

lessening. However, the conduct of groups in an online environment may limit and bias group discussions to certain populations that have access to and feel more comfortable managing technology.

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See Also: Antisocial Behaviors: Bullying and Cyberbullying; Computer-Tailored Interventions; Focus Groups; Social Marketing; Social Media; Social Networks: Overall.

Further Readings

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Online Health Information Credibility

Recent estimates suggest that nearly three-quarters of American adults have looked online for health information. Typical search query results might include online discussion forums, information repositories vetted by doctors, personal and professional blogs, articles in academic journals, individuals' Web pages, and commercial or non-profit Web sites. The sources of this information might range from renowned experts with impressive medical credentials, to pharmaceutical companies advocating the use of their product, to patients who have personally experienced medical conditions, courses of treatment, and medications firsthand. For people facing medical decisions, online information is also likely to be integrated with information coming from several off-line sources, including doctors, other health care

professionals, and family and friends. Accurately assessing the credibility of the myriad sources of health information available online is therefore a complex and challenging task for information consumers operating in the contemporary media environment.

The word *credibility* is traditionally defined as the believability of information and sources, and it rests largely on the trustworthiness and expertise of the information source or message, as interpreted by the information receiver. Trustworthiness and expertise may or may not align: A source might be viewed as highly trustworthy but not an expert, and vice-versa, as in the cases when an individual considers the advice of a person with a shared medical condition (high trustworthiness but low expertise), or when the advice of a doctor who has been mistaken in the past is being evaluated (high expertise but low trustworthiness). In such instances, the believability of information is called into question, due either to low expertise or trustworthiness, and credibility is therefore somewhat problematic. This illustrates that credibility is a perceptual variable, rather than an objective property of a source or a piece of information, and therefore the same source or information may be judged differently by different people.

Research on online credibility has tended to focus on the relatively static features of the Web environment interpreted as signaling the believability of information and sources. For example, research shows that Web site features such as design, navigability, and the presence of credentials or endorsements are influential in users' credibility perceptions, with professional-appearing design, ease of navigation, and legitimate-sounding endorsements bolstering perceived credibility in health and other contexts. Similarly, message features such as typos and source indicators, including recognizability and authority, have been shown to guide credibility assessments as well. Research has also demonstrated that for the most part, Web users report not verifying online information very often or using the easiest, though perhaps least effective, strategies to do so. Studies also show that those people claiming to verify information the most may actually do so significantly less than others, suggesting a false confidence in online information credibility.

Dual Processing Models

To emphasize that individual information seekers might invoke different methods in their online quests, researchers have proposed dual processing models of information evaluation online, based largely on the elaboration likelihood model (ELM) and the heuristic-systematic model (HSM) of information processing. Dual processing models emphasize the role of motivation and cognitive ability in guiding information assessment and decision making, and theorize that people will process messages in more or less depth depending upon the message receiver's motivation and ability to do so. Accordingly, the degree to which online messages will be scrutinized for their credibility depends on individual users' ability to evaluate the message, which may be a function of their knowledge or training in how to evaluate information, critical thinking skills, time constraints, or other factors, and their motivation or purpose for seeking the information, which involves their awareness and salience of the consequentiality of receiving low-quality or inaccurate information. Research shows that people apply different standards of attention to different types of information and, presumably, individuals typically would be more motivated (though not necessarily more able) in seeking health information compared to other types.

Dual processing models of credibility evaluation posit two general strategies that reflect greater and lesser degrees of cognitive rigor: The analytic strategy involves a more systematic attempt to discern credibility by considering more deeply a wider range of author, message, or medium cues. By contrast, the heuristic strategy relies on a faster and more cursory examination of credibility cues, and often focuses primarily or exclusively on surface characteristics of the information (e.g., the visual design elements of a Web site) or on a user's gut feelings about the credibility of a piece of information. A variety of heuristic strategies have been proposed as mechanisms by which users evaluate source and information credibility online, including those relying on reputation, endorsement, consistency, self-confirmation, expectancy violation, and persuasive intent. In short, sources or information that are well-known, endorsed by others as good, consistent with information from other sources, confirm

one's preexisting beliefs or knowledge, conform to expectations for high-quality information, and are not purely profit-motivated are considered to be higher in credibility.

The Dynamic Nature of Online Information

As suggested by heuristics that rely on the input of others, recent work has begun to more fully consider the increasingly dynamic nature of online information. For example, a large class of technological tools (including, for example, blogs, social bookmarking, wikis, social networking sites, and a range of ratings, recommendation, reputation, and credentialing systems) enables diverse opinions, experiences, and knowledge to be combined across individuals. This user-generated content (UGC) originates from users' collective knowledge, experiences, and opinions. In spite of their relative lack of official authority, individual information sources may possess relevant expertise due to their firsthand knowledge or experience with a topic or situation, and may be accurately perceived by others as having a great deal of what is called "experiential credibility." Experiential credibility stands in contrast to more traditional indicators of credibility, which are typically founded upon established and widely accepted credentials, such as being a medical doctor.

Accordingly, traditional expertise in the health domain is currently challenged by the ability of Internet-based tools to aggregate individuals' experiences and opinions, particularly in health contexts where personal experience fundamentally provides a certain level of veracity. For example, people's direct experiences with a particular medical treatment option, which can be easily collected and presented through a host of online venues, might be perceived as tremendously credible and influential (especially if consistent and in large volume), in spite of the fact that this information originates from a number of untrained, uncredentialed individuals, rather than from an authoritative and established medical expert. Research shows that people favor expert information online when there is low information volume, but favor user-generated information online under conditions of high information volume. In this way, noncredentialed forms of authority gain credence due to the unique features of digitally networked media. These shifts in the nature of

information provision make the perceived credibility of health information increasingly complex and uncertain, even as it is increasingly prominent online today.

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See Also: Digital Divide; Health Literacy, Online; Information Seeking; Internet: Information Acquisition; Media Literacy; Online Health Information Seeking; Online Health Information Sharing.

Further Readings

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Online Health Information Exchange and Privacy

The emergence of the Internet as an important source for health information and exchange provides new opportunities and challenges for patients and providers alike. Telemedicine, e-mail,

e-health records, and online support groups are all contexts where health information is exchanged in mediated settings. This entry reviews contexts for online health information exchange and addresses concerns related to disclosure, anonymity, and data security that are relevant in these interactions.

Online Health Exchange Contexts

There are several contexts where health information is exchanged through mediated processes. Many of these exchanges access the Internet via traditional computer interfaces, yet others incorporate video technology, and still others utilize mobile communication technology such as "smart" phones or tablets. The first of these contexts is concerned with the doctor-patient interaction. Telemedicine connects patients in health care settings who are physically located separately from the providers, generally by video over Internet connection (phone consultations also occur). This type of medical provision is useful for underserved populations in remote areas and/or for specialists. In extreme cases that would not reflect typical use, consider the example of a researcher stranded in an isolated area who must rely on the Internet or videoconferencing for medical treatment information. In contrast to more specialized cases employing telemedicine, e-mail is increasingly used for everyday, nonemergent communication with health care providers, and this can include mundane appointment reminders or test results. E-mail is often easier, more convenient, and less time-consuming for patients than an office visit or phone call. However, physicians are presently not reimbursed for these e-mail interactions, so this raises questions of balancing time management and effectiveness.

There are also contexts that are concerned with exchanging information via mediated settings. Electronic health records are computerized medical records in a health care organization. By adopting electronic medical records and making information readily available across providers, interactions with patients can potentially be quicker and more efficient. Personal records are online databases in which patients can store, collect, and share their own health information. Although there are several benefits to electronic medical records, current challenges include