Library & Information Science Research 37 (2015) 61–67

Contents lists available at ScienceDirect

Library & Information Science Research

The problem with problematic situations: Differences between practices, tasks, and situations as units of analysis

Sanna Talja [a,*], James M. Nyce [b]

[a] School of Information Sciences, University of Tampere, Tampere FI-33014, Finland
[b] Department of Anthropology, Ball State University, Muncie, IN 47306, USA

ARTICLE INFO

Available online 26 January 2015

ABSTRACT

It is generally agreed that information activities should be studied within the work and everyday-life contexts, which provide the reasons for and aims of information seeking and use activities. Situation, task, and practice are some of the ways of conceptualizing the context of information activities. Differences between these concepts are rarely discussed, and their theoretical underpinnings are not necessarily well understood. This analysis describes the historical background of the person-in-situation approach, task theory, and practice theory. The underlying assumptions are brought into view and analyzed in detail. Practice theory, task theory, and person-in-situation theories guide researchers to carve out and define their research foci in divergent and incompatible ways. It is argued that it would also be possible to understand and define these concepts within an integrated theoretical framework. Practice theory is a theoretical framework within which both situations and tasks can be understood as distinct parts of a situated activity setting. Discussing the intellectual history of some of the key theoretical constructs of information science clarifies differences between research streams and their key premises.

1. Introduction

Information science (IS) has traditionally been interested in what motivates people to seek or avoid information. It has explored problematic situations that call for information seeking, special populations having specific needs for information, and degrees of uncertainty in work tasks that call for different degrees of information-seeking. We do not often pause to consider, however, where the field's persistent interest in information needs, motivations and triggers for information seeking, and choices of information sources and channels came from. The following basic formula for a long time had a taken-for-granted status as a research agenda:

> an actor → information needs → information action (or non-action) → choices of sources and channels → outcomes

Actors (information seekers), their needs, and choices were firmly at the center of research in what came to be termed the user-centered approach, as opposed to the systems-centered approach (for a history of these terms, see Talja & Hartel, 2007). In recent years, however, the dichotomy between the so-called user-centered and systems-centered approaches has been increasingly criticized (Anderson, 2007; Courtright, 2007; Johnson, 2009; Kari & Hartel, 2007; Olsson, 2005; Savolainen, 2007; Talja, Tuominen, & Savolainen, 2005) and challenged by approaches such as document studies (Frohmann, 2004), social informatics (Kling, Rosenbaum, & Sawyer, 2005), and workplace studies (Garcia, Dawes, Kohne, Miller, & Groschwitz, 2006). These approaches have called for a more comprehensive representation of the interplay between humans, documents, and technologies than that present in the traditional sources and channels approach of the user-centered paradigm. Research on sociotechnical and sociomaterial practices forms a tradition that is less interested in motivations and triggers for information seeking than in hands-on work practices. Other theories are increasingly being applied; these include actor-network theory, activity theory, and sociocultural theory, all of which similarly foreground material, technological, and social environments in which information and documents are created, handled, and shared. As practice-based empirical studies have grown in number, difficulties in breaking away from the traditional information needs, seeking, and use (INSU) research agenda have also become evident. The information behavior/practice debate (Wilson & Savolainen, 2009) about the status and definition of these concepts showed that the differences between practice-based studies and the traditional INSU research paradigm are not self-evident and require more in-depth analysis to be clearly understood.

The differences between these traditions can be clarified by comparing the concepts of situation, task, and practice. These have been used as key analytical concepts in studies of information use in work and everyday life. There are some essential differences in their philosophical

* Corresponding author.
E-mail address: sanna.k.talja@uta.fi (S. Talja).

http://dx.doi.org/10.1016/j.lisr.2014.06.005
0740-8188/

underpinnings. These concepts originate from diverging intellectual traditions and entail different ideas as to which problems and processes are important to study. Practice theory, task theory, and person-in-situation theories are competing approaches in the sense that they each bring into view a different kind of research program. These differences are explored here, but it is also claimed that it is possible and fruitful to attempt to define situation, task, and practice within an integrated theoretical framework. Practice theory is a theoretical framework within which both situations and tasks can be understood as distinct parts of a situated activity setting.

2. The person-in-situation approach

There are two different ways of making sense of the concept of situation. In the first line of thinking, situation is a synonym for context. Situation refers to the context and circumstances within which needs for information arise. The situations that trigger information seeking have, within IS, commonly been referred to as "problematic situations" (Wersig, 1979). In the second line of thinking, situations are units smaller than contexts. Context is a broader and more encompassing concept than situation (Sonnenwald, 1999). This is in line with the practice theory. Within a context, a specific activity setting, or domain, various kinds of situations emerge, and different domains typically entail different kinds of typical situations.

There are two traditions within IS where situation has been a key analytic concept: interactive information retrieval (IIR) research and INSU research. In IIR research, situation was adopted as a key concept in order to overcome the limitations of information retrieval systems evaluation research (the so-called Cranfield or laboratory paradigm) that implicitly viewed relevance as an objective property of documents. Cool (2001) defined situation as the "dynamic environment within which interpretive processes unfold, become ratified, change, and solidify" (p. 8). The IIR research tradition emphasized that relevance is situational, relative to the context of interpretation. It is a relationship between the user's perception of the usefulness of a retrieved information object and a specific work task situation (Borlund, 2003). IIR research has typically been interested in the detailed exploration of situations where users interact with information retrieval systems. The INSU tradition, in turn, has focused on exploring situations in which information needs arise. Traditionally, both research streams used situation as a tool to focus on users and their interpretive, cognitive/affective, and sense-making processes.

The INSU research tradition in which situation is a synonym for context can be called the person-in-situation approach, following Allen's (1997) work. The person-in-situation research tradition originated in the early 1980s from criticisms of library use and user studies. A key argument was that libraries are merely one channel for obtaining information, and that for understanding human information behavior, the focus of inquiry should not be on a collection or information service but on information users immersed in their own life situations. The mandate was to consider and understand the full scope of sources and channels of information available to the user and reasons for their use or non-use.

The person-in-situation research tradition hence posited that it is important to know more generally about human information behavior and what motivates people to seek or avoid information. The most important questions were seen to concern the reasons for choosing particular information sources and channels and the major barriers and obstacles for obtaining relevant information. INSU research stressed that for a broader understanding of information seeking and use, the values, worldviews, and lived experiences of people (users) are the focus of empirical research since people's understandings, experiences, and sense making affect the use of information, and information use in turn affects them (Wilson, 1984).

The person-in-situation approach is generally understood to have led to the extension of INSU studies from a limited focus on occupational groups' information seeking and use to consider groups of users who share a situation that generates information needs. Based on criticisms that INSU research had previously focused too narrowly on academics and professionals and used group membership "as a surrogate for users' information situations" (Allen, 1997, p. 111), the person-in-situation approach sought a more in-depth understanding of the kinds of problematic situations that people face in their everyday life.

Within this tradition, empirical studies have been conducted, for instance, on people suffering from chronic illnesses, people facing challenging life transitions, and people representing marginal, underprivileged, or underserved groups. Individuals facing severe problems or particularly challenging decision-making situations (choosing a career, buying a home) were understood as having needs for information that are critical to meet and different from the kinds of decision-making situations faced at work. Consequently, in empirical INSU studies, the concept of situation has been used as a near synonym for "a special population." The basic premise of INSU, that information needs are generated by problematic situations, meant that users were defined as information users by the problematic situation that they faced in everyday life. This way, the problem situation became the essential factor defining patterns of behavior and group membership (rather than some other interest or concern a person might have).

However, in considering a situation such as unemployment, there may be nothing else that binds together those experiencing this condition. The meanings attached to the situation are sociologically interesting per se. However, an interest in unemployed people's use of information sources and channels inadvertently conveys the message that information seeking is the generic help or solution when people encounter such challenges. Yet information avoidance and filtering are as important, reasonable, and pervasive activities as information seeking (Johnson, 2009).

The tendency in the INSU research tradition to focus on vulnerable populations conveyed an implicit belief that information *is* the solution to problems (Johnson, 2009). Studies on information avoidance (Sairanen & Savolainen, 2010) have shown that information can hurt as well as help. Information can be acquired for pleasure, to sustain a life-long interest or hobby, or out of mere human curiosity. Information can exist in abundance—even in excess—without needing to be sought (Allen & Wilson, 2003). It is equally commonplace that problematic situations require neglecting the information that a person is given rather than seeking for information (Johnson, 2009). Given all these equally logical scenarios, why did the INSU tradition favor the problematic situation scenario where people face a gap, uncertainty, or a lack of understanding that must be bridged with the help of information? The problem situation scenario was the starting point in many well-known models of information behavior, for instance, Choo's (1998) model of information needs, seeking and use, Dervin's (1983) situation-gap-use model, and Wilson's (1999) problem-solving model.

The problematic situation scenario's taken-for-granted nature was related to early INSU studies' close relationship to library use and user studies. Person-in-situation studies did not always explicitly aim to identify the role of libraries in satisfying the information needs of special populations. The viewpoint of library service development almost invariably surfaced, however, in the sections discussing the implications of the research results. Westbrook (2009) voiced the service objective firmly and clearly in her study of domestic violence survivors' information needs:

> Trained in use of the reference interview techniques to help people think through that which they do not know, librarians also possess powerful ethical directives which encourage them to both respect survivor privacy and make sure that their needs are met. (…) *Information-studies scholars and public librarians have the intellectual and ethical capital needed to construct effective information support* at the community level. (pp. 111–112; italics added)