

Information Seeking on the World Wide Web – measuring user behavior

Christoph Hölscher¹

User behavior, Search engines, logfile analysis, expert novice comparison

Abstract

Searching for relevant information on the World Wide Web often is a laborious and frustrating task for casual and experienced users. To help improve searching on the web based on a better understanding of user characteristics, we investigate what types of knowledge are relevant for Web-based information seeking, and which knowledge structures and strategies are involved.

Two experimental studies are presented, which address these questions from different angles and with different methodologies. In the first experiment 12 pronounced Internet experts are first interviewed about search strategies and then perform a series of realistic search tasks on the WWW. From this study a model of information searching on the WWW is derived and tested in a second study.

In the second experiment two types of potentially relevant types of knowledge are compared directly. Effects of Web experience and domain-specific background knowledge are investigated with a series of search tasks in an economics-related domain (introduction of the EURO currency).

Simulated search tasks which address individual sub-processes of the search process are run via questionnaire. This is complemented with real-life information seeking tasks on the WWW and data is collected with the combination of proxy logfile and traditional observer protocols.

We find differential and combined effects of both Web experience and domain knowledge.

Costs and benefits of the various methods of data collection are discussed.

¹ Institut für Informatik und Gesellschaft (IIG), Abteilung Kognitionswissenschaft, Universität Freiburg, 79085 Freiburg. Email: hoelsch@cognition.iig.uni-freiburg.de, URL <http://www.iig.uni-freiburg.de/cognition/members/hoelsch/hoelsch.html>