Study Setting and Task Configuration for Task-based Information Seeking Research

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ABSTRACT

Users look for information to finish a task or goal related to their work or everyday lives. Task-based information seeking (hereafter TBIS) is a research area that takes into account the characteristics of the underlying tasks that motivate users to look for information. Knowing the relationships between information seeking behaviors and task characteristics could inform system design that personalizes information to suit users' task at hand. When designing a TBIS study, researchers need to consider several components-such as study setting and task configuration-that can be authentic (i.e., part of users' real life) or synthetic (i.e., something created and provided by the researcher). Each type of setting or task configuration has its strengths and limitations. For instance, the lab setting is an artificial environment not familiar to the participants while it allows researchers to eliminate potential confounding variables brought by the environment.

This dissertation examines how study settings and task authenticity impact users' search behaviors (e.g., page dwell time), task perceptions (e.g., expected difficulty), and task experiences (e.g., engagement). Thirty-six university students finished a 2x2 repeated design study. Each participant completed two search sessions: one lab session in which they finished two search tasks individually in a computer lab and one remote session in which they finished two tasks at a remote location of their choice. One of the two tasks in each session was brought by themselves (authentic task) and the other was assigned by me (simulated task). To ensure that their search behaviors are comparable, all tasks were evaluative tasks which were tasks that required users to evaluate several options belonging to the same category. Their search activities were logged by a browser extension and their task perceptions and experiences were collected by five-point scale questions before and after each task. Preliminary analysis showed that 1) participants' task perceptions were significantly different between authentic and simulated tasks; and 2) multiple aspects of their search behaviors-such as the number of pages visited and dwell time on pages-were significantly affected by task authenticity, study setting, or both.

TOPICS

interactive information retrieval; information seeking; research methods