

be learned data based on entries made by the user, or pre-loaded data based on commonly used words, phrases, or sentences. The stored data may also be used based on context or be dynamically generated.

[0058] Next, at a block 508, the method 500 generates at least one context-based prediction or predictions based on the input received in the block 502, the contextual data gathered in the block 504, and the relevant stored data retrieved in the block 506. Typically, the method 500 may provide to the user the most likely completions for the input the user has entered so far. In one example, the method 500 may provide to the user between one and five most likely completions (e.g., options) for the input the user has entered so far, with the five most likely options arranged in order from most likely to least likely.

[0059] Next, at a block 510, the method 500 displays the most likely options generated at the block 508 to the user by displaying the options on the screen for completing the string. In one example, the options displayed on the screen may be accompanied by visual aids designed to aid the user in selecting input options to complete the string that the user is currently entering. Examples of such visual aids are described below in connection with FIGS. 6 and 7. In another example, audible aids or even tactile aids could be used to assist the user in completing the entry.

[0060] Next at a block 512, the method 500 monitors the input devices of the wireless device 102 (e.g., the keypad 154, the touch screen display 142, the navigation input device 160) to determine if the user is selecting one of the options provided to the user for completing the string. If the user selects one of the options, the method 500 proceeds to a block 514 where the method completes the entry as selected by the user and updates the saved data in the text entry data store 310, as appropriate. For example, at the block 514, the string entered may be saved and/or updated in the store 310, along with the frequency with which the user has previously entered this string and the application into which the entry was made, and other relevant facts. The method 500 may also allow the user to go back from the step 514 to the step 510 if the user had accidentally selected the wrong option at the step 512 and changes his mind about which option he wishes to select. This reversion to the step 510 may be triggered by an appropriate input, such as by pressing a particular key, such as the space key.

[0061] If the user did not select one of the options at the block 512, the method 500 returns to the block 502 where another character is entered by the user for the string or a subsequent string that the user is currently entering and the method 500 repeats itself. Therefore, as described above, the method 500 would typically be executed once for each character entered by the user into the wireless device 102 using the input devices.

[0062] Reference is next made to FIG. 6, which shows a screen shot of an example user interface 600 for implementing context-based predictive text input in accordance with one example embodiment. While FIG. 6 shows a particular key layout for the keyboard 602, the key layout used may be any of a QWERTY layout, a reduced QWERTY layout, a phone dial keypad, or even a keypad showing symbols, different combinations of symbols with traditional letters, or any combination thereof. User interface 600 provides one example of the user interface provided by the method 500

(e.g., the GUI 304 and/or the predictive text module 308) that may provide such visual aids, as referred to in block 510 of the method 500.

[0063] User interface 600 includes a keyboard 602 illustrated graphically on a display, for example the touch screen display 142. User interface 600 also includes a text entry field 604. In the present example, the text entry field 604 may be used to enter a URL into a web browser application. However, the text entry field 604 may be used for any type of text entry into any of the applications or software modules 306. In the example where the user interface 600 is used in connection with the wireless device 102 having the touch screen display 142, each of the buttons shown forming part of the keyboard 602 may be touch sensitive such that the user triggers or activates a particular button simply by pressing the location of the touch screen display 142 where the particular key is shown. While user interface 600 is described as being used in connection with the wireless device 102 having the touch screen display 142, the wireless device 102 may alternatively have a conventional keyboard 154 such as the ITU E.161 standard keypad and conventional display 142, and the user interface 600 may show the keyboard 602 to provide visual cues to the user.

[0064] In the current example, the user has begun entering a URL, which when complete would input "www.rim.com". In the example shown in FIG. 6, the user has entered "www.rim." thus far, and the method 500 is actively proposing options for completing the entry, for example at the block 510 of the method 500. For example, the predictive text module 308 may know, either from gathering relevant contextual data at the block 504 or by retrieving relevant stored data at the block 506, that the user is likely to enter "www.rim.com". However, perhaps the user had previously traveled in the United Kingdom or Germany or had previously visited these international sites, and the method 500 knows there is a reasonable chance that the user may enter "www.rim.com", "www.rim.co.uk", or "www.rim.de". In one example, the first option shown may be based initially on where the user is located and remaining options may be sorted alphabetically. Over time, as the method 500 learns, the options may be shown according to past frequency. In the event of the user travelling, the first options displayed may be the most frequently entered address, followed by options based on the user's current location.

[0065] In the example shown in FIG. 6, the block 510 provides these options to the user, as indicated by references 600, individually indicated as 606a, 606b, and 606c. In one example, the ordering of the three options 606a, 606b, 606c may be based on the relative frequency that the user had previously visited these individual web sites, for example as retrieved from the text entry data store 310 at the step 506 of the method 500. In another example, the ordering of the three options 606 may be based on the order or reverse order in which the user recently visited the United States, Germany, and the United Kingdom. If the user wishes to select any of the options 606a, 606b, or 606c, the user may either select the area associated with any one of these options by touching the area on the touch screen display 142, or alternatively, the user may select and click or point and click these options using, for example, the track ball 160b.

[0066] The user interface 600 may provide visual aids for the user wishing to manually enter additional characters after the characters "www.rim." based on the predictions or options 606, indicated by references 608a, 608b, and 608c. For