Information world mapping: A participatory arts-based elicitation method for information behavior interviews

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A B S T R A C T

Participatory, arts-based methods generate rich data with which researchers can explore information behavior in context, and may be particularly apt when engaging with youth or participants with low literacy levels. Information world mapping (IWM) is an innovative and interactive drawing-based interview technique for data elicitation. Initially developed for use in a study of young parents' health information practices, IWM guides participants in depicting their personal social information worlds, including items, places, and relationships. Maps are then used to facilitate critical incident elicitation of participants' stories about, and interpretations of, their information practices. Within the young parent study, three styles of map were commonly seen: the directional map, the mind map, and the symbolic map. Use of IWM requires time and ethical care, but the method enables researchers to center participants' own perspectives on information practices, triangulate data obtained via more traditional methods, and enrich understanding of social information worlds.

1. Introduction

In an era dominated by growing media interactivity and increasing visual communication methods, information researchers must explore, develop, and apply creative methods for participant engagement (Given, Opryshko, Julien, & Smith, 2011). Information world mapping (IWM) is an innovative and interactive drawing-based technique for eliciting rich data about information behaviors in context. Such participatory, arts-based methods can complement traditional data collection, allowing researchers to explore and triangulate information behaviors and socially- and culturally-constructed information practices. Creative methods may be particularly apt when engaging with youth or participants with low literacy levels, and within the context of traditional prolonged data collection or research dissemination.

1.1. Problem statement

Visual and creative methods have been identified as holding great potential to enhance research into everyday information practices (Given, O'Brien, Absar, & Greyson, 2013) and the information behavior of marginalized groups in particular (Benson & Cox, 2014). However, when exploring such methods for use in a longitudinal ethnographic study of young parents in Canada, there was no sole participatory technique that was at once accessible (requiring no sophisticated technology or costly supplies), flexible (usable with a diverse population and various topics), extensible (applicable to cross-sectional or longitudinal study designs), and focused on centering the views of marginalized participants. Therefore, in order to engage participants from varied cultural and academic backgrounds in describing their information practices in the context of their everyday lives, elements of multiple existing arts-based methods were combined, resulting in IWM. In this initial use of the method, the aim was to use the technique to augment data collection within traditional qualitative interviews (Greyson, 2013). In this study, IWM made accessible the abstract concept of information practices, enriched and triangulated oral interview data, and enhanced the interview experience for participants.

2. Development of the concept

Within qualitative information behavior research, semi-structured face-to-face interviews are common. In order to improve accuracy of participant recall and disclosure, researchers triangulate interview data (e.g., with observations or surveys) and employ elicitation devices such as the critical incident technique (CIT), asking participants to focus on a

specific situation or event rather than their perceived typical behavior (Flanagan, 1954; Urquhart et al., 2003). In recent years, information researchers have increasingly used visual and artistic methods, for example, asking participants to respond to pre-selected images related to a topic about which they might seek information (Genuis, 2010), involving them in participatory methods of documentary photography (Given, Opryshko, Julien, & Smith, 2011; Julien, Given, & Opryshko, 2013), or asking them to artistically interpret information-related concepts (Hartel, 2014; Hartel & Thomson, 2011). Such studies demonstrate that arts-based methods "can aid in the illustration of participants' perspectives by allowing an audience to not just hear their words, but also experience the world the way they see it" (Given et al., 2011, p. 4).

The young parent study focused on a population known to be both heavily surveilled and socially marginalized. It was therefore important for researchers to minimize assumptions about the lived experiences of participants, and to find accessible ways of capturing their authentic voices and worldviews. Taking a practices approach (Savolainen, 2008), this study explored the socially-constructed things participants did with health information in their lives. Information world mapping developed out of a need for a creative and participatory tool that would elicit accurate data about participants' information practices in their real-life contexts, as they understood those practices. The desired elicitation device needed to be sufficiently simple so that participants with diverse educational and cultural backgrounds could carry it out, and engaging enough to feel refreshing within a long face-to-face interview. Further, the ideal method would be adaptable in the future to a variety of information topics, social contexts, and geographic settings. IWM meets all these criteria, engaging participants and enhancing participant-researcher communication about everyday information practices in context, placing the depiction of an information world into the hands of socially-marginalized participants, and remaining sufficiently flexible and adaptable to be deployed in a variety of field settings.

3. Conceptual geographies and information activities, behaviors, and practices

Since the latter half of the twentieth century, space, place, and various physical, cultural, and social geographies have been explored from a variety of perspectives beyond a concrete spatial science approach (Agnew, 2011). Buschman and Leckie (2007) have explored application of these approaches to library and information research. Resulting from explorations of information behaviors in context, a number of conceptual geographies have emerged as theoretical containers in which information activities could take place. As a new arts-based method to enrich interview participants' narratives regarding information practices in their everyday contexts, IWM draws on elements of multiple conceptual geographies of information behaviors: information grounds, information horizons, information ecologies, and information worlds.

Information grounds is the most concretely geographical of these constructs, as it describes a physical (or sometimes online) location where people exchange information, although this information sharing is not the intended primary purpose of the space. Fisher developed this concept based on observations of information interchange among patients in the medical waiting room (Fisher, 2005; Fisher & Naumer, 2006; Pettigrew, 1999), drawing on Tuominen and Savolainen's (1997) social constructionist approach to conceptualize temporary and context-dependent information sharing in what Oldenburg referred to as third place locations—those beyond home and workplace (Fisher & Naumer, 2006). This discovery led to exploration of other physical and virtual spaces that serve as hosts for social information grounds (Fisher, Durrance, & Hinton, 2004; Fisher & Naumer, 2006).

In contrast to the informal information sharing that is the focus of information grounds, information horizons (or information source horizons) offers a way to conceptualize deliberate information seeking and specifically informational sources. Sonnenwald and colleagues (Sonnenwald & Wildemuth, 2001; see also, Sonnenwald, 1999;

Sonnenwald, 2005; Sonnenwald. Wildemuth, & Harmon, 2001) developed a theoretical framework that acknowledges the social and collaborative nature of information seeking, as well as the context-dependence of information seeking activities. They developed a method for interviewing people about information seeking, which involves a drawing and writing exercise embedded within an oral interview. Participants are asked to create a written map of their usual information sources and to describe the roles of each source within their horizon. This task has been used in conjunction with CIT for eliciting accurate stories within information seeking interviews (Sonnenwald, Wildemuth, & Harmon, 2001). The stories are typically analyzed quantitatively in a type of social network analysis that identifies preferred sources and seeking pathways within a population of interest. This analysis may complement qualitative analysis of other interview data or quantitative analysis of data from an information seeking survey, and has been applied to topics such as the study of college students seeking coursework-related information (Tsai, 2012) and that of environmental activists seeking everyday life information (Savolainen, 2007).

Nardi and O'Day have used the concept of information ecologies as a biological metaphor to explore the integration of information technology into society. Their definition states that an information ecology is "a system of people, practices, values, and technologies in a particular local environment." (Nardi & O'Day, 1999, p. 49). They describe an ecology as an organizational setting in which information activities involving people and technology take place (e.g., a library), and identify "keystone species" (e.g., librarians) therein. This use of ecology as a biological metaphor for a network is distinct from ecological behavioral models (see, Bronfenbrenner's, 1979, ecological systems theory) that emerged from developmental psychology to model micro to macro influences on an individual. However, some information researchers have drawn theoretically on both ecological psychology and information ecologies to investigate information behaviors and practices such as student plagiarism (Williamson & McGregor, 2006) and the role of affect in student information behaviors (Given, 2007).

Information worlds is perhaps the broadest and most commonly used among the conceptual geographies of information behaviors, yet there remains lack of clarity around what is intended by this metaphor (Yu, 2012). Chatman pioneered deliberate, theoretical use of the worlds metaphor in information research (Chatman, 1987; Chatman, 1991; Chatman, 1992; Chatman, 1996; Chatman, 1999; Pendleton & Chatman, 1998) as a result of investigating information practices among vulnerable or socially-marginalized social groups, whose worldviews and experiences tended to constrain information practices. Working from a constructionist perspective focused on the sociology of knowledge, Chatman discovered self-protective information practices such as secrecy and deception, collecting key propositions into a theory of information poverty, relating to impoverished, and often highly surveilled, information worlds (Fulton, 2005). Many information researchers have expanded and tested Chatman's propositions with various populations (see, Burnett & Jaeger, 2008; Fisher, Durrance, & Hinton, 2004; Hersberger, 2001; Hersberger, 2002; James, 2006). However, the term "information worlds" has also become broadly applied without clear grounding, often appearing to mean nothing more than the setting for an individual's information behaviors (Yu, 2012).

Scholars of information worlds have begun to call for a more deliberate and specific theoretical understanding of the concept of information worlds. Yu (2012) proposes to bring information worlds back to Chatman's focus on poverty and inequality, harnessing the concept to create a more integrated view of information practices than the currently dominant work-life versus everyday-life research divide allows. Noting that the term "information world" is widely used across disciplines, usually with little information-related theoretical grounding, Burnett and Jaeger (2008; Jaeger & Burnett, 2010) adopt an interdisciplinary approach, constructing a theory that incorporates both Chatman's micro-level small worlds (an influential concept in information science but not beyond) and Habermas' macro-level life-worlds (a sociological concept with broad use and appeal).