

Understanding and Predicting Search Satisfaction in a Heterogeneous Environment

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ABSTRACT

Search performance evaluation can be performed using metrics based on result relevance or alternative measures based on users' search experience. Recent studies indicate that relevance-based evaluation metrics, such as MAP and nDCG, may not be perfectly correlated with users' search experience (usually considered as the gold standard). Therefore, search satisfaction has become one of the prime concerns in search evaluation studies. In this talk, I will discuss about some of our recent progresses in the understanding and effective prediction of search satisfaction. I will start by talking about the relationship between relevance, usefulness and satisfaction. More specifically, how do document's usefulness perceived by the user and relevance annotated by the assessors correlate with user's satisfaction? After that, we investigate users' satisfaction perception in a heterogeneous search environment and try to find out how vertical results on SERPs affect users' satisfaction. Finally, we introduce a novel satisfaction prediction framework which relies on users' mouse movement patterns (motifs) to identify satisfied or unsatisfied search sessions.

Biography

Yiqun Liu is now working as associate professor at the Department of Computer Science and Technology in Tsinghua University, Beijing, China. His major research interests are in Web Search, User Behavior Analysis, and Natural Language Processing. He is also a Principal Investigator (PI) of a joint Center (named NExT) between National University of Singapore and Tsinghua University to develop technologies for live media search. He serves in the editorial board of the Information Retrieval Journal (Springer). He also serves as short paper chair of SIGIR2017, program chair of NTCIR-13, general chair of AIRS2016 as well as program committee members of a number of important international academic conferences including SIGIR, WWW, AAAI, ACL and IJCAI. He published over 30 papers in top-tier academic conferences/journals and got over 1,600 citations according to Google scholar. He received the best paper honorable mention award of SIGIR2015 and AIRS2013. He has also been the coordinator for the NTCIR INTENT and IMine tasks since 2011.