the added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase. In the preferred embodiment, much of the added functionality performed at step 424 is done by a program separate from EXWAYS called WAYS. ('386 Patent, Col. 12, Lines 45-68) Similarly, at 456 the text is shown after the next word "Another" at 451 has been transferred, translated and replaced with "Ein anderer" at 457. ('386 Patent, Col. 10,

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	Lines 9-11)
Capps (U.S. Patent No. 5,579,467)	er uses entry means to enter information into a computer system, preferably by printing the information on a display pad of a pen-based computer system. Optionally, the information can be entered by a keyboard or other information entry means or may already be stored in the computer system. Capps at 2:34-39. illustrates the Step 65 of FIG. 4 in more detail. If the word 'facsimile' or 'fax' appears in the entered information (Step 71), the computer system chooses a facsimile format in Step 73. If the word 'letter' or 'send' or 'mail' appears in the entered information, but not the words 'facsimile' or 'fax' (Step 73), and if the addressee (found by a subsequent search of the object through a query) is not present at the same site where the writer is located (Step 74), the computer system chooses a letter format in Step 75. Proceeding from Step 74, if the addressee is located off-site, the computer system chooses the memorandum format in Step 77. If none of the words 'facsimile', 'fax', 'letter', 'send' or 'mail' appears in the object but the word 'memorandum' or 'memo' appears in the object, the computer system chooses the memorandum (or report) format in Step 77. If none of the words 'facsimile', 'fax', 'letter', 'mail', 'send', 'memorandum' or 'memo' appears in the object, the computer system proceeds to Step 78, stops and awaits entry of additional format information by the writer. Based on the choices made in Steps 72, 74 or 77, the format, format template and queries list are then determined and called up in Step 81. Capps at 6:35-55. *Further, see also* Abstract, Figs. 1, 3A-3B, 4-6, 7-9; 2:60-3:4, 3:44-54, 4:43-47, 6:23-34, 7:4-18, 8:25-48

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Epi Info	Epi Info at 250.
International Patent No. WO 998037474 ("Allen")	"The present invention includes a real-time and interactive user interface for receiving input text expressions from a user and for providing selectable supplemental information to the user regarding the classification of the keynote." Page 11.
Eudora	"To check your spelling in Eudora, select **Check Spelling** from the **Edit** menu." Eudora Mac Manual at 43.
Hachamovitch '965	"Steps **708** and **710** and followed by step **712**, in which the Auto-Complete utility **100** may receive user input within the word completion user interface to complete or alter name and completion entries, select suggestion lists, define capitalization and context limitations, and access other functionality provided by the word completion user interface." Hachamovitch at 16:51-56.

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Exhibit U - Table 9: searching for second information

Numerous claims contain the element "searching" "for second information." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would save the user the time and effort required to separately search for the second information.

Reference	Exemplary Disclosures[9]
Knowledge of One of Ordinary Skill in the Art	Searching for [second] information in an information source, such as an address book was well known in the art and well within the knowledge of those of ordinary skill in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that it searched for second information using a second application program, such as address book software. As a matter of common knowledge of POSITA, it would have been obvious for the address book application, for example, to be

[9] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	initialized in order to run and search for the name, , to find other information, such as a phone number or email address, associated with that person.
U.S. Pat. No. 6,026,233 ("Shulman")	"From the tokens of the parsed programming language string, the system then determines the type of programming language statement that exists, and any information that might be displayed about the immediate programming language statement." 5:50-55. *See, e.g.*, Figures 3-9; Abstract; 4:66-5:18; 5:37-46; 7:22-28; 8:3-7; 8:28-32; 11:57-60; 18:6-11; 19:47-51.
Claris Emailer: Getting Started (version 2.0)	"You may find specific addresses in the Address Book by typing a few characters in the Filter text box. Claris Emailer finds only those addresses that contain the specified characters in the recipient's name, description, or address fields." 3-16. *See, e.g.*, 3-12; 3-13; 3-16; Quick Reference, back cover.
U.S. Pat. No. 6,493,006 ("Gourdol")	"The information that a contextual menu event has occurred, together with the selection, is passed to an event manager 56 within the operating system (see FIG. 6). In response thereto, the event manager determines whether any commands associated with the operating system are to appear in the contextual menu. For example, in some cases it may be appropriate to provide the user with access to system level commands, such as balloon help or user assistance sequences. In such a case, with reference to FIG. 7, the event manager retrieves the appropriate commands to be displayed, at Step 72." 8:18-28. *See, e.g.*, Figures 5-9; Abstract; 6:59-7:24; 7:63-8:18; 8:29-54; 9:46-65.
Apple Newton MessagePad 2000 handheld device ("Newton")	"The MessagePad understands the following requests and their synonyms. … • Call to dial a telephone number. Synonyms: phone, ring, dial ***Call Bob at home*** looks in the Name File to find Bob's home phone number, thenputs it in the call slip.

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	• Fax to fax the item on the screen. Synonyms: none ***Fax Anderson*** opens a fax slip with the name Anderson and Anderson's fax number filled in. …" Newton Manual, pp. 196-97. *See, e.g.*, Newton Guide at pp. 18-4, 18-8, 18-10; ; photographs embedded in Newton chart; Newton device available for inspection at DLA Piper US LLP.
U.S. Pat. No. 5,784,001 ("DeLuca")	*See, e.g.,* 6:45-48: "When one or more message words are equivalent to key words in the graphics database 500, the image data associated with the key word or words is retrieved at step 420 from the database 500."
U.S. Pat. No. 6,049,796 ("Siitonen")	*See, e.g.,* 6:5-14: "The search is performed on the name field 5 or the company field 6 contained in each contact record 100, although other search fields could be implemented by those persons skilled in the art."
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 2-7: "Search field — At the bottom of the display text area. When the search field appears, you can search for items by entering text in the search field. Select the item you want, then press the appropriate command button. For example, to view the contact information for an individual in the list of contacts, select the individual, then press Open." *See, e.g.,* 9000i Owner's Manual at 6-4: "To select a recipient (three options): 1. Select a contact from the SMS directory by scrolling or searching and press Select.
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:59-6:20: "…For example, if the user wants to find out the number of times Bob Jones has appeared on the text, he only needs to mark "Bob Jones" and then press the "Find" function key 76. The "Find" function can be extended to the various messages stored in the "Mail" directory as well as other files kept at the different directories, such as the "Note Pad" and the "Address Book" directories…."
U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 2:16-32: "…The invention relates to a device which is capable of supporting several different applications and which is capable of receiving and

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	displaying different character-based messages and which device has means for searching certain character combinations in a character-based message and means for recognizing character combinations connected with the different applications in said character-based message, which message may comprise character combinations connected with several different applications, and means for activating or launching an application determined by a certain character combination contained in said message, based upon said character combination and for executing the command connected with said character combination in the activated application."
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:52-57: "As is typical in such situations an intuitive "nickname" or "alias" is often utilized and thus, the user may simply address an electronic mail item to "Tom" and electronic mail processing application 18 will, in conjunction with existing address list 22, convert the name "Tom" into an appropriate electronic mail address."
U.S. Patent No. 6,085,206 ("Domini")	"At step 715, the spell checker program module verifies the accuracy of the spelling of the word. A spell checker program includes a standard dictionary with a list of words that are found in a standard dictionary. In addition, spell checker program modules typically include custom dictionaries. These custom dictionaries include terms entered by a user of the spell checker program module, such as specialized terms, acronyms, abbreviations, and any other terms entered by the user. As is well-known in the art, a spell checker program module checks the spelling of a word by comparing the word to the list of words in the standard dictionary and custom dictionaries. If the word does not correspond to one of the words in the standard dictionary or custom dictionaries, then the spell checker program module flags the word as a word that is possibly misspelled. In addition to verifying the spelling of the word at step 715, most spell checker program modules also check for inaccuracies in the word, such as a word that has been repeated or a word with improper capitalization." 16:66-17:37.

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U.S. Patent No. 5,859,636 ("Pandit")	"Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries B and C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-1f. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4:1-31
U.S. Patent No. 5,483,352 ("Fukuyama")	"When the telephone connection request and the name of the sender are input to the telephone connection request receiving part 24, the remote telephone number reading part 25 is activated to retrieve the telephone number of the sender of the electronic mail from the electronic mail ID code to telephone numbers table storing memory 31 in accordance with the name of the sender at step 902. For example, the telephone number "123-4567" is indexed to the ID code "bc@flab. ABC. Co. jp". Then the own (i.e. receiver) telephone number

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	reading part 26 is activated to read the own (i.e. receiver) telephone number from the own (i.e. receiver) telephone number storing memory 27 at step 605. The order of steps 902 and 605 can be reversed. When the telephone numbers of the sender and the receiver are obtained, the telephone connection request receiving part 24 outputs a telephone connection request signal including the telephone numbers of the sender of the electronic mail and the own telephone number to the PBX interface controller 28 at step 606. The PBX interface controller 28 controls the PBX interface 29 to connect the own telephone to the telephone of the sender of the mail. Then, the own telephone 6 and the telephone of the sender of the electronic mail are connected by PBX at step 607. In this way the telephone 6 of the receiver of the electronic mail and the telephone 51, 61, or 71 are automatically connected by the computer 20." 8:41-67.
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., pp. 3-18—3-19: "You can use AddressMate Plus' database mode to add, delete, find, update, correct, and print records. . . . To find a particular address with the mouse or keyboard, you can search for an address using the Find button or the hot search feature. You can use hot search to easily retrieve addresses by simply activating the list of addresses and typing the name, company, or any other known part of the address."
Nardi, et al., *Collaborative Programmable Intelligent Agents* ("Nardi")	Nardi's Figure 4 discloses searching, using NowContact, for the second information (e.g., the name of a person associated with the telephone number), in one example, information to complete a letter. "**tell** application "Now Contact 3.5" --find the person with the supplied e-mail address **set** thePerson **to the first** person **whose** (work phone **is** phoneNumber) --get the address information for this person **set** firstAndLastName **to** (**the** first name of thePerson) & " " & (**the** last name of thePerson) **set** theAddress **to** firstAndLastName & return & (**the** company **of**

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	thePerson) & return & (**the** work address of thePerson) & return & (**the** work city **of** thePerson) & "," & (**the** work state of **the** Person) & " " & (the work zip of thePerson) & return & return **end tell"** Fig. 4.
U.S. Patent No. 6,424,983 ("Schabes")	"Spelling and grammar checking code 49 of the present invention may be used in the context of a text indexing and retrieval system for retrieving text from a source based on an input search word. Examples of such text indexing and retrieving systems in which the present invention may be used include, but are not limited to, Internet search engines, document retrieval software, etc. FIG. 23 is a flow diagram depicting computer-executable process steps which are used in such a text indexing and retrieval system." 24:12-19 "FIG. 25 shows the multi-threaded client-server spelling correction system described above used in a text indexing and retrieval context (e.g., in conjunction with a WWW search engine, database searching software, etc.). In this regard, in text indexing and retrieving systems, textual queries are sent to a database, and information related to the textual queries is retrieved from the database. Often, however, queries are misspelled and, as a result, correct information cannot be retrieved from the database. The system shown in FIG. 25 addresses this problem. More specifically, in FIG. 25, as was the case above with respect to FIG. 24, multiple queries are input at the same time to the server (i.e., PC 4). As was the case in FIG. 24, lexicon memory 750 is shared among all of program threads 151, 152 and 153. In addition, as before, each program thread contains its own spelling memory. In operation, multiple queries (i.e., QUERY1164, QUERY2165 . . . QUERYn 166) are input to the client-server spelling correction system of the present invention before each query is actually used to retrieve information from database 169. The present invention then corrects each query in the manner

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	described above with respect to FIGS. 3, 4 and in particular, FIG. 5. Each corrected query is then used to retrieve information from database 169." 25:29-52. *See* Interactive Mode, 8:42-10:33 (and described figures) *See* Automatic Mode, 10:34-11:20 (and described figures) *See* Spelling Suggestion Module, 11:21-16:13 (and described figures) *See* Automaton Conversion Module, 16:14-17:60 (and described figures) *See* Contextual Ranking Module, 17:61-19:12 (and described figures) *See* Morphology Module, 19:13-20:49 (and described figures) *See* Construction of Grammar FST 20:50-22:30 (and described figures) *See* Word Processing, 22:31-62 (and described figures) *See* Machine Translation, 22:63-23:40 (and described figures) *See* Optical Character Recognition, 23:41-24:9 (and described figures) *See* Text Indexing and Retrieval, 24:10-33 (and described figures) *See* Client-Server Configuration, 24:34-25:27 (and described figures) *See* Client-Server Information Retrieval System, 25:28- 52 (and described figures)
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	"To support the goal of allowing users to record and retrieve information, this paper describes an interactive note-taking system for pen-based computers with two distinctive features. First, it actively predicts what the user is going to write. Second, it automatically constructs a custom, button-box user interface on request. The system is an example of a learning-apprentice software-agent. A machine learning component characterizes the syntax and semantics of the user's information. A performance system uses this learned information to generate completion strings and construct a user interface." Schlimmer 1 at Abstract.

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	"**8. Related Work** Self-customizing software agents have several subjective dimensions on which they can be evaluated and compared: *Anticipation*—Does the system present alternatives without the user having to request them? • *User interface*—Is the system graphical, or is it command-line oriented? • *User control*—Can the user override or choose to ignore predictive actions? • *Modality*—If the system has a number of working modes, can the user work in any mode without explicitly selecting one of them? • *Learning update*—Is learning incremental, continuous and/or real-time? • *User adjustable*—Can the user tune the system parameters manually? Here we describe related systems that exhibit properties in each of these agent dimensions. Our note taking software utilizes the *anticipation* user interface technique pioneered by Eager (Cypher, 1991). Eager is a non-intrusive system that learns to perform iterative procedures by watching the user. As such, it is a learning apprentice, a software agent, and an example of programming by example or demonstration. Situated within the HyperCard environment, it continuously watches a user's actions. When it detects the second cycle of an iteration, it presents an execute icon for the user's notice. It also visually indicates the anticipated next action by highlighting the appropriate button, menu item, or text selection in green. As the user performs their task, they can verify that Eager has learned the correct procedure by comparing its anticipations to their actions. When the user is confident enough, they can click on the execution icon, and Eager will run the iterative procedure to completion. Eager is highly anticipatory, uses a graphical interface, is non-obtrusive, non-modal, and learns in real-time, but is not user adjustable." Schlimmer 1 at 83-85.

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U.S. Patent No. 6,189,026 (“Birrell”)	“Embedded Links When displaying retrieved messages, the system 200 heuristically locates text strings which have the syntax of e-mail addresses. If the user click on one of these addresses, then the system will display a composition window, described below, so that the user can easily generate a reply message to the selected e-mail address(es). Similarly, when displaying retrieved messages, the system 200 heuristically locates text strings that have the syntax of an URL, and makes the string a hot-link. When the user clicks on the hot-link, the URL is passed to the browser, which will retrieve the contents over the network, and process the content in the normal manner. The system also attempts to detect components in messages, such as explicitly "attached" or implicitly "embedded" files. The files can be in any number of possible formats. The content of these files are displayed by the browser 115. The specific display actions used will depend on how the browser is configured to respond to different component file formats. For some file formats, for example Graphics Interface Format (GIF) and Joint Photographic Experts Group (JPEG) the component can directly be displayed. It is also possible to configure the browser with a "helper" applet to "display" attached files having specific format types as "icons." For example, the message may be in the form of an audio message, in which case, the message needs to be "said," and not displayed. For some message formats, the browser may store some of the content in file system of the client computer.” 12:15-34, 59-65. *See, e.g.,* 1:65-2:19; 5:54-62; 8:7-56; 9:40-:10-20; 14:41-49.
WO 98/24031 (“Treider”)	“The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users;

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	and reporting matches in the compared accessible information. In the preferred embodiment, information is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a reference user via a wireless device, such as any form of cellular telephones, beepers, palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24 user is acquainted; ranking a level of acquaintance with
Luciw '777	"When the substring "Bill" is queried to a database and found, the database query processor recognizes through the knowledge base that "Bill" is a name and therefore information for this substring will be found in the <PERSON> type frame. As is well known to those skilled in the art, a description of the knowledge base frames can be accessed to interpret the database query. For example, the query "Bill" can be found in the knowledge base description to refer to a <PERSON> type frame. Once the <PERSON> type frame is accessed, the instance frames <PERSON-1>, <PERSON-2>, and <PERSON-3> can be accessed. If information about a specific "Bill" is required, one of the "Bill" instance frames must be chosen, since there are three Bill instance frames in the database shown in the example of FIG. 11." Luciw '777, 19:25-40. "A <RESTAURANT> type frame 200 is used to trace restaurant names queried to a database. For example, the CPU would receive the query "Chez Sovan" and can examine a <PLACE> type frame (not shown) to find the

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	<RESTAURANT> type frame 200 in a similar process to that described above. The <RESTAURANT> type frame 200 includes the instance frames <RESTAURANT-1> and <RESTAURANT-2>. <RESTAURANT-1> has a field that matches the substring "Chez Sovan" and a semantic attribute tag referring to the <PLACE> frame is returned." Luciw '777, 19:54-64.
CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM 0-89791-881-9/97/10 ("CyberDesk Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	See, e.g., CyberDesk Technical Report at 6, col. 1 (figure 3): "Screenshot of contact manager being used with CyberDesk. The user selects the string 'Andy Wood' in the –mail tool (a). CyberDesk offers some suggestions (b): search using AltaVista, look up a phone number using Switchboard (c), and look up the name in the contact manager (d)." See, e.g., CyberDesk Technical Report at 5, col. 2—6, col. 1 (including fig. 3): "The example below is the wrapper for the Contact Manager (see Figure 3), and it extends the ContactApplet class (the original application class). . . . Lookup an entry for the name in the ContactManager."
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word- by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or

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	detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65.
Miller	*See* FIG. 4 at 420 ("write letter" and "retrieve #"); FIG. 4 at 410 ("write letter" and "[p]ut in electronic calendar"); 4:58-6:18.
Gehani	"The display also includes a number of buttons for requesting different types of geographic information, such as maps, directions, weather and yellow pages information. When the user clicks on one of the buttons, the personal information manager utilizes an address or other location identifier associated with the contact name to format a request to a geographic information server. The server uses the location identifier to retrieve the appropriate geographic information for that location, and sends the information to the personal information manager for display." Abstract.
Pensoft	"The Associate is a part of Perspective that automatically establishes links by recognizing the names of people, companies, etc. you write. It looks within the Profile Book to see if you have previously entered the name, and creates the link." p. 11.

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Horodeck	"This addressing signal S_a is sent to the memory 6 to call up any kanji which correspond to the input string." 23:45-52.
Microsoft Outlook 97	"Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Help file entry for "Check recipient names before sending a message."
Luciw '735	"The process calls for example for the filling in of a plan template and the identification of any missing preconditions, as set forth at step 292 of FIG. 13. Next, a step 293 resolves missing preconditions to the extent possible." 15:9-13. "In the earlier example of FIG. 6c in which it was decided that Isaac Asimov was the desired ISAAC, the phone information in window 170 had not yet been entered. This information may be available and can be accessed according to the process of FIG. 8a. The process starts at 200 and immediately checks the data base for any linked smart fields as indicated at 202. If there are applicable smart fields which contain the desired phone number information, this data is obtained from the corresponding linked field types as suggested at 203. Then, as suggested at 206, the data obtained is entered into the applicable smart field of the window 170 under operation." 12:43-54. "For example, if it was desired to retrieve all of the frames that were colored red, a typical frame accessor language query would be in the form of: (QUERY (MEMBER-VALUE COLOR ?XRED) and would return a list of frames that have a COLOR slot whose value is red." 11:33-37.

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LiveDoc Version 0.8 System	If a user types a name in the LiveSimpleText document, pressing the Option key would highlight the name, and right-clicking the mouse would pull up the following options: These options, when selected, would cause various actions to occur. For example, selecting the option "Send mail to" would cause the system to retrieve an email address for the selected name from the Now Contact database, and the system would then create a new email for that address. Selecting the option "Address letter to" would cause the system to retrieve a mailing address for the selected name from the Now Contact database, and the system would then create a letter containing that address. If a user types an email address in the LiveSimpleText document, pressing the Option key would highlight the email address, and right-clicking the mouse would pull up the following options: These options, when selected, would cause various actions to occur. For example, selecting the option "Send mail with Claris Emailer" would cause the system to retrieve an email address for the selected name from the Claris

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	Emailer address book, and the system would then create a new email for that address in Claris Emailer. The email would include a "Destination" field which would display company names for certain URL domains. Selecting the option "Write a letter" would cause the system to retrieve a mailing address for the selected name from the Now Contact database, and the system would then create a letter containing that address using Claris Works. For example:
U.S. Patent No. 5,708,804 ("Goodwin")	"The user can input, as a search string, whatever he wants to search for and that could be a phone number, a name, or any other kind of information. The search string can in effect be an abbreviated name or things that he remembers with respect to the entry or entries that he wants to retrieve from the address book database, or any other databases of the device." 4:63-67 "Upon completion of the search, the screen shown in FIG. 9 is displayed. Here, all entries that match the search string entered by the user in one way or the other are shown. In

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	the example given, the search string, as shown in FIG. 8 was "Smith". Thus, all entries in the address book database which refer to "Smith" are shown on the screen of FIG. 9. Do note also that even though the exemplar screen of FIG. 9 only shows entries reflecting names of people, any entry that includes "Smith", such as for example a street name or anyone with "Smith" as part of his name, such as "Goldsmith" or variants thereof, would also have been retrieved. For that matter, suppose that the search string entered was only entered as "Smi" instead of "Smith", the invention function would nonetheless have retrieved the same entries as those shown in FIG. 9 (and also those with only "SMI"), provided that those are the only entries having the string "Smith". From the entry shown, the user can pick the particular "Smith" that he wants." 5:8-25
International Patent No. WO 998037474 ("Allen")	"As can be seen from Figures 3 - 7 and the above description in connection with user interface 200 of the present invention, user interface 200 provides an easy and intuitive user interface for inputting text expressions and receiving resulting associated structured information. Further, because the keynote and shadow regions 210 are always displayed or easily displayable on display device 121, the user may easily record notes or thoughts within the keynote window 220 without losing the context of the work previously being done. In this manner, the present invention allows the easy recordation of notes without disrupting current user operations. In addition, the present invention allows notes to be recorded in a natural language unstructured form which more closely resembles the natural user thought processes. Thus, the user is not required to organize these notes or thoughts into particular structured fields and the user is not required to navigate through a multiple step application to record notes or thoughts." Page 18.
Eudora	"The spelling checker starts at the beginning of the document. The subject of the message and the message body are checked, ignoring the parts of the body that are identified as quoted text." Eudora Mac Manual at 43.

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Hachamovitch '965	"Either a linear or a binary search is typically used to scan the text history in order to provide a text prediction." Hachamovitch at 2:32-34.

Exhibit U - Table 10: second computer program

Numerous claims contain the element "second computer program." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would allow a second computer program to be utilized, which ultimately would provide additional functionality for the user.

Additional motivation is found in U.S. Patent No. 6,493,006 ("Gourdol") where it states: "In accordance with another feature of the present invention, the commands that are presented in a contextual menu are not limited to the choices provided by the currently active application. Rather, additional commands can be displayed to invoke functions outside of those provided by the application." 6:59-64.

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Reference	Exemplary Disclosures[10]
Knowledge of One of Ordinary Skill in the Art	Implementing software in an application program or computer program was well known in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference to use a second computer program to provide access to the information source. This would have been a simple substitution of one known element (e.g. accessing the information source with a library or routine in the first computer program) with another known element (accessing the information source with a second computer program) to obtain predictable results.
U.S. Pat. No. 6,493,006 ("Gourdol")	"In accordance with another feature of the present invention, the commands that are presented in a contextual menu are not limited to the choices provided by the currently active application program. Rather, additional commands can be displayed to invoke functions outside of those provided by the application. In the example of FIG. 5, three additional commands are shown at the bottom of the menu 49. The first one of these commands relates to a general help function, which is provided by the operating system itself. The latter two commands relate to a spelling checker and electronic mail capabilities, respectively. These two latter sets of functionality are provided by services outside of the word processing application itself. For example, they can be provided by separate software programs." 6:59-7:5. *See, e.g.*, Figures 5-9; Abstract; 7:6-24; 7:63-8:54; 9:46-65.
Apple Newton MessagePad 2000 handheld device ("Newton")	"You can use the Name File as an address book to store information about people, companies and groups." Newton Manual at 55. *See, e.g.* Newton Manual at 196-97; 59-57; Newton Guide at 19-1 to 19-2; photographs embedded in

[10] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	Newton chart; Newton device available for inspection at DLA Piper US LLP.
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 1-3: "With the communicator interface's text editor, you can create new texts in many applications (Notes, Fax, SMS, E-mail, Calendar). The editor, however, works in each application in a way that corresponds to the sending format of that application. For example, because short messages cannot contain text formatting, the SMS editor removes text formatting before opening any document. For this reason, the text editor is called Note editor in the Notes application, E-mail editor in the E-mail application, and so on." *See, e.g.,* 9000i Owner's Manual at 3-1: "The Telephone, Fax, SMS and E-mail applications all use information found in the Contacts application."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:59-6:20: "In addition to marking telephone numbers, the present invention also is capable of marking other text. For example, if the user wants to find out the number of times Bob Jones has appeared on the text, he only needs to mark "Bob Jones" and then press the "Find" function key 76. The "Find" function can be extended to the various messages stored in the "Mail" directory as well as other files kept at the different directories, such as the "Note Pad" and the "Address Book" directories. …"
U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 3:57-60: "The activating of an application can be executing an application or bringing an already activated, but running in the background, application in the display of the device for the receiving and executing of a command."
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:52-57: "As is typical in such situations an intuitive "nickname" or "alias" is often utilized and thus, the user may simply address an electronic mail item to "Tom" and electronic mail processing application 18 will, in conjunction with existing address list 22, convert the name "Tom" into an appropriate electronic mail address."
U.S. Patent No. 5,577,239 ("Moore")	Moore discloses an exemplary chemical structure storage, searching, and retrieval system and that can be

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	"adapted to numerous types of technology." (Title; Abstract; 2:16-30.)
U.S. Patent No. 5,859,636 ("Pandit")	"The present invention will benefit any application which displays text to a user, regardless of the origin of the text. The invention expands the operations which may be performed using recognized text by allowing a user to intuitively exploit the presence of certain classes or types of text in any document by transforming the text into an interface to other functions or operations." 1:42-49
U.S. Patent No. 6,029,171 ("Smiga")	"Because the present invention provides a means for parsing natural language into structured information liked to project objects, contact objects, date/time calendar event objects, or list objects, the structured information thereby produced can be easily integrated to a word processor application, a calendaring application, a database application, a project management application, or an electronic mail application. The present invention thereby allows the user to input an unstructured text expression which can be parsed into structured information which is thereafter provided as input to this variety of conventional software applications." 9:10-21
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., p. 2-7: "Installation. Installing AddressMate Plus is a three-step process. You must first run the installation program, set up AddressMate Plus to work with your printer, and then install the AddressMate Plus word-processing macros. Installing AddressMate Plus. 1. With Windows running, place AddressMate Plus diskette #1 in drive A or B, depending on which drive you want to use. 2. Using the Windows Program Mansger, choose the File/Run command. . . . The installation program copies the program files to the drive and directory of your choice (usually C:\AMATE), and creates the AMATE director, if necessary. Next, the program creates a new AddressMate group in the Program Manager . . . ."

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	See, e.g., p. 5-31: "AddressMate Plus works with your word-processing program to effortlessly print great-looking envelopes and labels. The macros supplied with AddressMate Plus make it easy to insert addresses from an AddressMate Plus database into letters and envelopes. Using the supplied macros, you can have AddressMate Plus grab an address from a letter and print an envelope, or look up an address in the AddressMate Plus database and paste it into your letter—all automatically."
U.S. Patent No. 6,424,983 ("Schabes")	"The present invention addresses the foregoing needs by providing a system which corrects both the spelling and grammar of words using finite state machines, such as finite state transducers and finite state automata. For each word in a text sequence, the present invention provides a list of alternative words ranked according to a context of the text sequence, and then uses this list to correct words in the text (either interactively or automatically). The invention has a variety of uses, and is of particular use in the fields of word processing, machine translation, text indexing and retrieval, and optical character recognition, to name a few." 2:34-44 Fig. 3 (Replacement Module 62, Text Replacement 63). Fig. 5 (Character Replacement Module) Figs. 20-23 (Replace Grammatically-Incorrect Words with Grammatically-Correct Words) *See* Interactive Mode, 8:42-10:33 (and described figures) *See* Automatic Mode, 10:34-11:20 (and described figures) *See* Spelling Suggestion Module, 11:21-16:13 (and described figures) *See* Automaton Conversion Module, 16:14-17:60 (and described figures) *See* Contextual Ranking Module, 17:61-19:12 (and described figures) *See* Morphology Module, 19:13-20:49 (and described figures) *See* Construction of Grammar FST, 20:50-22:30 (and described figures) *See* Word Processing, 22:31-62 (and described figures) *See* Machine Translation, 22:63-23:40 (and described figures)

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	See Optical Character Recognition, 23:41-24:9 (and described figures) *See* Text Indexing and Retrieval, 24:10-33 (and described figures) *See* Client-Server Configuration, 24:34-25:27 (and described figures) *See* Client-Server Information Retrieval System, 25:28-52 (and described figures) "A method of correcting a misspelled word in input text, …" *See, e.g.,* 25:61-29:8; 30:27-31:10; 32:19-55. "A method of retrieving text from a source …" *See, e.g.,* 29:9-30:26. "A method of spell-checking input text ..." *See, e.g.,* 31:11-32:18; *see also* Figs. 20-23.
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	"To support the goal of allowing users to record and retrieve information, this paper describes an interactive note-taking system for pen-based computers with two distinctive features. First, it actively predicts what the user is going to write. Second, it automatically constructs a custom, button-box user interface on request. The system is an example of a learning-apprentice software-agent. A machine learning component characterizes the syntax and semantics of the user's information. A performance system uses this learned information to generate completion strings and construct a user interface." Schlimmer 1 at Abstract. "**8. Related Work** Self-customizing software agents have several subjective dimensions on which they can be evaluated and compared: • *Anticipation*—Does the system present alternatives without the user having to request them? • *User interface*—Is the system graphical, or is it command-line oriented? • *User control*—Can the user override or choose to ignore predictive actions?

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	• *Modality*—If the system has a number of working modes, can the user work in any mode without explicitly selecting one of them? • *Learning update*—Is learning incremental, continuous and/or real-time? • *User adjustable*—Can the user tune the system parameters manually? Here we describe related systems that exhibit properties in each of these agent dimensions. Our note taking software utilizes the *anticipation* user interface technique pioneered by Eager (Cypher, 1991). Eager is a non-intrusive system that learns to perform iterative procedures by watching the user. As such, it is a learning apprentice, a software agent, and an example of programming by example or demonstration. Situated within the HyperCard environment, it continuously watches a user's actions. When it detects the second cycle of an iteration, it presents an execute icon for the user's notice. It also visually indicates the anticipated next action by highlighting the appropriate button, menu item, or text selection in green. As the user performs their task, they can verify that Eager has learned the correct procedure by comparing its anticipations to their actions. When the user is confident enough, they can click on the execution icon, and Eager will run the iterative procedure to completion. Eager is highly anticipatory, uses a graphical interface, is non-obtrusive, non-modal, and learns in real-time, but is not user adjustable." Schlimmer 1 at 83-85.
U.S. Patent No. 6,189,026 ("Birrell")	"Embedded Links When displaying retrieved messages, the system 200 heuristically locates text strings which have the syntax of e-mail addresses. If the user click on one of these addresses, then the system will display a composition window, described below, so that the user can easily generate a reply message to the selected e-mail address(es).

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	Similarly, when displaying retrieved messages, the system 200 heuristically locates text strings that have the syntax of an URL, and makes the string a hot-link. When the user clicks on the hot-link, the URL is passed to the browser, which will retrieve the contents over the network, and process the content in the normal manner. The system also attempts to detect components in messages, such as explicitly "attached" or implicitly "embedded" files. The files can be in any number of possible formats. The content of these files are displayed by the browser 115. The specific display actions used will depend on how the browser is configured to respond to different component file formats. For some file formats, for example Graphics Interface Format (GIF) and Joint Photographic Experts Group (JPEG) the component can directly be displayed. It is also possible to configure the browser with a "helper" applet to "display" attached files having specific format types as "icons." For example, the message may be in the form of an audio message, in which case, the message needs to be "said," and not displayed. For some message formats, the browser may store some of the content in file system of the client computer." 12:15-34, 59-65; *see also* 14:41-49.
WO 98/24031 ("Treider")	"The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference user is acquainted; ranking a level of acquaintance with each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users; and reporting matches in the compared accessible information. In the preferred embodiment, information is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct

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	acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a reference user via a wireless device, such as any form of cellular telephones, beepers, palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24
CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM 0-89791-881-9/97/10 ("CyberDesk Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	See, e.g., CyberDesk Technical Report at 1, col. 1: "Current software suites suffer from problems due to poor integration of their individual tools. They require the designer to think of all possible integrating behaviours and leave little flexibility to the user. In this paper, we discuss CyberDesk, a component software framework that automatically integrates desktop and network services, requiring no integrating decisions to be made by the tool designers and giving total control to the user." See, e.g., CyberDesk Technical Report at 1, col. 1: "In response, software companies have been adopting the notion of component software: using small software modules as building blocks for a larger application. While there are many competing standards (OLE [11], Active X [10], Java Beans [6], OpenDoc [1]), the prevailing view is to provide a framework which programmers and sophisticated users can build upon to create desired application suites." See, e.g., CyberDesk Technical Report at 1, col. 2: "In this paper, we present CyberDesk system, a component software framework that relieves most of the burden of integrating services from both the designer of individual services and the end user, provides greater flexibility to the user, and automatically suggests how independent services can be integrated in interesting ways."
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.

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U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD- ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65. *See also* 4:20-23; 4:58-5:12; 6:7-19.
Gehani	"Step 70 of FIG. 4 indicates that the user clicks on the MAP button 60 in order to request map information associated with an address A of the contact name. As previously noted, the address A may have already been stored in the PIM database 14 during previous interaction with PIM 12, or may have just been entered by the user in the field 54. In either case, the address A associated with the contact name in field 52 is sent to the GeoServer 20 in the manner described above. The GeoServer 20 uses the address A and map information stored in database 22 to "draw" or construct a map including address A or its surrounding area. The resulting map is then sent back to the PIM 12 via the

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	communication path 18, as shown in step 72. In step 74, the PIM 12 displays the map to the user." 4:67-5:12.
LiveDoc Version 0.8 System	See claim chart for this reference on this element.
Eudora	"Eudora includes the Spellswell 7 Spelling Checker, developed by Working Software, Inc." Eudora Mac Manual at 42.
Hachamovitch '965	"The word completion system may be deployed on an individual application program basis or on an application-independent basis. Application independence is the ability of the same word completion system to work with several different application programs, such as a word processing program, an e-mail program, a spreadsheet program, and so forth." Hachamovitch at 4:21-27.

Exhibit U - Table 11: a plurality of types of information that can be searched for or wherein the specific type or types of second information is dependent at least in part on the type or types of the first information

Numerous claims contain the element "a plurality of types of information that can be searched for" or "wherein the specific type or types of second information is dependent at least in part on the type or types of the first information." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the

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techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would allow different actions to be taken in response to different types of information, which ultimately would provide additional functionality for the user.

Additional motivation is found in U.S. Patent No. 6,026,233 ("Shulman") where it states: "The statement building tool can be customized by the programmer to include any type and/or scope of program information that would be useful to the programmer." 11:6-8.

Additional motivation is found in U.S. Patent No. 6,493,006 ("Gourdol") where it states: "The specific commands presented in a contextual menu are determined, at least in part, by the designers of application programs that operate upon selected objects. For example, the designer of a word processing application may determine that, when a user selects individual words or groups of words, commands such as those illustrated in FIG. 5 are most likely to be used, and therefore appropriate. However, if the user selects a complete section of a document, or the entire document itself, it may be more likely that the user desires to reformat the document or change its font. Consequently, a different set of commands are presented in a contextual menu for that type of selection. Each application program therefore contains lists of commands that are to be displayed in a contextual menu for the different respective types of selections that can be made by users for the kind of data that is handled by the program. Thus, for example, a spreadsheet program might contain one list of commands that are to be displayed if the user selects a single

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data cell, another list of commands appropriate to the selection of a range of cells, and a third list of commands for the case where the user selects a chart within a spreadsheet." 6:47-58.

Reference	**Exemplary Disclosures**[11]
Knowledge of One of Ordinary Skill in the Art	It was well known to one of ordinary skill in the art that information could be of different types and that different types of information could be searched for. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that the result of a search for one type of information could be information of a related or linked type. This would have been a simple substitution of one known element (e.g. searching for information that has a type) with another known element (searching for information that has a type to obtain information whose type is based on, linked to, or related to the type of the searched-for information) to obtain predictable results.
U.S. Pat. No. 6,026,233 ("Shulman")	"The statement building tool can be customized by the programmer to include any type and/or scope of program information that would be useful to the programmer. Typically, it is most desirable to limit the type and/or scope of program information that the statement building tool includes in any one assist window so that the programmer is not overwhelmed with information. For example, the types of program information that can be included in any one assist window include, but are not limited to, global variables, global functions, and global constants that may each be used from any procedure or module in a multi-module program." 11:6-17. *See, e.g*, Figures 3-9; 2:12-24; 5:50-55; 8:10-14; 8:27-44; 10:29-35; 10:41-49; 11:6-17; 11:53-57; 12:13-25; 16:13-33; 18:25-47.
U.S. Pat. No. 6,493,006 ("Gourdol")	"The specific commands presented in a contextual menu are determined, at least in part, by the designers of

[11] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	application programs that operate upon selected objects. For example, the designer of a word processing application may determine that, when a user selects individual words or groups of words, commands such as those illustrated in FIG. 5 are most likely to be used, and therefore appropriate. However, if the user selects a complete section of a document, or the entire document itself, it may be more likely that the user desires to reformat the document or change its font. Consequently, a different set of commands are presented in a contextual menu for that type of selection." 6:37-48. *See, e.g.*, 3:37-52; 6:21-36; 6:49-58; 7:37-8:4; 8:15-17; 8:29-34; 9:38-41.
U.S. Pat. No. 6,049,796 ("Siitonen")	*See, e.g.,* 6:5-14: "The search is performed on the name field 5 or the company field 6 contained in each contact record 100, although other search fields could be implemented by those persons skilled in the art. A contact may have a multi-part value, such as `Jones Andrew`, wherein the search will be performed on both names (the space character acting as a separator). The same applies to `Company` or `Address` or other possible fields. The search can be performed on any number of fields keeping in mind the resources and processor capability."
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 1-3: "All the contact information (names, addresses, phone numbers, e-mail addresses, etc.) you store goes into the Contacts directory. Each application and interface has its own view of the Contacts directory. The information shown depends on the information the selected application can use."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:41-67: "… In addition to marking telephone numbers, the present invention also is capable of marking other text. For example, if the user wants to find out the number of times Bob Jones has appeared on the text, he only needs to mark "Bob Jones" and then press the "Find" function key 76. The "Find" function can be extended to the various messages stored in the "Mail" directory as well as other files kept at the different directories, such as the "Note Pad" and the "Address Book" directories."

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U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 2:16-32: "…The invention relates to a device which is capable of supporting several different applications and which is capable of receiving and displaying different character-based messages and which device has means for searching certain character combinations in a character-based message and means for recognizing character combinations connected with the different applications in said character-based message, which message may comprise character combinations connected with several different applications, and means for activating or launching an application determined by a certain character combination contained in said message, based upon said character combination and for executing the command connected with said character combination in the activated application."
U.S. Patent No. 5,946,647 ("Miller")	"FIG. 4 illustrates an example of an analyzer server 220, which includes grammars 410 and a string library 420 such as a dictionary, each with associated actions. One of the grammars 410 is a telephone number grammar with associated actions for dialing a number identified by the telephone number grammar or placing the number in an electronic telephone book. Analyzer server 220 also includes grammars for post-office addresses, e- mail addresses and dates, and a string library 420 containing important names. When analyzer server 220 identifies an address using the 'e-mail address' grammar, actions for sending e-mail to the identified address and putting the identified address in an e-mail address book are linked to the address." 5:6-5:18; Fig. 4.
U.S. Patent No. 5,483,352 ("Fukuyama")	"Then the own (i.e. receiver) telephone number reading part 26 is activated to read the own (i.e. receiver) telephone number from the own (i.e. receiver) telephone number storing memory 27 at step 605. The order of steps 902 and 605 can be reversed. When the telephone numbers of the sender and the receiver are obtained, the telephone connection request receiving part 24 outputs a telephone connection request signal including the telephone numbers of the sender of the electronic mail and the own telephone number to the PBX interface controller 28 at step 606. The PBX interface controller

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	28 controls the PBX interface 29 to connect the own telephone to the telephone of the sender of the mail. Then, the own telephone 6 and the telephone of the sender of the electronic mail are connected by PBX at step 607. In this way the telephone 6 of the receiver of the electronic mail and the telephone 51, 61, or 71 are automatically connected by the computer 20." 8:41-67
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., pp. 1-4—1-5: "Intelligent Address Recognition. A unique feature of AddressMate Plus is its intelligent address recognition. Unlike other products, with AddressMate Plus there is no need to select the address in a letter when you need to print a letter or envelope. Instead, AddressMate Plus can scan the letter, pick out the correct address, and format it for the fastest possible delivery—all automatically. This capability goes beyond just finding an address in a letter. . . . AddressMate Plus is smart. Given the above example, it will recognize the company name, recognize that it is followed by an attention line, and incorporate the attention line in the address, creating an envelope that is addressed . . . ."
U.S. Patent No. 5,644,735 ("Luciw")	"The recognition of possible user intent process called for at 135 in FIG. 3 and expressed in example form at FIG. 11a, calls for a matching operation between particular noted object(s) such as those illustrated in FIG. 11b and those expressed in the template of FIG. 11c." *Id*. at 14:18-22. *See also* 14:5-22, 14:29-34.
U.S. Patent No. 6,424,983 ("Schabes")	"According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search word, corrects a spelling of the search word to produce a corrected search word, and retrieves text from the source that includes the corrected search word." 4:11-15. "According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search phrase comprised of a plurality of words,

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	at least one of the plurality of words being an incorrect word, and replaces the incorrect word in the search phrase with a corrected word in order to produce a corrected search phrase. Text is then retrieved from the source based on the corrected search phrase." 4:16-23. "According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search phrase comprised of a plurality of words, at least one of the plurality of words being a grammatically-incorrect word, replaces the grammatically-incorrect word in the search phrase with a grammatically-correct word in order to produce a corrected search phrase, and retrieves text from the source based on the corrected search phrase." 5:58-65. "FIG. 25 shows the multi-threaded client-server spelling correction system described above used in a text indexing and retrieval context (e.g., in conjunction with a WWW search engine, database searching software, etc.). In this regard, in text indexing and retrieving systems, textual queries are sent to a database, and information related to the textual queries is retrieved from the database. Often, however, queries are misspelled and, as a result, correct information cannot be retrieved from the database. The system shown in FIG. 25 addresses this problem. More specifically, in FIG. 25, as was the case above with respect to FIG. 24, multiple queries are input at the same time to the server (i.e., PC 4). As was the case in FIG. 24, lexicon memory 750 is shared among all of program threads 151, 152 and 153. In addition, as before, each program thread contains its own spelling memory. In operation, multiple queries (i.e., QUERY1164, QUERY2165 . . . QUERYn 166) are input to the client-server spelling correction system of the present invention before each query is actually used to retrieve information from database 169. The present invention then corrects each query in the manner described above with respect to FIGS. 3, 4 and in particular, FIG. 5. Each corrected query is then used to retrieve information from database 169." 25:29-52.
U.S. Patent No. 6,189,026 ("Birrell")	"Embedded Links

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	When displaying retrieved messages, the system 200 heuristically locates text strings which have the syntax of e-mail addresses. If the user click on one of these addresses, then the system will display a composition window, described below, so that the user can easily generate a reply message to the selected e-mail address(es). Similarly, when displaying retrieved messages, the system 200 heuristically locates text strings that have the syntax of an URL, and makes the string a hot-link. When the user clicks on the hot-link, the URL is passed to the browser, which will retrieve the contents over the network, and process the content in the normal manner. The system also attempts to detect components in messages, such as explicitly "attached" or implicitly "embedded" files. The files can be in any number of possible formats. The content of these files are displayed by the browser 115. The specific display actions used will depend on how the browser is configured to respond to different component file formats. For some file formats, for example Graphics Interface Format (GIF) and Joint Photographic Experts Group (JPEG) the component can directly be displayed. It is also possible to configure the browser with a "helper" applet to "display" attached files having specific format types as "icons." For example, the message may be in the form of an audio message, in which case, the message needs to be "said," and not displayed. For some message formats, the browser may store some of the content in file system of the client computer." 12:15-34, 59-65; *see also* 14:41-49.
WO 98/24031 ("Treider")	"The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference user is acquainted; ranking a level of acquaintance with each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users;

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	and reporting matches in the compared accessible information. In the preferred embodiment, information is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a reference user via a wireless device, such as any form of cellular telephones, beepers, palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24
CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM 0-89791-881-9/97/10 ("CyberDesk Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	See, e.g., CyberDesk Technical Report at 5, col. 1: "Currently the list of CyberDesk types include: Date PhoneNumber, Mailing Address, Name, URL, and EmailAddress. If any of the conversions can be made, then the converter generates a second, but related, selection event containing the newly typed data and sends it to observing entities." See, e.g., CyberDesk Technical Report at 4, col. 2: "Initially, we hardcoded applications to generate events for different data types. For example, the e-mail browser declares that it can generate String selection events when text is highlighted, but also EmailAddress selection events when the 'To:' or 'From:' field in an e-mail message is selected. When EmailAddress selection events were generated, they were passed through the CYberDesk system, as described before, to the ActOn Button Bar, which displayed services that could consume EmailAddress selection events (e.g., Send an E-mail to this E-mail Address using Netscape). . . . Consequently, we chose to use type converters. Using simple heuristics, it is possible to identify potential text strings that might be e-mail addresses. It would have been desirable to augment our e-mail browser with this capability, so that any time text was selected in it, it

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	would try to convert the text to an EmailAddress object and create an EmailAddress selection event rather than just a String selection event. But, rather than just giving this type conversion capability to the e-mail browser, we wanted to add that ability to the system once, and all it to be used in every application where e-mail addresses might appear. We took the type detection ability out of the individual applications and created type converters, an independent and extensible layer in the architecture." See, e.g., CyberDesk Technical Report at 4, col. 2: "Data typing is used extensively in the interface declarations of the event sources and sinks that applications provide. The property field that corresponds to each interface declares the datatype/event that a component is interested in or can provide. The CyberDesk system takes advantage of the Java type system to do the data typing."
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may

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	have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65.
Gehani	"In this embodiment, a request for geographic information is based on an address A of the contact in field 52. The address A may be a complete business or home address, or a portion thereof such as a state, city, town or zip code. The PIM 12 incorporates this address or a suitable portion or representation thereof into a geographic information request which is sent to the GeoServer 20 in the manner previously described." 4:46-52. FIG. 6 is a flow diagram illustrating the process steps involved in accessing weather information via the display 50 of PIM 12. Step 90 indicates that the user clicks the WEATHER button 64 in the display 50 to request weather information. The address A associated with the contact name in field 52 is then sent to the GeoServer 20. In step 92, the GeoServer 20 uses the address A to retrieve weather information for an area or region including address A. The resulting information is then sent back to the PIM 12 via the communication path 18, and is displayed to the user as shown in step 94. The weather information may include current weather conditions as well as a forecast for an area including address A. The area may be based on city, state, zip code or other suitable information in the address A. 5:54-67.
Pensoft	"A link represents a relationship between two items. For example, a person is linked to the company at which they work. Each link in Perspective has a name, which is displayed in italics. When you look at a person's profile you see a link detail name Company. The content of the link is the name of the company where the person works. Similarly, if you look at the Company profile, you see a link detail named Employees. The Employees

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	link contains the names of the people who work at the company." p. 36. "Each link is defined by telling Perspective how two categories are related to each other. In the above example, the Person category is linked to the Company category. Once a link is defined, Perspective begins to tie people to the company they work for and vice versa. Perspective comes with several predefined links." p. 36.
Apple Newton MessagePad 2000 handheld device ("Newton")	See claim chart of Newton for this limitation.
LiveDoc Version 0.8 System	See claim chart of LiveDoc Version 0.8 System for this limitation.
International Patent No. WO 998037474 ("Allen")	"The parser 300 capabilities of the preferred embodiment include the following: • Date and time parsing. • Recurring event parsing. • List, project, and contact parsing via keywords. • Suggestions of list, project, and contact keywords. • Automatic Completion (auto-complete or auto-fill) of list, project, and contact names. This process is similar to a conventional "quick fill" technique designed to assist the user by completing the partial entry of data based on previously entered data. • Collaboration parsing. From the point of view of parser 300, date and time parsing requires no special knowledge of data. On the other hand, parsing, completing, and suggesting keywords, lists, projects, and contacts requires explicit knowledge of the existing or predefined lists, projects, contacts, and keywords. The parser 300 of the preferred embodiment is data-independent. In other words, it is not aware of any files or databases. Therefore, the parser 300 must be initialized with lists, projects, contacts, and keywords. The initialization process usually occurs during the boot time of the application that uses the parser 300, or when the application switches to another set of data. The following pseudo code illustrates a typical initialization of the parser

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	300 of the preferred embodiment: declare list, project, contact, keyword as strings for every list in database AddList(list) for every project in object database AddProject(project) for every contact in object database AddContact(contact) for every keyword in object database AddKeyword(keyword, list, project, contact) After this initialization, the parser 300 knows about all the lists, projects, contacts, and keywords. It is now able to correctly auto-fill, parse, and suggest keywords upon request from the client. Of course, the parser 300 must be kept in synchronization with the data in the object database 850; changes in the object database 850 should be reflected in the parser 300. Updates are accomplished using Add, Delete, and Rename function calls. As an example, consider the following situation: a user deletes an existing project named "Paint Fence". The application removes the project from the object database 850 and removes (or updates) its associated keywords. This change must be reflected in the parser 300 and can be done with a single function call as follows: DeleteProject("Paint Fence"); This single function call will remove the project and any references to it from the parser 300. The project name will no longer auto-complete and all of the keywords that are associated with the "Paint Fence" project will be automatically removed or updated. Note that DeleteProjectO, AddProject(), and RenameProject() return values indicating success or failure of the function. For the sake of simplicity, the previous examples ignore the return values." Pages 40-43. "Given the initial database table content shown in Figure 17, suppose a user named "Dennis Buchheim", creates a keynote by entering a text expression into a keynote region 220, the sample keynote reading as follows: "Brian, please call Jim tomorrow re patent status" Further suppose the user attaches the Person "Jim Salter" and the Project "Patents", also sending an FYI keynote to Tom Hagan as described in detail above. In this example,

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	the parser 300 of the present invention will automatically determine many of the links that need to be established in the tables shown in Figure 17: keyword "Brian" will be recognized as a keyword linked to "Brian Smiga," who is a Delegate of the keynote; keyword "call" will be recognized as a keyword linked to the "Calls" list; keyword "Jim" will be recognized as a keyword linked to the contact person "Jim Salter"; "tomorrow" will be recognized as meaning 2/8/97 (or whatever the current date is plus one day); and "patent" will be recognized as a keyword linked to the "Patents" Project. The remaining links will be determined by the user interface 200, in which the new keynote was created." Pages 52-53. *See also* Figure 17.
Eudora	"If no misspellings are found, the spelling checker quits. If a misspelled, unknown, or repeated word is found, the Check Spelling dialog is displayed with the word listed in the **Questioned word** field. The word is also highlighted in context at the bottom of the window." Eudora Mac Manual at 43.
Hachamovitch '965	"A word completion user interface allows the user to customize each suggestion list with user-defined name-completion pairs on an on-going basis." Hachamovitch at 4:38-40.

Exhibit U - Table 12: action is of a type depending at least in part on the type or types of the first information

Numerous claims contain the element "action is of a type depending at least in part on the type or types of the first information." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart,

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using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would allow different actions to be taken in response to different types of detected information, which ultimately would provide additional functionality for the user.

Additional motivation is found in U.S. Patent No. 6,026,233 ("Shulman") where it states: "The statement building tool can be customized by the programmer to include any type and/or scope of program information that would be useful to the programmer." 11:6-8.

Additional motivation is found in U.S. Patent No. 6,493,006 ("Gourdol") where it states: "The specific commands presented in a contextual menu are determined, at least in part, by the designers of application programs that operate upon selected objects. For example, the designer of a word processing application may determine that, when a user selects individual words or groups of words, commands such as those illustrated in FIG. 5 are most likely to be used, and therefore appropriate. However, if the user selects a complete section of a document, or the entire document itself, it may be more likely that the user desires to reformat the document or change its font. Consequently, a different set of commands are presented in a contextual menu for that type of selection. Each application program therefore contains lists of commands that are to be displayed in a contextual menu for the different respective types of selections that can be made by users for the kind of data that is handled by the program. Thus, for example, a spreadsheet

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program might contain one list of commands that are to be displayed if the user selects a single data cell, another list of commands appropriate to the selection of a range of cells, and a third list of commands for the case where the user selects a chart within a spreadsheet." 6:47-58.

Reference	**Exemplary Disclosures**[12]
Knowledge of One of Ordinary Skill in the Art	It was well known to one of ordinary skill in the art that information could be of different types and that different actions could be based on different inputs. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that the input to an action is, at least in part, the type of information. This would have been a simple substitution of one known element (e.g. action differing based on different inputs) with another known element (different inputs can be types of information) to obtain predictable results.
U.S. Pat. No. 6,026,233 ("Shulman")	"Each of the set of menu items 221-227 has a member type, such as a property member type, a method member type, or a constant member type. The member type for a given menu item is identified by a bitmap that is adjacent to the menu item. For menu item 221 for example, there exists a bitmap 230 and a member name 231 of Alignment. The member type for each of the set of menu items 221-227 in the FIG. 3 example are all a property type. The member name 231 is the present menu item as identified by the present menu item indicator 233. The present menu item indicator 233 notes the present menu item from among the set of visible menu items 221-227 by a broken line enclosure." 8:36-48. *See, e.g.*, Figures 3-9; 4:54-58; 4:66-5:18; 7:38-66; 8:27-38; 8:49-67; 9:25-28; 9:32-35; 9:62-66; 10:10-19; 10:26-54; 14:11-17; 15:9-15; 16:6-52; 19:61-63; 20:1-3.
U.S. Pat. No. 6,493,006 ("Gourdol")	"The specific commands presented in a contextual menu are determined, at least in part, by the designers of application programs that operate upon selected objects.

[12] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	For example, the designer of a word processing application may determine that, when a user selects individual words or groups of words, commands such as those illustrated in FIG. 5 are most likely to be used, and therefore appropriate. However, if the user selects a complete section of a document, or the entire document itself, it may be more likely that the user desires to reformat the document or change its font. Consequently, a different set of commands are presented in a contextual menu for that type of selection." 6:37-48. *See, e.g.*, 3:37-52; 6:21-36; 6:49-58; 7:37-8:4; 8:15-17; 8:29-34; 9:38-41.
U.S. Patent No. 5,946,647 ("Miller")	"FIG. 4 illustrates an example of an analyzer server 220, which includes grammars 410 and a string library 420 such as a dictionary, each with associated actions. One of the grammars 410 is a telephone number grammar with associated actions for dialing a number identified by the telephone number grammar or placing the number in an electronic telephone book. Analyzer server 220 also includes grammars for post-office addresses, e- mail addresses and dates, and a string library 420 containing important names. When analyzer server 220 identifies an address using the "e-mail address" grammar, actions for sending e-mail to the identified address and putting the identified address in an e-mail address book are linked to the address." 5:6-18. *See also* FIG. 4 at 420 ("write letter" and "retrieve #"); FIG. 4 at 410 ("write letter" and "[p]ut in electronic calendar"); 4:58-6:18
U.S. Patent No. 6,471,994 ("Kang")	"In this step 320, the application 213 opens an appropriate database for writing. How the application determines which database to open will be described later. In the example of FIGS. 4 and 5, the application opens the contact database 218 using an open database application programming interface (API) call provided by the DBMS 224." 7:9-15.
U.S. Pat. No. 6,049,796 ("Siitonen")	*See, e.g.,* 5:29-38: "Referring to FIG. 2B, the user typically chooses the application or function to be

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	performed by the PDA 10b by pressing one of several application keys 9. In the case where a telephone call is to be made, depressing the telephone key of the application keys 9 produces a telephone directory display. The display 3 then indicates which selection, such as the contact directory, telephone directory 200, telefax directory 300 or E-mail directory 400, has been chosen. Each directory operates in essentially the same manner."
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 1-3: "All the contact information (names, addresses, phone numbers, e-mail addresses, etc.) you store goes into the Contacts directory. Each application and interface has its own view of the Contacts directory. The information shown depends on the information the selected application can use."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:59-6:20: "In addition to marking telephone numbers, the present invention also is capable of marking other text. For example, if the user wants to find out the number of times Bob Jones has appeared on the text, he only needs to mark "Bob Jones" and then press the "Find" function key 76. The "Find" function can be extended to the various messages stored in the "Mail" directory as well as other files kept at the different directories, such as the "Note Pad" and the "Address Book" directories. … Briefly, in the just noted co-pending application, by marking an appropriate abbreviated search term, the telephone number of Joe Smith may be directly dialed without any direct reference to his telephone number. Moreover, the marked text may be used in a number of applications aside from the application in which the text is being viewed and marked. For example, the marked telephone number illustrated in FIGS. 7A-7C may be inserted to the address book, and particularly into the Joe Smith address. Or, for that matter, the marked text may be routed to the "To Do" directory file for future calling of Joe Smith, if the user deems it more appropriate to call Joe Smith at a later time."
U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 3:33-60: "… detection means for detecting, in response to said searching means finding said character combination, the usability of said character combination

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	found in the message for use in one of the applications of said applications, and means for generating a command based upon the detection by said detection means, for activating said application and for utilizing in said application the information contained in the character combination found in the message. …"
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:52-57: "As is typical in such situations an intuitive "nickname" or "alias" is often utilized and thus, the user may simply address an electronic mail item to "Tom" and electronic mail processing application 18 will, in conjunction with existing address list 22, convert the name "Tom" into an appropriate electronic mail address."
U.S. Patent No. 5,644,735 ("Luciw")	"FIG. 11c further provides example kinds of action objects, such as meet, find, file, format, mail, fax, print, and call. The Figure provides examples of allowable combinations of objects which correspond to the indicated functions and actions. For example, essential objects for scheduling a meeting include four objects, such as person, place, day, and time slot. Finding activities require the combination of two objects, which are for example a quantifier and an object. Filing requires a quantifier and notes. Formatting require notes and form, mailing requires a person, a place, and a letter. Faxing requires a person, a place, a fax number, and notes. Printing requires an object and a place. Calling requires a person, a place, and a phone number." 14:5-17; *see* FIG. 11c.
U.S. Patent No. 6,424,983 ("Schabes")	"According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search word, corrects a spelling of the search word to produce a corrected search word, and retrieves text from the source that includes the corrected search word." 4:11-15. "According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search phrase comprised of a plurality of words, at least one of the plurality of words being an incorrect word, and replaces the incorrect word in the search phrase with a corrected word in order to produce a

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	corrected search phrase. Text is then retrieved from the source based on the corrected search phrase." 4:16-23. "According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search phrase comprised of a plurality of words, at least one of the plurality of words being a grammatically-incorrect word, replaces the grammatically-incorrect word in the search phrase with a grammatically-correct word in order to produce a corrected search phrase, and retrieves text from the source based on the corrected search phrase." 5:58-65. "FIG. 25 shows the multi-threaded client-server spelling correction system described above used in a text indexing and retrieval context (e.g., in conjunction with a WWW search engine, database searching software, etc.). In this regard, in text indexing and retrieving systems, textual queries are sent to a database, and information related to the textual queries is retrieved from the database. Often, however, queries are misspelled and, as a result, correct information cannot be retrieved from the database. The system shown in FIG. 25 addresses this problem. More specifically, in FIG. 25, as was the case above with respect to FIG. 24, multiple queries are input at the same time to the server (i.e., PC 4). As was the case in FIG. 24, lexicon memory 750 is shared among all of program threads 151, 152 and 153. In addition, as before, each program thread contains its own spelling memory. In operation, multiple queries (i.e., QUERY1164, QUERY2165 . . . QUERYn 166) are input to the client-server spelling correction system of the present invention before each query is actually used to retrieve information from database 169. The present invention then corrects each query in the manner described above with respect to FIGS. 3, 4 and in particular, FIG. 5. Each corrected query is then used to retrieve information from database 169." 25:29-52.
"Software Agents: Completing Patterns and Constructing	"To support the goal of allowing users to record and retrieve information, this paper describes an interactive note-taking system for pen-based computers with two distinctive features. First, it

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User Interfaces" (Schlimmer 1)	actively predicts what the user is going to write. Second, it automatically constructs a custom, button-box user interface on request. The system is an example of a learning-apprentice software-agent. A machine learning component characterizes the syntax and semantics of the user's information. A performance system uses this learned information to generate completion strings and construct a user interface." Schlimmer 1 at Abstract. **8. Related Work** Self-customizing software agents have several subjective dimensions on which they can be evaluated and compared: • *Anticipation*—Does the system present alternatives without the user having to request them? • *User interface*—Is the system graphical, or is it command-line oriented? • *User control*—Can the user override or choose to ignore predictive actions? • *Modality*—If the system has a number of working modes, can the user work in any mode without explicitly selecting one of them? • *Learning update*—Is learning incremental, continuous and/or real-time? • *User adjustable*—Can the user tune the system parameters manually? Here we describe related systems that exhibit properties in each of these agent dimensions. Our note taking software utilizes the *anticipation* user interface technique pioneered by Eager (Cypher, 1991). Eager is a non-intrusive system that learns to perform iterative procedures by watching the user. As such, it is a learning apprentice, a software agent, and an example of programming by example or demonstration. Situated within the HyperCard environment, it continuously watches a user's actions. When it detects the second cycle of an iteration, it presents an execute icon for the user's notice. It also

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	visually indicates the anticipated next action by highlighting the appropriate button, menu item, or text selection in green. As the user performs their task, they can verify that Eager has learned the correct procedure by comparing its anticipations to their actions. When the user is confident enough, they can click on the execution icon, and Eager will run the iterative procedure to completion. Eager is highly anticipatory, uses a graphical interface, is non-obtrusive, non-modal, and learns in real-time, but is not user adjustable." Schlimmer 1 at 83-85.
U.S. Patent No. 6,189,026 ("Birrell")	"Embedded Links When displaying retrieved messages, the system 200 heuristically locates text strings which have the syntax of e-mail addresses. If the user click on one of these addresses, then the system will display a composition window, described below, so that the user can easily generate a reply message to the selected e-mail address(es). Similarly, when displaying retrieved messages, the system 200 heuristically locates text strings that have the syntax of an URL, and makes the string a hot-link. When the user clicks on the hot-link, the URL is passed to the browser, which will retrieve the contents over the network, and process the content in the normal manner. The system also attempts to detect components in messages, such as explicitly "attached" or implicitly "embedded" files. The files can be in any number of possible formats. The content of these files are displayed by the browser 115. The specific display actions used will depend on how the browser is configured to respond to different component file formats. For some file formats, for example Graphics Interface Format (GIF) and Joint Photographic Experts Group (JPEG) the component can directly be displayed. It is also possible to configure the browser with a "helper" applet to "display" attached files having specific format types as "icons." For example, the message may be in

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	the form of an audio message, in which case, the message needs to be "said," and not displayed. For some message formats, the browser may store some of the content in file system of the client computer." 12:15-34, 59-65. See e.g., 2:42-3:55, 14:41-49.
WO 98/24031 ("Treider")	"The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference user is acquainted; ranking a level of acquaintance with each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users; and reporting matches in the compared accessible information. In the preferred embodiment, information is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a reference user via a wireless device, such as any form of cellular telephones, beepers, palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24
CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A	See, e.g., CyberDesk Technical Report at 7, cols. 1-2: "The next task involved adding the services that recognized the appropriate types and created 'ActOn' buttons for them. We added two services (NewtonNames and NewtonNotes) which, respectively, request contact information from the Newton about the selected name and request notes from the Newton containing the selected text in the body or title. Adding these services was quite simple (see Figure 4), requiring

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Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM 0-89791-881-9/97/10 ("CyberDesk Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	only the implementation of the ServiceApplet methods described above." See, e.g., CyberDesk Technical Note at 553, col. 1 (including fig. 3): "When the user selects information displayed by one service, say some text from the e-mail message, the type converters try recursively to see if the data can be converted to other types used in the system (e.g., a name in Figure 3). In the case of plain text, this could be done by comparing the string to common formats for representing the various types; for names you might use title firstname lastname, and similar patterns can be used for dates, URLs, e-mail and mailing addresses."
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to

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	perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65.
Microsoft Outlook 97	"If an exact match is found, the name is underlined. If multiple names are found that match what you type, a red, wavy line appears under the name. Right-click the name to see the other names found to choose from." Help file entry for "Check recipient names before sending a message."
Gehani	"In this embodiment, a request for geographic information is based on an address A of the contact in field 52. The address A may be a complete business or home address, or a portion thereof such as a state, city, town or zip code. The PIM 12 incorporates this address or a suitable portion or representation thereof into a geographic information request which is sent to the GeoServer 20 in the manner previously described." 4:46-52. FIG. 6 is a flow diagram illustrating the process steps involved in accessing weather information via the display 50 of PIM 12. Step 90 indicates that the user clicks the WEATHER button 64 in the display 50 to request weather information. The address A associated with the contact name in field 52 is then sent to the GeoServer 20. In step 92, the GeoServer 20 uses the address A to retrieve weather information for an area or region including address A. The resulting information is then sent back to the PIM 12 via the communication path 18, and is displayed to the user as shown in step 94. The weather information may include current weather conditions as well as a forecast for an area including address A. The area may be based on city, state, zip code or other suitable information in the address A. 5:54-67.
Pensoft	"A link represents a relationship between two items. For example, a person is linked to the company at which they work. Each link in Perspective has a name, which is displayed in italics. When you look at a person's

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	profile you see a link detail name Company. The content of the link is the name of the company where the person works. Similarly, if you look at the Company profile, you see a link detail named Employees. The Employees link contains the names of the people who work at the company." p. 36. "Each link is defined by telling Perspective how two categories are related to each other. In the above example, the Person category is linked to the Company category. Once a link is defined, Perspective begins to tie people to the company they work for and vice versa. Perspective comes with several predefined links." p. 36.
Apple Newton MessagePad 2000 handheld device ("Newton")	See claim chart of Newton for this limitation.
LiveDoc Version 0.8 System	See claim chart of LiveDoc Version 0.8 System for this limitation.
Eudora	"With the **Finish Address Book Entry** command, you can enter a unique portion of a nickname in the **To**, **Cc**, or **Bcc** fields of a message, then select **Finish Address Book Entry** from the **Edit** menu, and the nickname will be completed for you. You must enter the characters in the nickname that make it unique, or Eudora will not know which nickname to use. For example, if you have two nicknames, joan and john, you would have to enter 'joa' or 'joh' for Eudora to complete them." Eudora Mac Manual at 101.
Hachamovitch '965	"If the character is not a delimiter character, the word completion utility inserts a space character in the data file between the completion entry and the character." Hachamovitch at 5:14-17.

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Exhibit U - Table 13: if the search term is so included, and if the information source includes the second information, the action comprises causing insertion of at least part of the second information into the document

Numerous claims contain the element "if the search term is so included, and if the information source includes the second information, the action comprises causing insertion of at least part of the second information into the document." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would save the user the time and effort of separately typing in or copying in the second information into the document.

Reference	**Exemplary Disclosures**[13]
Knowledge of One of Ordinary Skill in the Art	Inserting information into a document was well known to those of ordinary skill in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that it inserted information that had already been identified into the

[13] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	document. Such would simply be another obvious operation of entering related information into the document.
U.S. Pat. No. 6,026,233 ("Shulman")	"A menu item being displayed in a selection menu can be accepted by the programmer in a manner that results in the selected menu item being automatically inserted into the immediate programming language statement at the present character position cursor location" 4:54-58. *See, e.g.*, Figures 3-6, 11-12; 4:66-5:18; 7:38-66; 8:27-67; 9:25-28; 9:31-35; 9:62-66; 10:10-19; 10:26-54; 15:9-15; 16:6-52.
Claris Emailer: Getting Started (version 2.0)	"For example, aol.com is the Internet address for America Online. You can choose the America Online destination from a pop-up menu instead of typing the actual Internet address in your message or Address Book. Claris Emailer substitutes the correct address for America Online when it sends your message." 3-13.
U.S. Pat. No. 5,799,302 ("Johnson")	"Turning to FIG. 3H, Path G enters at step 226. Step 226 is a query which asks if a selected duplicate record is to have any blank fields filled in with data to be selected from other duplicate records within its duplicate set. If the response to the query is "NO," then the system advances directly to step 232 and displays the Duplicate Record List. Once the Duplicate Record List is displayed, the system deletes the duplicate records from the original list and the method advances to step 234 where the system operator exits the Duplicate Detection program. If, however, the response to the query at step 226 is "YES," then the system displays, at step 228, the duplicate address records of each set in a sequence order (sequence can be alphabetical, numerical, chronological, etc.). The method advances to step 230 where the system brings forward into any blank fields of the first record of the set, from the next subsequent record, any data found in a field that corresponds to the blank field of the first record. The newly "created" first record is retained and the system displays the list of duplicate addresses at step 232. At step 234, the system operator exits the Duplicate Detection program while the system saves all duplicate detection information to the Mail List Setup file at step 236."

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	6:63-7:17. *See also*, FIG. 3H.
U.S. Patent No. 6,085,206 ("Domini")	"Still referring to FIG. 3, the Change button 340 is positioned below the Add button 335 in the combined spelling and grammar dialog box 300. If the user selects the Change button 340, the misspelled word 315 will be replaced with the word that has been selected by the user from the suggestions 320 in the suggestion list box 317. However, in the preferred application program, if the user has made changes to the sentence 307 in the rich text edit control 310, then selecting the Change button will incorporate these changes into the document. For example, in FIG. 3, if the user has selected the suggestion "engine" from the suggestion list box 317 and then selects the Change button, without editing the sentence in the rich text edit control field, then the misspelled word "engin" will be replaced with the suggestion "engine". However, again referring to FIG. 3, if the user has edited the sentence 307 in the rich text edit control field, then selecting the Change button 340 will incorporate these changes into the document." 12:61-13:9.
U.S. Patent No. 6,377,965 ("Hachamovitch")	"Suggested word completions, which may change as the user types a partial data entry, are displayed in a non-disruptive manner. Specifically, a word suggestion field appears in a word completion frame above the partial data entry such that the suggestion and the partial data entry are vertically aligned. This makes it easy for the user to compare the suggestion to the partial data entry. If the suggestion is too long to display directly above the partial data entry, it is truncated with ellipses (i.e., . . .) so that the suggestion and the partial data entry are still displayed in vertical alignment. The user accepts a suggestion using traditional acceptance keystrokes, such as the "tab" key or the "enter" key." 6:61-7:5.
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at Figures 2-10, 7-3 *See, e.g.,* 9000i Owner's Manual at 7-8: "Add recipient — Displayed as a choice if the cursor is over the To or CC fields. You may enter an address in either the To or the CC field, whichever was selected when Add recipient was pressed. Highlight a contact from the E- mail directory, and press Select."

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	See, e.g., 9000i Owner's Manual at 2-13: "There are several shortcuts you can use in the document applications (SMS, Fax, E-mail, Notes). The following table lists the available shortcuts. … Ctrl-T (time) Adds current time Ctrl-D (date) Adds current date Ctrl-M (user name) Adds user's name"
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:59-6:20: "… Briefly, in the just noted co-pending application, by marking an appropriate abbreviated search term, the telephone number of Joe Smith may be directly dialed without any direct reference to his telephone number. Moreover, the marked text may be used in a number of applications aside from the application in which the text is being viewed and marked. For example, the marked telephone number illustrated in FIGS. 7A-7C may be inserted to the address book, and particularly into the Joe Smith address. Or, for that matter, the marked text may be routed to the "To Do" directory file for future calling of Joe Smith, if the user deems it more appropriate to call Joe Smith at a later time."
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:52-57: "As is typical in such situations an intuitive "nickname" or "alias" is often utilized and thus, the user may simply address an electronic mail item to "Tom" and electronic mail processing application 18 will, in conjunction with existing address list 22, convert the name "Tom" into an appropriate electronic mail address."
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., p. 1-2: "When writing a letter, with the click of the mouse you can retrieve an address from AddressMate Plus' built-in database and have it pasted automatically into your letter. . . . AddressMate Plus' powerful database links allow you to import names and addresses from other database applications directly into AddressMate Plus' built-in database. . . . AddressMate Plus performs address correction and verification (including correcting misspelled street and city names), and replaces 5-digit ZIP codes with 9-digit ZIP+4 codes for faster, more reliable mail delivery."

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U.S. Patent No. 6,424,983 ("Schabes")	"The present invention addresses the foregoing needs by providing a system which corrects both the spelling and grammar of words using finite state machines, such as finite state transducers and finite state automata. For each word in a text sequence, the present invention provides a list of alternative words ranked according to a context of the text sequence, and then uses this list to correct words in the text (either interactively or automatically). The invention has a variety of uses, and is of particular use in the fields of word processing, machine translation, text indexing and retrieval, and optical character recognition, to name a few." 2:34-44 Fig. 3 (Replacement Module 62, Text Replacement 63). Fig. 5 (Character Replacement Module) Figs. 20-23 (Replace Grammatically-Incorrect Words with Grammatically-Correct Words) *See* Interactive Mode, 8:42-10:33 (and described figures) *See* Automatic Mode, 10:34-11:20 (and described figures) *See* Spelling Suggestion Module, 11:21-16:13 (and described figures) *See* Automaton Conversion Module, 16:14-17:60 (and described figures) *See* Contextual Ranking Module, 17:61-19:12 (and described figures) *See* Morphology Module, 19:13-20:49 (and described figures) *See* Construction of Grammar FST, 20:50-22:30 (and described figures) *See* Word Processing, 22:31-62 (and described figures) *See* Machine Translation, 22:63-23:40 (and described figures) *See* Optical Character Recognition, 23:41-24:9 (and described figures) *See* Text Indexing and Retrieval, 24:10-33 (and described figures) *See* Client-Server Configuration, 24:34-25:27 (and described figures) *See* Client-Server Information Retrieval System, 25:28-52 (and described figures) "A method of correcting a misspelled word in input text, …" *See, e.g.,* 25:61-29:8; 30:27-31:10; 32:19-55.

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	"A method of retrieving text from a source …" *See, e.g.,* 29:9-30:26. "A method of spell-checking input text ..." *See, e.g.,* 31:11-32:18; *see also* Figs. 20-23.
U.S. Patent No. 6,189,026 ("Birrell")	"Text portions from another message can be inserted by using the Insert Msg, or Quote Msg buttons. If an entire message is to be included, then the Forward button should be used. The message will not actually be posted until the send function is selected. While the message is being composed, it is periodically saved by the mail system. Thus, a composition session started using one client computer in an office, can easily be completed some time later using another computer." 14:57-65.
WO 98/24031 ("Treider")	"The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference user is acquainted; ranking a level of acquaintance with each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users; and reporting matches in the compared accessible information. In the preferred embodiment, information is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a reference user via a wireless device, such as any form of cellular telephones, beepers, palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24

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Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65.
Horodeck	"The system is adapted to retrieve the stored kanji symbols and insert them into a text on instructions from the microprocessor, by responding to hiragana input by the operator, comparing that input to the contents of the dictionary, and inserting the kanji identified by the hiragana into output text." 7:24-30.
Microsoft Outlook 97	*See* screenshots in claim charts submitted herewith and with the invalidity contentions.

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Eudora	"With the **Finish Address Book Entry** command, you can enter a unique portion of a nickname in the **To**, **Cc**, or **Bcc** fields of a message, then select **Finish Address Book Entry** from the **Edit** menu, and the nickname will be completed for you." Eudora Mac Manual at 101.

Exhibit U - Table 14: performing a search using at least part of the first information as a search term

Numerous claims contain the element "performing a search using at least part of the first information as a search term." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would save the user the time and effort of separately searching for information.

Reference	**Exemplary Disclosures**[14]

[14] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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Knowledge of One of Ordinary Skill in the Art	Searching for [second] information in an information source, such as an address book was well known in the art and well within the knowledge of those of ordinary skill in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that it searched for second information using a second application program, such as address book software. As a matter of common knowledge of POSITA, it would have been obvious for the address book application, for example, to be initialized in order to run and search for the name, to find other information, such as a phone number or email address, associated with that person.
U.S. Pat. No. 6,026,233 ("Shulman")	"From the tokens of the parsed programming language string, the system then determines the type of programming language statement that exists, and any information that might be displayed about the immediate programming language statement." 5:50-55. *See, e.g.*, Figures 3-9; Abstract; 4:66-5:18; 5:37-46; 7:22-28; 8:3-7; 8:28-32; 11:57-60; 18:6-11; 19:47-51.
Claris Emailer: Getting Started (version 2.0)	"You may find specific addresses in the Address Book by typing a few characters in the Filter text box. Claris Emailer finds only those addresses that contain the specified characters in the recipient's name, description, or address fields." 3-16. *See, e.g.*, 3-12; 3-13; 3-16; Quick Reference, back cover.
Apple Newton MessagePad 2000 handheld device ("Newton")	"The MessagePad understands the following requests and their synonyms. … ● Call to dial a telephone number. Synonyms: phone, ring, dial ***Call Bob at home*** looks in the Name File to find Bob's home phone number, thenputs it in the call slip. ● Fax to fax the item on the screen. Synonyms: none ***Fax Anderson*** opens a fax slip with the name Anderson and Anderson's fax number filled in.

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	…" Newton Manual, pp. 196-97. *See, e.g.*, Newton Guide at pp. 18-4, 18-8, 18-10; ; photographs embedded in Newton chart; Newton device available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,799,302 ("Johnson")	"Once a proper name has been determined, the method matches a first record from the list with a second record from the list by comparing the fields of the first record with the fields of at least one other record; the comparison is based on a set of pre-selected criteria. The matching sequence determines a duplicate set, wherein the duplicate set is comprised of at least two records with fields that match as determined by the set of pre- selected criteria." 3:9-16.
U.S. Patent No. 6,085,206 ("Domini")	"At step 715, the spell checker program module verifies the accuracy of the spelling of the word. A spell checker program includes a standard dictionary with a list of words that are found in a standard dictionary. In addition, spell checker program modules typically include custom dictionaries. These custom dictionaries include terms entered by a user of the spell checker program module, such as specialized terms, acronyms, abbreviations, and any other terms entered by the user. As is well-known in the art, a spell checker program module checks the spelling of a word by comparing the word to the list of words in the standard dictionary and custom dictionaries. If the word does not correspond to one of the words in the standard dictionary or custom dictionaries, then the spell checker program module flags the word as a word that is possibly misspelled. In addition to verifying the spelling of the word at step 715, most spell checker program modules also check for inaccuracies in the word, such as a word that has been repeated or a word with improper capitalization." 16:66-17:37.
U.S. Pat. No. 6,049,796 ("Siitonen")	*See, e.g.,* 2:51-67: "As the user types in the search key, the PDA virtually instantly displays the items matching the search found in the contact data base. The user can

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	refine the search by adding additional search criteria until finally producing for viewing a minimum number of data base records matching the search criteria. For example, if the user types the letter "j" all records having names beginning with the letter "j" appear. The user may continue to type additional letters defining a name, for example, the pair of letters "on" chooses records such as "Jones" but not records such as "Jackson". Further typing the letter "a" would eliminate "Jones" as a possibility and display any names having as their first four letters "jona" such as "Jonathan". This method of searching is referred to as an active search, and is distinguished from a passive search where the search begins only after the search key has been entered, the search function actuated, and a completed compilation produced."
U.S. Pat. No. 5,784,001 ("DeLuca")	*See, e.g.,* 6:45-48 "When one or more message words are equivalent to key words in the graphics database 500, the image data associated with the key word or words is retrieved at step 420 from the database 500."
Nokia Products and Nokia Product Publications	*See, e.g.,* e 9000i Owner's Manual at Figures 2-10, 7-3. *See, e.g.,* 9000i Owner's Manual at 7-8: "Add recipient — Displayed as a choice if the cursor is over the To or CC fields. You may enter an address in either the To or the CC field, whichever was selected when Add recipient was pressed. Highlight a contact from the E- mail directory, and press Select."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:59-6:20: "In addition to marking telephone numbers, the present invention also is capable of marking other text. For example, if the user wants to find out the number of times Bob Jones has appeared on the text, he only needs to mark "Bob Jones" and then press the "Find" function key 76. The "Find" function can be extended to the various messages stored in the "Mail" directory as well as other files kept at the different directories, such as the "Note Pad" and the "Address Book" directories. …"

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U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 2:16-32: "… The invention relates to a device which is capable of supporting several different applications and which is capable of receiving and displaying different character-based messages and which device has means for searching certain character combinations in a character-based message and means for recognizing character combinations connected with the different applications in said character-based message, which message may comprise character combinations connected with several different applications, and means for activating or launching an application determined by a certain character combination contained in said message, based upon said character combination and for executing the command connected with said character combination in the activated application."
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:52-57: "As is typical in such situations an intuitive "nickname" or "alias" is often utilized and thus, the user may simply address an electronic mail item to "Tom" and electronic mail processing application 18 will, in conjunction with existing address list 22, convert the name "Tom" into an appropriate electronic mail address."
Pensoft Perspective	Pensoft Perspective performs a search using the first name information as a search term. *See, e.g.*, Getting Started With Your EO Personal Communicator ("Getting Started") at 59-62.
U.S. Patent No. 5,708,804 ("Goodwin")	"Given the incomplete recollection, with the present invention, the user only needs to press the search button of the FIG. 6 screen to retrieve the search screen such as that shown in FIG. 7. As shown, the FIG. 7 screen shows a predictor key format from which the user can enter a search string to search for the entry from the address book database that he desires." 4:52-58
U.S. Patent No. 5,859,636 ("Pandit")	"Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the

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	value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries B and C shown in FIG. 3 will have subroutines generally related in function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-1f. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4:1-31
U.S. Patent No. 5,483,352 ("Fukuyama")	"When the telephone connection request and the name of the sender are input to the telephone connection request receiving part 24, the remote telephone number reading part 25 is activated to retrieve the telephone number of the sender of the electronic mail from the electronic mail ID code to telephone numbers table storing memory 31 in accordance with the name of the sender at step 902. For example, the telephone number "123-4567" is indexed to the ID code "bc@flab. ABC. Co. jp". Then the own (i.e. receiver) telephone number reading part 26 is activated to read the own (i.e. receiver) telephone number from the own (i.e. receiver) telephone number storing memory 27 at step 605. The order of steps 902 and 605 can be reversed. When the telephone numbers of the sender and the receiver are obtained, the telephone connection request receiving part 24 outputs a telephone connection request signal including the

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	telephone numbers of the sender of the electronic mail and the own telephone number to the PBX interface controller 28 at step 606. The PBX interface controller 28 controls the PBX interface 29 to connect the own telephone to the telephone of the sender of the mail. Then, the own telephone 6 and the telephone of the sender of the electronic mail are connected by PBX at step 607. In this way the telephone 6 of the receiver of the electronic mail and the telephone 51, 61, or 71 are automatically connected by the computer 20." 8:41-67
U.S. Patent No. 6,029,171 ("Smiga")	"The second function served by the icons 240 and a related dropdown list control is a means for a user to select the display of the linked object type corresponding to a particular selected icon. The output produced by parser 300 is displayed in region 250 of shadow 230. Although shadow 230 may initially be displayed beneath keynote 220, the user may bring the shadow region 230 in front of the keynote region 220 by clicking on the shadow region 230 with the cursor control device 123 or by typing a pre-specified key entry on the keyboard 122. Alternatively, the shadow region 230 may also be selected for display using a menu command. Referring now to FIG. 5, the generic version of the keynote and shadow region 210 of the preferred embodiment of the present invention is illustrated in its initial state. As shown, keynote 220 is initially blank prior to the entry of any keynote. Shadow region 230 includes a set of icons identified generically as I1 through I5. In this example, icon I1 represents a project object; icon I2 represents a contact object; icon I4 represents a date/time calendar object; icon I5 represents a list object. It will be apparent to one of ordinary skill in the art that other types of information or objects may correspond to each of the icons 240 of shadow 230. Similarly, it will be apparent to one of ordinary skill in the art that an arbitrary number of icons 240 may equivalently be provided in shadow region 230." 7:31-56

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User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., pp. 6-43—6-47: "Retrieving an Address. You can retrieve an address from the AddressMate Plus database and insert it in a document. You can retrieve the address automatically or manually. If you know the name of the address you want to receive, you can type part of the address and then tell AddressMate Plus to search the current database and copy the specified address into the letter. If you are unsure of the spelling in an address or which address you want, you can use the Address Book feature to quickly switch to the AddressMate Plus database and select the address you want from the Database List."
U.S. Patent No. 5,644,735 ("Luciw")	"Details of one way to carry out the database query process indicated in FIG. 3 at step 106 can be understood in connection with FIG. 5. In particular, FIG. 5 illustrates a frame 180 which is a special case of a frame, referred to commonly as a "type" frame, as the frame refers to a particular type, i.e., the type <PERSON>." 10:49-54. "For example, if it was desired to retrieve all of the frames that were colored red, a typical frame accessor language query would be in the form of: (QUERY (MEMBER-VALUE COLOR ?XRED) and would return a list of frames that have a COLOR slot whose value is red."
U.S. Patent No. 6,424,983 ("Schabes")	"According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search word, corrects a spelling of the search word to produce a corrected search word, and retrieves text from the source that includes the corrected search word." 4:11-15. "According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search phrase comprised of a plurality of words, at least one of the plurality of words being an incorrect word, and replaces the incorrect word in the search phrase with a corrected word in order to produce a

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	corrected search phrase. Text is then retrieved from the source based on the corrected search phrase." 4:16-23. "According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search phrase comprised of a plurality of words, at least one of the plurality of words being a grammatically-incorrect word, replaces the grammatically-incorrect word in the search phrase with a grammatically-correct word in order to produce a corrected search phrase, and retrieves text from the source based on the corrected search phrase." 5:58-65. "FIG. 25 shows the multi-threaded client-server spelling correction system described above used in a text indexing and retrieval context (e.g., in conjunction with a WWW search engine, database searching software, etc.). In this regard, in text indexing and retrieving systems, textual queries are sent to a database, and information related to the textual queries is retrieved from the database. Often, however, queries are misspelled and, as a result, correct information cannot be retrieved from the database. The system shown in FIG. 25 addresses this problem. More specifically, in FIG. 25, as was the case above with respect to FIG. 24, multiple queries are input at the same time to the server (i.e., PC 4). As was the case in FIG. 24, lexicon memory 750 is shared among all of program threads 151, 152 and 153. In addition, as before, each program thread contains its own spelling memory. In operation, multiple queries (i.e., QUERY1164, QUERY2165 . . . QUERYn 166) are input to the client-server spelling correction system of the present invention before each query is actually used to retrieve information from database 169. The present invention then corrects each query in the manner described above with respect to FIGS. 3, 4 and in particular, FIG. 5. Each corrected query is then used to retrieve information from database 169." 25:29-52.
U.S. Patent No. 6,189,026 ("Birrell")	"In a computer implemented method an address book is dynamically generated in a distributed mail service system. The distributed mail service system includes a

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	plurality of client computers connected to a mail service system via a network. Mail messages are stored in message files of the mail service system. Each mail message is parsed and indexed to generate a full-text index of the mail service system. An address book mail message is generated, each address book mail message including address information. The address book mail messages are stored in the message files, and parsed and indexed into the full-text index file. A query is composed using a particular one of the plurality of client computer systems to search the full-text index to locate and retrieve selected ones of the address book mail messages as the dynamic address book." Abstract. See, e.g., 12:15-34, 59-65; 14:41-49; Fig. 2.
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word- by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such

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	as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65.
Miller	*See* FIG. 4 at 420 ("write letter" and "retrieve #"); FIG. 4 at 410 ("write letter" and "[p]ut in electronic calendar"); 4:58-6:18.
Gehani	"The display also includes a number of buttons for requesting different types of geographic information, such as maps, directions, weather and yellow pages information. When the user clicks on one of the buttons, the personal information manager utilizes an address or other location identifier associated with the contact name to format a request to a geographic information server. The server uses the location identifier to retrieve the appropriate geographic information for that location, and sends the information to the personal information manager for display." Abstract.
Pensoft	"The Associate is a part of Perspective that automatically establishes links by recognizing the names of people, companies, etc. you write. It looks within the Profile Book to see if you have previously entered the name, and creates the link." p. 11.
Horodeck	"This addressing signal S_a is sent to the memory 6 to call up any kanji which correspond to the input string." 23:45-52.
Microsoft Outlook 97	"Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Help file entry for "Check recipient names before sending a message."
Selection Recognition Agent (SRA)	"The SRA currently uses simple lookup tables, hand-generated parsers, and parsers generated using GNU Flex and Bison to classify text strings. The strength of this

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	approach is that the SRA's recognition processes are fast and predictable." (SRA: Instant Access, p. 48) • The SRA can recognize electronic mail addresses. The SRA provides an option to start the email program of the user's choice. The user has the option to use the recognized email address in a canonical format as a command line parameter. The phone number also is placed on the clipboard. • In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text." (SRA: Instant Access, p. 49.) *See also* images included in claim charts provided herewith and with the invalidity contentions.
Eudora	"Eudora Pro 3.0 has a powerful 'Quick Search Engine' which allows you to use a VCR-like interface to find any particular text string in any message or mailbox." (Eudora Review, pp. 4-5)
Hachamovitch '965	"The word completion utility monitors data entry into a data file associated with a program module running on the computer system. The word completion utility identifies a partial data entry in an unstructured portion of the data file, such as the body of a word processing document or e-mail message. The word completion utility selects a suggestion list including a plurality of associated name-completion pairs, each name-completion pair including a name entry and a completion entry. The word completion utility identifies a particular one of the name entries in the suggestion list that corresponds to the partial data entry. The word completion utility then applies prediction criteria to the particular name entry, the particular completion entry, and the partial data entry. If the prediction criteria are met, the word completion utility displays the associated completion entry as a word completion suggestion for the partial data entry." Hachamovitch at 4:56-5:4

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Exhibit U - Table 15: analyzing, in a computer process, first information from the document

Numerous claims contain the element "analyzing, in a computer process, first information from the document." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would quickly find information that is of interest to the user, such as an email address.

Additional motivation is found in European Patent Application Number 91304533.2, Publication Number 0458563A2 ("Lahtinen") where it states: "In the search for a telephone number from a text message it is possible to apply, according to the user's choice, any of the methods described above or some other search algorithm which has been preprogrammed according to the invention into the RPK." 7:3-6.

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Additional motivation is found in U.S. Patent No. 5,649,222 ("Mogilevsky") where it states: "A variety of word-defining routines can be applied to define words from a string of characters." 9:37-39.

Reference	**Exemplary Disclosures**[15]
Knowledge of One of Ordinary Skill in the Art	Techniques for parsing text in a document were well known. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference to implement a text parsing technique to identify information such as contact information.
U.S. Pat. No. 6,026,233 ("Shulman")	"In response to the programmer typing MyProc as the first characters of programming language statement 732 the statement building tool automatically identifies MyProc as a previously declared procedure call." 11:53-57. *See, e.g.*, Figures 3-9, 11-12, 13A-B; 5:50-55; 8:10-14; 8:27-44; 10:29-35; 10:41-49; 11:6-17; 12:13-25; 16:13-33; 18:26-36; 18:37-46.
U.S. Pat. No. 5,649,222 ("Mogilevsky")	"Given this range of characters, the spelling core identifies complete words, and passes them to spell.dll for verification. Spelling core analyzes transitions between types of characters to identify a complete word. For each word identified, spell core passes the word to spell.dll for verification." 4:52-56. *See, e.g.*, Figures 3, 6; Abstract; 2:1-17; 4:24-33; 4:43-64; 5:3-6; 5:39-6:11; 6:29-45; 6:54-59; 7:1-3; 7:36-49; 10:14-25; 10:62-67; 11:27-33; 11:48-12:9.
European Patent Application Number 91304533.2, Publication Number 0458563A2 ("Lahtinen")	"It can be deemed to be the most important advantage of the invention that the apparatus is capable of interpreting as a telephone number a character string included in an arbitrary text message, either automatically or aided by

[15] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	the user, and this number can, when necessary, be modified, and the apparatus according to the invention is capable of calling this number, when necessary." 2:23-30. *See, e.g.*, Figure 4; 1:52-2:5; 5:25-43; 6:11-7:13; 8:24-45; 9:18-52; 11:1-39; 12:13-47. *Further, see also* 2:5-20; 7:48-51, 8:1-23
U.S. Patent No. 5,946,647 ("Miller")	"As illustrated in FIG. 6, analyzer server 220 identifies the phone number, post-office address, e-mail address and name…" 5:19-36 *See, e.g.*, Figs. 5 and 6; 3:61-64; 5:6-18; 5:19-36.
U.S. Patent No. 5,644,735 ("Luciw")	"At step 104, the process recognizes whether or not an implicit assistance function is to be provided by computer system 10. … If a user does enter information into a 'smart field,' the computer database will be queried at step 106 to determine whether assistance is possible given the user input." 8:7-13. *See, e.g.*, Figs. 3 and 4a; 8:15-18; 8:30-41; 10:15-20; 11:60-12:6.
U.S. Patent No. 6,471,994 ("Kang")	"The application next proceeds to the ANALYSE TOKEN step 326, where the application determines the field type of each line of data and record type of the three identified records 624, 636 and 638. This is not as straightforward as the preceding TOKENIZE DATA step 324 as this step 326 involves backtracking if during a first pass, the application is unable to determine the field type due to ambiguity. FIG. 7 is a set of rules used by the application to determine field and record types in a set of input data. In the first pass of the ANALYZE TOKEN step 326, the application is unable to determine the field type of the two TEXT tokens 604 and 606 of the first line 602 as the record type of the block of data 624 has yet to be determined. At this stage, a line consisting of simply TEXT tokens is ambiguous and may be one of a Name 702, Appointment Description 704 or Task Description 706 of the contact 208, calendar 212 or task 210 applications respectively. In continuing to process the second line of data 608, the application finds that the line 608 consists of the NUMBER token

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	606 and a series of TEXT tokens 612, 614 and 616 terminated with a second NUMBER token 618. The application is again unable to determine the record type of the group of information 624 and this second line of data 608 can well be an Address 708 or a Venue 710 field type of the contact 208 and calendar 212 application respectively. The application goes on to process the third line 620 and in the process, recognizes the line 620 as consisting of a single TELEPHONE token 619 and categorizes it as a telephone number field. With knowledge that one of the three lines 602, 608 and 620 is a telephone number, the application is able to categorize the group of three lines 602, 608 and 620 as a Contact record type. With knowledge of the record type, the application is able to revisit the first two lines 602 and 608 to categorize them as Name and Address fields of a contact record using rules 702 and 708 given in FIG. 7." 8:47-9:14. "One example of a limitation is the ambiguity when trying to identify record fields from the tokens. The embodiment can easily be enhanced to reduce or eliminate ambiguity. One way to reduce ambiguity is to have a dictionary which contains words pertaining to addresses, for example, "road", "street", "drive", etc., to help in identifying such fields. With the reduction of ambiguity, the limitation of having fields of a record as a separate block may be eliminated. This dictionary is extendable to include new words relating to addresses." 10:10-20.
U.S. Pat. No. 6,049,796 ("Siitonen")	*See, e.g.* Figs 6A-7B depicting a process for analyzing a document to determine if the first information is contained therein.
U.S. Pat. No. 5,784,001 ("DeLuca")	*See, e.g.* Fig. 17 depicting a process for analyzing a document to determine if the first information is contained therein. *See, e.g.,* 6:39-43: "At step 400, the presentation element 150 receives a message from the processor 120 and

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	then, at step 405, compares the words of the message with the key words stored in the graphics database 500."
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 7-11: "Autoload images — Yes / No (default). If the autoload images option is Yes, inline (JPG or GIF) images on the WWW page are downloaded automatically. When the setting is No, WWW pages are downloaded without the images and shown much faster. *See, e.g.,* 2110 User's Guide at 55-56: "If the sender of the message could be identified, the sender's phone number (and name if stored with the phone number in memory) will be displayed at the end of the message. With a message on the display, you may press a number key and then perform any memory or menu functions in the normal way, e.g. make a call to the sender of the message."
U.S. 6,262,735 ("Etelapera"):	*See, e.g.,* 1:10-32: "A function is prior known from the user interface of a mobile telephone, by using which function a telephone number can be picked from a received text message to the display of the mobile telephone, after which pushing a Call-button (Send button, lift handset) activates a call to said telephone number. … In such a case for example using Nokia 2110 mobile telephone said message can be read in the display of the telephone and the menu comprises command "Pick number", after which in response to this command, an application locates the number from

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	within the message, copies it to the memory means, clears the display and pastes said telephone number from the memory means into the display…" *See, e.g.,* 2:16-32: "… The invention relates to a device which is capable of supporting several different applications and which is capable of receiving and displaying different character-based messages and which device has means for searching certain character combinations in a character-based message and means for recognizing character combinations connected with the different applications in said character-based message, which message may comprise character combinations connected with several different applications, and means for activating or launching an application determined by a certain character combination contained in said message, based upon said character combination and for executing the command connected with said character combination in the activated application."
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 5:41-67: "At the end of the marking mode the marked text is displayed in a pop-up window 70 as shown in FIG. 7C. ... In addition to pop-up screen 70, a number of function keys also appear on the screen. The different function keys each provide an option to be taken with respect to the marked text. For example, if the user determines that the correct text has been marked, as for example the telephone number of Joe Smith, he can next instruct the system to dial that number by pressing the "Dial" function key 72. ... Thus, for the instant invention, without having to jot down anything, the user can directly call someone by simply marking the desired telephone number and then pressing the "Dial" function key..."
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:52-57: "As is typical in such situations an intuitive "nickname" or "alias" is often utilized and thus, the user may simply address an electronic mail item to "Tom" and electronic mail processing application 18 will, in conjunction with existing address list 22, convert the name "Tom" into an appropriate electronic mail address."

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U.S. Patent No. 5,859,636 ("Pandit")	The invention selectively recognizes text and performs relevant operations based on the recognition. Referring to FIG. 1a and FIG. 2, for example, a date 11 in text appearing on a video monitor is accented (step 21 of FIG. 2) for example by shading, underlining or pointing to and clicking on the text. The invention recognizes the accented text (step 22), and provides a menu bar 13 in which the name of menu 12 corresponding to the class of text accented is highlighted or shown in bold type, thereby showing that the menu is enabled (step 23). In the example of FIG. 1a, the Date menu 12 is shown in bold type, signifying that the invention includes a menu of operations and/or programs which are relevant to dates. 2:3-15
U.S. Patent No. 5,483,352 ("Fukuyama")	"Then the operator detects the sender of the mail, and moves the cursor to select the name of the sender in the same way as the telephone number was selected in FIG. 5B at step 902. This step may be executed automatically by the remote telephone number reading part 25." 8:36-40
U.S. Patent No. 6,029,171 ("Smiga")	The parser 300 of the preferred embodiment receives natural language text expressions from user interface 200 and produces structured information including links to information objects, such as projects, contacts, lists, date/time calendar items, and enclosed documents corresponding to those identified to keywords in the input text expression. Although many parsing algorithms exist in the prior art, the parser 300 of the present invention is unique in its ability to effectively identify and suggest keywords and/or date/time calendar events in an input text string and respond with interactive user real-time performance. Parser 300 of the preferred embodiment accomplishes these objectives with a novel internal architecture and set of methods for processing a natural language text expression. The architecture and methods used by the parser 300 of the present invention will be described in the following sections. The present invention solves the problem of interpreting structure and meaning from natural language text. This

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	meaning is a set of structured information related to or linked to other pertinent information known to and pre-defined by the user. The following example illustrates the operation of the present invention. Suppose a user enters the following sample keynote to the user interface 200 of the present invention: "call Scott tomorrow to arrange the next Engineering meeting." The parser 300 of the present invention is used to analyze this keynote in real-time as the user enters the keynote character by character. Note that the entire keynote is parsed after the entry of each new character. After the entire keynote is entered by the user and analyzed by parser 300, the following structured information output is produced by parser 300: lists: Calls project: arrange Engineering meetings until Dennis gets back contact: Scott Jones date: tomorrow=current date+1 day 9:22-59
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., pp. 1-4—1-5: "Intelligent Address Recognition. A unique feature of AddressMate Plus is its intelligent address recognition. Unlike other products, with AddressMate Plus there is no need to select the address in a letter when you need to print a letter or envelope. Instead, AddressMate Plus can scan the letter, pick out the correct address, and format it for the fastest possible delivery—all automatically. This capability goes beyond just finding an address in a letter. . . . AddressMate Plus is smart. Given the above example, it will recognize the company name, recognize that it is followed by an attention line, and incorporate the attention line in the address, creating an envelope that is addressed . . . ."
U.S. Patent No. 6,424,983 ("Schabes")	"Pronunciation conversion module 73 utilizes a pre-stored phonetic dictionary of words, in which a pronunciation of each character of a word is associated with a phonetic symbol which represents the pronunciation of that character in the context of a word.

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	In order to associate to each character of an input word with a pronunciation, pronunciation conversion module 73 reads the input word from left to right and finds the longest context in the phonetic dictionary which matches the input word. Pronunciation conversion module 73 then transcribes that longest match with phonetic characters until no characters in the input word are left unpronounced. The output is represented as an FST (see, e.g., FIG. 6), in which each arc is labeled with a pair c/p." 16:1-14. *See* Interactive Mode, 8:42-10:33 (and described figures) *See* Automatic Mode, 10:34-11:20 (and described figures) *See* Spelling Suggestion Module, 11:21-16:13 (and described figures) *See* Automaton Conversion Module, 16:14-17:60 (and described figures) *See* Contextual Ranking Module, 17:61-19:12 (and described figures) *See* Morphology Module, 19:13-20:49 (and described figures) *See* Construction of Grammar FST 20:50-22:30 (and described figures) *See* Word Processing, 22:31-62 (and described figures) *See* Machine Translation, 22:63-23:40 (and described figures) *See* Optical Character Recognition, 23:41-24:9 (and described figures) *See* Text Indexing and Retrieval, 24:10-33 (and described figures) *See* Client-Server Configuration, 24:34-25:27 (and described figures) *See* Client-Server Information Retrieval System, 25:28-52 (and described figures *See also*, Figs. 3-23.
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	**"3. Learning a Syntax** To implement the two modes of the note taking software, the system internally learns two structures. To characterize the syntax of user's notes, it learns finite-state machines (FSMs). To generate predictions, it learns decision tree classifiers situated at states within the

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	FSMs. In order to construct a graphical user interface, the system converts a FSM into a set of buttons. This section describes the representation and method for learning FSMs. The next section discusses learning of the embedded classifiers. Schlimmer 1 at 65.
Luciw '777	"The meaning of the substring is analyzed by mapping the substring against a database using one or more mapping routines." Luciw '777, Abstract. "FIG. 3 is a table 72 illustrating the method used in the present invention for mapping substrings (portions) of an ordered string into a database to recognize the substrings and determine a computer-implemented task specified by the ordered string." Luciw '777, 9:1-5. "For a database query processor, the CPU sends the substring as a query to a database and matches related entries in the database to the substring. This process is described in more detail with reference to FIG. 11. The knowledge base includes the hierarchical information used to assign categories to a phrases so that a task can be assigned to an input string, as described with reference to FIG. 12." Luciw '777, 12:12-15
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word- by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and

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	removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65. "EXWAYS handles formatted text in a special way so that the formatting information is preserved regardless of the format codes used. FIG. 5 shows two lines of text at 450 from the word processing program "Word Perfect" to show how underlined text, emboldened text and text of a different font appear when printed. The lines at 452 show the same text with embedded format codes shown in square brackets. The format codes are actually one or more numbers that are known to the application program. For convenience they are shown as terms in square brackets. The numbers are generally unknown to the add-on program, that is, it is impossible for the add-on program to discern characters from format codes, much less identify what the format codes mean without putting special information into the add- on program on a case-by-case basis depending on the current type and version of word processing program that the add-on program is being used with. Instead, EXWAYS processes the text one word at a time so as to bypass format codes from its processing. Every word processing program allows a single word to be transferred to the clipboard. By transferring a single word, the format information that is adjacent to, or outside of the word, is not transferred to the clipboard. Thus, EXWAYS is able to modify, replace or eliminate the word without having to take

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	special steps to preserve format information in the form of format codes." *See* 9:17-44.
Microsoft Outlook 97	"Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Help file entry for "Check recipient names before sending a message." *See* screenshots and disclosures in claim charts submitted herewith and with the invalidity contentions.
Pensoft	"The Associate is a part of Perspective that automatically establishes links by recognizing the names of people, companies, etc. you write. It looks within the Profile Book to see if you have previously entered the name, and creates the link." p. 11.
Horodeck	"After the second delimiting signal '/' of a pair has been entered into the system, the microprocessor 4 begins, at block 129, to process the input string contained between the first and second interrupt delimiters to produce a corresponding addressing output signal S_a. This addressing signal S_a is sent to the memory 6 to call up any kanji which correspond to the input string." 23:45-52.
Gehani	"In this embodiment, a request for geographic information is based on an address A of the contact in field 52. The address A may be a complete business or home address, or a portion thereof such as a state, city, town or zip code. The PIM 12 incorporates this address or a suitable portion or representation thereof into a geographic information request which is sent to the GeoServer 20 in the manner previously described." 4:46-52.
Selection Recognition Agent	"The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected

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	text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47)
Hachamovitch '965	"The word completion utility monitors data entry into a data file associated with a program module running on the computer system." Hachamovitch at 4:55-58.

Exhibit U - Table 16: entering a first information in the first application program

Numerous claims contain the element "entering a first information in the first application program." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for

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users because it would save the user the time and effort of typing in or copying in the first information into the first application program.

Reference	Exemplary Disclosures[16]
Knowledge of One of Ordinary Skill in the Art	Document editing programs were well-known to those of ordinary skill in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference to use a program that allowed editing of documents.
U.S. Pat. No. 6,026,233 ("Shulman")	"FIG. 3 illustrates the programming language edit display window 200 from FIG. 2 at a new time T2. At time T2 the programmer has typed the member access separator character 212, in the present case the dot "." character, following the last character of the object name mytext." 8:23-27. *See, e.g.*, Figures 2-9; 8:18-22; 11:51-57; 14:33-41.
U.S. Pat. No. 5,649,222 ("Mogilevsky")	"For example, if a user edits a document by adding text at the middle of a sentence, the spell checker notes the range of characters affected by the edit and then re-checks the words in this range." 1:64-67. *See, e.g.*, Figures 5, 6; 3:66-4:6; 5:39-49; 5:62-6:29; 7:16-20; 7:55-57; 8:14-39; 9:66-10:5; 14:17-20.
Apple Newton MessagePad 2000 handheld device ("Newton")	Newton allowed a user to enter information into the Notes application. *See, e.g.* Newton Manual at 35-37; Newton Guide at 19-30 to 19-31; photographs embedded in Newton chart; Newton device available for inspection at DLA Piper US LLP.
U.S. Patent No. 6,471,994 ("Kang")	"A user inputs data in a free form manner onto an input screen provided by the application."

[16] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	Abstract.
Nokia Products and Nokia Product Publications	*See, e.g.,* 9000i Owner's Manual at 1-3: "With the communicator interface's text editor, you can create new texts in many applications (Notes, Fax, SMS, E-mail, Calendar). The editor, however, works in each application in a way that corresponds to the sending format of that application. For example, because short messages cannot contain text formatting, the SMS editor removes text formatting before opening any document. For this reason, the text editor is called Note editor in the Notes application, E-mail editor in the E-mail application, and so on." *See, e.g.,* 9000i Owner's Manual at Figure 7-3.
U.S. 5,815,142 ("Allard et al.")	*See, e.g.,* 4:8-36: "The operation of the instant invention system is discussed with reference to FIG. 6, which shows an exemplar E-mail message received by the system. … Note that this screen is retrieved from system memory EPROM 36 and provides the user the option of viewing three different types of messages, namely the "Received Messages", the "Ready to Send" messages and the "Saved Messages". … As shown, screen 6C is divided into two areas, namely a text area 62 and a function area 64. ..."
U.S. 6,262,735 ("Etelapera")	*See, e.g.,* 2:61-3:7: "The invention preferably relates to a device suited for mobile communication comprising or being capable of supporting several different applications, comprising for example both communication applications (such as call, facsimile, E-mail) and organizer applications (such as address information, calendar, memo (notepad)) and in which communication device a program automatically picks from a character-based message, stored in the device or arriving to it, certain information in order to be used as a command in another application.
U.S. 6,442,591 ("Haynes et al.")	*See, e.g.,* 3:52-57: "As is typical in such situations an intuitive "nickname" or "alias" is often utilized and thus, the user may simply address an electronic mail item to "Tom" and electronic mail processing application 18 will, in conjunction with existing address list 22, convert

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	the name "Tom" into an appropriate electronic mail address."
Pensoft Perspective	Pensoft Perspective allows first information to be entered into a variety of first application programs. See, e.g., Getting Started With Your EO Personal Communicator ("Getting Started") at iv.
U.S. Patent No. 6,493,006 ("Gourdol")	"The desktop 34 defines a space within which the user can manipulate files, edit documents, and the like." 4:59-61. *See, e.g.*, Figures 2-5; 1:49-51; 3:46-53; 4:65-5:1; 5:7-9.
U.S. Patent No. 6,085,206 ("Domini")	"Generally described, in one aspect, the present invention provides a method for verifying the accuracy of spelling and grammatical composition of sentences in an electronic document. The method includes extracting one of the sentences from the document. The spelling of the words in the document are checked. Next, the grammatical composition of the sentence is checked. These tasks are repeated for each sentence in the document until all of the sentences in the document have been checked for spelling and grammar or until the process is interrupted by the user." 3:32-40.
U.S. Patent No. 6,377,965 ("Hachamovitch")	"The present invention is a word completion system that can automatically predict unrestricted word completions for data entries in an unstructured portion of a data file, such as the body of a word processing document or email message. The word completion system applies prediction criteria to avoid annoying the user by displaying an excessive number of wrong suggestions. Suggested word completions, which may change as the user types a partial data entry, are displayed in a non-disruptive manner and selected using traditional acceptance keystrokes, such as the "tab" key or the "enter" key." 4:10-21.
U.S. Patent No. 6,029,171 ("Smiga")	"Referring now to FIGS. 4A and 4B, examples illustrate the components comprising the keynote and shadow region 210 of the preferred embodiment. The keynote region 220 is an on screen computer version of a paper sticky note allowing the user to quickly capture information and ideas. The keynote region 220 provides

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	a display area for the entry of a natural language text expression (i.e. keynote) representing textual information and ideas the user would like to capture. An example of such a keynote in keynote region 220 is shown in FIG. 4B. Any type of natural language text expression may be entered in keynote region 220. Conventional techniques may be used to display and word wrap the text in keynote region 220. Further, conventional techniques may be used for the selection or identification of keynote region 220 for the entry of text input. For example, the cursor control device 123, mouse, or special key codes entered on the key board 122 of the computer system may be used to select keynote region 220 for the entry of a text expression. As each key stroke is input to keynote region 220, the individual key stroke is transferred to user interface 200 and subsequently to parser 300 as will be described below in a later section of this document." 6:44-65
U.S. Patent No. 5,859,636 ("Pandit")	"Examples of the conventional operations which can be performed on words by conventional word processing or database programs include spell checking, finding and replacing, etc. The present invention will benefit any application which displays text to a user, regardless of the origin of the text. The invention expands the operations which may be performed using recognized text by allowing a user to intuitively exploit the presence of certain classes or types of text in any document by transforming the text into an interface to other functions or operations." 1:38-49
U.S. Patent No. 5,708,804 ("Goodwin")	"To enable a user to effectively search for information without having to remember exactly what the information is, the present invention device has incorporated therein a search function, in the case of searching information in the address book, represented by a search button displayed from any of the address book screens. The user can enter a particular search string which may comprise only a limited number of characters and be able to retrieve from the particular

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	database, for example the address book file, an entry or entries which resemble the input search string." 2:30-40
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., p. 6-44: "To automatically retrieve an address: 1. Type part of the address you want to receive. (Type the information where you want the address to appear; the information you type will be replaced by the complete address. . . .)."
U.S. Patent No. 5,644,735 ("Luciw")	"In operation, information is input into the pen-based computer system 10 by 'writing' on the screen of display assembly 20 with the stylus 38." 5:29-31.
U.S. Patent No. 6,424,983 ("Schabes")	"A system of correcting misspelled words in input text detects a misspelled word in the input text, determines a list of alternative words for the misspelled word, and ranks the list of alternative words based on a context of the input text. The system then selects one of the alternative words from the list, and replaces the misspelled word in the text with the selected one of the alternative words. In certain embodiments of the invention finite state machines are utilized in the spelling and grammar correction process. Thus according to certain embodiments the invention stores one or more lexicon finite state machines (FSM), each of which represents a set of correctly spelled reference words. Storing the lexicon as one or more finite state machines facilitates those embodiments of the invention employing a client- server architecture. The input text to be corrected may also be encoded as a finite state machine, which includes alternative word(s) for word(s) in need of correction along with associated weights. The weights are determined by a process that involves assessing the number and type of changes that would be required in order to transform an incorrect word, e.g., a misspelled word, into a correct word. The invention adjusts the weights by taking into account the grammatical context in which the word appears in the input text. In certain embodiments of the invention

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	the modification is performed by applying a second finite state machine to the finite state machine that was generated for the input text, where the second finite state machine encodes a grammatically correct sequence of words, thereby generating an additional finite state machine." Schabes at Abstract. "According to one aspect, the present invention is a system (i.e., an apparatus, a method and/or computer-executable process steps) for correcting misspelled words in input text. The system detects a misspelled word in the input text, and determines a list of alternative words for the misspelled word. The list of alternative words is then ranked based on a context of the input text." 3:11-17. "A method of correcting a misspelled word in input text, …" *See, e.g.,* 25:61-29:8; 30:27-31:10; 32:19-55. "A method of retrieving text from a source …" *See, e.g.,* 29:9-30:26. "A method of spell-checking input text ..." *See, e.g.,* 31:11-32:18; *see also* Figs. 20-23.
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	"The primary function of the note-taking software is to improve the user's speed and accuracy as they enter notes about various domains of interest. A note is a short sequence of descriptive terms that describe a single object of interest. Example 1 shows a note describing a particular personal computer (recorded by the first author from a Usenet newsgroup during 1992): 4096K PowerBook 170, 1.4MB and 40MB Int. Drives, 2400/9600 Baud FAX Modem (Example 1) Example 2 is a note describing a fabric pattern (recorded by the first author's wife):

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	Butterick 3611 Size 10 dress, top (Example 2) Tables 5 through 11 later in the paper list sample notes drawn from seven other domains. The user may enter notes from different domains at their convenience and may use whatever syntactic style comes naturally. Schlimmer 1 at 63.
U.S. Patent No. 6,189,026 (“Birrell”)	“Access to the composition window is gained by clicking on the Compose, Forward, Reply, or Modify button, or by clicking on a "mail-to" hot link in a displayed message. Compose begins a new message, forward is used to send a previously received message to someone else, reply is to respond to a message, and modify allows on to change a message which has not yet been sent. The mail service allows a user to compose multiple messages at a time.” 14:42-49. See also, 12:15-34, 59-65; 14:41-15:21.
WO 98/24031 (“Treider”)	“The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference user is acquainted; ranking a level of acquaintance with each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users; and reporting matches in the compared accessible information. In the preferred embodiment, information is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a reference user via a wireless device, such as any form of cellular telephones, beepers,

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	palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24
Luciw '777	"The screen illustrated in FIG. 2 is referred to as the "notepad", and is preferably an application program running under the operating system of the pen based computer system 10. In this preferred embodiment, the notepad is a special or "base" application which is always available beneath higher level applications. The notepad application, like other applications, run within a window, which in this instance comprises the entire viewing screen 52." Luciw '777, 7:44-52. "The ordered string is preferably received from strokes entered by a stylus on a display screen of a pen-based computer or from a microphone receiving audible speech input." Luciw '777, 3:29-32. "In operation, information is input into the pen-based computer system 10 by "writing" on the screen of display assembly 20 with the stylus 38. Information concerning the location of the stylus 38 on the screen of the display assembly 20 is input into the CPU 12 via data bus 38 and I/O circuitry 18." Luciw '777, 6:36-41.
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"Text at 356 in text window 358 displays current text that the user has typed in. Text is entered in at a cursor position such as cursor 360 of FIG. 4A. Pointer 362 allows the user to select menus, icons, etc. *See also* Figure 4A; Figure 4B; 8:43-55.
Miller	"The analyzer server receives data from a document." 2:28.

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	"Since the program may be executed during the run-time of another program, i.e. the application which presents the document, such as Microsoft Word, an application program interface provides mechanisms for interprogram communications." 2:42-46.
Pensoft	"The Associate is a part of Perspective that automatically establishes links by recognizing the names of people, companies, etc. you write. It looks within the Profile Book to see if you have previously entered the name, and creates the link." p. 11.
Horodeck	"The system is adapted to retrieve the stored kanji symbols and insert them into a text on instructions from the microprocessor, by responding to hiragana input by the operator, comparing that input to the contents of the dictionary, and inserting the kanji identified by the hiragana into output text." 7:24-30.
Microsoft Outlook 97	"Outlook automatically checks the names you type in the To, Cc, and Bcc boxes against the names in the Address Book." Help file entry for "Check recipient names before sending a message."
U.S. Patent App. Pub. No. 2001/0047263 ("Smith")	The call function 800 will be described with respect to FIG. 8. First, the system evaluates the name entered by the user (step 805). To evaluate the name, the system will look to a directory that includes a list of names and numbers and other identifying information . . . The directory may be reviewed and edited using known data processing systems." ¶ 0065.
International Patent No. WO 998037474 ("Allen")	"As can be seen from Figures 3 - 7 and the above description in connection with user interface 200 of the present invention, user

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	nterface 200 provides an easy and intuitive user interface for inputting text expressions and receiving resulting associated structured information. Further, because the keynote and shadow regions 210 are always displayed or easily displayable on display device 121, the user may easily record notes or thoughts within the keynote window 220 without losing the context of the work previously being done. In this manner, the present invention allows the easy recordation of notes without disrupting current user operations. In addition, the present invention allows notes to be recorded in a natural language unstructured form which more closely resembles the natural user thought processes. Thus, the user is not required to organize these notes or thoughts into particular structured fields and the user is not required to navigate through a multiple step application to record notes or thoughts." age 18. *See also* Figures 3 – 7.
Selection Recognition Agent	"We present the Selection Recognition Agent (SRA), a personal computer application which recognizes meaningful words and phrases in text, and enables useful operations on them." "The SRA is an unobtrusive program that a user constantly runs on his PC. The SRA monitors operating system events to determine when the user has selected text in a window. It then uses fast, simple recognition processes to identify meaningful objects in the selected text. The SRA can currently recognize geographical names, dates, email addresses, Usenet newsgroup name components, world-wide web site names (URLs), and phone numbers. If the SRA recognizes one of these in the selected text, it alerts the user. The user can then use SRA to perform operations that are relevant to the recognized text object. For example, the SRA can start a web browser on a page referenced by a selected URL, or download a Usenet newsgroup's list of Frequently Asked Questions (FAQs)." (SRA: Instant Access, p. 47)
Eudora	"To check your spelling in Eudora, select **Check Spelling** from the **Edit** menu. The spelling checker starts at the beginning of the document. The subject of the message and the message body are checked, ignoring the parts of

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	the body that are identified as quoted text. You can also highlight a word or a block of text to check only that text and not the rest of the message." Eudora Mac Manual at 43.

Exhibit U - Table 17: responding to a user selection by performing an operation related to a second information, the second information associated with the first information from the second application program

Numerous claims contain the element "responding to a user selection by performing an operation related to a second information, the second information associated with the first information from the second application program." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would save the user the time and effort required to separately search for the second information and perform an operation based on that information.

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Reference	Exemplary Disclosures[17]
Knowledge of One of Ordinary Skill in the Art	Operations such as displaying information were well known in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference to display second information identified by the disclosed method. As a matter of common knowledge of POSITA, it would be obvious to display the results of a search.
U.S. Patent No. 6,493,006 ("Gourdol")	"The method of claim 1 further including the steps of detecting the selection by the user of one of said additional commands on the displayed menu, providing a notification to the plug-in module which provided the selected command, and performing an operation associated with the selected command via said plug-in module." 10:5-10. *See, e.g.*, Figures 5-7; 3:15-26; 4:22-25; 5:12-35; 6:21-36; 8:55-9:2; 9:9-15; 10:41-46.
U.S. Patent No. 5,946,647 ("Miller")	"An action may further include internal actions, such as storing phone numbers in an electronic phone book, addresses in an electronic address book, appointments on an electronic calendar, and external actions such as returning phone calls, drafting letters, sending facsimile copies and e-mail, and the like." 2:36-41. *See also* Fig. 4.
U.S. Patent No. 5,644,735 ("Luciw")	"Responsive to the recognition of the name ISAAC, the assistance process has produced a list of alternatives by earlier query of the database per step 106 in FIG. 3. … The user-selected 'ISAAC ASIMOV' is shown having been marked for selection by a rectangle indicating a highlighting operation. FIG. 6c illustrates the completion of the selection process, with the full name in formal font of ISAAC ASIMOV being presented in the name field 175 of window 170." 11:60-12:6.
Apple Newton MessagePad 2000 handheld device ("Newton")	Tapping the "Assist" button after entering "call bob" results in the display of a phone number associated with the name "bob." *See, e.g.*, Newton Manual at

[17] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	195-197; Newton photographs embedded in Newton chart; Newton device available for inspection at DLA Piper US LLP.
U.S. Patent No. 6,085,206 ("Domini")	"Still referring to FIG. 3, the Change button 340 is positioned below the Add button 335 in the combined spelling and grammar dialog box 300. If the user selects the Change button 340, the misspelled word 315 will be replaced with the word that has been selected by the user from the suggestions 320 in the suggestion list box 317. However, in the preferred application program, if the user has made changes to the sentence 307 in the rich text edit control 310, then selecting the Change button will incorporate these changes into the document. For example, in FIG. 3, if the user has selected the suggestion "engine" from the suggestion list box 317 and then selects the Change button, without editing the sentence in the rich text edit control field, then the misspelled word "engin" will be replaced with the suggestion "engine". However, again referring to FIG. 3, if the user has edited the sentence 307 in the rich text edit control field, then selecting the Change button 340 will incorporate these changes into the document." 12:61-13:9.
U.S. Patent No. 6,377,965 ("Hachamovitch")	"Suggested word completions, which may change as the user types a partial data entry, are displayed in a non-disruptive manner. Specifically, a word suggestion field appears in a word completion frame above the partial data entry such that the suggestion and the partial data entry are vertically aligned. This makes it easy for the user to compare the suggestion to the partial data entry. If the suggestion is too long to display directly above the partial data entry, it is truncated with ellipses (i.e., . . .) so that the suggestion and the partial data entry are still displayed in vertical alignment. The user accepts a suggestion using traditional acceptance keystrokes, such as the "tab" key or the "enter" key." 6:61-7:5.
U.S. Patent No. 5,483,352 ("Fukuyama")	When the telephone connection request and the name of the sender are input to the telephone connection request receiving part 24, the remote telephone number reading part 25 is activated to retrieve the telephone number of the sender of the electronic mail from the electronic mail

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	ID code to telephone numbers table storing memory 31 in accordance with the name of the sender at step 902. For example, the telephone number "123-4567" is indexed to the ID code "bc@flab. ABC. Co. jp". Then the own (i.e. receiver) telephone number reading part 26 is activated to read the own (i.e. receiver) telephone number from the own (i.e. receiver) telephone number storing memory 27 at step 605. The order of steps 902 and 605 can be reversed. When the telephone numbers of the sender and the receiver are obtained, the telephone connection request receiving part 24 outputs a telephone connection request signal including the telephone numbers of the sender of the electronic mail and the own telephone number to the PBX interface controller 28 at step 606. The PBX interface controller 28 controls the PBX interface 29 to connect the own telephone to the telephone of the sender of the mail. Then, the own telephone 6 and the telephone of the sender of the electronic mail are connected by PBX at step 607. In this way the telephone 6 of the receiver of the electronic mail and the telephone 51, 61, or 71 are automatically connected by the computer 20." 8:41-67
U.S. Patent No. 6,029,171 ("Smiga")	"Referring now to FIG. 7, the keynote and shadow region 210 is illustrated after the shadow region 230 has been brought to the foreground using the cursor control device 123 or a pre-specified keyboard 122 entry. Region 250 of shadow 230 illustrates the structured information output produced as a result of parsing the sample input keynote 222 shown in FIG. 6. As a result of parsing input keynote 222, parser 300 has linked the reference to "wilson deal" in input keynote 222 to the previously specified "Wilson Account" project object. The linked project object "Wilson Account" is displayed in region 250 adjacent to corresponding icon I1. Similarly, parser 300 has linked the reference to "Paul" in input keynote 222 to the previously specified contact object "Paul Jones". The linked contact object "Paul Jones" is displayed in region 250 adjacent to its corresponding icon I2. The parser 300 has linked a

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	date/time calendar event object as a result of parsing the "next Thursday" text in keynote 222. This processed time/date calendar event object is displayed in region 250 of shadow 230 adjacent to the corresponding icon I4. Finally, parser 300 has linked the keyword "call" in input keynote 222 to the previously specified "Calls" list previously defined as a list object. The identification of the linked Calls list is displayed in region 250 of shadow 230 adjacent to the corresponding icon I5. Drop down list indicators 260 are provided to cause a list to expand downward so a multiple line list of objects or information is displayed in a drop down portion of region 250. Conventional methods exist for providing drop down list indicators on a computer display device. Thus, user interface 200 and its corresponding keynote and shadow regions 210 provide a means and method for receiving a natural language text expression from a user and for concisely and efficiently displaying the parsed and linked structured output of the text expression in an area on display device 121. In the following sections, the detailed description of the processing performed by parser 300 and lexical analysis tool 400 is provided." 8:20-56
U.S. Patent No. 5,859,636 ("Pandit")	"The pull-down menus provided by the invention identify the operations and/or programs which relate to the class of text accented, highlighted or otherwise indicated. For example, referring again to FIG. 1a where date 11 has been accented and recognized by the invention, the pulled-down menu 18 can identify operations and/or programs relevant to dates, such as the calendar program and appointment programs shown as well as a To-Do list program, an anniversary database, a scheduling program etc. . . . A user is able to run one or more of the programs relevant to dates which are identified in the pulled-down menu in a known manner, such as by clicking on the name of the program as it appears in the pulled-down menu (step 25) or through the execution of one or more keyboard key strokes. In the example shown, therefore, a user is able to record in, for example, a calendar program, an upcoming event mentioned in a body of text in which a

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	date has been recognized. The user may then quickly return to the body of text (step 26)." 2:32-50.
U.S. Patent No. 5,708,804 ("Goodwin")	"Here, all entries that match the search string entered by the user in one way or the other are shown. In the example given, the search string, as shown in FIG. 8 was "Smith". Thus, all entries in the address book database which refer to "Smith" are shown on the screen of FIG. 9. Do note also that even though the exemplar screen of FIG. 9 only shows entries reflecting names of people, any entry that includes "Smith", such as for example a street name or anyone with "Smith" as part of his name, such as "Goldsmith" or variants thereof, would also have been retrieved. For that matter, suppose that the search string entered was only entered as "Smi" instead of "Smith", the invention function would nonetheless have retrieved the same entries as those shown in FIG. 9 (and also those with only "SMI"), provided that those are the only entries having the string "Smith". From the entry shown, the user can pick the particular "Smith" that he wants. For the example given, the user picks the entry of "Smith, John". As shown in FIG. 10, the "John Smith" entry contains, aside from John Smith's name, his address, three different telephone numbers, and some notes in regard to the entry. As further shown at the lower portion of the screen of FIG. 10, the phone numbers are divided into a "Dial Home" phone number, a "Dial Business" phone number and a "Send Fax" phone number, as represented by the three different telephone numbers shown on the main screen." 5:7-35
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., p. 1-2: "When writing a letter, with the click of the mouse you can retrieve an address from AddressMate Plus' built-in database and have it pasted automatically into your letter. . . . AddressMate Plus' powerful database links allow you to import names and addresses from other database applications directly into AddressMate Plus' built-in database. . . . AddressMate Plus performs address correction and verification (including correcting misspelled street and city names), and replaces 5-digit ZIP codes with

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	9-digit ZIP+4 codes for faster, more reliable mail delivery."
U.S. Patent No. 6,424,983 ("Schabes")	"The present invention addresses the foregoing needs by providing a system which corrects both the spelling and grammar of words using finite state machines, such as finite state transducers and finite state automata. For each word in a text sequence, the present invention provides a list of alternative words ranked according to a context of the text sequence, and then uses this list to correct words in the text (either interactively or automatically). The invention has a variety of uses, and is of particular use in the fields of word processing, machine translation, text indexing and retrieval, and optical character recognition, to name a few." 2:34-44 Fig. 3 (Replacement Module 62, Text Replacement 63). Fig. 5 (Character Replacement Module) Figs. 20-23 (Replace Grammatically-Incorrect Words with Grammatically-Correct Words) *See* Interactive Mode, 8:42-10:33 (and described figures) *See* Automatic Mode, 10:34-11:20 (and described figures) *See* Spelling Suggestion Module, 11:21-16:13 (and described figures) *See* Automaton Conversion Module, 16:14-17:60 (and described figures) *See* Contextual Ranking Module, 17:61-19:12 (and described figures) *See* Morphology Module, 19:13-20:49 (and described figures) *See* Construction of Grammar FST, 20:50-22:30 (and described figures) *See* Word Processing, 22:31-62 (and described figures) *See* Machine Translation, 22:63-23:40 (and described figures) *See* Optical Character Recognition, 23:41-24:9 (and described figures) *See* Text Indexing and Retrieval, 24:10-33 (and described figures) *See* Client-Server Configuration, 24:34-25:27 (and described figures)

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	See Client-Server Information Retrieval System, 25:28-52 (and described figures) "A method of correcting a misspelled word in input text, …" *See, e.g.,* 25:61-29:8; 30:27-31:10; 32:19-55. "A method of retrieving text from a source …" *See, e.g.,* 29:9-30:26. "A method of spell-checking input text ..." *See, e.g.,* 31:11-32:18; *see also* Figs. 20-23.
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	"To support the goal of allowing users to record and retrieve information, this paper describes an interactive note-taking system for pen-based computers with two distinctive features. First, it actively predicts what the user is going to write. Second, it automatically constructs a custom, button-box user interface on request. The system is an example of a learning-apprentice software-agent. A machine learning component characterizes the syntax and semantics of the user's information. A performance system uses this learned information to generate completion strings and construct a user interface." Schlimmer 1 at Abstract. "**8. Related Work** Self-customizing software agents have several subjective dimensions on which they can be evaluated and compared: • *Anticipation*—Does the system present alternatives without the user having to request them? • *User interface*—Is the system graphical, or is it command-line oriented? • *User control*—Can the user override or choose to ignore predictive actions? • *Modality*—If the system has a number of working modes, can the user work in any mode without explicitly selecting one of them?

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	Learning update—Is learning incremental, continuous and/or real-time? • *User adjustable*—Can the user tune the system parameters manually? Here we describe related systems that exhibit properties in each of these agent dimensions. Our note taking software utilizes the *anticipation* user interface technique pioneered by Eager (Cypher, 1991). Eager is a non-intrusive system that learns to perform iterative procedures by watching the user. As such, it is a learning apprentice, a software agent, and an example of programming by example or demonstration. Situated within the HyperCard environment, it continuously watches a user's actions. When it detects the second cycle of an iteration, it presents an execute icon for the user's notice. It also visually indicates the anticipated next action by highlighting the appropriate button, menu item, or text selection in green. As the user performs their task, they can verify that Eager has learned the correct procedure by comparing its anticipations to their actions. When the user is confident enough, they can click on the execution icon, and Eager will run the iterative procedure to completion. Eager is highly anticipatory, uses a graphical interface, is non-obtrusive, non-modal, and learns in real-time, but is not user adjustable." • Schlimmer 1 at 83-85.
U.S. Patent No. 6,189,026 ("Birrell")	"Embedded Links When displaying retrieved messages, the system 200 heuristically locates text strings which have the syntax of e-mail addresses. If the user click on one of these addresses, then the system will display a composition window, described below, so that the user can easily generate a reply message to the selected e-mail address(es). Similarly, when displaying retrieved messages, the system 200 heuristically locates text strings that have the syntax of an URL, and makes the string a hot-link.

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	When the user clicks on the hot-link, the URL is passed to the browser, which will retrieve the contents over the network, and process the content in the normal manner. The system also attempts to detect components in messages, such as explicitly "attached" or implicitly "embedded" files. The files can be in any number of possible formats. The content of these files are displayed by the browser 115. The specific display actions used will depend on how the browser is configured to respond to different component file formats. For some file formats, for example Graphics Interface Format (GIF) and Joint Photographic Experts Group (JPEG) the component can directly be displayed. It is also possible to configure the browser with a "helper" applet to "display" attached files having specific format types as "icons." For example, the message may be in the form of an audio message, in which case, the message needs to be "said," and not displayed. For some message formats, the browser may store some of the content in file system of the client computer." 12:15-34, 59-65. *See, e.g.,* 1:65-2:19; 5:54-62; 8:7-56; 9:40-:10-20; 14:41-49.
WO 98/24031 ("Treider")	"The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference user is acquainted; ranking a level of acquaintance with each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users; and reporting matches in the compared accessible information. In the preferred embodiment, information is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a

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	reference user via a wireless device, such as any form of cellular telephones, beepers, palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24
CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM 0-89791-881-9/97/10 ("CyberDesk Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	See, e.g., CyberDesk Technical Report at 1, col. 2—2, col. 1 (including figures): "The user walks to a grocery store, and the system asks if he wants to see his shopping list, get more information about the grocery store, or get directions to his house. The user chooses the grocery list and goes shopping. He walks to a friend's house but nobody is home. The system asks if he wants to check his friend's calendar, contact him via e-mail or phone, or get directions to go home. The user chooses the first option and the system tells him that his friend is at work. So, he chooses the second option, sends his friend an email saying that he stopped by, and starts walking home. On the way home, the system notifies him that he has received an e-mail from his friend. The user reads the e-mail (see Figure 1 below) which has information on a new book written by his favourite author. The e-mail contains a Web site address and an e-mail address for the author. The user highlights the e-mail address (a) and the system gives him some suggestions (b) on what he can do: search for more information on the author, put the author's contact information in the contact manager, call the author, or send an e-mail to the author." See, e.g., CyberDesk Summary at 75 (including fig. 1): "The user receives an e-mail message (see Figure 1) with the name Andy Wood in it. She highlights the name with her mouse (a) and is shown a list of suggested actions she can perform (b). This list includes searching for the selected text using the AltaVista web search service, looking up a phone number for the selected name using the Switchboard web service, or looking up the selected name in the desktop contact manager. The user chooses the second option and retrieves Andy's phone number and mailing address from the web (c). She wants to update her contact information for Andy, so she chooses the last option

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	which loads Andy Wood's contact information in the contact manager (d)."
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65. "…and replacing the original information by issuing a predetermined third communication to the application program wherein the third communication includes user input commands that cause the modified information to be stored in place of the original information." 3:5-10. "The communications that demand action on the part of WAYS/EXWAYS are those where the user is

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	invoking the added functionality provided by the invention." 14:30-34. *See also* 16:13-16.
Horodeck	"The system is adapted to retrieve the stored kanji symbols and insert them into a text on instructions from the microprocessor, by responding to hiragana input by the operator, comparing that input to the contents of the dictionary, and inserting the kanji identified by the hiragana into output text." 7:24-30.
Gehani	FIG. 6 is a flow diagram illustrating the process steps involved in accessing weather information via the display 50 of PIM 12. Step 90 indicates that the user clicks the WEATHER button 64 in the display 50 to request weather information. The address A associated with the contact name in field 52 is then sent to the GeoServer 20. In step 92, the GeoServer 20 uses the address A to retrieve weather information for an area or region including address A. The resulting information is then sent back to the PIM 12 via the communication path 18, and is displayed to the user as shown in step 94. The weather information may include current weather conditions as well as a forecast for an area including address A. The area may be based on city, state, zip code or other suitable information in the address A. 5:54-67.
Microsoft Outlook 97	*See* screenshots in claim charts submitted herewith and with the invalidity contentions.
U.S. Patent App. Pub. No. 2001/0047263 ("Smith")	The call function 800 will be described with respect to FIG. 8. First, the system evaluates the name entered by the user (step 805). To evaluate the name, the system will look to a directory that includes a list of names and numbers and other identifying information . . . The directory may be reviewed and edited using known data processing systems." ¶ 0065.

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Eudora	"The spelling checker starts at the beginning of the document. The subject of the message and the message body are checked, ignoring the parts of the body that are identified as quoted text. . . . If a misspelled, unknown, or repeated word is found, the Check Spelling dialog is displayed with the word listed in the **Questioned word** field." Eudora Mac Manual at 43.

Exhibit U - Table 18: responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program

Numerous claims contain the element "responding to a user selection by inserting a second information into the document, the second information associated with the first information from a second application program." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would save the user the time and effort required to separately search for and type in or copy in the second information.

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Reference	Exemplary Disclosures[18]
Knowledge of One of Ordinary Skill in the Art	Inserting information into a document was well known to those of ordinary skill in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that it inserted information that had already been identified into the document. Such would simply be another obvious operation of entering related information into the document.
U.S. Pat. No. 5,799,302 ("Johnson")	"Turning to FIG. 3H, Path G enters at step 226. Step 226 is a query which asks if a selected duplicate record is to have any blank fields filled in with data to be selected from other duplicate records within its duplicate set. If the response to the query is "NO," then the system advances directly to step 232 and displays the Duplicate Record List. Once the Duplicate Record List is displayed, the system deletes the duplicate records from the original list and the method advances to step 234 where the system operator exits the Duplicate Detection program. If, however, the response to the query at step 226 is "YES," then the system displays, at step 228, the duplicate address records of each set in a sequence order (sequence can be alphabetical, numerical, chronological, etc.). The method advances to step 230 where the system brings forward into any blank fields of the first record of the set, from the next subsequent record, any data found in a field that corresponds to the blank field of the first record. The newly "created" first record is retained and the system displays the list of duplicate addresses at step 232. At step 234, the system operator exits the Duplicate Detection program while the system saves all duplicate detection information to the Mail List Setup file at step 236." 6:63-7:17. *See also*, FIG. 3H.
U.S. Patent No. 6,085,206 ("Domini")	"Still referring to FIG. 3, the Change button 340 is positioned below the Add button 335 in the combined spelling and grammar dialog box 300. If the user selects

[18] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	the Change button 340, the misspelled word 315 will be replaced with the word that has been selected by the user from the suggestions 320 in the suggestion list box 317. However, in the preferred application program, if the user has made changes to the sentence 307 in the rich text edit control 310, then selecting the Change button will incorporate these changes into the document. For example, in FIG. 3, if the user has selected the suggestion "engine" from the suggestion list box 317 and then selects the Change button, without editing the sentence in the rich text edit control field, then the misspelled word "engin" will be replaced with the suggestion "engine". However, again referring to FIG. 3, if the user has edited the sentence 307 in the rich text edit control field, then selecting the Change button 340 will incorporate these changes into the document." 12:61-13:9.
U.S. Patent No. 6,377,965 ("Hachamovitch")	"Suggested word completions, which may change as the user types a partial data entry, are displayed in a non-disruptive manner. Specifically, a word suggestion field appears in a word completion frame above the partial data entry such that the suggestion and the partial data entry are vertically aligned. This makes it easy for the user to compare the suggestion to the partial data entry. If the suggestion is too long to display directly above the partial data entry, it is truncated with ellipses (i.e., . . .) so that the suggestion and the partial data entry are still displayed in vertical alignment. The user accepts a suggestion using traditional acceptance keystrokes, such as the "tab" key or the "enter" key." 6:61-7:5.
User Manual for AddressMate and AddressMate Plus, AddressMate Plus for Windows User's Manual ("AddressMate Plus")	See, e.g., p. 1-2: "When writing a letter, with the click of the mouse you can retrieve an address from AddressMate Plus' built-in database and have it pasted automatically into your letter. . . . AddressMate Plus' powerful database links allow you to import names and addresses from other database applications directly into AddressMate Plus' built-in database. . . . AddressMate Plus performs address correction and verification (including correcting misspelled street and city names), and replaces 5-digit ZIP codes with 9-digit ZIP+4 codes for faster, more reliable mail delivery."

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	See, e.g., pp. 6-43—6-47: "Retrieving an Address. You can retrieve an address from the AddressMate Plus database and insert it in a document. You can retrieve the address automatically or manually. If you know the name of the address you want to receive, you can type part of the address and then tell AddressMate Plus to search the current database and copy the specified address into the letter. If you are unsure of the spelling in an address or which address you want, you can use the Address Book feature to quickly switch to the AddressMate Plus database and select the address you want from the Database List."
U.S. Patent No. 6,424,983 ("Schabes")	"The present invention addresses the foregoing needs by providing a system which corrects both the spelling and grammar of words using finite state machines, such as finite state transducers and finite state automata. For each word in a text sequence, the present invention provides a list of alternative words ranked according to a context of the text sequence, and then uses this list to correct words in the text (either interactively or automatically). The invention has a variety of uses, and is of particular use in the fields of word processing, machine translation, text indexing and retrieval, and optical character recognition, to name a few." 2:34-44 Fig. 3 (Replacement Module 62, Text Replacement 63). Fig. 5 (Character Replacement Module) Figs. 20-23 (Replace Grammatically-Incorrect Words with Grammatically-Correct Words) *See* Interactive Mode, 8:42-10:33 (and described figures) *See* Automatic Mode, 10:34-11:20 (and described figures) *See* Spelling Suggestion Module, 11:21-16:13 (and described figures) *See* Automaton Conversion Module, 16:14-17:60 (and described figures) *See* Contextual Ranking Module, 17:61-19:12 (and described figures) *See* Morphology Module, 19:13-20:49 (and described figures) *See* Construction of Grammar FST, 20:50-22:30 (and described figures)

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	See Word Processing, 22:31-62 (and described figures) *See* Machine Translation, 22:63-23:40 (and described figures) *See* Optical Character Recognition, 23:41-24:9 (and described figures) *See* Text Indexing and Retrieval, 24:10-33 (and described figures) *See* Client-Server Configuration, 24:34-25:27 (and described figures) *See* Client-Server Information Retrieval System, 25:28-52 (and described figures) "A method of correcting a misspelled word in input text, …" *See, e.g.,* 25:61-29:8; 30:27-31:10; 32:19-55. "A method of retrieving text from a source …" *See, e.g.,* 29:9-30:26. "A method of spell-checking input text ..." *See, e.g.,* 31:11-32:18; *see also* Figs. 20-23.
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	"To support the goal of allowing users to record and retrieve information, this paper describes an interactive note-taking system for pen-based computers with two distinctive features. First, it actively predicts what the user is going to write. Second, it automatically constructs a custom, button-box user interface on request. The system is an example of a learning-apprentice software-agent. A machine learning component characterizes the syntax and semantics of the user's information. A performance system uses this learned information to generate completion strings and construct a user interface." Schlimmer 1 at Abstract. "**8. Related Work** Self-customizing software agents have several subjective dimensions on which they can be evaluated and compared:

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	• *Anticipation*—Does the system present alternatives without the user having to request them? • *User interface*—Is the system graphical, or is it command-line oriented? • *User control*—Can the user override or choose to ignore predictive actions? • *Modality*—If the system has a number of working modes, can the user work in any mode without explicitly selecting one of them? • *Learning update*—Is learning incremental, continuous and/or real-time? • *User adjustable*—Can the user tune the system parameters manually? Here we describe related systems that exhibit properties in each of these agent dimensions. Our note taking software utilizes the *anticipation* user interface technique pioneered by Eager (Cypher, 1991). Eager is a non-intrusive system that learns to perform iterative procedures by watching the user. As such, it is a learning apprentice, a software agent, and an example of programming by example or demonstration. Situated within the HyperCard environment, it continuously watches a user's actions. When it detects the second cycle of an iteration, it presents an execute icon for the user's notice. It also visually indicates the anticipated next action by highlighting the appropriate button, menu item, or text selection in green. As the user performs their task, they can verify that Eager has learned the correct procedure by comparing its anticipations to their actions. When the user is confident enough, they can click on the execution icon, and Eager will run the iterative procedure to completion. Eager is highly anticipatory, uses a graphical interface, is non-obtrusive, non-modal, and learns in real-time, but is not user adjustable." Schlimmer 1 at 83-85.
U.S. Patent No. 6,189,026 ("Birrell")	"Embedded Links When displaying retrieved messages, the system 200 heuristically locates text strings which have the syntax

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	of e-mail addresses. If the user click on one of these addresses, then the system will display a composition window, described below, so that the user can easily generate a reply message to the selected e-mail address(es). Similarly, when displaying retrieved messages, the system 200 heuristically locates text strings that have the syntax of an URL, and makes the string a hot-link. When the user clicks on the hot-link, the URL is passed to the browser, which will retrieve the contents over the network, and process the content in the normal manner. The system also attempts to detect components in messages, such as explicitly "attached" or implicitly "embedded" files. The files can be in any number of possible formats. The content of these files are displayed by the browser 115. The specific display actions used will depend on how the browser is configured to respond to different component file formats. For some file formats, for example Graphics Interface Format (GIF) and Joint Photographic Experts Group (JPEG) the component can directly be displayed. It is also possible to configure the browser with a "helper" applet to "display" attached files having specific format types as "icons." For example, the message may be in the form of an audio message, in which case, the message needs to be "said," and not displayed. For some message formats, the browser may store some of the content in file system of the client computer." 12:15-34, 59-65. *See, e.g.,* 1:65-2:19; 5:54-62; 8:7-56; 9:40-:10-20; 14:41-49.
WO 98/24031 ("Treider")	"The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference user is acquainted; ranking a level of acquaintance with each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users; and reporting matches in the compared accessible information. In the preferred embodiment, information

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	is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a reference user via a wireless device, such as any form of cellular telephones, beepers, palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-

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	ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65. "…and replacing the original information by issuing a predetermined third communication to the application program wherein the third communication includes user input commands that cause the modified information to be stored in place of the original information." 3:5-10. "The communications that demand action on the part of WAYS/EXWAYS are those where the user is invoking the added functionality provided by the invention." 14:30-34. *See also* 16:13-16.
Horodeck	"The system is adapted to retrieve the stored kanji symbols and insert them into a text on instructions from the microprocessor, by responding to hiragana input by the operator, comparing that input to the contents of the dictionary, and inserting the kanji identified by the hiragana into output text." 7:24-30.
Microsoft Outlook 97	*See* screenshots in claim charts submitted herewith and with the invalidity contentions.
Eudora	"Replace with Replace the questioned word with the word in this field. You can select a word from the Dictionary/Guesses field, or type a new one." Eudora Mac Manual at 44.

Exhibit U - Table 19: searching, using the second application program, for the second information associated with the first information

Numerous claims contain the element "searching, using the second application program, for the second information associated with the first information." There is nothing novel or

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nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would save the user the time and effort required to separately search for the second information using a different application program.

Additional motivation is found in Nardi, et al., *Collaborative Programmable Intelligent Agents* ("Nardi"), where it states that an application program can use "external applications as information repositories and as end-user tools." Nardi at 99.

Reference	**Exemplary Disclosures**[19]
Knowledge of One of Ordinary Skill in the Art	Searching for [second] information in an information source, such as an address book was well known in the art and well within the knowledge of those of ordinary skill in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that it searched for second information using a second application program, such as address book software. As a matter of common knowledge of POSITA, it would have been obvious for

[19] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	the address book application, for example, to be initialized in order to run and search for the name, to find other information, such as a phone number or email address, associated with that person.
U.S. Patent No. 5,799,302 ("Johnson")	"Once a proper name has been determined, the method matches a first record from the list with a second record from the list by comparing the fields of the first record with the fields of at least one other record; the comparison is based on a set of pre-selected criteria. The matching sequence determines a duplicate set, wherein the duplicate set is comprised of at least two records with fields that match as determined by the set of pre- selected criteria." 3:9-16.
Pensoft Perspective	The Pensoft Perspective Associate application, for example, searches for second information associated with the first contact information. See, e.g., Getting Started With Your EO Personal Communicator ("Getting Started") at 59-62.
U.S. Patent 5,649,222 ("Mogilevsky")	"A method for checking spelling in a word processor integrates spell checking with the editing process. During idle periods of the word processor, the spell checker scans an open document, and maintains a table of spelling status data, including codes to identify checked, unchecked, or edited ranges of characters. Spelling errors can be highlighted during an editing session. Spelling status data is maintained with the document so that spell checked portions of the document do not need to be re-checked." Abstract. *See, e.g.*, Figures 3, 6; 2:1-17; 4:24-33; 4:43-64; 5:3-6; 5:39-6:11; 6:29-45; 6:54-59; 7:1-3; 7:36-49; 10:14-25; 10:62-67; 11:27-33; 11:48-12:9.
U.S. Patent No. 6,493,006 ("Gourdol")	"The commands which are displayed in the contextual menu are not limited to those provided by an application associated with the selected item. Other commands, such as system level commands, for help items or other types of user assistance features, can be added to the menu before it is displayed to the user. In addition, plug-in

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	modules can be employed to provide other commands associated with the selected item." Abstract *See, e.g.*, Figures 5-9; 6:59-7:5; 7:6-24; 7:63-8:54; 9:46-65.
U.S. Pat. No. 6,026,233 ("Shulman")	"From the tokens of the parsed programming language string, the system then determines the type of programming language statement that exists, and any information that might be displayed about the immediate programming language statement." 5:50-55. *See, e.g.*, Figures 3-9; Abstract; 4:66-5:18; 5:37-46; 7:22-28; 8:3-7; 8:28-32; 11:57-60; 18:6-11; 19:47-51.
Claris Emailer: Getting Started (version 2.0)	"You may find specific addresses in the Address Book by typing a few characters in the Filter text box. Claris Emailer finds only those addresses that contain the specified characters in the recipient's name, description, or address fields." 3-16. *See, e.g.*, 3-12; 3-13; 3-16; Quick Reference, back cover.
Apple Newton MessagePad 2000 handheld device ("Newton")	"The MessagePad understands the following requests and their synonyms. … ● Call to dial a telephone number. Synonyms: phone, ring, dial ***Call Bob at home*** looks in the Name File to find Bob's home phone number, then puts it in the call slip. ● Fax to fax the item on the screen. Synonyms: none ***Fax Anderson*** opens a fax slip with the name Anderson and Anderson's fax number filled in. …" Newton Manual, pp. 196-97. *See, e.g.*, Newton Guide at pp. 18-4, 18-8, 18-10; photographs embedded in Newton chart; Newton device available for inspection at DLA Piper US LLP.

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U.S. Patent No. 6,085,206 ("Domini")	"At step 715, the spell checker program module verifies the accuracy of the spelling of the word. A spell checker program includes a standard dictionary with a list of words that are found in a standard dictionary. In addition, spell checker program modules typically include custom dictionaries. These custom dictionaries include terms entered by a user of the spell checker program module, such as specialized terms, acronyms, abbreviations, and any other terms entered by the user. As is well-known in the art, a spell checker program module checks the spelling of a word by comparing the word to the list of words in the standard dictionary and custom dictionaries. If the word does not correspond to one of the words in the standard dictionary or custom dictionaries, then the spell checker program module flags the word as a word that is possibly misspelled. In addition to verifying the spelling of the word at step 715, most spell checker program modules also check for inaccuracies in the word, such as a word that has been repeated or a word with improper capitalization." 16:66-17:37.
U.S. Patent No. 5,859,636 ("Pandit")	"Subroutine d (34) of Library A identifies the particular number of operations which can be performed on the date text and correlates to the number of operations implemented by subroutine b. Each operation is identified by a number between and including 1 and the value returned by subroutine d. Given a number identifying an operation, subroutine e (35) of Library A identifies the name of the operation. Examples of the names of the operations which can be run on date text include Schedule, To-Do List, Anniversary, etc. Subroutine e provides the names of the operations as they appear in pull-down menu 18. Given a number identifying an operation, subroutine b (32) of Library A performs the identified operation on the recognized text data. For example, subroutine b can call scheduling programs, writable calendar databases, writable to-do list databases, anniversary book databases and any other number of programs or operations relevant to dates. A person of ordinary skill will understand that any additional libraries, such as Libraries B and C shown in FIG. 3 will have subroutines generally related in

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	function to the subroutines of Library A for implementing the invention with respect to other classes of text. For example, the subroutines of Library B preferably are directed to implementing the invention with respect to EMail addresses in a document and the subroutines of Library C are directed to implementing the invention with respect to telephone and telefax numbers, as shown in FIGS. 1b-1f. Other libraries may be added to, for example, operate on URLs, nouns, verbs, names street addresses, etc." 4:1-31
U.S. Patent No. 5,483,352 ("Fukuyama")	"When the telephone connection request and the name of the sender are input to the telephone connection request receiving part 24, the remote telephone number reading part 25 is activated to retrieve the telephone number of the sender of the electronic mail from the electronic mail ID code to telephone numbers table storing memory 31 in accordance with the name of the sender at step 902. For example, the telephone number "123-4567" is indexed to the ID code "bc@flab. ABC. Co. jp". Then the own (i.e. receiver) telephone number reading part 26 is activated to read the own (i.e. receiver) telephone number from the own (i.e. receiver) telephone number storing memory 27 at step 605. The order of steps 902 and 605 can be reversed. When the telephone numbers of the sender and the receiver are obtained, the telephone connection request receiving part 24 outputs a telephone connection request signal including the telephone numbers of the sender of the electronic mail and the own telephone number to the PBX interface controller 28 at step 606. The PBX interface controller 28 controls the PBX interface 29 to connect the own telephone to the telephone of the sender of the mail. Then, the own telephone 6 and the telephone of the sender of the electronic mail are connected by PBX at step 607. In this way the telephone 6 of the receiver of the electronic mail and the telephone 51, 61, or 71 are automatically connected by the computer 20." 8:41-67
User Manual for AddressMate and AddressMate Plus, AddressMate Plus	See, e.g., pp. 3-18—3-19: "You can use AddressMate Plus' database mode to add, delete, find, update,

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for Windows User's Manual ("AddressMate Plus")	correct, and print records. . . . To find a particular address with the mouse or keyboard, you can search for an address using the Find button or the hot search feature. You can use hot search to easily retrieve addresses by simply activating the list of addresses and typing the name, company, or any other known part of the address. As you type, AddressMate plus Jumps to the record that contains the text you type. . . . For greater flexibility, you can search all the fields in the reords. . . . AddressMate Plus also allows you to find a range of addresses by using the Find button. . . . Each AddressMate Plus data file can contain up to 8000 entries."
Nardi, et al., *Collaborative Programmable Intelligent Agents* ("Nardi")	Nardi's Figure 4 discloses searching, using NowContact, for the second information (e.g., the name of a person associated with the telephone number), in one example, information to complete a letter. "**tell** application "Now Contact 3.5" --find the person with the supplied e-mail address **set** thePerson **to the first** person **whose** (work phone **is** phoneNumber) --get the address information for this person **set** firstAndLastName **to** (**the** first name of thePerson) & " " & (**the** last name of thePerson) **set** theAddress **to** firstAndLastName & return & (**the** company **of** thePerson) & return & (**the** work address of thePerson) & return & (**the** work city **of** thePerson) & "," & (**the** work state of **the** Person) & " " & (the work zip of thePerson) & return & return **end tell"** Fig. 4.
U.S. Patent No. 6,424,983 ("Schabes")	"According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search word, corrects a spelling of the search word to produce a corrected search word, and retrieves

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	text from the source that includes the corrected search word." 4:11-15. "According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search phrase comprised of a plurality of words, at least one of the plurality of words being an incorrect word, and replaces the incorrect word in the search phrase with a corrected word in order to produce a corrected search phrase. Text is then retrieved from the source based on the corrected search phrase." 4:16-23. "According to another aspect, the present invention is a system for retrieving text from a source. The system inputs a search phrase comprised of a plurality of words, at least one of the plurality of words being a grammatically-incorrect word, replaces the grammatically-incorrect word in the search phrase with a grammatically-correct word in order to produce a corrected search phrase, and retrieves text from the source based on the corrected search phrase." 5:58-65. "FIG. 25 shows the multi-threaded client-server spelling correction system described above used in a text indexing and retrieval context (e.g., in conjunction with a WWW search engine, database searching software, etc.). In this regard, in text indexing and retrieving systems, textual queries are sent to a database, and information related to the textual queries is retrieved from the database. Often, however, queries are misspelled and, as a result, correct information cannot be retrieved from the database. The system shown in FIG. 25 addresses this problem. More specifically, in FIG. 25, as was the case above with respect to FIG. 24, multiple queries are input at the same time to the server (i.e., PC 4). As was the case in FIG. 24, lexicon memory 750 is shared among all of program threads 151, 152 and 153. In addition, as before, each program thread contains its own spelling memory. In operation, multiple queries (i.e., QUERY1164, QUERY2165 . . . QUERYn 166) are input to the client-server spelling correction system of the present invention before each query is actually used to retrieve information from database 169. The present

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	invention then corrects each query in the manner described above with respect to FIGS. 3, 4 and in particular, FIG. 5. Each corrected query is then used to retrieve information from database 169." 25:29-52. *See* Text Indexing and Retrieval, 24:10-33 (and described figures) *See* Client-Server Information Retrieval System, 25:28-52 (and described figures)
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	"An optimal solution would identify the state requiring a minimum number of insertions, omissions, and replacements necessary to parse the new sequence. An efficient, heuristic approximation does a greedy search using a special marker. Each time the marked state in the FSM has a transition for the next token written by the user, the marker is moved forward, and a prediction is generated from that state. When there is no transition for the next token, a greedy search is conducted for some state (including the marked one and those reachable from it) that has a transition for some token (including the next one and those following). If such a state is found, the marker is moved forward to that state, tokens for the transitions of skipped states are assumed omitted, and novel tokens are assumed inserted. If no state past the marker has a transition for any of the remaining tokens, the remaining tokens are assumed to be replacements for the same number of the most likely transitions; the marker is not moved. If the user writes a subsequent token for which some state has a transition, the marker is moved as described above, and the syntax of the user's note is realigned with the learned syntax. Continuing with the simple PowerBook example, the marker is moved to State 1 of the FSM in Figure 7 because the initial state had a transition for the first token: NULL. Because State 1 doesn't have a transition for the next token "12288", a greedy search is conducted to find a nearby state that accepts either "12288", "K", or "PB". The state just before State 2 accepts "K", so the marker is moved to that state. Another greedy search is started to find a state that accepts "PB". Because one cannot be found, the

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	heuristic parsing assumes that it should skip to the next transition. In this case the one labeled "PowerBook". Consequently, the system generates a prediction from State 2 to prompt the user." Schlimmer 1 at 71-72; *see also* Section 3 at 65-71; Figs. 4-9; Tables 1-2.
U.S. Patent No. 6,189,026 ("Birrell")	"Embedded Links When displaying retrieved messages, the system 200 heuristically locates text strings which have the syntax of e-mail addresses. If the user click on one of these addresses, then the system will display a composition window, described below, so that the user can easily generate a reply message to the selected e-mail address(es). Similarly, when displaying retrieved messages, the system 200 heuristically locates text strings that have the syntax of an URL, and makes the string a hot-link. When the user clicks on the hot-link, the URL is passed to the browser, which will retrieve the contents over the network, and process the content in the normal manner. The system also attempts to detect components in messages, such as explicitly "attached" or implicitly "embedded" files. The files can be in any number of possible formats. The content of these files are displayed by the browser 115. The specific display actions used will depend on how the browser is configured to respond to different component file formats. For some file formats, for example Graphics Interface Format (GIF) and Joint Photographic Experts Group (JPEG) the component can directly be displayed. It is also possible to configure the browser with a "helper" applet to "display" attached files having specific format types as "icons." For example, the message may be in the form of an audio message, in which case, the message needs to be "said," and not displayed. For some message formats, the browser may store some of the content in file system of the client computer." 12:15-34, 59-65.

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	See, e.g., 1:65-2:19; 5:54-62; 8:7-56; 9:40-:10-20; 14:41-49.
WO 98/24031 ("Treider")	"The present invention is of an apparatus for and method of storing, comparing, and accessing information for a plurality of users comprising: collecting a reference user's information including a list of other users with whom the reference user is acquainted; ranking a level of acquaintance with each user of the list of users; restricting access to information based on level of acquaintance between users; comparing accessible information between users; and reporting matches in the compared accessible information. In the preferred embodiment, information is collected on both skills possessed and desired and skills desired by the reference user are compared against skills possessed by other users and/or skills possessed by the reference user are compared against skills desired by other users. Comparing may include lists of direct acquaintances of users and/or lists of acquaintances of direct acquaintances of users. Users may be informed whenever information has been matched and a reference user receives report including such users. Comparing and reporting may be performed for a reference user via a wireless device, such as any form of cellular telephones, beepers, palmtops, laptops, or personal information managers." 2:7-19. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24
CyberDesk as known, used, and described in (1) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, Technical Report, GVU Center, Georgia Institute of Technology, GIT-GVU-97-10, June 1997 ("CyberDesk Technical Report"); (2) Dey, Anind et al., CyberDesk: A Framework for Providing Self-Integrating Ubiquitous Software Services, UIST 97, ACM 0-89791-881-9/97/10 ("CyberDesk	See, e.g., CyberDesk Summary at 75 (including fig. 1): "The user receives an e-mail message (see Figure 1) with the name Andy Wood in it. She highlights the name with her mouse (a) and is shown a list of suggested actions she can perform (b). This list includes searching for the selected text using the AltaVista web search service, looking up a phone number for the selected name using the Switchboard web service, or looking up the selected name in the desktop contact manager. The user chooses the second option and retrieves Andy's phone number and mailing address from the web (c). She wants to update her contact information for Andy, so she chooses the last option

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Summary"); and/or (3) Wood, Andrew et al., CyberDesk: Automated Integration of Desktop and Network Services, CHI 97, Atlanta GA, Mar. 22-27, 1997, ACM 0-89791-802-9/97/03 ("CyberDesk Technical Note")	which loads Andy Wood's contact information in the contact manager (d)."
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word- by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends signals to the Compton's program to display the information about Chicago on the screen." 13:57-65.
Miller	*See* FIG. 4 at 420 ("write letter" and "retrieve #"); FIG. 4 at 410 ("write letter" and "[p]ut in electronic calendar"); 4:58-6:18.

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Gehani	"The display also includes a number of buttons for requesting different types of geographic information, such as maps, directions, weather and yellow pages information. When the user clicks on one of the buttons, the personal information manager utilizes an address or other location identifier associated with the contact name to format a request to a geographic information server. The server uses the location identifier to retrieve the appropriate geographic information for that location, and sends the information to the personal information manager for display." Abstract.
Pensoft	"The Associate is a part of Perspective that automatically establishes links by recognizing the names of people, companies, etc. you write. It looks within the Profile Book to see if you have previously entered the name, and creates the link." p. 11.
Luciw '735	"The process calls for example for the filling in of a plan template and the identification of any missing preconditions, as set forth at step 292 of FIG. 13. Next, a step 293 resolves missing preconditions to the extent possible." 15:9-13. "In the earlier example of FIG. 6c in which it was decided that Isaac Asimov was the desired ISAAC, the phone information in window 170 had not yet been entered. This information may be available and can be accessed according to the process of FIG. 8a. The process starts at 200 and immediately checks the data base for any linked smart fields as indicated at 202. If there are applicable smart fields which contain the desired phone number information, this data is obtained from the corresponding linked field types as suggested at 203. Then, as suggested at 206, the data obtained is entered into the applicable smart field of the window 170 under operation." 12:43-54.

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	"For example, if it was desired to retrieve all of the frames that were colored red, a typical frame accessor language query would be in the form of: (QUERY (MEMBER-VALUE COLOR ?XRED) and would return a list of frames that have a COLOR slot whose value is red." 11:33-37.
International Patent No. WO 998037474 ("Allen")	"Referring now to Figure 8, a block diagram illustrates internal components of parser 300 and its relationship to the user interface 200, lexical analysis tool 400, and object database 850. Parser 300 includes keyword and date/time parser 810 which receives the input natural language keynote from user interface 200. The keyword and date/time parser 810 includes a keyword parser and a date/time parser. The keyword parser of keyword and date/ time parser 810 is responsible for parsing keywords from the input keynote. Keywords, can be linked to a variety of different object types including lists, project, contact, document enclosure objects and even dates (e.g., "Dave's Birthday" = 6/25). Each of these different types of objects are maintained in parser 300. List object 820 is used to maintain user defined list objects. Project object 822 is used to maintain user defined project objects. Contact object 824 is used to maintain contact name objects. Enclosure object 826 is used to maintain enclosure or document identifier objects. Other object types 828 may similarly be provided. For each type of object, the keyword parser of keyword and date/ time parser 810 links objects 820 through 828 to corresponding keywords of the input keynote in a manner described in more detail below." Pages 21-22. *See also* Figure 8.
Selection Recognition Agent	"The SRA currently uses simple lookup tables, hand-generated parsers, and parsers generated using GNU Flex and Bison to classify text strings. The strength of this approach is that the SRA's recognition processes are fast and predictable." (SRA: Instant Access, p. 48)

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	• The SRA can recognize electronic mail addresses. The SRA provides an option to start the email program of the user's choice. The user has the option to use the recognized email address in a canonical format as a command line parameter. The phone number also is placed on the clipboard. • In addition, the SRA provides an option to retrieve the definition of any single word. It also provides an option to perform web searches on any text." *See also* images included in the charts submitted herewith and with the invalidity contentions.
Eudora	"The spelling checker starts at the beginning of the document. The subject of the message and the message body are checked, ignoring the parts of the body that are identified as quoted text." Eudora Mac Manual at 43.
Hachamovitch '965	"The word completion utility identifies a partial data entry in an unstructured portion of the data file, such as the body of a word processing document or e-mail message. The word completion utility selects a suggestion list including a plurality of associated name-completion pairs, each name-completion pair including a name entry and a completion entry. The word completion utility identifies a particular one of the name entries in the suggestion list that corresponds to the partial data entry. The word completion utility then applies prediction criteria to the particular name entry, the particular completion entry, and the partial data entry." Hachamovitch at 4:58-5:1.

Exhibit U - Table 20: the operation comprises displaying the second information

Numerous claims contain the element "the operation comprises displaying the second information." There is nothing novel or nonobvious about this element. To the extent a primary

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or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

One of ordinary skill in the art would have been motivated to make the modifications and/or combinations described because it would result in a useful and efficient application for users because it would allow the user to display already-retrieved information.

Additional motivation is found in Nardi, et al., *Collaborative Programmable Intelligent Agents* ("Nardi"), where it states: "[t]he ability to work within existing documents [which] provides immediate user value and leverages the data the user is already using." Nardi, p. 101.

Reference	**Exemplary Disclosures**[20]
Knowledge of One of Ordinary Skill in the Art	Displaying searched-for information would have been obvious to one of ordinary skill in the art. To the extent that a primary or obviousness reference is missing this element, it would have been obvious for one of ordinary skill in the art to modify the reference so that it displayed searched-for information. It would have been obvious for an application, for example, to search for

[20] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	information such as a phone number and then display it so that it could be used by the user.
Nardi, et al., Collaborative Programmable Intelligent Agents	"Figure 4. An action script, demonstrating the generality of Apple Data Detectors' use of a scripting language and external applications as information repositories and as end-user tools. This script can be activated when the system detects a telephone number. It then generates word processor letterhead addressed to the person possessing that number, with appropriate date and salutation information. This script uses two applications: First, a "personal information manager" (Now Contact 3.5) is opened and used as a database. Then the script opens an empty word processor document (via Corel WordPerfect) and writes the date, name, address, and salutation into it, leaving the user ready to write the letter." p.99.
U.S. Patent No. 6,189,026 ("Birrell")	"Embedded Links When displaying retrieved messages, the system 200 heuristically locates text strings which have the syntax of e-mail addresses. If the user click on one of these addresses, then the system will display a composition window, described below, so that the user can easily generate a reply message to the selected e-mail address(es). Similarly, when displaying retrieved messages, the system 200 heuristically locates text strings that have the syntax of an URL, and makes the string a hot-link. When the user clicks on the hot-link, the URL is passed to the browser, which will retrieve the contents over the network, and process the content in the normal manner. The system also attempts to detect components in messages, such as explicitly "attached" or implicitly "embedded" files. The files can be in any number of possible formats. The content of these files are displayed by the browser 115. The specific display actions used will depend on how the browser is configured to respond to different component file formats.

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	For some file formats, for example Graphics Interface Format (GIF) and Joint Photographic Experts Group (JPEG) the component can directly be displayed. It is also possible to configure the browser with a "helper" applet to "display" attached files having specific format types as "icons." For example, the message may be in the form of an audio message, in which case, the message needs to be "said," and not displayed. For some message formats, the browser may store some of the content in file system of the client computer." 12:15-34, 59-65. *See, e.g.,* 1:65-2:19; 5:54-62; 8:7-56; 9:40-:10-20; 14:41-49.
WO 98/24031 ("Treider")	"The present invention utilizes the theory of "six degrees of separation" which surmises that there are, at most, six intermediary acquaintances between any two people in the world. One aspect of the invention permits users to exchange acquaintance lists and tree structures. The invention compares, discovers, and highlights the users' mutual acquaintances and precisely illustrates the chain of acquaintances which connect the users to each other, the immediacy and the relative strengths of those links. Additionally, information the users have voluntarily entered into various fields will also be exchanged, compared, and highlighted. This interfacing builds matrices of networked information among the users. This information space that the invention creates is constantly updated dynamically utilizing technologies such as the World Wide Web and wireless technology." 4:25-5:3. *See e.g.,* Figs. 2, 4, 5, 8, 14-16, 19, 21, 23, 24
"Software Agents: Completing Patterns and Constructing User Interfaces" (Schlimmer 1)	"This document describes an interactive note-taking software system for computers with pen-based input devices. Our software has two distinctive features: first, it actively predicts what the user is going to write and provides a default that the user may select; second, the software automatically constructs a graphical interface at the user's request. The purpose of these features is to speed up information entry and reduce user errors.

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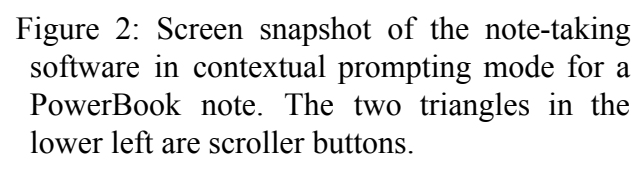
	Viewed in a larger context, the interactive note-taking system is a type of self-customizing software." Schlimmer 1 at 61.  Figure 2: Screen snapshot of the note-taking software in contextual prompting mode for a PowerBook note. The two triangles in the lower left are scroller buttons.
U.S. Patent No. 6,424,983 ("Schabes")	Schabes discloses this element: "In brief, the present invention determines alternatives for misspelled words, and ranks these alternatives based on a context in which the misspelled word occurs. For example, for the sentence My son thre a ball through the window, the present invention suggests the word threw as the best correction for the word thre, whereas for the sentence He broke thre window, the present invention suggests the word the as the best correction for the word thre. In its interactive mode, the invention displays alternative word suggestions to a user and then corrects misspelled words in response to a user's selection of an alternative word. In contrast, in its automatic mode, the present invention determines, on its own, which of the alternatives should be used, and then implements any necessary corrections automatically (i.e., without user input)." 2:45-59. "Ranked list 59 of alternative words, which was generated by contextual ranking module 57, is

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	then displayed to a user, e.g., on display screen 11. In step 60, the user can then manually select (using, e.g., mouse 14, keyboard 12, etc.) one of the alternative words from ranked list 59. Thereafter, the selected one of the alternative words (i.e., selected alternative 61) is provided to replacement module 62, along with original text 50. Replacement module 62 replaces the misspelled word in text 50 with user-selected alternative word 61, and then outputs corrected text 63." 10:24-33.
Microsoft Word 97 ("Word 97")	*See* screenshots provided in the Word 97 invalidity charts. *See also* Word 97 available for inspection at DLA Piper US LLP.
U.S. Patent No. 5,392,386 ("Chalas")	"[t]he added functionality performed at step 424 includes spelling correction, as discussed above; word-by-word language translation; interpreting and solving mathematical calculations and providing a result; detecting Zip-Codes and providing the name of a town, state, etc.; accessing encyclopedias for key words; invoking external programs according to words or word groups (e.g., checking drug names in a medical history to provide information about the drug on the screen such as "Side Effects, Prescription Needed"; or detecting a key phrase such as "pic New York" and removing the phrase and inserting a picture into the document at that point in the text, instead); modifying the font, capitalization, color, underlining, etc. of text as in translating underlined words into italics; or performing complex automatic searches based on a word or phrase where the word or phrase is used to invoke a search program to access additional data based on the key word or phrase." 12:47-65. "The reading or detecting of the selected word is via the clipboard as discussed above. The add-on software may have to convert the word to a different format or look-up a keyword to be used in the search of the CD-ROM. This allows a second application program, such as Compton's Encyclopedia on CD-ROM, to be used to perform the accessing. The add-on software sends

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	signals to the Compton's program to display the information about Chicago on the screen." 13:57-65.
Miller	*See also* FIG. 4 at 420 ("write letter" and "retrieve #"); FIG. 4 at 410 ("write letter" and "[p]ut in electronic calendar"); 4:58-6:18
Gehani	"The display also includes a number of buttons for requesting different types of geographic information, such as maps, directions, weather and yellow pages information. When the user clicks on one of the buttons, the personal information manager utilizes an address or other location identifier associated with the contact name to format a request to a geographic information server. The server uses the location identifier to retrieve the appropriate geographic information for that location, and sends the information to the personal information manager for display." Abstract.
Horodeck	"If, on the other hand, the signals S_2 represent a list of kanji symbols, so that the conversion is ambiguous, then the list is displayed in a second, or assembly, portion 8b of the CRT display, apart from the text location, for subsequent disambiguation in the manner to be described, and transfer of the desired kanji to the text portion 8a of the CRT display." 15:7-14.
Microsoft Outlook 97	*See* screenshots in claim charts submitted herewith and with the invalidity contentions.
Eudora	"Make Suggestions Displays Eudora's suggestions for the correct spelling of an unknown word." Eudora Windows Manual at 37.
Hachamovitch '965	"Suggested word completions, which may change as the user types a partial data entry, are displayed in a non-disruptive manner and selected using traditional acceptance keystrokes, such as the "tab" key or the "enter" key."

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	Hachamovitch at Abstract.

Exhibit U - Table 21: updating the document with information from the information source

Numerous claims contain the element "updating the document with information from the information source." There is nothing novel or nonobvious about this element. To the extent a primary or obviousness reference does not disclose this element, one of ordinary skill in the art would be motivated to modify the reference to include this element and/or combine the primary or obviousness references with any one or more of the references listed below, each of which disclose the element, because, as explained in the following claim chart, using the techniques of the references addressed in the claim chart below would have improved the primary or obviousness references in the same way, and applying the techniques disclosed in the references in the claim chart below to improve the primary or obviousness references would have yielded predictable results.

Reference	**Exemplary Disclosures**[21]
User Manual for Fast Access/WordPerfect by Rhyder McClure	"You: Tap the letter that precedes the correctly spelled word. System: replaces the misspelled word. NOTE: If you don't want replacement, or if the word doesn't appear in the list, you can exercise one of the following options (found at the bottom of the screen): 1 Skip Once; 2 Skip; 3 Add Word; 4 Edit; 5 Look Up You: Tap: 1 to let the program know the word is okay

[21] For additional exemplary disclosures of each of the references listed in this table, see the claim charts served concurrently herewith and those served concurrently with the invalidity contentions.

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	2 To let the program know the word is okay for the page or document 3 To add the word to the spell checker 4 To correct the word yourself (use normal editing). Tap <ENTER. When finished with the correction 5 To display words that match a pattern . . .” Fast Access, p. 136.
U.S. Patent No. 5,959,260 (“Hoghooghi”)	“Once the end-of message is received, the handwritten message entered via the digitizer 552 is stored, step 612. The handwritten message is then presented on the display 570 to enable the user to view and to correct the message, step 614. By selecting, for example, by highlighting a character or a word of the message, step 616, the user can correct that character or word by enabling the corrector 564 which activates the digitizer 552 to accept other entered (accepting additional handwritten) characters or words on the digitizer (replacement characters), step 618, which is to replace the highlighted character or word, step 620. Therefore, the user is able to correct any error in the entered message once the corrector 564 is activated.” 7:14-22.
U.S. Patent No. 5,983,200 (“Slotznick”)	The user then enters the name of the recipient of the gift (step 82) (in the example, "Jim Smith and his wife"). The name can be typed in, or chosen by point and click from a drop-down combo list. If the name is already on the list, when the user types the first few letters of the name, the device's program automatically completes the name . . . If the occasion is already on the list, when the user types the first few letters of the occasion,

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	the device's program automatically completes the occasion . . . The device can pull information such as addresses, spouse names, anniversaries and birthdays. from other databases that maintain an open format such as Microsoft's Schedule+ (a contact management and scheduling program). The device also automatically posts information to such databases, so that the information which the device obtains is accessible for other uses and programs. Alternatively, the device can incorporate its own contact management and scheduling programs with other appropriate forms for data entry and display. 18:33-19:35.
Eudora	"Add Add the questioned word to the dictionary. If the Quick option is on, then the questioned word is added to the dictionary immediately when you click this button. If this option is off, the Adding word to Dictionary dialog is displayed. This dialog provides you with options for adding the word and its various forms to the dictionary." Eudora Mac Manual at 45.
Hachamovitch '965	"The word completion user interface **406** also includes an "Add" button **426**, which is used in our example to add the desired name-completion pair (i.e., "Symposium, Save the Whales Symposium") into the selected suggestion list (i.e., "Custom Directory"). A "Delete" button **428** may be selected to delete a selected name-completion pair from a selected suggestion list. In addition, a "Commands Bar" button **430** may be selected to invoke other functions of the user interface **406**, such as capitalization and context limitation." Hachamovitch at 13:44-53.

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U.S. Patent No. 5,392,386 ("Chalas")	"Once a completed word is detected, the spelling of the word is checked instantly against a dictionary database as the user continues typing. If the word is spelled incorrectly, WAYS simulates an appropriate number of backspace keypresses to move the cursor to an insertion point and simulates further keypresses to complete the correct spelling of the word." Chalas at 1:60-66. "Additionally, the add-on software can provide functionality that involves the transfer of information between application programs." *Id.* at 6:17-19.