

People's Query Logs: Personal Information Management

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ABSTRACT

In this position paper we propose that the challenge for query log analysis goes beyond mapping navigation patterns to provide interaction analysis tools to help people understand their own Web search and information behaviors. The relationship between personal information management and Web logs is also discussed. Further research issues are outlined.

Categories and Subject Descriptors

H.3.3 [Information Storage and Retrieval]: Information Search and Retrieval – *query formulation, search process, selection process.*

General Terms

Human Factors

Keywords

Web search logs, personal information management

1. INTRODUCTION

Most query log analysis studies focus on the analysis of logs to identify user navigation patterns for the benefit of Web systems and interface design by computer developers. However, in this position paper we propose that the goal of query log analysis goes beyond navigation patterns to provide interaction analysis tools to help people understand their own Web search and information behaviors.

Studies show that most people do not understand how Web search engines work and how to improve their Web searching [1]. Most people have no training in search or understanding their information behaviors or search behaviors. As more and more people use Web tools at work and home, they are generating personal Web logs and creating their own databases of information from the Web, and are increasingly requiring personal information management (PIM) tools [2]. Therefore, providing tools that help people analyse their own interactions could help people. In conjunction with the growth of PIM systems there is a growing need to provide such analysis tools for ordinary Web searchers.

Our position paper first describes what is meant by the concept of personal information management (PIM). We then outline the need to develop tools that assist people understand their own Web interactions.

2. PERSONAL INFORMATION MANAGEMENT

Personal information management (PIM) is the practice and the study of the activities people perform in order to acquire, organize, maintain, retrieve and use information items such as Web pages, Web search results, emails and other types of files [2]. Wikipedia describes personal information manager (PIM) as a type of application software that functions as a personal organizer.

As an information management tool, a PIM's purpose is to facilitate the recording, tracking, and management of certain types of "personal information". A goal of PIM is to allow a person to effectively access their own stored information. Personal information management software allows people to create, organize and retrieve their own information. The study of PIM means understanding better how people manage information across tools and over time. It is not enough simply to study, for example, Web search in isolation, but in the context of a person's various PIM activities.

In addition to helping people perform acquiring, organizing, maintaining, retrieving and using information tasks with Web pages, Web search results, emails and other types of files, we need to support peoples' ability to analyze their information tasks. Currently, researchers' are exploring how to support users' memory and navigation tasks through features such as search histories. We need a generation of Web search analysis tools that help users' monitor and draw skill improvement from their search behaviors. This could be done through the analysis of an individual's Web search logs, inconjunction with findings from social search.

3. PERSONAL QUERY LOG ANALYSIS AND TOOLS

Many people spend lots of time trying to analyse in depth and then improve their performance on computer games, the golf course, driving cars, the tennis court or other skill performance situations.

Currently, people are not well versed in how to analyse their own Web interactive behaviors and work out how to improve their search skills. Most people do not have the luxury of learning from

a search expert. The industry and society approach to search training is at best quite limited.

Most Web search engines do not provide any user education or if they have – users did not bother to take the training course. There is a need to go beyond Web search training with Web search log analysis and personal information management techniques.

4. FURTHER RESEARCH

We need to investigate the following questions:

1. How do users go about collecting and storing their Web search interactions and results?
2. Can Web search log analysis and personal information management techniques enhance users Web search experience?

3. How can users learn from their Web searching and analysis of their own Web logs?

4. Can Web search log analysis and personal information management techniques help users understand how they are searching and what can do to improve?

5. REFERENCES

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