Chapter 4

Research on Web Search and User Search Behaviors in Mainland China

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ABSTRACT

There was a great boom of research on information behaviors, especially Web search behaviors, in the past five years in Mainland China. The research in this area covers a variety of topics, including task, user characteristics, information need, mental model, search strategy, queries and clicks, system related research, etc. This chapter is a review of research on Web search and user search behaviors in Mainland China. The review demonstrates that there are several well-organized teams of researchers in this field, each focusing on different aspects of users’ behaviors, and there is much collaboration between researchers in China and abroad. The review of current research also has suggestions for future research in this field in Mainland China. More research should be conducted on important issues during the complete search process, like information need, search task, and interactions. In addition, besides survey, log mining, and experiment methods, other methods and more solid research design should be taken into consideration in the future research in Mainland China.

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1 INTRODUCTION

This chapter reviews recent research on Web search and search behaviors in Mainland China. The research on Information Retrieval (IR) has been a tradition and one of the important areas in library and information science (LIS) in China. Similar to IR research in U.S. and other countries, it has evolved and experienced a change from system-oriented to user-oriented in Mainland China in recent years. As early as 1984, Wang (1984) wrote the first paper in Mainland China on information behavior research. After that, however, it did not receive much attention from Chinese researchers until the beginning of 21st century. During the years from 2000 to about 2005, review articles about the research on this topic published on International journals began to appear on Chinese journals (Cao & Hu, 2002; Zhu, Jing, & Dou, 2005; Cao & Deng, 2006; etc.). Chen (2008) summarized the characteristics of information behavior research in Mainland China during that time: first, the number of research on Web search behaviors increased rapidly on Chinese journals after about 2006; second, Web search became a hot topic and it has been examined among different populations; and thirdly, a great number of information behavior theories, models and research techniques were introduced to Mainland China from abroad after 2005. There were two reasons why Chinese researchers began to pay attention to information behavior research so late. The first one was that the traditional Chinese information science research in China had more scientific research features than social science research features. The second one was that, according to Chen (2008), information need and use in libraries and other traditional information institutions received more attentions than information seeking behavior in Mainland China. We should also acknowledge the rapid growth of Internet users in Mainland China after 2008. According to the reports from China Internet Network Information Center (CNNIC), the number of Internet users in China was 26.5 million in 2001, 103 million in 2005, and it increased to 210 million in 2008, and one year after that it was over 300 million in 2009. In recent years, research on user search behaviors in Web search became very popular in Mainland China, and many important and productive research groups were formed in different institutions. We think it is a good time to review related research on Web search and user search behaviors in Mainland China. The goal of this chapter is to provide a comprehensive review of the development and evolvement of research on Web search and user search behaviors, and then summarize the research trends and challenges.

An important academic event in this area is the “Search Behavior and User Cognitive Research Workshop,” which was co-initiated by Peking University and Nanjing University of Science and Technology in 2008. This year (2013), the fifth workshop will be held in Sun Yat-Sen University in Guangzhou. The primary goal of the workshop is to facilitate the communications of researchers who are conducting Web search, information behavior, user cognition, and other related research. This workshop has two features. Firstly, besides individual researchers, research teams are more welcomed in the workshop. Well-organized research teams include the teams from Nanjing University of Science and Technology, Peking University, Southwest University and Central China Normal University. There is even a section of “Introduction to Research Teams” in the workshop. Secondly, there have been many Work-in-Progress reports in the workshop. Work-in-Progress section provides a good opportunity for sharing valuable ideas, eliciting useful suggestions for work at early-stage, and fostering collaborations and discussion among researchers. Although we review only published papers in the chapter, the contribution of the workshop to Chinese information behavior and related research must be acknowledged. As a matter of fact, one of our motivations to write the chapter is that as five years have passed since the first workshop held in Peking University in 2008, it is necessary