

Web usability: Factors affecting the amount of time users invest in Web site search tasks

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Introduction. Making a Web site a useful and enjoyable experience is a valued goal of Web designers. Despite the rapid growth of information technology and society's reliance on computing technology, the needs of users have only recently become part of interface development. Studies on human-computer interaction investigate how people interact with computer technology. Usability testing methods are utilized to determine whether users can complete tasks successfully, in a short amount of time, with a minimal amount of effort, and with a high degree of satisfaction (Henneman, 1999).

Literature Review. Web usability studies investigate end-user interactions and experiences relating to Web sites (Fichter, 2001) to identify positive and negative factors affecting Web site design decisions. Web usability studies have investigated a variety of factors, such as Web site navigation (Conklin, 1987; Sano, 1996; Frick, et al., 1999), readability of typeface, font style and size (Chen, et al., 1996; Persichitte, 1999; Bernard, Chaparro, Mills & Halcomb, 2003), and effective color combinations for font and backgrounds (Williams, 2000; Ling & van Schaik, 2002; Hall & Hanna, 2004). Most research studies deal with online searching involving search engines (Spink, 2002) or a directed search of the entire Web (Luconi & Tabatabai, 1999). Few studies exist regarding how much time users are willing to spend looking for information within a specific Web site or how search failures affect the length of time a user is willing to invest in a search task. Research studies also exist on the effect of software errors (Lazonder & Van der Meu, 1995; Meister, D. 1990) or network delays on users (Jacko, Sears & Borella, 2000), but no studies explore how Web site navigational design errors affect a user's willingness to continue a site search.

Research Design. This presentation emanates from a study using descriptive statistics and qualitative methods to explore three questions. How much time will users spend looking for information within a Web site? How do search failures affect the length of time a user is willing to invest in a search task? How do Web site navigational design errors affect a user's willingness to continue a site search? The researcher employed a trained observer, in-depth, structured interviewing of a small number of users using think-aloud protocols (Ericsson & Simon, 1993), and directed browsing (Marchionini, 1995).

Impact. Technology educators are presented with significant challenges to continually update and impart their knowledge of effective Web design principles in a rapidly evolving technological environment. Web designers must also continually update their Web usability knowledge to produce and maintain an effectively designed Web site. It is hoped that the findings presented will add to the body of Web usability research to help unify and further refine Web site usability principles for educators and designers alike. Data collection has concluded, and coding and analysis have commenced.