



How users adopt healthcare information: An empirical study of an online Q&A community



Jiahua Jin, Xiangbin Yan*, Yijun Li, Yumei Li

School of Management, Harbin Institute of Technology, Harbin, China

ARTICLE INFO

Article history:

Received 25 June 2014

Received in revised form 2 November 2015

Accepted 3 November 2015

Keywords:

Online healthcare community
Healthcare information adoption
User-generated content
Emotional support

ABSTRACT

Objectives: The emergence of social media technology has led to the creation of many online healthcare communities, where patients can easily share and look for healthcare-related information from peers who have experienced a similar problem. However, with increased user-generated content, there is a need to constantly analyse which content should be trusted as one sifts through enormous amounts of healthcare information. This study aims to explore patients' healthcare information seeking behavior in online communities.

Methods: Based on dual-process theory and the knowledge adoption model, we proposed a healthcare information adoption model for online communities. This model highlights that information quality, emotional support, and source credibility are antecedent variables of adoption likelihood of healthcare information, and competition among repliers and involvement of recipients moderate the relationship between the antecedent variables and adoption likelihood. Empirical data were collected from the healthcare module of China's biggest Q&A community—*Baidu Knows*. Text mining techniques were adopted to calculate the information quality and emotional support contained in each reply text. A binary logistics regression model and hierarchical regression approach were employed to test the proposed conceptual model.

Results: Information quality, emotional support, and source credibility have significant and positive impact on healthcare information adoption likelihood, and among these factors, information quality has the biggest impact on a patient's adoption decision. In addition, competition among repliers and involvement of recipients were tested as moderating effects between these antecedent factors and the adoption likelihood. Results indicate competition among repliers positively moderates the relationship between source credibility and adoption likelihood, and recipients' involvement positively moderates the relationship between information quality, source credibility, and adoption decision.

Conclusions: In addition to information quality and source credibility, emotional support has significant positive impact on individuals' healthcare information adoption decisions. Moreover, the relationships between information quality, source credibility, emotional support, and adoption decision are moderated by competition among repliers and involvement of recipients.

© 2015 Elsevier Ireland Ltd. All rights reserved.

1. Introduction

With the rapid development and diffusion of Internet technology, the environment in which patients acquire medical and health information has changed dramatically. According to the first health information national trends survey, up to 63% of Internet users in the USA had looked for healthcare-related information on the web, and more than 48% go online before asking questions that may make them feel uncomfortable [1]. Many systems about healthcare

problems that support collaborative question answering have been developed and evaluated, such as databases of questions with associated answers and chat systems which send instant messages to registered members [2,3]. Online healthcare communities, where registered members share experiences with disease, provide solutions to common problems, and support each other through good times and bad, have become veritable hubs of user-generated content [4,5]. As well as offering vast potential to exchange medical information and provide social support, "patient expertise" has increasingly become an accepted form of health communication [6]. However, due to the chaotic nature of the Internet and the openness of online communities, healthcare information seekers who post questions in an online community may get commercial

* Corresponding author.

E-mail address: xbyan@hit.edu.cn (X. Yan).

companies' product recommendations, experts' advice, patients' opinions, and even other unrelated information [7]. Thus there is a need to constantly make adoption evaluations as one sifts through enormous amounts of healthcare content.

While engaged in domain knowledge adoption, which is valid knowledge used to refer to an area of human endeavor or specialized discipline, perfect learning and problem solving require individuals to scrutinize the message to recognize the contained patterns and integrate them into their cognitive models [8]. However, most Internet messages are unconfirmed and most individuals seeking information through the Internet cannot verify the validity of the acquired information. Misinformation is a big concern when patients search for healthcare assistance through online communities. Moreover, the large volume of information may confuse healthcare information seekers. Thus, which determinants may affect users' healthcare information adoption behavior and how they locate the most valuable information for their needs are big concerns for website designers and information providers. Developing an understanding of patients' online healthcare information adoption behaviors may help the design and operation of online healthcare communities and increase the effectiveness of using online health information.

Previous research related to online healthcare communities mainly focused on the motivations for patient participation and mechanisms of community operation. For example, Kane [9] analyzed how individuals cooperate to generate peer-produced healthcare information in social media platforms. Ba and Wang [10] analyzed data collected from an online health community to explore the mechanisms that motivate people to participate in online communities. Yan and Tan [11] proposed an inhomogeneous Partially Observed Markov Decision Process model to investigate the usefulness of an online healthcare community to patients' health condition dynamics. Xiao et al. [12] investigated factors that affect patients' online health information search and found perceived health status could influence patients' online health search frequency and diversity. Despite numerous studies focused on online healthcare communities, few researchers have ever investigated how information seekers adopt online healthcare information and what factors affect their adoption behavior. Based on the classical knowledge adoption model and characteristics of healthcare information, this paper explores how patients adopt healthcare information in online healthcare communities. Empirical data was collected from the largest Chinese web-based question-and-answer (Q&A) community.

The remainder of this paper is organized as follows. In Section 2, we review the literature on knowledge adoption and online healthcare communities, and propose hypotheses. In Section 3, the research context is introduced, variables for the proposed hypotheses are constructed and measured, and the model for data analysis

is introduced. Section 4 presents the data analysis process and results. Analysis results and their implications, limitations, and future research are discussed in Section 5.

2. Literature review and theoretical development

2.1. Online healthcare communities

Social media refers to computer-mediated tools that allow people to create, share, or exchange information, knowledge, and ideas in virtual communities and networks [13]. The user can get advice from others, volunteer to help others, and evaluate the usefulness of other's information. Meanwhile, commercial organizations can improve their business performance, reputation, and profit through social media analytics [14]. As health is one of people's major concerns, social media is widely used for seeking health-related information. Seventy-two percent of American Internet users looked for healthcare information online in 2012, and 26% of users read someone else's experience about or solution for healthcare or medical issues [15]. Social media makes it easy to find peers with similar problems to share experiences and solutions or get targeted stories and practical advice [16]. A variety of healthcare-related services are available, such as medical databases, online chat rooms, online communities with peers and doctors, and even remote disease monitoring that combines Internet and traditional healthcare. As compared with medical personnel, healthcare social media provides basic information and also provides users with an opportunity to get emotional support from others and help others [17]. Studies found that patients and their caregivers master very limited knowledge about their disease and hope for more complete information [18].

A great number of participants with various social backgrounds are involved in online communication, which contradicts traditional social theory that communication relies on trust [19]. Although the healthcare context is unique and associated with the privacy of sensitive health information, personal learning about health and illness has been changed by the Internet [20]. A 2004 study found that only 6% of the content in online support communities was incorrect [21]. Patients become friends in a comforting environment where they are willing to disclose their disease information and experiences. Such support, including the information support, emotional support, and companionship, has a positive relationship with personal health [11].

2.2. The dual-process theory of information processing

The dual-process theory was first introduced by James [22], who argued that there were two different kinds of thinking: associative and true reasoning. Then it was widely used and enriched in

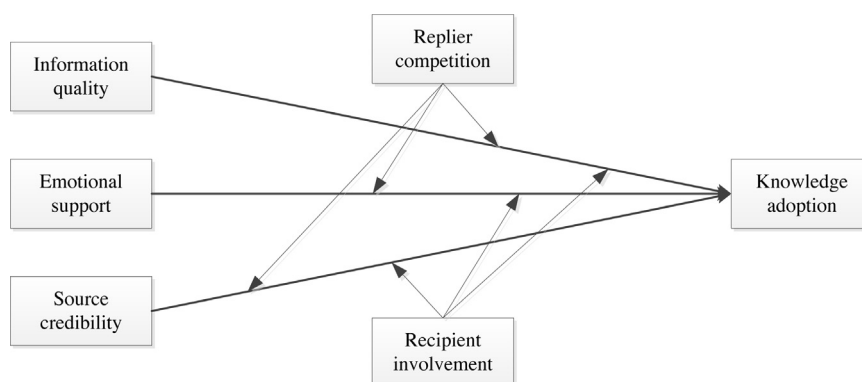


Fig. 1. Conceptual model of online healthcare information adoption.

Download English Version:

<https://daneshyari.com/en/article/516087>

Download Persian Version:

<https://daneshyari.com/article/516087>

[Daneshyari.com](https://daneshyari.com)