



Studying information behavior of image users: An overview of research methodology in LIS literature, 2004–2015



Krystyna K. Matusiak

Research Methods and Information Science Department, Morgridge College of Education, 1999, S. University Blvd., University of Denver, Denver, CO 80208, United States

ARTICLE INFO

Article history:

Received 7 August 2015

Received in revised form 18 June 2016

Accepted 21 January 2017

Available online 31 January 2017

1. Introduction

Advances in digital technology have enabled easy creation and copying of visual materials, contributing to their wider distribution and adoption in professional, academic, and everyday information practices. Users search for and employ visual resources as sources of information as well as objects for their aesthetic and illustrative value (Enser, 2008; Fidel, 1997; McCay-Peet & Toms, 2009). In the contemporary visual culture, images become increasingly active objects with many functions beyond that of simply being viewed (De Rijcke & Beaulieu, 2011). The research examining the use of visual resources in education indicates that images are used not only to illustrate lectures and enhance presentations but also to engage students and make the material more memorable (Matusiak, 2013; Mowat, 2002). Images are part of the activities of daily life, social contexts, and informal communicative practices (Snyder, 2014; Yoon, 2011).

The proliferation of images and their increased use has sparked a resurgence of interest in image research in the library and information science (LIS) field. The challenges of image indexing and retrieval are traditionally at the center of this research (Enser, 2008). Information behavior of image users is a relatively new area of scholarly inquiry. Visual information seeking is a subset of information behavior research, but it is also gaining some recognition as a distinct area of inquiry (Albertson, 2015). The research methodology and trends in information behavior research have been analyzed in prior studies (Julien, Pecoskie, & Reed, 2011; McKechnie, Baker, Greenwood, & Julien, 2002; Vakkari, 2008). However, very little research has been devoted to analyzing research methodology in the emergent area of image seeking and use.

2. Problem statement

Research methods employed in empirical studies of image seeking and use yield insight into user's needs and actions. This study investigates research methodology adopted in scholarly exploration of information behavior of image users. This study is prompted by a growing number of empirical studies of image seeking and use. Albertson (2015) argues that visual information seeking represents a unique and interdisciplinary area that warrants its own comprehensive analysis and differentiation from other information seeking processes. The examination of research methods is one of the possible ways to assess the scholarly maturity of the area (Julien et al., 2011). A systematic review of the published literature in image seeking and a comparison to the prior surveys of research methodology in LIS and information behavior research can contribute to the discussion about the diversity of research methods and the uniqueness of the field.

There have been a number of comprehensive surveys of research methods in LIS (Aytac & Slutsky, 2015; Chu, 2015; Hider & Pymm, 2008; Järvelin & Vakkari, 1990; Tuomaala, Järvelin, & Vakkari, 2014) and specifically in the information behavior field (Julien et al., 2011; McKechnie et al., 2002; Vakkari, 2008). However, at present, there is no systematic review of research methodologies in the study of image seeking and use. Albertson (2015) reviews a number of selected studies of user searching for still images and video, but focuses only on the seeking and searching phases. No use studies are examined in his review.

Moreover, a formal review of published empirical research can contribute to advancing research on the behavior of image users in terms of topics of investigation and the selection of research methods. Researchers can identify commonly studied areas as well as overlooked aspects of information seeking and use. This study raises awareness of the importance of selecting an appropriate research strategy, highlights innovative approaches, and points to the diversity of available research methods. Researchers can reflect on the methods employed in previous studies, use past models, or select new approaches to improve the work in the field and expand it in new directions.

This study reviews scholarly articles on image seeking and use published in LIS between 2005 and 2014 and analyzes them in terms of research strategies within the quantitative and qualitative traditions and mixed methods designs, data collection techniques, user populations, and aspects of information behavior. Further, the study compares the findings to the patterns found in the prior surveys of research methods in LIS. The following research questions shape the study:

E-mail address: krystyna.matusiak@du.edu.

1. What research methods are used in studies of information behavior of image users?
2. What user groups and aspects of visual information behavior are commonly studied in empirical research in LIS?

The focus of this study is on information behavior research that examines seeking, searching, and use of still images. Still images are defined as two-dimensional objects in the visual mode of representation. The concept of still images encompasses direct pictures created through photography and art, as well as indirect images, such as those encountered in the medical field (Enser, 2008).

3. Literature review

3.1. Image research

A significant portion of image research has been devoted to concept-based indexing and content-based image retrieval, examining the challenges of describing images and providing access to them (Chu, 2001; Enser, 2008; Jörgensen, 2003). As Chen and Rasmussen (1999) note, “images bring with them problems of description and access more complex than those of text” (p.292). In the current information environment, image retrieval largely depends on textual representation constructed by indexers, generated through automatic annotations, or provided by end-users. The process is inherently challenging because of different layers of meaning embedded in images and the necessity of conveying the content of visual medium through textual descriptors (Enser, 2008; Jörgensen, 1998, 2003; Layne, 1994; Roberts, 2001).

Mediation between visual and textual modes occurs again when end-users search for images and construct queries to translate their information needs into verbal expressions. Image retrieval is further complicated by a potential mismatch between a user's mental model of what an image is about and indexing terms (Heidorn, 1999; Enser, 2008). The emergence of Web 2.0 technologies, particularly the phenomenon of social tagging, has provided researchers with new opportunities to explore the issue of semantic gap and examine the characteristics of users' language, approaches to image categorization, and information behaviors in social contexts (Chung & Yoon, 2009; Ransom & Rafferty, 2011; Rorissa, 2008, 2010; Stvilia & Jörgensen, 2010).

Research on image seeking and use focuses on the users of visual resources and multiple aspects of information behavior. Reviewing image research in its early phase, Rasmussen (1997) notes the lack of studies of image-seeking behavior. This situation has changed considerably in the last decade. A growing number of empirical studies explore users' needs and motivations, search behavior, and the use of images. The studies investigating image search queries and strategies indicate that visual seeking behavior is different from searching for textual documents (Choi, 2010, 2013; Hung, 2005; Jörgensen & Jörgensen, 2005; Pu, 2005). As a subset of information behavior research, image seeking studies are informed by the field's theoretical models and research methodologies.

3.2. Information behavior research

Information behavior research represents a disciplinary area of LIS scholarship. It is broadly concerned with the investigation of people's information needs, information-seeking activities, and information use. Fisher, Erdelez, and McKechnie (2005) point out that some researchers use the term “information behavior” narrowly, referring only to information searching activities. A broad understanding of information behavior and a distinction between different types of information behaviors in regard to seeking, searching, and use was introduced by Wilson (1999, 2000). He defines information behavior as “the totality of human behavior in relation to sources and channels of information, including both active and passive information use” (Wilson, 2000, para. 5). Tracing the development of information behavior as a research

field, Wilson emphasizes the focus on people rather than systems and foresees a shift from the early quantitative approach to qualitative methods.

Based on Wilson's definition, Fisher et al. (2005) conceptualize information behavior broadly as encompassing user needs as well as activities associated with seeking, managing, and using information in different contexts. Fidel (2012) emphasizes that at the center of information behavior research is the relationship between people and information, rather than one between people and technology. She proposes the term “human information interaction” to reflect the dynamic nature of this relationship. The primary focus of information behavior research has been on textual information seeking, but as mentioned previously, there has been a gradual increase in studies of visual information seekers (Albertson, 2015, Choi, 2010).

Information behavior research has generated a number of models and theories describing and interpreting the various components, levels, stages, contextual factors, and processes of human information behavior (Case, 2012; Fidel, 2012; Fisher et al., 2005). The foundational models that focus on the process and stages in information behavior, such as Kuhlthau's, 1991 Information Search Process and Wilson's 1996 model provide a useful framework for analyzing research on information behavior. Kuhlthau's model identifies multiple stages of information search process from initiation through selection, exploration, formulation, collection to presentation (Kuhlthau, 1991). Wilson's model takes a contextual approach to users and their needs, and represents different types of information seeking behaviors, from passive attention to active and ongoing searching. Wilson also identifies “intervening variables” in the stages between the context of information need and information seeking (Wilson, 1999, p. 256).

3.3. Research methods in LIS and information behavior studies

Surveys of research methods in the LIS field focus on methodological approaches, trends, and major areas of scholarly interest. Researchers investigate the use of research strategies and methods in LIS by analyzing publications in highly ranked journals or by drawing a sample from the LIS databases. One of the early methodological studies surveyed publications from the core LIS journals and established a classification of research strategies and data collection techniques (Järvelin & Vakkari, 1990). Examples of identified strategies are: historical research, survey, case study, bibliometric analysis, and experiment. Data collection techniques include questionnaires, interviews, observations, thinking aloud, citation analysis, content analysis, and historical source analysis. Järvelin and Vakkari (1990) also make a distinction between qualitative and quantitative types of analysis and include a third option of combining both.

This taxonomy has been adopted and modified by Hider and Pymm (2008) who recommend expanding the classification and including additional data collection techniques, such as focus groups, journal entries, transaction log analysis, and task analysis. Hider and Pymm (2008) analyzed articles from 20 highly ranked journals published in 2005. They find that in LIS high-profile empirical research, a survey approach is the most frequently employed strategy, followed by experiment. The classification system of strategies, approaches, and data collection techniques developed by Järvelin and Vakkari (1990) was also applied in a content analysis study of LIS literature published between 1965 and 2005 (Tuomaala et al., 2014).

More recently, Chu (2015) examined research methods reported in the articles published from 2001 to 2010 in three top-ranked LIS journals and noticed a greater number and wider selection of methods, and an increase in theoretical approaches, content analysis, and experimentation over surveys and historical method. Aytac and Slutsky (2015) analyzed research studies published in 13 LIS journals between 2008 and 2012. The authors focused on research conducted by practitioners and found published librarian research to be overwhelmingly quantitative, with survey as a dominant research method.

Download English Version:

<https://daneshyari.com/en/article/5123922>

Download Persian Version:

<https://daneshyari.com/article/5123922>

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