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(54) Title: MESSAGING APPLICATION USER INTERFACE

(57) Abstract: A messaging application user interface has an input element for receiving electronic messages and an output element for displaying electronic messages. The messaging application user interface can be implemented so as to maintain a subset of the plurality of potential message recipients, the subset being determined using a predetermined criterion. The messaging application user interface also can be implemented so as to auto-complete a partially entered address based on the subset of potential message recipients. A set of user-selectable signals that modify auto-completion behavior also can be used with the messaging application user interface. The messaging application user interface can be used in an instant messaging system to allow a user to send instant messages to and exchange comments with a plurality of other users without having to switch among several instant message windows.

## MESSAGING APPLICATION USER INTERFACE

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### Technical Field

This application relates to a messaging application (e.g., e-mail, instant messaging, chat rooms, etc.) user interface.

### Background

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The computer system 100 illustrated in FIG. 1 represents a typical hardware setup for executing software that allows a user to perform tasks such as communicating with other computer users, accessing various computer resources, and viewing, creating, or otherwise manipulating electronic content -- that is, any combination of text, images, movies, music or other sounds, animations, 3D virtual worlds, and links to other objects. The system includes various input/output (I/O) devices (mouse 103, keyboard 105, display 107) and a general purpose computer 100 having a central processor unit (CPU) 121, an I/O unit 117 and a memory 109 that stores data and various programs such as an operating system 111, and one or more application programs 113. The computer system 100 also typically includes some sort of communications card or device 123 (e.g., a modem or network adapter) for exchanging data with a network 127 via a communications link 125 (e.g., a telephone line).

As shown in FIG. 2, a user of a computer system can access electronic content or other resources either stored locally at the user's own client system 202 (for example, a personal or laptop computer) or remotely at one or more server systems 200. An example of a server system is a host computer that provides subscribers with online computer services such as e-mail, e-commerce, instant messaging, chat rooms, Internet access, online games, electronic newspapers and magazines, etc. Users of a host computer's online services typically communicate with one or more central

server systems 200 through client software executing on their respective client systems 202.

In practice, a server system 200 typically will not be a single monolithic entity but rather will be a network of  
5 interconnected server computers, possibly physically dispersed from each other, each dedicated to its own set of duties and/or to a particular geographical region. In such a case, the individual servers are interconnected by a network of communication links, in a known fashion. One such server  
10 system is "America Online 4.0" from America Online, Incorporated of Virginia.

One increasingly popular computer network-based activity is referred to as "instant messaging." An instant message is a form of electronic communication between users  
15 of a computer network in which a window pops-up on the recipient's computer screen "instantly" and without the recipient having to access an e-mail program or otherwise check for messages. An instant message appears essentially as soon as the message sender clicks the send button subject  
20 to any time or propagation delays the message may have encountered on the network. In comparison to most e-mail applications, instant messaging enables users to communicate with each other in a more dynamic, urgent and interactive manner.

25 FIG. 3 is a screen shot of an Instant Message (IM) window 130 as used in AOL's Instant Messenger ("AIM") system. As shown therein, the window 130 includes a text display area 131 and text entry area 132. Both users involved in the IM under consideration (i.e., sender and recipient) would  
30 have a similar window displayed on his or her computer monitor. When one user (PhillipsJC) types a comment 134 in text entry area 132 and clicks the Send button 133 (or, depending on the configuration, presses the "ENTER" key on

the keyboard), the entered text (e.g., "Hey, did you see the game last night?") is displayed in the text display area 131 of the window 130 such that it is visible to both users.

After FRsnafu enters a comment 135 in response and clicks the  
5 Send button 133, that comment 135 appears in the text display area 131 underneath the previous comment 134. This exchange of comments continues indefinitely until the users decide to terminate the exchange.

Typically, instant messages can be sent to another  
10 user only when that user is presently signed on to the computer service. Users who are signed off are unavailable to receive instant messages. Accordingly, another popular innovation introduced by America Online is the "Buddy List," which allows users to monitor when other specified users  
15 ("buddies") are signed onto and/or off of the computer service under consideration (e.g., AOL Instant Messenger).

As shown in FIG. 4, the Buddy List is implemented as a window 140 that lists specified users, or buddies, who are signed on to the AIM system. In the example shown, the Buddy  
20 List for user "PhillipsJC" indicates that four of PhillipsJC's buddies 141-144 currently are signed on to the system and thus available to receive instant messages. The Buddy List is updated based on information received from a server to add or delete names of buddies as they sign on and  
25 off, respectively. Such Buddy List updates can be accompanied by various audible and visual indications to help notify the user that a buddy has signed on or off.

Users may send instant messages to, and exchange comments with, more than one other user at a time.  
30 Conventional instant message client software typically creates a separate instant message window for each user that is sent an instant message. For example, as shown in FIG. 5, if a user sends three instant messages to three other users,

one to each of the users, three separate instant message windows 130a, 130b, and 130c are created. To change from one instant message window to another, the user typically must move and/or press a button on the mouse, or press a sequence  
5 of keys on the keyboard, to activate the desired instant message window.

The present inventors recognized that some users may find it undesirable to have to switch between instant message windows in order to send instant messages to and exchange  
10 comments with more than one other user at a time. Therefore, the present inventors recognized that it would be desirable to provide users with a user interface through which a user can send messages to and exchange comments with one or more users without having to switch among several different  
15 windows.

#### Summary

Implementations may include one or more of the following features. In one aspect, a computer-implemented  
20 method of addressing a message to a member of a plurality of potential message recipients may include maintaining a subset of a plurality of potential message recipients. Each potential message recipient may have an associated address, and the subset may be determined using a predetermined  
25 criterion. The method also may include auto-completing a partially entered address based on the subset of potential message recipients.

In another aspect, a method of addressing electronic messages to users of a computer network may include providing  
30 a set of user-selectable signals that modify auto-completion behavior and auto-completing a partially entered address for a message based on entry of one or more of the set of signals.

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