Survey on Contextual Searching in Online Social Networking

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Abstract— In this paper, we survey on the various methodologies and techniques used for contextual search in online social networking. Contextual search helps the user to find out their determined results in online social networking. Contextual search can be achieved by ranking algorithms, semantic similarity checker, POS tagging etc. This paper besides contextual search also includes disambiguation and personalization. The disambiguation has to be found and the suitable result for the user's query has to be determined. These methods are applied to produce efficient results to the user's query and improve the web search engines to produce results more efficient.

Keywords— Contextual Search, Collaborative Learning, Online Social Network, Web Search engine, Ranking algorithm, disambiguation, personalization

I. INTRODUCTION

Online Social Networks are the latest and emerging technology which is a boon to the computer world. Online Social Network which has the global impact and is useful for many purposes. The social networking also ensures Collaborative Learning which is used mainly for sharing knowledge between people of different locations. Using contextual search engines, we could get efficient search results in online social networking, as the search is performed on the data available through social networks. According to the user selection the results are compared with the other results of the search engines and using the ranking algorithm, the user choice of results are higher ranked .These results are also semantically checked by the following steps such as tokenization, POS tagging, Stemming, word sense disambiguation, semantic similarity between two synsets and semantic similarity between two sentences. In the tokenization technique, the sentences are splitted into list of tokens and each token is checked for semantic correctness.POS tagging is used to check the correct parts of speech. Stemming is used to reduce the modulated words to their stem. The semantic similarity between two synsets is the Word Net where the taxonomy is converted to undirected graph and the distance between two synsets are computed [6].

With the help of Wikipedia and collaborative semantic annotations by applying ranking to the returned results, the web search engines can be improved. This work proposes semantic techniques for top ranked relevant results by using semantic layer on the top of the web search engines. Semantic annotations are used to unambiguously tag queries and target document where the Wikipedia is used as the encyclopaedic source. The collaborative user's information are obtained through feedback techniques. The algorithm used in this paper focuses on the collaborative user information from log records and feedback techniques, disambiguation of words through Wikipedia. The algorithm has the following steps such as query is executed in the web search engines and suitable web parameters are calculated for every retrieval of the result, then uses disambiguated query to find the similarity for query expansion, next finds the web resources and annotation parameters are computed for every retrieval of the result, at last the web parameters and the web resources are integrated to form the final set of resources. Thus, for the final set of resources the rank is computed [2].

Contextual web search engine is done to documents and posts which are shared in a social network using collaborative learning. The paper mainly concentrates on context acquisition which is faster and dynamic to consider the approach for automatic text processing of documents. Thus the work described here to give better search result and the contextual information provided in shared content is used to get the relevant documents for learning community by query expansion approach. Thus they mainly organized in 3 modules: Knowledge Base Configuration, Information Extraction and search. It also implemented a prototype for the learning community [1].

Rank-based prediction Algorithm for multi types of search results and to get the all type of information and query can give the relevant results in search engine with one click .There are three different types of data to filter and sort the results. According to the correlation of user's query term, compare between the result sets, they used machine learning approach to automatic identification and sorting [4].

Random walk Model is used for an effective retrieval of the relevant query items. The data can be retrieved according to the user's preference and semantically related queries; also we are using smoothing and personalization models. To enable effective content ranking, users should therefore click multiple times on the suggested tags to make their query more specific. In this work personalized system that takes latent semantic relations into account can aid the user in his search for the desired content. We focus on social content systems that enable collaborative tagging to annotate the

available content [16]. How the query is seems to be processed and the user interfaces in multiple search engines, which we need to give all types of information needed with one click gives user good search experience [1].

The classification of how the query is distributed, evaluated and how the length of queries varied is discussed [4].It mainly provides a framework of the people skills and expertise as Human Provide Service (HPS), which mainly concentrates on the ranking of users availability and interaction based on DSA rank [16].Social information Systems are a new paradigm for large scale distributed information management.

II. ARCHITECTURE DIAGRAM

Now-a-days online social network is becoming a part of daily process and it is useful in the entire environment for the business needs. online social networking mainly has the functionality of contextual search where it mainly used in collaborative learning that is sharing knowledge , where the context sharing is takes place using the communication tools. Thus we use more techniques and methods of contextual search.

According to the proposed architecture the user will give the query in contextual search the query processing is done with multiple search engine and search logs and query by this the detection of users[3], after query processing the ranking is done with the algorithm of semantic similarity checking and based on multiple type of search results[6], depend on this ranking search engine will process with some techniques like clustering, segmentation, post-tagging and all these are done in the information extraction of contextual web search[1], from this the user will get what they need. Fig.1
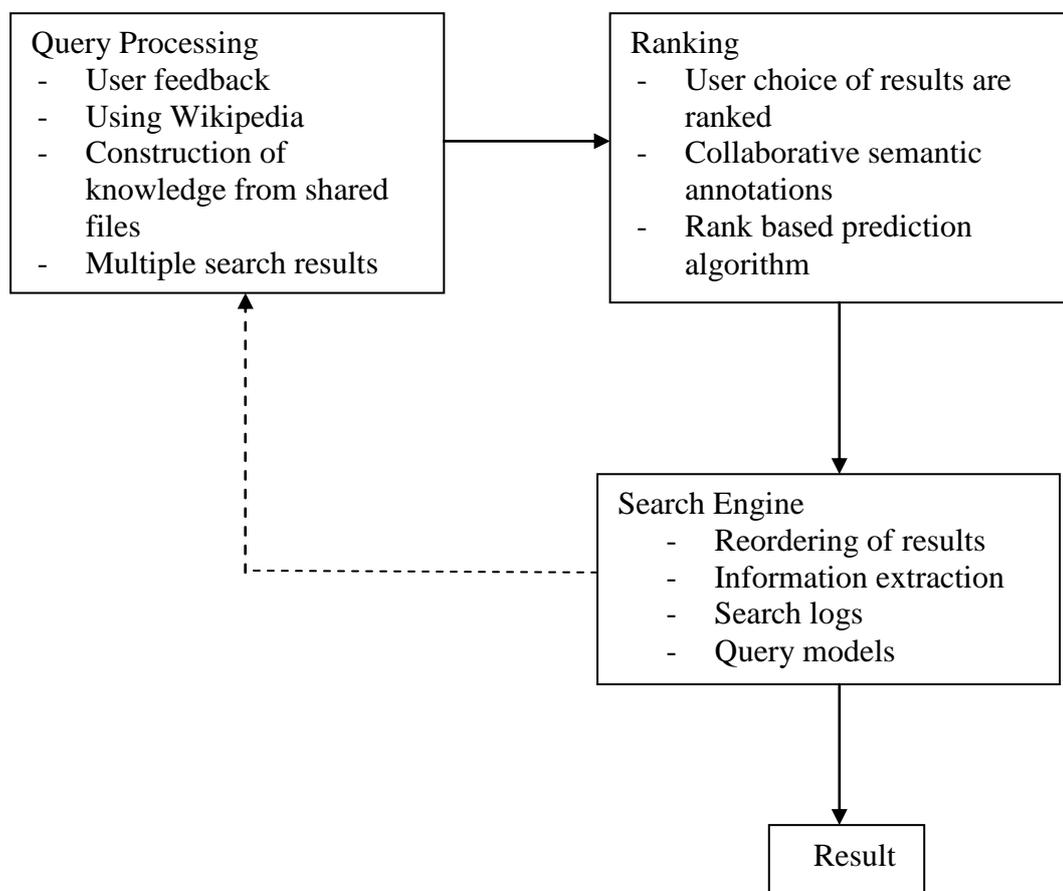

Fig.1 Architecture diagram for contextual web search

In proposed architecture thus the user gives the query will process in many techniques, thus tokenization method is used which it refines the results produced by the search engines according to the user selection of the results. The user selected results compared with the other results of the search engines and using the ranking algorithm, the user choice of results are higher ranked where Pos tagging is mainly used. These techniques mainly used in the sentences are splitted into list of tokens and each token is checked for semantic correctness.POS tagging is used to check the correct parts of speech. Stemming is used to reduce the modulated words to their stem. The semantic similarity between two synsets is the Word Net where the taxonomy is converted to undirected graph and the distance between two synsets are computed [6]. Based on the method of context aware where the data is given by the user [9].Thus for the ranking algorithm we use segmentation technique. The algorithm used in this paper focuses on the collaborative user information's from log records and feedback techniques, disambiguation of words through Wikipedia. The algorithm has the following steps where query is executed in the web search engines and suitable web parameters are calculated for every retrieval of the result, then it uses disambiguated query which is used to find the similarity for query expansion, then it finds the web resources and annotation parameters are computed for every retrieval of the result, at last the web parameters and the web

resources are integrated to form the final set of resources where the final set of resources the rank is processed[3].thus clustering algorithm is used in Wikipedia to map the document with particular topic[12]. The web search query of the query expansion is done in the contextual web search. The work is mainly focused in contextual web search engine done by documents and posts to be shared in a social network using collaborative learning. Thus the work described here to give better search result and the contextual information provided in shared content is used to get the relevant documents for learning community by query expansion approach. Thus they mainly organized in 3 modules: Knowledge Base Configuration, Information Extraction and search. It also implemented a prototype for the learning community. Thus the future work mainly improves the query search results by analysing, identifications and evaluating the queries [1]. The query process rank-based prediction Algorithm for multi types of search results and to get the all type of information and query can give the relevant results in search engine with one click .There are three different types of data to filter and sort the results. According to the correlation of user's query term compare between the result sets, they used machine learning approach to automatic identification and sorting [3]. Thus in query search engine we use pattern approach base on query length [5].The context based collaboration is mainly used in online users. The context of the users can be (i) Dynamic (i.e., changing over time) and (ii).mixed with multiple sub contexts together. So, in this paper they developed a new ontology based platform to overcome their problem, by finding the most relevant users in social network and considering them two types of personal and group by matching them. It mainly focussed context synchronisation process is able to boost social collaboration which it mainly used to overcome the problem of Context based collaboration between people [13]. Thus query tags are used for the information retrieval. Now-a-days the Tag-clouds have become more popular interfaces that allow users to query the database of these systems by clicking appropriate keyword terms. However, this type of one time click requests are often not expressive enough to effectively retrieve the desired content. Users have to use multiple clicks or type longer queries to satisfy their information need. To enhance this we are using Random walk Model for an effectively retrieval of the relevant query items. The data can be retrieved according to the users preference and semantically related queries, also we are using smoothing and personalization models .To enable effective content ranking, users should therefore click multiple times on the suggested tags to make their query more specific. In this work we show that a personalized system that takes latent semantic relations into account can aid the user in his search for the desired content. We focus on social content systems that enable collaborative tagging to annotate the available content. In collaborative tagging systems, every user can tag any piece of content. In this way, users indicate which aspects of the content correspond to their interest. Also, the aggregated tags of the all the users of a social network create a relevant distribution for each content element [16]. Thus above we discussed about the query process and ranking various algorithms and techniques.

III COMPARATIVE STUDIES ON VARIOUS METHODOLOGS ON CONTEXTUAL WEB SEARCH

S.No	Paper	Problem Definition	Solution
1	The Influence of Personalization on Tag Length in Social Media Search.	In Tag cloud, by clicking relevant terms the interface that allow users to query the database. To search Multiple queries to satisfy their information needs. For that we are using Random walk model to retrieve the relevant query items.	The number of tags resembles the number of terms in web queries. Personalization and Smoothing is the benefit for retrieval model in social content system. The relationship between the length of the query and the quality of the query of the predicted content ranking.
2	A rank-based prediction Algorithm of Learning User's Intention.	In Internet search, query can search the relevant results and find the types of information through search engine. By using rank-based algorithm, by one click query can find the relevant results and information.	The projections of user's intention to establish for multi-search Result aggregation model, and the algorithm is proved by experiments to be effective.
3	Dynamic refinement of search results utilizing the user intervention.	In this paper, refinement of results in the search engine. Using ranking find the relevant one in the search engine. Using the ranking algorithm to find the results of the higher ranked, by comparing relevant one and other results in the search engine.	The semantic information in the results returned by search engine in the search process. The insufficient information from keywords entered by user with rich semantic information from the pages the user chooses. In addition, without the need to store the navigation history of each user, achieve

			the improvement of the ranking of the results.
4	Improving-Large Scale Search engines with semantic annotations.	Using Wikipedia and collaborative semantic annotations to find the returned results by using ranking algorithm. In the web search engine, semantic techniques are using to search the top ranked results in the search engine.	The ranking algorithm to improve the results while searching the world wide web. The web-based application to prove its feasibility.
5	Contextual web searches in face book using learning materials and discussion messages.	In this paper, Query expansion based on contextual web search. The contextual web based search engine is used to share the documents and post in social network using collaborative learning	The contextual web search based on the collaborative its founds the results of user feedback. The search length, which reflects the number of non-relevant documents.

III. CONCLUSIONS

We presented various methodologies used in contextual search of the user's query in the web search engines. Today online social networking is an emerging technology where many people use it for many purposes. So, contextual searching becomes an important task in improving the web search engines in producing the relevant results to the users. Thus in this paper, we indentified the importance of contextual searching, personalization and disambiguation that need to be focussed by the research community to improve the searching more efficiently.

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