

"Overview of Information Seeking Patterns and Models"

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Abstract

The findings of the study underscore that the information-seeking behavior of users varies across countries and is influenced by a multitude of factors. Key determinants impacting students' information-seeking behavior include library awareness, information literacy, organizational and environmental considerations, source characteristics, and demographic factors. Users engage with a diverse range of information sources to meet their information requirements. Successful satisfaction of information needs is contingent on the information seeker's ability to adeptly search for precise and relevant information. Educating users about effective information search techniques and meeting their informational needs is achievable through the implementation of information literacy programs in educational institutions. The implications of this study are significant, offering valuable insights for researchers and professionals delving into information literacy and information-seeking behavior. Furthermore, the study provides a valuable reference for understanding the current global landscape of information-seeking behavior.

Introduction

The word "information" comes from Latin, and it's linked to the verb "informare". When we process raw data or add value to it, it transforms into information. According to Shannon and Weaver (1949), information is any input that reduces uncertainty. Line (1974) specified that information is what someone should have for their work, research, education, or creativity. Ford (1980) described information as the structure of any text that can alter how the recipient perceives things. Webster's International Dictionary (1994) defines "information" as facts or figures ready for communication or use, distinct from being part of a formally organized field of knowledge. It also encompasses the process of shaping an object of knowledge in the mind to achieve understanding.

Information Needs

Information has become incredibly important in today's world. People consider it valuable and are willing to pay for it. The study of how information is bought, sold, and used is gaining popularity, known as information economics. We're currently experiencing an explosion of information, so much so that this era is often referred to as the "information age." Everyone needs information for various reasons, and what each person needs can vary. This period, known as the information age, is believed to have started in the early 1970s and is expected to continue for a couple more centuries.

Transforming Information Retrieval Patterns in the Digital Age

Information Communication Technology (ICT) is a crucial aspect of today's world. It has transformed society into one driven by information and significantly influenced our lifestyles. ICT has become a part of every aspect of our lives, impacting industries such as transportation, finance, healthcare, communication, education, entertainment, and more. It has made its way into various sectors, like railways, air travel, banking, insurance, and even postal services. Additionally, ICT has played a vital role in advancements related to biotechnology, bioinformatics, biomedical sciences, media, education, libraries, digital resources, and more. Its integration has made our lives more convenient and comfortable, touching almost every aspect of our daily routines (Bhattacharjee, Bhattacharjee & Sinha, 2013).

In contemporary times, much of the literary and scholarly content, once confined to printed books and periodicals, has transitioned to digital formats available exclusively on the internet. The integration of Information Technology (IT) has significantly expedited the dissemination of information while enhancing its quality. In the pre-IT era, conducting research or seeking information was a time-consuming endeavor. A considerable portion of the vast information available in the world existed in non-electronic or analog formats. The advent of IT has substantially boosted the efficiency of researchers and various authors, allowing them to augment their productivity. Additionally, authors now have the capability to furnish their publications with the most up-to-date information, thereby enriching the content they offer.

Review of Literature Related to Information Seeking Model

In summary, various conceptual models for information-seeking behavior offer guidance in formulating research questions and hypotheses. Wilson (1999) highlighted concerns about theoretical propositions in these models, building upon Järvelin's criteria for assessing conceptual models (1987). Järvelin's suggestions spurred empirical studies and theoretical advancements (Byström & Järvelin, 1995; Bystrom, 1999; Vakkari & Kuokkanen, 1987; Vakkari, 1999) exploring task complexity and information seeking relationships. Ellis's model, comprising six behavioral features, is particularly robust due to its empirical foundation and validation in subsequent studies, including application in an engineering company context (Ellis & Haugan, 1997).

Ingwersen (1996) constructed his model by carefully analyzing various components within each segment of the model. Subsequently, Borlund and Ingwersen (1997; 1998) and Borlund (2000) expanded on this model and devised and verified an assessment approach based on it. They showcased the effectiveness of this strategy through testing interactive information retrieval systems.

Each task on a job is divided into levels of progressively smaller subtasks. Each job also has a clear start and finish, with the former including recognisable stimuli and instructions regarding the objectives and/or actions to be taken (Hackman, 1969). In organisational psychology, the connections between objective and perceived tasks have been taken into account (Hackman, 1969; Wood, 1986; Campbell, 1988).

Numerous task characteristics linked to complexity have been proposed in the literature, including repetition, analyzability, a priori determinability, the number of alternative paths to task completion, novelty in the outcome, Fisher's (1979), the number of goals and their competing dependencies, March and Simon's (1967), MacMullin and Taylor's (1984), Tihamiyu's (1992), and cogency. Additionally, these traits have been interpreted in a variety of ways across the literature (Jarvelin & Wilson, 2003).

In summary, Seleznyov and Puuronen (2003) carried out a study focused on continuous user authentication to identify masqueraders. They developed a prototype of a host-based intrusion detection system that compared a user's current behavior with their established behavioral model, represented by various patterns describing sequential and temporal behavioral regularities. The study delved into implementation challenges and presented performance outcomes for the prototype.

Foster (2004) developed a new way of understanding how people seek information, which was different from the traditional linear models. This new model was based on a study of how people from different fields search for information. It compared the way people look for information to an artist's palette, where various activities are available throughout the information-seeking process. The study pointed out four important ideas from this new model

and how it relates to existing theories, what needs to be researched in the future, and how it can influence how we teach and learn about finding information. The main point is that this model offers a fresh perspective on how we view how people search for information.

Bokhari (2005) conducted a study to figure out how using a system relates to how satisfied users are when they're looking for information. They wanted to confirm if this relationship, described in DeLone and McLean's information system success model, holds true in real-life use. The study discovered a positive link between using the system and user satisfaction. While this connection wasn't extremely strong, it was significant enough to encourage further exploration into how these specific factors are connected. The study also highlighted the need to investigate other factors that could influence this relationship in the future.

Ahmadi, Dileepan, and Murgai conducted a study in 2012 to figure out the benefits of creating a computerized simulation of a university library. This simulation aimed to help balance the things the library has (like staff, books, etc.) with what students and faculty need. Their research revealed that there were four really important things the library needed to focus on based on how people use it.

Several studies have been carried out to understand how people use and accept the internet, especially when they have specific goals in mind. These studies focused on users who have prior experience with the internet and aimed to include their personal motivations in order to enhance a particular model that explains why people accept and use technology. These studies were conducted by researchers such as Spink, Jansen, Ozmultu (2000), Seleznyov, Puuronen (2003), Sanchez-Franco, Roldan (2005), and Stokes (2013).

Conclusion

current models that describe how humans interact with information don't consider how people handle multiple information tasks at once. These models only explain how people access and use information when they're focused on one task. In 2007, a study by Joint suggested that older models of how people own and use information might not apply in the age of digital information. This study gives us a clear overview of different models and how they're connected. Essentially, it shows that there are various factors that determine who is responsible for and contributes to the long-term sustainability of digital information services within our information community.

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