

is a user-issued command that triggers a search request based on the search input received at that point in time, such as for example depressing a “Return,” “Enter,” or “Submit” key or button. For example, if a user types in three characters, then presses the “Return” key on their keyboard or clicks a “Submit” button in their web browser application (block 303), a search request is submitted (block 305) to the search engine using the three characters typed in. This may be considered a manual search, since the search request only occurred in response to an express user command to submit the search request.

[0032] Another type of user-issued or manual submit command is the manual selection of a suggested search term or phrase, such as that presented by auto-complete or auto-correction features of a software application. For example, in one embodiment, upon typing a few characters of search input, an auto-complete feature of a software application may present the user with one or more suggested terms in an attempt to anticipate what the user may be trying to type, based on the characters already input by the user. For example, if a user types in part of a keyword in the search field, the browser automatically completes the rest of the keyword for the user according to previously input keywords. To perform a search query on one of the suggested terms, the user may select (e.g. using a pointing device to click on) one of the terms. The auto-complete suggestions may come from a standard dictionary of words, or may be personalized based on words or phrases previously input by the user. In another embodiment, an auto-correct feature suggests correctly spelled search terms when a user appears to have typed a misspelled word.

[0033] If a user-issued submit command is not received at block 303, the method 300 continues to block 304. At block 304, the method 300 determines whether to automatically process a search request or query using the search input that has been received up to that point in time. In one embodiment, the determination at block 304 is made as a user is typing or entering the search input. In one embodiment, the determination is whether enough search input and associated information has been received such that a search request should be automatically processed using the search input that has been received. The determination may be based on the cumulative search input received (e.g. text characters) at the time of the determination, as well as other characteristics of the search input (e.g. pauses while typing). Embodiments of the processing represented by block 304 are described in greater detail below with respect to FIG. 4.

[0034] If the method 300 determines at block 304 that a search request should not be automatically processed at that time, the method 300 returns to block 302 to wait for receiving additional search input or other input characteristics (e.g. a sustained period without further text input).

[0035] If a determination is made at block 304 that a search request should be automatically submitted, the method 300 submits a search request at block 305 based on the cumulative search input received up to that point in time. For example, if at the time the determination is made to automatically process a search request, a user had input a three characters into a search field at block 302, the method 300 would automatically submit a search request using a query string including the three characters. By automatically submitting a search request, it is meant that the user is not

necessarily required to issue an express command to submit the search request, such as by pressing an “Return” key or clicking a “Submit” button; rather, the method 300 is capable of automatically submitting a search request (using the received search input) while a user continues to input their desired search terms. Thus, a search may be performed before the user has completely input their desired search terms, and in one embodiment, while a user is actively inputting search terms. The end result to the user is that substantially immediate search feedback (i.e. search results) is provided as a user inputs their search terms.

[0036] At block 306, the method 300 displays search results returned based on the prior search request submitted at block 305. In one embodiment, the results are presented as part of a web page. The method 300 then returns to block 302 to wait to receive additional (or revised) search input. In one embodiment, if further search results are submitted, results associated with these requests replace the previously displayed results.

[0037] Thus, in one embodiment, as a user enters additional search input, the displayed results are gradually updated to reflect the cumulative search input received, without the user being required to issue an express submit command to the search engine. Incremental search feedback is provided through the presentation of results based on partial query strings as search terms continue to be input. This “search as-you-type” aspect allows a user to be presented with search results before the user has necessarily completed their intended search input, which may result in the user finding their desired result(s) more quickly than they would have otherwise (e.g. if they had to enter a complete query and then manually submit the search request). Furthermore, in one embodiment, as a user is presented with incremental search results, they can revise their search terms if needed to receive more relevant results, or they may even continue adding search terms to further refine their query.

[0038] Since the results are automatically updated to reflect the recent queries, the user may consider whether to modify the search terms input. For example, many typical results web pages include excerpts (or “snippets”) of text from the respective web pages linked to by each of the results, often showing the queried terms in boldface. These excerpts also present the user with the context in which the queried search terms appear on the web page. In the course of viewing these excerpts from the results, the user may often see additional terms or keywords that may be more relevant for their desired search. The user may then simply add on these terms to their query by continuing to type these terms into the search field. This incremental and iterative process may quickly lead a user to their desired results. As a user adds additional search terms, the results may become more and more specific, with the most relevant search results eventually appearing in the results page. The presentation of intermediate results to the user during the input of the terms may have a synergistic effect on the user’s entire search experience, since the query input by the user may be influenced by the intermediate results, leading to more specific queries and thus assisting the user to find their desired results more quickly and efficiently.

[0039] In one embodiment, if additional search input is received while there is a pending or in-progress search