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(54) **METHOD AND SYSTEM FOR DYNAMIC MESSAGE CORRECTION**

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G06F 17/00 (2006.01)

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(58) **Field of Classification Search** 715/255, 715/243, 246
See application file for complete search history.

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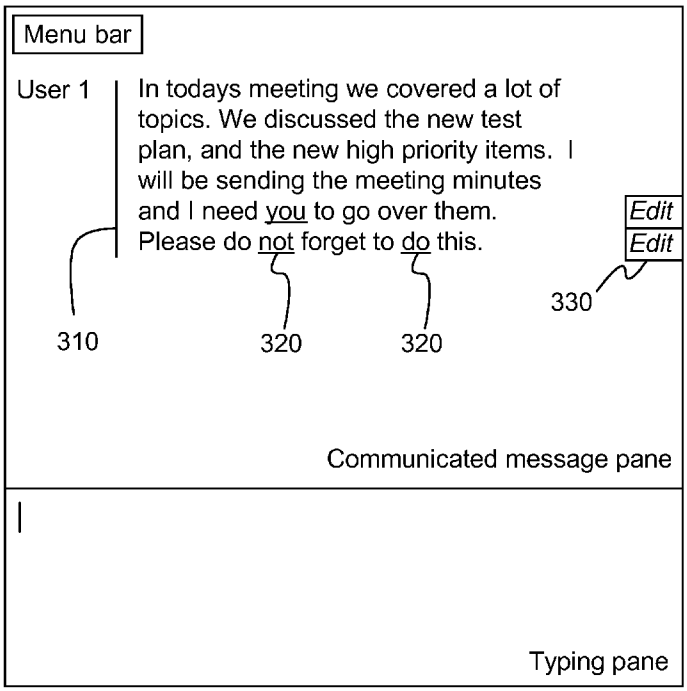
(57) **ABSTRACT**

A system is presented to allow users in an instant messaging environment to edit already-exchanged messages dynamically, and resend the edited version of the message to the target users, as an example. The newly edited message received by the second user is clearly understandable because the corrected parts of the message have been tagged. Depending on the implementation, either a new complete and corrected message is sent, or the sent message indicates the recent editions. The advantage of this solution is that all that the altering user should do is to go over the communication text, change or edit the text, and press ENTER.

1 Claim, 3 Drawing Sheets



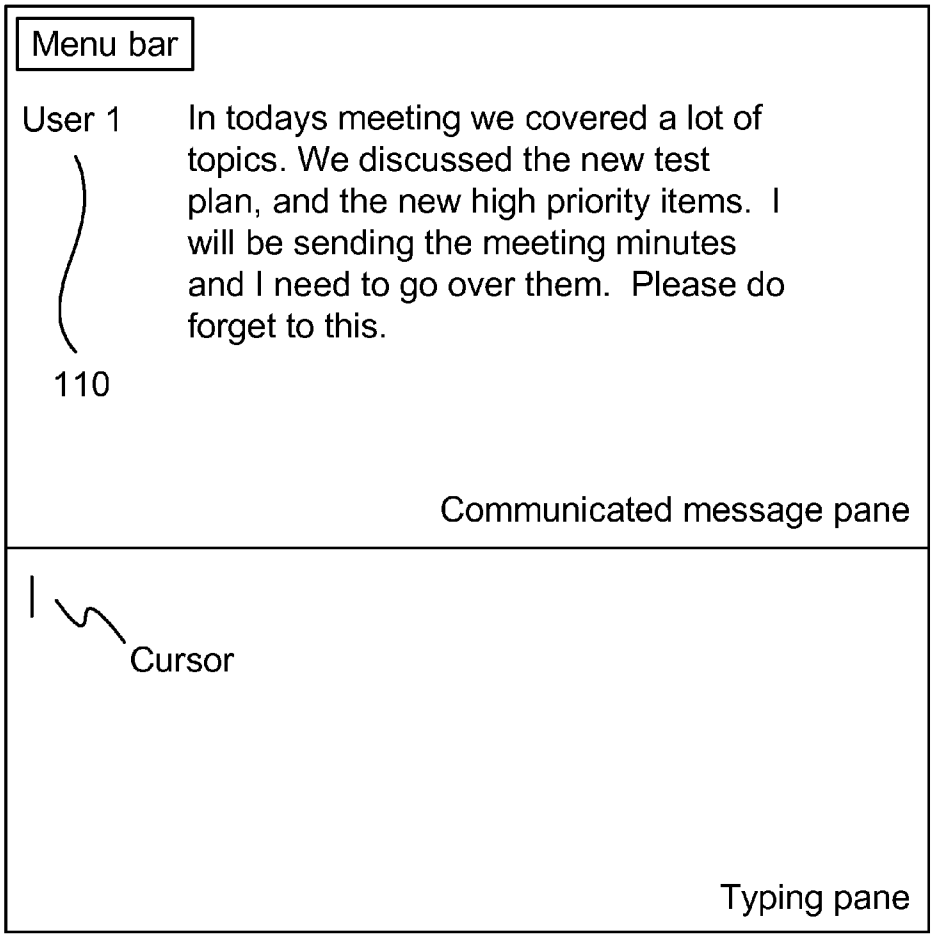


FIG 1

PRIOR ART

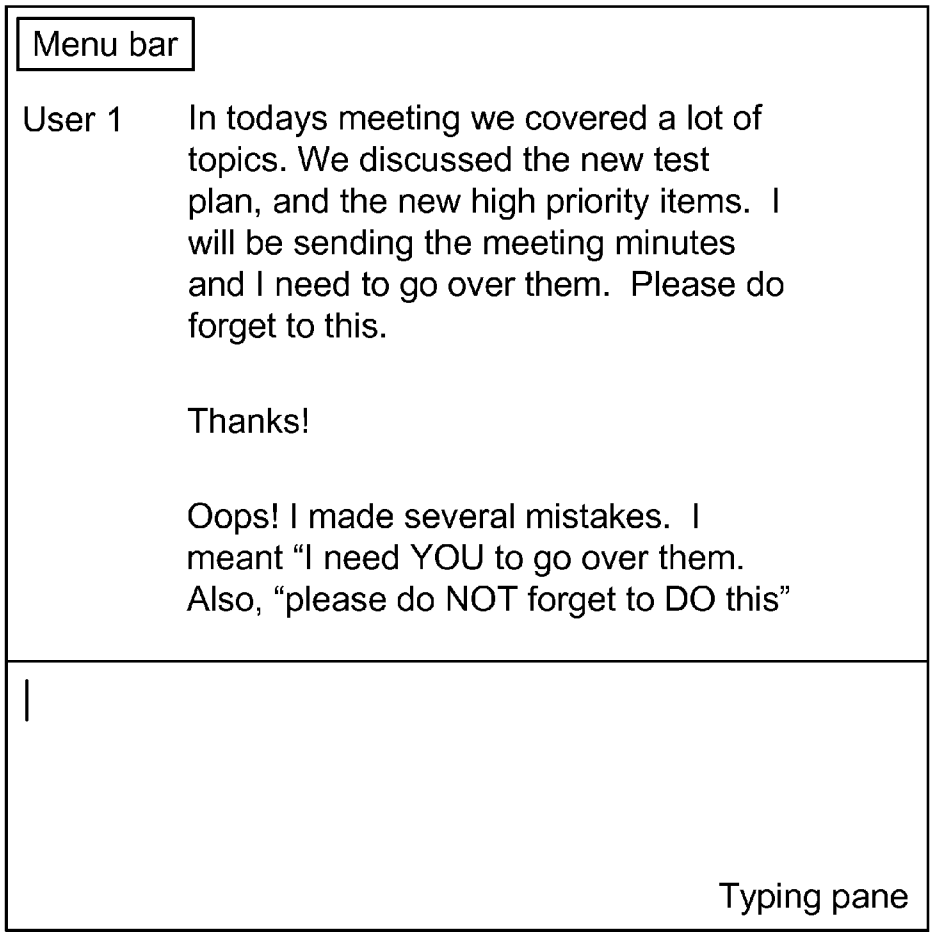


FIG 2

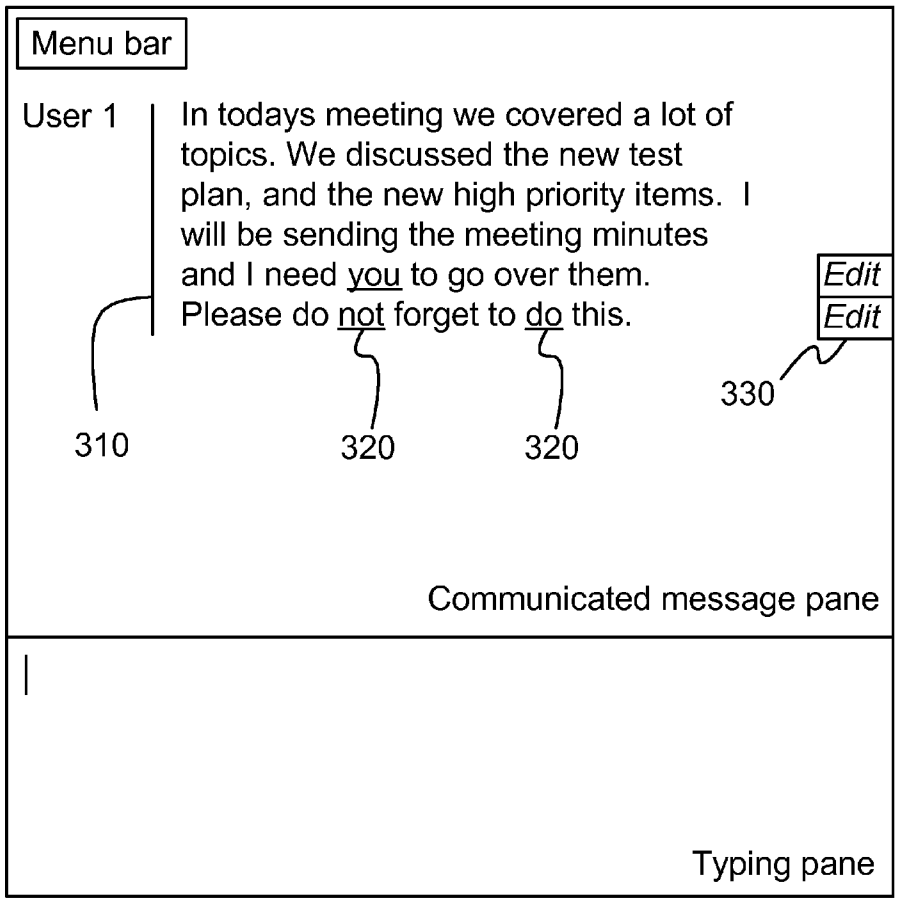


FIG 3

METHOD AND SYSTEM FOR DYNAMIC MESSAGE CORRECTION

BACKGROUND OF THE INVENTION

In the today's busy lifestyle, the role of electronic communication is becoming more and more important. The volume of email communications has exceeded the extent of telephone usage within corporations. Furthermore, instant messaging, as a form of electronic communication, has begun to expand during recent years. Initially, instant messaging was a tool used mainly in the chat rooms and for entertainment purposes, but now its applications are being extended to internal communications of corporations. Instant messaging has all of the advantages of email messaging compared to using the phone service, while not having many of its disadvantages of the email communication, namely its offline nature. It is also less intrusive than phone service. It can easily be recorded and archived, and storing such an archive does not require a large memory space.

Instant messaging technique, to be used as a serious method of communication, however, needs to be improved. For instance, in a chat session amongst users of an instant messaging application, it is quite common to misspell or forget words when exchanging messages with other users. Currently, the only known solutions are: (1) to ignore the problem and assume the other user understands what you meant; (2) to type another message explaining what words were initially misspelled, forgot, or added; or (3) to turn on the spell check option. The drawbacks to these solutions are that it takes extra time to re-write what is meant to say in the first place, or to explain where a mistake was made. In addition, the spell checker option can help with misspelled words, but it does not help if a user forgets words or adds extra words. Then, the chat partner receiving the corrections must go back, re-read the previous message, and add the corrections. One of the embodiments of this invention will solve this problem by making it easy and convenient for both users to understand the mistake and the correction.

SUMMARY OF THE INVENTION

One of the embodiments of this invention allows users in an instant messaging environment to dynamically edit previous messages that have been exchanged, and resend the edited version of the message to the target users. Upon receipt of the edited version of the message, the target user would clearly see the corrections made on the previously received message, or depending on implementation, they could see a new edited message. The advantage of this solution is that the altering user now does not have to explain the correction. All that this user needs to do after sending the wrong message, is that it goes over the communicated text, change or edit the text, and press ENTER. By pressing ENTER, either a new corrected message is sent to the second user, or the already-sent message shows the edited part by color or other formatting indications.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** illustrates the instant messaging environment when the first message containing some mistakes is sent.

FIG. **2** shows the second instant message by the first user in an attempt to fix the mistakes in the first message, as currently done in the prior art.

FIG. **3** depicts the way this invention proposes to resolve

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

A novel method to improve the efficiency of instant messaging is presented, as an example. One of the embodiments of this invention allows users in an instant messaging environment to dynamically edit previous messages that have been exchanged, and resend the edited version of the message to the target users. Upon receipt of the edited version of the message, the target user would clearly see the corrections made on the previously received message, or depending on implementation, they could see a new edited message. The advantage of this solution is that the altering user now does not have to explain where the correction has occurred. The recipient can see the whole message with the edited parts clearly shown.

In a typical conversation in an instant messaging system, one user sends a message to another user. Assume that the screen shown in FIG. **1** represents this interaction.

The messaging starts when the first user (**110**) sends a message to the second user. As soon as the first user (**110**) sends the message, the first user (**110**) notices several mistakes with the message, and tries to send a correction in a rush, and as soon as possible. (FIG. **1**) Assuming that such a rush for correction does not contribute to making more mistakes, the attempt to correction is shown in FIG. **2** as currently done in prior art.

At this point, the second user needs to return to the original message it received, and read it again along with the newly given corrections. The corrections are supposed to help fully understand what was meant by the first message. Note that turning on the spell checking would not have solved the issue in this scenario. This is because the words do not necessarily have to be spelled incorrectly in order for a sentence to be completely meaningless. Grammar checking is also not a problem-free solution as the incorrect sentence can be grammatically correct while still being meaningless.

In one embodiment, this invention solves this problem by allowing the original and/or target user to modify the chat message, which has already been communicated, when a mistake has been made. As shown in FIG. **3**, in our example, when the first user notices the mistake, it puts the cursor over the previously sent message, edits it, and once the revision is made, presses ENTER. The corrected words can be highlighted, colored, underlined (**320**), or otherwise re-formatted for the purpose of notification. There can be other ways of notification as to which sections of the instant message has been edited such as adding tags such as "edited (**330**)" or another indication such as a vertical line (**310**).

An implementation of this invention can track changes using a color scheme, for example, blue to denote words that were added, red and strikeout for words that were removed (not shown in the figures). There would also be visual notification to allow a user change the sentence, and/or notify the recipients that a sentence was just edited. The other chat users would automatically see these changes in a new message with the edited changes, or the previous message they had received, would dynamically change to a new edited version with the same color scheme.

In one embodiment, the implementation of this invention would require modification to the user interface and the instant messaging software, to allow editing previously sent messages. Once the changes are made, the new message is sent to the target clients. The message would be tagged as an

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