A Review on Location Aware Keyword Query Suggestion Based on Document Proximity

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ABSTRACT: Keyword suggestion in web search helps user to access relevant information without having to known how to precisely express their queries Exiting keyword suggestion techniques do not consider the location of user and the query result the spatial proximity of user to the retrieved result is not taken as a factored in the recommendation. However the relevance's of search result in many application location based services is known to be correlated with proximity to the query issuer. Each query is related to one of topics identified in the conversion fragments preceding the recommendation and is submitted to a search engine over the English we propose in this paper an algorithm foe diverse merging of these lists using a sub modular reward function that reward the topical similar of documents to the conversation words as well as there diversity. We evaluates the proposed method through crowd sourcing the result superiority of the diverse merging technique over Several other which enforce the diversity of topics

KEYWORDS: Query suggestion, Spatial Databases, Document Proximity.

I. INTRODUCTION

Keyword suggestion (also known as query suggestion) has become one of the most fundamental features ofcommercial web search engines. After submitting a keyword query, the user may not be satisfied with theresults, so the keyword suggestion module of the search engine recommends a z set of m keyword queries that aremost likely to refine the user's search in the right direction. Effective keyword suggestion methods are based onclick information from query logs and query session data, or query topicmodels new keyword suggestions can be determined according to their semantic relevance to the originalkeyword query. However, to our knowledge, none of the existing methods provide location-aware keyword query suggestion (LKS), such that the suggested queries retrieve documents not only related to the user information needs but also located near the user location. This requirement merges due to the popularity of spatial keyword search Google processed a daily average of 4.7 billion queries in 2011, a substantial fraction of which havelocal intent and target spatial web objects (i.e., points of interest with a web presence having locations as well as textData mining is the information of domain we are mining like concept hierarchies, to organize attributes onto various levels of abstraction. A Spatial Keyword query is an approach of searching qualified spatial objects by considering both the query requester's location and user specified keywords. Taking both spatial and keyword requirements into account, the goal of a spatial keyword query is to efficiently find results that satisfy all the conditions of a search. Searching is a common activity happening in data mining. This motivated to develop methods to retrieve spatial objects.A spatial object consists of objects associated with spatial features. In other words, spatial objects involve spatial data along with longitude and latitude of location. The importance of spatial databases is reflected by the convenience of modeling entities of reality in a geometric manner. For example, locations of restaurants, hotels, hospitals and so on are often represented as points in a map, while larger extents such as parks, lakes, and landscapes often as a combination of rectangles. Many functionalities of a spatial database are useful in various ways in specific contexts. For instance, in a geography information system, range search can be deployed to find all restaurants in a certain area, while nearest neighbor retrieval can discover the restaurant closest to a given address.However,existing keyword suggestion techniques do not consider the locations of the users and the query results.Users often have difficulties in expressing their web search needs they may not know the keywords.After submitting a keyword query, the user may not be satisfied with the results

II.   RELATED WORK

1. **A query suggestion log analysis,M. P. Kato, T. Sakai, and K. Tanaka, "When do people use query suggestion? Inf. Retr., vol. 16, no. 6, pp. 725–746, 2013**

Refer Points-
Search engines should provide better assistance especially when rare or single-term queries are input, and that they should dynamically provide query suggestions according to the searcher's current state. It will further investigate the usage of query suggestion with data sets including user information to propose a query reformulation taxonomy specifically designed for query suggestion classification, and to improve query suggestion functionality based on our insights.

2. **Query recommendation using query logs in search engines,R. Baeza-Yates, C. Hurtado, and M. Mendoza, in EDBT, 2004, pp.588–596**.

Refer Points-
A given a query submitted to a search engine, suggests a list of related queries. The related queries are based in previously issued queries, and can be issued by the user to the search engine to tune or redirect the search process. It will further improve the notion of interest of the suggested queries and to develop other notions of interest for the query recommender system. For example, finding queries that share words but not clicked URL's

3. **Agglomerative clustering of a searchengine query log,D. Beeferman and A. Berger, in KDD, 2000, pp. 407– 416.**

Refer Points-
It introduces a technique for mining a collection of user transactions with an Internet search engine to discover clusters of similar queries and similar URLs. The information we exploit is "clickthrough data": each record consists of a user's query to a search engine along with the URL which the user selected from among the candidates offered by the search engine. It is not resolved by the work is how best to combaine the complementary strategies of content ignorant and content-aware clustring. Each method has weakness.

4. **Location Aware Keyword Query Suggestion based on Document Proximity" Shuyao Qi, Dingming Wu, and Nikos Mamoulis, in IEEE, 2015,pp.82-97.**

Refer Points-
Keyword suggestion techniques consider the locations of the users and the query results.This approach is very useful to find the nearest location of the user. After submitting a keyword query, the user may satisfy with the results.Existing keyword suggestion techniques do not consider the locations of the users and the query results.Users often have difficulties in expressing their web search needs they may not know the keywords.After submitting a keyword query, the user may not be satisfied with the results.

III.   EXISTING SYSTEM APPROACH

Keyword suggestion in web search helps users to access relevant information without having to know how to precisely express their queries. Existing keyword suggestion techniques do not consider the locations of the users and the query results; i.e., the spatial proximity of a user to the retrieved results is not taken as a factor in the recommendation. However, the relevance of search results in many applications (e.g., location-based services) they did not give the correct correlance. A baseline algorithm extended from algorithm BCA is introduced to solve the problem. Then, we proposed a partition-based algorithm (PA) which computes the scores of the candidate keyword queries at the partition level and utilizes a lazy mechanism to greatly reduce the computational cost. The performance of the proposed algorithms is low.

Disadvantages:-
1. Generally Google map are not view the current location.
2. They are not provided the shortest location between twolocations.

IV.   PROPOSED SYSTEM APPROACH

We proposed to providing keyword suggestions that are relevant to the user information needs and at the same time can retrieve relevant documents nearideas, but aims at optimizing different objective functions. The concept of prestige-based spatial keyword search. The SI-index comes with two query algorithms based on merging and distance browsing respectively. To design a variant of inverted index that is optimized for multidimensional points, and is thus named the Spatial Inverted index (SI-index). To remedy the situation by developing an access method called the spatial inverted index (SI-index). Not only that the SI-index is fairly space economical, but also it has the ability to perform keyword augmented nearest neighbor search in time that is at the order of dozens of milli-seconds.

Advantages:-
 1. Keyword suggestion techniques consider the locations of the users and the query results
2. This approach is very useful to find the nearest location of the user.
 3. After submitting a keyword query, the user may satisfy with the results.
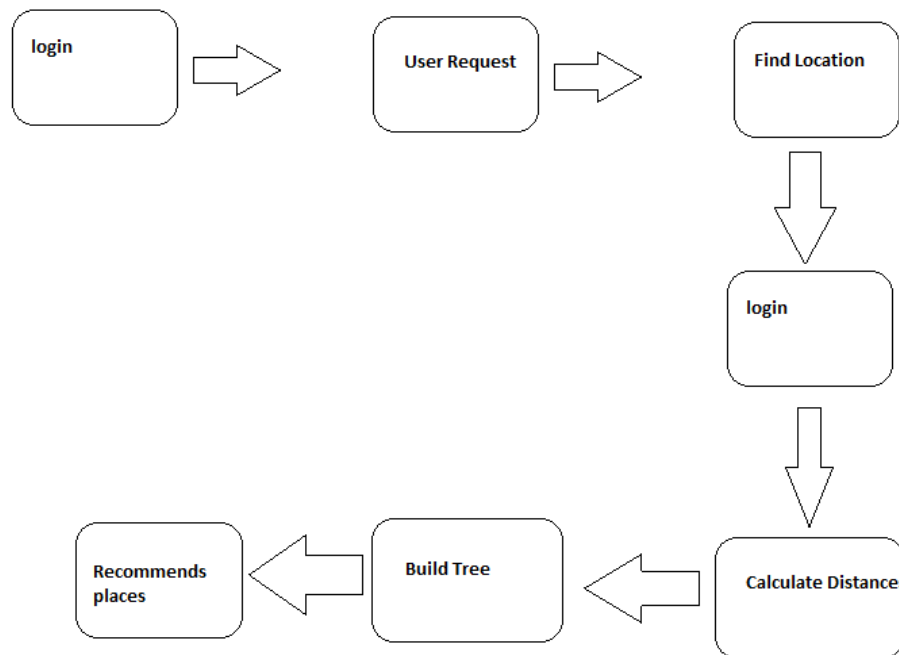
V.   SYSTEM ARCHITECTURE

Fig No 01 System Architecture

VI. CONCLUSION

In this paper, we proposed an LKS framework providing keyword suggestions that are relevant to the user informationneeds and at the same time can retrieve relevant documents near the user location. A baseline algorithm extendedfrom algorithm BCA is introduced to solve the problemthen, we proposed a partition-based algorithm which computesthe scores of the candidate keyword queries at thepartition level and utilizes a lazy mechanism to greatlyreduce the computational cost. Empirical studies are conductedto study the effectiveness of our LKS framework and the performance of the proposed algorithms. The result shows that the framework can offer useful suggestions and that PA outperforms the baseline algorithm significantly. In the future, we plan to further study the effectiveness of the

LKS framework by collecting more data and designing a benchmark. In addition, subject to the availability of data, we will adapt and test LKS for the case where the locations of the query issuers are available in the query log. Finally,
We believe that PA can also be applied to accelerate RWR on general graphs with dynamic edge weights; we will investigate this potential in the future.

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