Abstract

For a broad-topic and ambiguous query, different users may have different search goals when they submit it to a search engine. The inference and analysis of user search goals can be very useful in improving search engine relevance and user experience. In this paper, we propose a novel approach to infer user search goals by analyzing search engine query logs. First, we propose a framework to discover different user search goals for a query by clustering the proposed feedback sessions. Feedback sessions are constructed from user click-through logs and can efficiently reflect the information needs of users. Second, we propose a novel approach to generate pseudo-documents to better represent the feedback sessions for
clustering. Finally, we propose a new criterion "Classified Average Precision (CAP)"; to evaluate the performance of inferring user search goals. Experimental results are presented using user click-through logs from a commercial search engine to validate the effectiveness of our proposed methods.

References

- Zheng Lu, Student Member, IEEE, Hongyuan Zha, Xiaokang Yang, Senior Member, IEEE, Weiyao Lin, Member, IEEE, and Zhaohui Zheng –"A New Algorithm for Inferring User Search Goals with Feedback Sessions"–IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, VOL. 25, NO. 3, MARCH 2013.

Index Terms

Computer Science

Algorithms
Keywords

Page ranking  feedback sessions  inferring  user search goals  search engine optimization  indexing  re-ranking  and clustering.