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Selection Search on Meta Search Engine

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Abstract: Existing meta search engine uses identical approach in terms of use of search engines for retrieval of link. They basically send request for links on fixed number of search engines and retrieve results and display aggregate result on screen by eliminating duplicates. In existing meta search engines there is no availability of user choice facility. There is a need to have selection dynamically. This paper discusses the need of dynamic selection of search engine in a meta search engine and discusses a model, which allows user to select search engines. Then, the meta search engine will send request to selected search engines and will generate and display aggregate result.

Keywords: meta search engine; selection search; dynamic strategy; the rank or ranking score; aggregate results

I. INTRODUCTION

Meta search engines return search results (group of links) page wise. Meta search engines send request to fixed number of individual search engines may be two, three, four or more. But none of it gives choice to user in selecting search engines.

Ideally, a meta search engine should provide local system transparency to its users. From a user's point of view, such a transparency means that a meta search should behave like a regular search engine. That is, when a user submits a query, the user does not need to be aware that multiple search engines may be used to process this query, and when the user receives the search result from the meta search engine, user should be hidden from the fact that the results are retrieved from multiple search engines. Result merging is a necessary task in providing the above transparency. When merging the results returned from multiple search engines into a single result, pages in the merged result should be ranked in descending order of global similarities. [1]

Meta search engine may ask each search engine to return the first few result pages. This method is to return the identical number of pages from each selected search engine. Because different search engines may contain different numbers of useful pages for a given search query, retrieving the identical number of pages from each search engine. [1]

Selection methods try to tie the number of pages to retrieve from a search engine to the ranking score of the search engine relative to the ranking scores of other search engines. This can lead to proportionally more pages to be retrieved from search engines that are ranked higher or have higher ranking scores. [1] Hence, the merging result links retrieved from search engines is a challenging job in meta search engine.

The model is proposed for dynamic selection of search engine in a meta search engine to overcome from existing scenario.

II. THE MODEL

The proposed model of meta-search engine allows user to select search engines from existing list of search engines.

For each user query, the meta search engine computes a rank for aggregate search result.

The model for selection search is as below:

a. Start
b. Enter search text for search as in Figure 1.
c. Allow the user to select search engines available on screen.
d. Pass Search text to selected search engines.
e. Search and retrieve search results from database if exists. Databases consists searched results of search engines. Go to step 8.
f. If search results not exist in database then sends request to all search engines. Retrieve search results search engine wise. Store them in separate database.
g. Merge individual search engine database with all retrieved search results and make new database. It stores record with combined key, where prefix is name of search engine and suffix part is some integer value for record identification.
h. Display results from merge database on screen using combined key as in Figure 2.
i. Stop

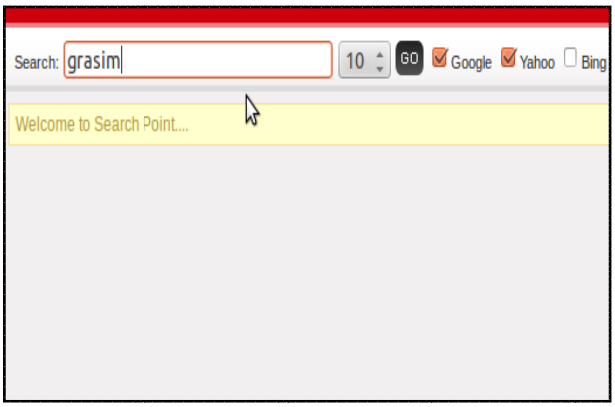

Figure 1. Selection search screen on meta search engine

Figure 1 shows user interface with search engine selection options for retrieval of specific search results. As shown in Figure 1 meta search engine send search request to retrieve links from selected number of search engines.

Figure 2. Output screen

Figure 2 shows search results based on selection made by information seeker. New model of the meta search engine retrieves aggregate search results from the database using combined key for selected number of search engines as shown in Figure 1. Following are two components of combined key:

a. Prefix (Name of search engine)
b. Suffix (Link id, which is auto generate)

III. CONCLUSION

Existing meta search engine uses identical approach in terms of use of search engines for retrieval of link. They basically send request for links on fixed number of search engines and retrieve results and displays aggregate result on screen. There is no user's choice for selecting search engines. There is no flexibility of using meta search engines in terms of selective search. This paper proposes a new model of search that is Selection search, which allows user to have a choice of search engines through interface. And meta search engine retrieves results based on this selection.

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