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# Personalized Web Search based on Privacy Protection and High Efficiency

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**Abstract**— Custom made web search has establishment as their effectiveness in improving the quality of various search services on the internet. User is not interest to disclose their private information during search. So it is the major barrier during search, we propose a personalized web search. It can adapted to the user profiles by queries and respecting to the user requirements. Runtime generalization aims at balance between the personalization and user privacy profiles. The search engine is processed based on query search either through general and user profile. User data are not saved in the server side cache memory to maintain the privacy. Relevance is measured as the probability that a retrieved resource actually contains those relations whose existence was assumed by the user at the time of query definition. Relevant data are retrieved based on the query check using profile based and general based. The large size and dynamic nature of the web highlight need for continuous support and updating of web based information retrieval system. The data retrieved proceed with the filter search technique to improve the search engine optimization.

**Keywords**—Personalized web search, filter, word relation, efficient, privacy enhancing.

## I. INTRODUCTION

Every time you use a regular search engine, your search data is recorded. Major search engines capture your IP address and use tracking cookies to make a record of your search terms, the time of your visit, and the links you choose - then they store that information maintained in the large database. Those searches reveal a shocking amount of personal information about you, such as your interests, family circumstances, political leanings, medical conditions, and more. This information is modern-day gold for marketers, government officials, black-hat hackers and criminals - all of whom would love to get their hands on your private search data. The web search engine has long become the most important portal for ordinary people looking for useful information on the web. However, users might experience failure when search engines return irrelevant results that do not meet their real intentions. Such irrelevance is largely due to the enormous variety of users contexts and backgrounds, as well as the ambiguity of texts. Personalized web search (PWS) is a general category of search techniques aiming at providing better search results, which are tailored for individual user needs. As the expense, user information has to be collected and analysed to figure out the user intention behind the issued query.

## II. RELATED WORK ON PWS BASED ON PRIVACY ENHANCING

### A. Privacy Enhancing

Privacy is a state in which one is not observed or disturbed by other people. User is not interest to disclose their personal details when they are surfing in Internet. . Privacy, which is a serious concern for many users, is the price users have to pay for the convenience of recommendation systems in a world with booming information. Users normally have no choice but to trust the service provider to keep their sensitive personal profile safe. However, it is not always “safe.” For example, a shopping website one has visited once might keep appearing on the advertising block for days when browsing some other web pages. In previous set of versions the privacy are protected at the server side, if suppose there is an data leakage at the server side then the client details will be exposed to the outer world. Thereby to overcome this problem custom based web search proceeds with the hiding the data at server side in which the server cannot be re-identify the customer details.

### B. Refined Search

Refined Search in this states that it crawl through the website in order to provide the relevant data. There by it indicates that it’s a safe search mode for the kids, family etc. Even in corporate whether we need to maintain the privacy this filtrates the data from database and as per the query this blocks the data and crawl through the website for the related information.

## III. CUSTOMIZED WEB SEARCH

### A. Metastasis search

It’s being presented as a query expansion or broadening approach which can better understand longer natural language queries,

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like the ones that people might speak instead of shorter keyword matching queries which someone might type into a search box. for example, the kind of query where it might potentially work best upon could be something like [What is the best place to spend time peacefully?], where other search engine might use synonym and substitute query rules in combination with analyzing other non-skip words within the query itself to understand the context of a query term and a potential replacement for that query to reformulate (or replace) the terms being searched upon and provide potentially better results. Search engine might look at the query [What is the best place to spend time peacefully?], and understand that a searcher looking for results for that query would likely be more satisfied with the use of “city” instead of “place”. The use of “city” instead of “place” might be considered as a potential synonym or substitute based upon substitution rules which focus upon co-occurring terms that might show up in search results when those terms are searched upon, or co-occurring terms in query sessions. This method analysis of different search entities such as the relationships between queries might be identified in some cases as improving searcher satisfaction for search results based upon things such as how long someone might dwell on a page when they select it in a set of search results.

1) *Methods, systems, and apparatus, including computer programs encoded on a computer storage medium, for:*

Identifying a particular query term of an original search query,

Identifying a candidate synonym for the particular query term in context with another non-adjacent query term of the original search query that is not adjacent to the particular query term in the original search query,

Accessing stored data that specifies, for a pair of terms that includes the particular query term and the candidate synonym of the particular query term, a respective confidence value for the other non-adjacent query term, Determining that, in the stored data, the confidence value for the other non-adjacent query term satisfies a threshold.

Determining to revise the original search query to include the candidate synonym of the particular query term, based on determining that the confidence value the other non-adjacent query term satisfies the threshold.

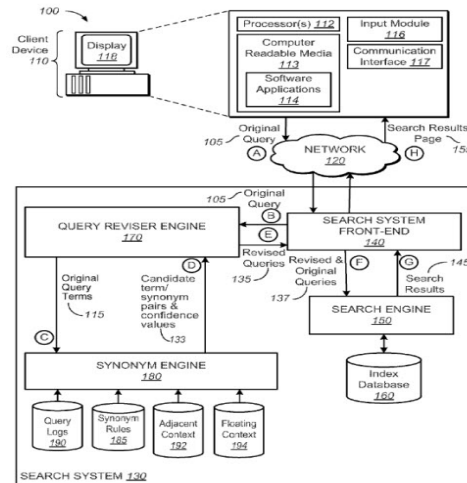


Figure 1.1

### B. Fuziness in Data

This attempt to solve the problem “Given the specific data in which the subjects cannot be identified while the data remain practically useful”. There are two general methods to attain the data constraints Repudiation and Generalization. In Repudiation method. In this method, certain values of the attributes are replaced by an symbol '\$,\*,&'. All or some values of a column may be replaced by '\$,\*,&'. In the anonymous table below, we have replaced all the values in the 'Name' attribute and all the values in the 'Religion' attribute have been replaced by a '\*'.

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TABLE I

NAME	AGE	GENDER	RELIGION	PLACE
\$	45	Male	\$	Chandigarh
\$	56	Female	\$	Bangalore
\$	27	Male	\$	Hyderabad
\$	26	Male	\$	Chandigarh
\$	25	Female	\$	Bangalore
\$	66	Female	\$	Hyderabad
\$	78	Female	\$	Chandigarh
\$	90	Male	\$	Kerala
\$	76	Female	\$	Kerala
\$	66	Female	\$	Chandigarh

TABLE II

NAME	AGE	GENDER	RELIGION	PLACE
Ram	45	Male	Hindu	Chandigarh
Sita	56	Female	Muslim	Bangalore
Ravi	27	Male	Muslim	Hyderabad
Shankar	26	Male	Hindu	Chandigarh
Parvathi	25	Female	Hindu	Bangalore
Anu	66	Female	Christian	Hyderabad
Jothi	78	Female	Parsi	Chandigarh
Manickam	90	Male	Buddhist	Kerala
Suja	76	Female	Hindu	Kerala
Manju	66	Female	Muslim	Chandigarh

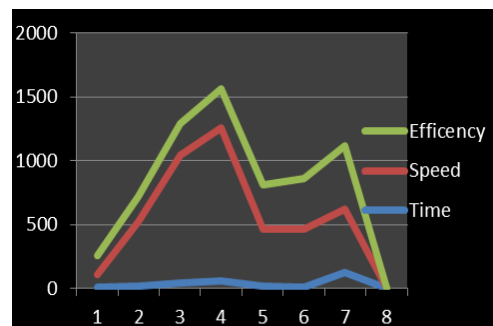
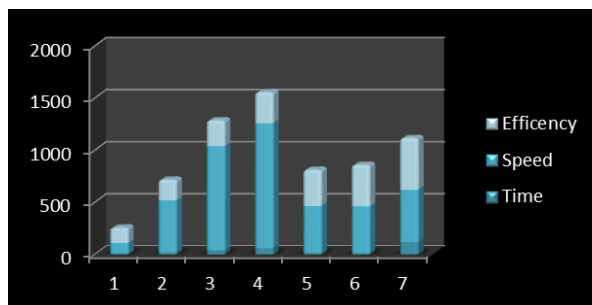
### IV. EXPERIMENTAL ANALYSIS

In this section, we present the experimental results of the search engine. We conduct the following experiment to follow up the detailed results.

#### A. Germane Result set

In this experiment, we analyze and compare the effect of the generalization on queries with different judicious control and study of the utilization and privacy enhancing technique.

- 1) To improve the efficiency of this web search, the calculations are performed on the basis of time and speed of the network.
- 2) Instead of maintaining the normal database. The content of the search are Stored using APP HARBOUR-Cloud Provider.
- 3) To improve the searching technique, and provide relevant Metastase search Algorithm is implemented.
- 4) Study state Analysis, It's an analysis technique which shows the improve of efficiency in the project
- 5) Result Accuracy testing, its an testing methodology of Web search in which it checks for the accurate result for the search data.
- 6) Study state analysis and Result Accuracy Testing are shown with the help of graphical image.
- 7) To enhance the privacy of the user fuzziness in data state method is used.



### V. CONCLUSIONS

Hence we provide privacy for the user data both at client and server side. The filtration of data is done to provide relevant result. The efficiency of the data retrieval is calculated under the efficiency calculation. Thus the web search done based on hiding user information and to retrieve relevant set of information as per the user request.

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### REFERENCES

- [1] Mining Long term search history to improve search accuracy.
- [2] Personalizing search based on user search Histories
- [3] A Largescale Evaluation and Analysis of Personalized Search Strategies
- [4] K. Sugiyama, K. Hatano, and M. Yoshikawa, "Adaptive Web Search Based on User Profile Constructed without any Effort from Users," Proc. 13th Int'l Conf. World Wide Web (WWW),2004.
- [5] X. Shen, B. Tan, and C. Zhai, "Implicit User Modeling for Personalized Search," Proc. 14th ACM Int'l Conf. Information and Knowledge Management (CIKM), 2005.
- [6] X. Shen, B. Tan, and C. Zhai, "Context-Sensitive Information Retrieval Using Implicit Feedback," Proc. 28th Ann. Int'l ACM SIGIR Conf. Research and Development Information Retrieval (SIGIR),2005.
- [7] F. Qiu and J. Cho, "Automatic Identification of User Interest for Personalized Search," Proc. 15th Int'l Conf. World Wide Web (WWW), pp. 727-736, 2006.
- [8] J. Pitkow, H. Shu" tze, T. Cass, R. Cooley, D. Turnbull, A. Edmonds, E. Adar, and T. Breuel, "Personalized Search," Comm. ACM, vol. 45, no. 9, pp. 50-55, 2002.



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