

PERSONALIZED WEB SEARCH BASED ON USER PROFILES

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Abstract - Personalized Web Search Based on User Profile is a web application which has demonstrated its effectiveness over general web search. The Internet contains vast amount of information that the search engines are able to provide the search results that are based on page ranks. But those results are not related to the particular user's environment. Personalized Search method would be able to provide results for search query that relates to a particular user's environment, his area of interests, his likes/ dislikes, the data that he might have found to be useful for him while searching. The above process can be applicable for each and every registered user in this application. User can give their basic information in their profile and get benefits on each and every search. When the user got registered with the system it creates a profile according to the profile created by the user. The search keyword can be found out from their profile after they get login. When the user searches a keyword using the search engine inside the application, it refers the profile of the user and displays the Personalized Search results and can save it for his future reference through bookmarks.

Key Words: Personalized, Bookmark, Page Rank, Search Engine, Query

1. INTRODUCTION

Developing a customized web search using personalized data of the user and generating best keyword. A user profile is typically generalized for only once offline, and used to personalize all queries from a same user indiscriminatingly. Such one profile fits all variety of queries related to their location. The general web search do not take into account the customization or the personalization of the user. This probably makes some user personalization to be highly related while others insufficiently related. In general web search the relationship between the topics and the user is not considered. It just calculate the relationship based on the entered search keyword.

Recently, the keyword search has received considerable attention from research community. Some existing works focus on retrieving individual keyword by specifying a query consisting of a query location. Each retrieved keyword is associated with keywords relevant to the query keywords and is close to the query location.

This project is Entitled as "Personalized Web Search Based on User Profile". The project is developed using ASP.NET as front end and SQL Server as backend. And the coding is developed in C# language with the .NET version 2008.

User can give their basic information in their profile and get benefits on each and every search. The user has to be registered with the system, then it creates a profile, according to the details given by the user. The search keyword can be found from their profile after they login to the application. When the user searches a keyword using the search engine inside the application, it refers the profile of the user and displays the Personalized Search results. The system should be able to intelligently identify whether a search result has been useful to the user or not and save it for future reference through bookmarks.

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2. LOGIC AND ARCHITECTURE

The project has been delivered as a web application in which the logic used and its architecture is explained below.

2.1 Logic

1. total search keyword(tsk)
2. tsk ← null

3. foreach keyword in T
4. do
5. append ki to tsk
6. done
7. Open Google communication
8. Enter tsk in search
9. Get Google results $R=\{r_1, \dots, r_n\}$
10. foreach result in R
11. do
12. Insert r_i in webpage
13. done
14. if another search
15. Repeat the above steps
16. else
17. Close Google communication
18. return R

comparison shows the optimization between the Personalized Search and the Google Search Results. Consider the current location of user as Coimbatore. The web application is hosted in a cloud under the link prj120.mycloudprojectdemo.com.

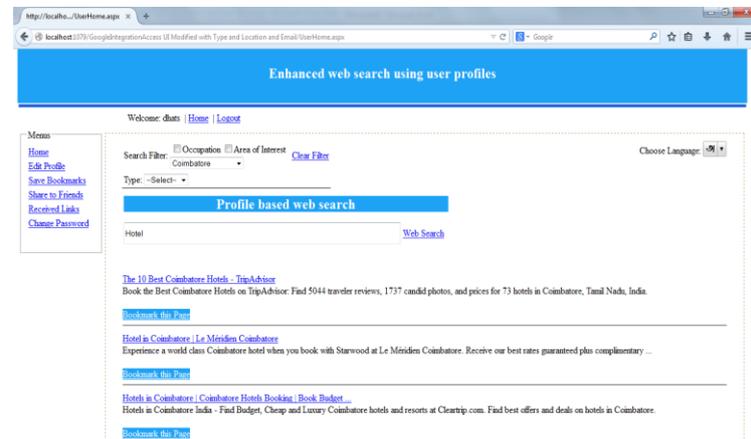


Fig -2: Personalized search results

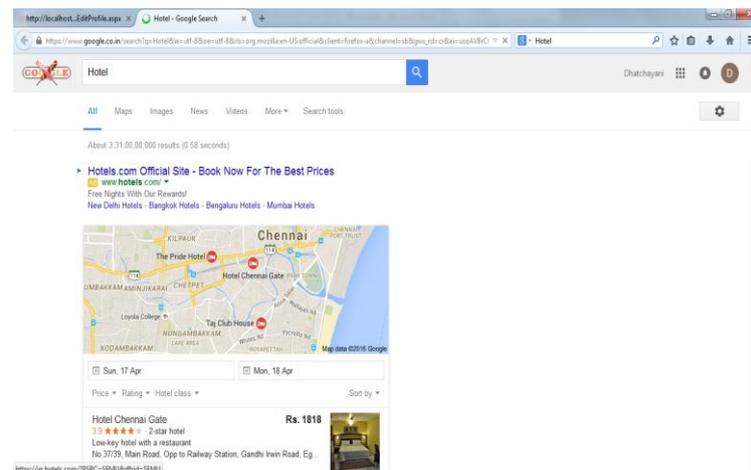


Fig -3: Google Search Results

2.2 Architecture

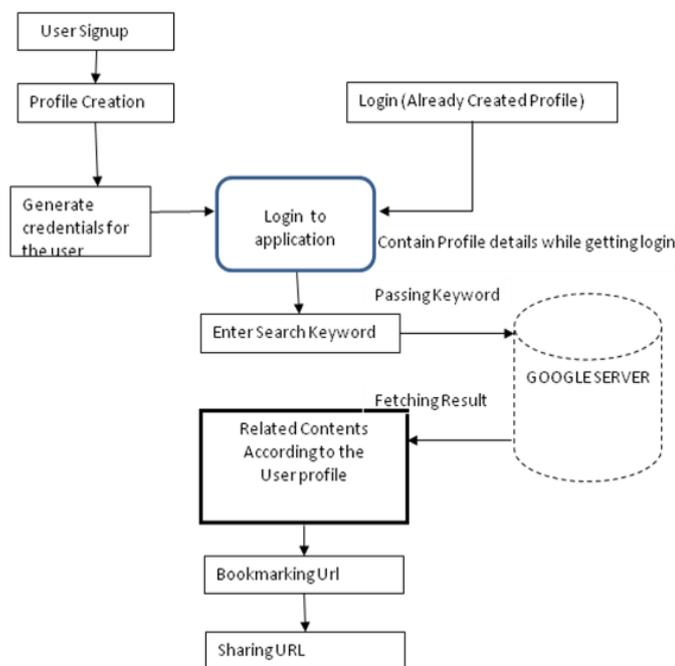


Fig -1: Flow of the Application

3. RESULT AND DISCUSSION

The general Google search results can be compared with the search results of the application developed. The below

4. PERFORMANCE EVALUATION

The performance analysis is done to prove the effectiveness of the proposed methodology in terms of the comparison with the existing system. The findings clearly demonstrate that the proposed methodology improved in retrieving the user search content according to the user's environment.

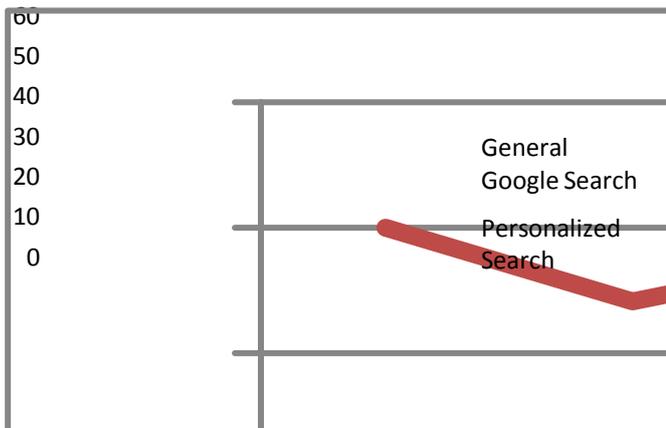


Fig -4: Comparison between Google Search and Personalized Search

In the above findings, the number of search results obtained from the Google search and the personalized search application is compared. Some of the queries like hotel, college are taken into consideration for comparing the efficiency. The reason for not measuring the search quality directly is because it depends largely on the relevance of the search query, which is hard to predict. In addition, it is too expensive to solicit user feedback on search results.

5. CONCLUSIONS

The proposed work presented a user customized and personalized web search. The personalized details of the user is an additional dimension to support more related search results. This also helps in decision making which refers to the search results to be fetched. The system has to intelligently identify whether the search result is related to the user's environment or not. This application also performs customization on search results based on the user profiles. No advertisements will be pushed up in this site. Apart from searching the personalized information, the user can also save those information for future reference through bookmarking the pages. Even they can share their saved bookmarks with their friends through normal application based sharing and also through email based sharing. In future the application can be integrated with Google server and can be designed to be portable across all platforms. The application can be extended to mobile application.

REFERENCES

- [1] Kenneth Wai-Ting Leung, Dik Lun Lee, and Wang-Chien Lee, "PMSE: A Personalized Mobile Search Engine", IEEE Transactions On Knowledge And Data Engineering, Vol. 25, No. 4, April 2013.
- [2] Anoj Kumar and Mohd. Ashraf, "Efficient Technique For Personalized Web Search Using Users Browsing History", International Conference on Computing, Communication and Automation (ICCCA2015).
- [3] Lina Yao, Quan Z. Sheng, Anne. H. H. Ngu, Jian Yu, and Aviv Segev, "Unified Collaborative and Content-Based Web Service Recommendation", IEEE Transactions On Services Computing, Vol. X, No. X, August 2014.
- [4] W.P.A. Fernando, K.A.C. Perera, A. Ranathunga, H.G.C. Wijesooriya, D.A.B Alahakoon and J.Amararachchi, "Intelligent Web Companion (IWC): Personalized Web Surfing tool", International Conference on Advances in ICT for Emerging Regions (ICTer), 2013.
- [5] Fang Liu, Clement Yu, and Weiyi Meng, "Personalized Web Search for Improving Retrieval Effectiveness", IEEE Transactions On Knowledge And Data Engineering, Vol. 16, No. 1, January 2004.
- [6] Luis M. de Campos, Juan M. Fernández-Luna, Juan F. Huete, and Eduardo Vicente-López, "Using Personalization to Improve XML Retrieval", IEEE Transactions On Knowledge And Data Engineering, Vol. 26, No. 5, May 2014.
- [7] Rakesh Kumar, Aditi Sharan, "Personalized Web Search Using Browsing History And Domain Knowledge", IEEE Conference 2014.
- [8] Indu Chawla, "An overview of personalization in web search", IEEE Conference 2011.
- [9] Yao-Chung Fan, Yu-Chi Chen, Kuan-Chieh Tung, Kuo-Chen Wu, Arbee L.P. Chen, "A Framework for Enabling User Preference Profiling through Wi-Fi Logs", IEEE Transactions On Knowledge And Data Engineering, 2015.

- [10] Feng Gui, Magno Guillen, Naphtali Rische, Armando Barreto, Jean Andrian, Malek Adjouadi, “A Client-Server Architecture for Context-Aware Search Application”, International Conference on Network-Based Information Systems, 2009.
- [11] Athanasios Papagelis and Christos Zaroliagis, “A Collaborative Decentralized Approach to Web Search”, IEEE Transactions On Systems, Man, And Cybernetics—Part A: Systems And Humans, Vol. 42, No. 5, September 2012.