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Beyond Quality and Accessibility: Source Selection in Consumer Health Information Searching

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A systematic understanding of factors and criteria that affect consumers' selection of sources for health information is necessary for the design of effective health information services and information systems. However, current studies have overly focused on source attributes as indicators for 2 criteria, source quality and accessibility, and overlooked the role of other factors and criteria that help determine source selection. To fill this gap, guided by decision-making theories and the cognitive perspective to information search, we interviewed 30 participants about their reasons for using a wide range of sources for health information. Additionally, we asked each of them to report a critical incident in which sources were selected to fulfill a specific information need. Based on the analysis of the transcripts, 5 categories of factors were identified as influential to source selection: source-related factors, user-related factors, user-source relationships, characteristics of the problematic situation, and social influences. In addition, about a dozen criteria that mediate the influence of the factors on source-selection decisions were identified, including accessibility, quality, usability, interactivity, relevance, usefulness, familiarity, affection, anonymity, and appropriateness. These results significantly expanded the current understanding of the nature of costs and benefits involved in source-selection decisions, and strongly indicated that a personalized approach is needed for information services and information systems to provide effective access to health information sources for consumers.

Introduction

Information sources are containers or carriers of information (Kuhlthau, 1999; Morrison & Vancouver, 2000; O'Reilly, 1982). Selecting a source is often the first step in information seeking (Belkin, Oddy, & Brooks, 1982; Marchionini, 1997; Savolainen, 2006; Wilson, 1981). Thus,

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source selection naturally has a direct impact on the success of information search attempts. This impact may be more significant in the health domain, as the quality and completeness of information varies greatly across different sources (Purcell, Wilson, & Delamothe, 2002; Yeung & Mortensen, 2012). Such variances could cause users to develop different mental models of diseases and form different health beliefs, which will subsequently lead to different health behaviors and decisions (Kealey & Berkman, 2010).

Health information is available from many different sources. More traditional ones include interpersonal sources (doctors, family, and friends), mass media (TV, newspapers, magazines, and radio), published literature, books, pamphlets, and telephone advice lines (e.g., cancer information services) (Cangelosi & Markham, 1994; Gollop, 1997; Lenz, 1984; Manfredi, Czaja, Buis, & Derk, 1993; O'Malley, Kerner, & Johnson, 1999; Pennbridge, Moya, & Rodrigues, 1999). In the late 1990s, the diffusion of the Internet into the public sphere rapidly made it a popular space for general consumers to seek health information (Eysenbach, 2000; Morahan-Martin, 2004). More recently, the development of Web 2.0 technologies led to the emergence of an array of new forms of sources, including online communities, wikis, social Q&A, and social networking sites (SNSs), where consumers not only look for information, but also share personal stories, participate in discussions, and collaboratively construct knowledge (Eysenbach, Powell, Englesakis, Rizo, & Stern, 2004; Laurent & Vickers, 2009; Oh, Yi, & Worrall, 2012). This recent development has made the current health information environment unprecedentedly diverse and complex.

The availability of a wide variety of sources and the significant impact that a source has on one's health behavior and decisions invite a close examination of the criteria by which consumers select sources and the factors that influence that selection. This knowledge is necessary for informing health literacy education and for improving information services and the design of health information systems. Source selection is, by no means, a new research topic. As a matter of fact, much has been known about consumers'