

reading the text or discerning the location or context of the elements satisfying the search criteria. For at least that reason, the easily discernable hit annotations 706 (i.e., “presence hit annotations”) provide the context information to help the user to identify the most relevant logical sections in the search result target page 702. In an alternative embodiment, hit annotations (i.e., “location hit annotations”) are distributed throughout the logical section 704 so as to indicate both the presence and the location of a hit within the logical section 706. For example, hit elements within the page may be highlighted by a dark boundary, shading, etc. that can be seen in this view, even though the text cannot be read. In yet another alternative embodiment, a user may hover the mouse cursor over a hit annotation, whether a presence hit annotation or a location hit annotation, to invoke a “tool tip”-type display window that provides information about the hit. For example, a user hovering over hit annotation 708 may see a bubble or window displaying the entire sentence associated with the hit annotation 708.

[0054] An alternative annotation scheme may be used in an embodiment of the present invention. For example, in order not to obscure as much of the partition map with so many “hit” annotations, one embodiment merely indicates “no hits”, “some hits”, and “most hits”. Other annotation schemes are contemplated within the scope of the present invention.

[0055] If the user wishes to access the logical section 704 in order to further view the text of the logical section 704, the user may select the logical section 704 (e.g., by double-clicking) to display a detailed view of the logical section 704.

[0056] FIG. 8 depicts a reformatted view of a logical section of a selected search result target page with highlighted search terms in an embodiment of the present invention. A handheld display 800 shows the logical section within the dimensions of the handheld display 800 selected text is readable to the user. As can be seen in comparison to their presentation of the logical section 704 in the Smart-View display of FIG. 7, the logical section 802 has been zoomed in and reformatted to fit within the horizontal dimensions of the handheld display 800. In addition, the elements (e.g., terms 804) within the logical section 802 that satisfy the search criteria have been highlighted (i.e., these terms appear lighter in a black and white representation of FIG. 8). In one embodiment, highlighted terms are colored (e.g. orange) to distinguish them from non highlighted terms (e.g., black). It should be understood, however, that any combination of distinguishing colors, patterns or other visual characteristics are contemplated within scope of the invention.

[0057] FIG. 9 depicts a control for toggling between a Web search and a document search in an embodiment of the present invention. A handheld display 900 shows a search result target page 902 and a drop-down menu control 906 that, when selected, displays search options 904. In the illustrated embodiment, one available search option is an “Internet search”, such as a search involving a Web search engine (e.g., www.google.com). Another available search option is a “Documents search”, in which search result target pages are searched based on a provided search criteria. Additional options, such as “search page”, “search section”

within the current page, and other similar features are fully supported by the described architecture and are contemplated within the scope of the present invention.

[0058] FIG. 10 depicts a search result target page showing results of a documents search in an embodiment of the present invention. Starting again from the search results Web page 1000 for search result number ‘3’, the user has selected a “Documents Search” via drop-down menu control 1002. The search criteria “captain cook” is received into the text box 1004, and a documents search has been executed by selection of the Documents Search button 1006.

[0059] As a result of the “Documents Search”, the colors, patterns, or other visual characteristic of the tabs 3-5 and 8-9 are changed to indicate hits for the new search criteria within the corresponding search result target pages referenced in the search results Web page. The visual characteristics of tabs 1-2, 6-7, and 10 are unchanged because no hits were found for the corresponding target pages. To help differentiate the “hit” tabs and the “no hit” tabs in the black and white FIG. 10, top-left-to-bottom-right diagonals are shown for “hit” tabs and top-right-to-bottom-left diagonals are shown for “no hit” tabs. The dark tab 3 indicates that displayed target page 1010 is the third search result in the search results Web page (see e.g., FIG. 6). A logical section 1008 is shown as having the most hits satisfying the new search criteria “captain cook” within the target page 1010 (i.e., 2 hits). “Having the most hits” is designated in the target page 1010 by the dark border 1012 around the logical section 1008.

[0060] FIG. 11 depicts a reformatted view of a selected logical section in a document search mode in an embodiment of the present invention. By selecting the logical section 1008 from FIG. 10, the user may obtain a detailed view 1100 of the logical section 1008. In addition, the terms 1102 satisfying the new search criteria has been highlighted to make the hits more apparent to the user.

[0061] FIG. 12 illustrates operations for analyzing and generating search results in an embodiment of the present invention. A request operation 1200 sends a search request (e.g., from a user selecting a Web search in the SearchMobil display) to a server that initiates the search and analyzes the search results. In one embodiment of the present invention, the server is a proxy server, although in other embodiments the server may embody a server process on the client device or another server coupled to the network. Responsive to receiving the search request, the server processes the search request in processing operation 1202. Such processing may include without limitation formatting the search request for a specific search engine, performing linguistic analysis on the search request, and caching the search request.

[0062] A querying operation 1204 queries the search engine using the search criteria provided in the search request. For example, a querying operation 1204 may send the search criteria to www.google.com to perform the search. A search operation 1206 executes the search, and a result operation 1208 returns the search results to the server. In one embodiment, the search results take the form of a search results Web page, similar to the page shown in FIG. 4.

[0063] An analysis operation 1207 may analyze the search results Web page, such as to partition the logical sections. In