I. First Round of Lightning Talks

The Role of Context in the Implications and Impacts of Information Behavior Research
Kyungwon Koh, Assistant Professor
Ellen L. Rubenstein, Assistant Professor
Kelvin White, Associate Professor
School of Library and Information Studies, University of Oklahoma

When Context Matters: From Context to Contextual Analysis
Pertti Vakkari, Professor
School of Information Sciences, University of Tampere

A Time Analytic Framework for Information Practice
Diana Ascher, Doctoral Student
Department of Information Studies, University of California, Los Angeles

Temporality in Models of Information Behavior, Information Seeking and Information Search
Anita Crescenzi, Doctoral Student
School of Information and Library Science, University of North Carolina at Chapel Hill

The Impact of Time as a Contextual Factor in Health Information Seeking
Yan Zhang, Assistant Professor
School of Information, University of Texas at Austin

Wearing Different Hats for the Context of Communities and Topics: Health Information Activities in Facebook Communities
Sue Yeon Syn, Assistant Professor
Dept. of Library and Information Science, Catholic University of America

HackHealth – Blurring the Contextual Boundaries between Research and Practice
Rebecca Follman, Doctoral Student
Beth St. Jean, Assistant Professor
Mega Subramaniam, Assistant Professor
Natalie Greene Taylor, Doctoral Candidate
Christie Kodama, Doctoral Student
College of Information Studies, University of Maryland – College Park
Dana Casciotti, Program Analyst, Office of Health Information Programs Development, National Library of Medicine

II. Second round of Lightning Talks

Context-making in information work
Isto Huvila, Senior Lecturer and Associate Professor
Åbo Akademi University

The Meta-Context of Information Behavior: The Importance of Multiple Lenses and Mixed Methods Tension
Adam Worrall, Adjunct Professor
School of Information, Florida State University

Analytic bracketing: a method for understanding the contexts of information behavior
Pam McKenzie, Associate Professor
University of Western Ontario
Context in Mobile Information Overload
  Yuanyuan Feng, Doctoral Student
  Denise E. Agosto, Associate Professor
  College of Computing and Informatics, Drexel University

Information Practices and the Mobile Knowledge Work Context
  Leslie Thomson, Doctoral Student
  Mohammad Hossein Jarrahi, Assistant Professor
  School of Information and Library Science, University of North Carolina – Chapel Hill

Information Behavior of International Students Settling in an Unfamiliar Geo-spatial Environment
  Chi Young Oh, Doctoral Student
  Brian S. Butler, Professor
  College of Information Studies, University of Maryland – College Park

The Impacts of Time Pressure and Emotion on the Information Behavior of High Stakes Decision Makers: The Home Buying Experience
  Carol F. Landry, PhD Candidate
  Information School, University of Washington
The Role of Context in the Implications and Impacts of Information Behavior Research

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This lightening talk will discuss how context relates to the implications and impacts of information behavior research. Context plays a significant role in generating study findings and implications of study results; however, very few efforts have been made to delineate exactly what impacts context has on producing implications of particular studies, as well as the information behavior field as a whole.

The authors conducted a pilot study that aimed to identify the ways researchers address implications and the potential impact of their results—i.e., the “so what?” question. We defined implications as what authors explicitly stated about how the results of their studies extend professional and scholarly boundaries, including who implements the implications and who benefits from them. This effort is critical in understanding what contributions the information behavior field has made and how effectively researchers communicate implications of their findings.

The main research question and sub-questions are below:

- How does current information behavior research address the implications and/or impacts of its findings?
  - What are the patterns of the implications and impacts generated by information behavior research?
  - What needs to be improved in addressing the implications and impacts of information behavior research?

Our study comprised a content analysis of information behavior research published between 2008 and 2012 in the U.S and Canada that is written in English. We used the ASIS&T SIG-USE definition of information behavior research: “the behavior of real people engaged in information activities (in contrast to imagined or presumed users) must be a central part” of the study (n.d.).

We consulted Ulrichsweb to identify refereed journals published in English in the U.S and Canada, removing articles without methodological descriptions. A total of 255 articles were collected, of which 30 were selected using simple random sampling. We developed a codebook to capture types and characteristics of implications explicitly stated in the literature, consulting with each other to achieve intercoder reliability and revising the codebook as necessary.

Dedoose, a web-based qualitative and mixed data analysis software, was used to facilitate storing, sharing, excerpting, coding, and analyzing data.
Among our findings noticeable patterns emerged that were closely related to context. Implications that information behavior research generates are often context-bound in that they are related to only the particular group or environment studied. Yet, the implications that some authors arrived at were broad and sweeping, and were not grounded in their studies’ findings and context. For instance, a study that investigated information use of working women in a particular company made a suggestion that “every institution/organization to which a library is attached must earmark one hour as the library hour to encourage reading habits among the employees.” However, other authors conducting case studies or qualitative research appropriately provided thick descriptions of context and stated that their findings were not generalizable across other contexts.

Along with the context of users (i.e., contexts in which users interact with information), the context of researchers (e.g., the researchers’ social roles, tasks, and identities) and the publication venue (e.g., professional or scholarly journals) influenced the type of implications they generated through empirical research. In our random sample of refereed research literature, 13 articles (43.3%) were written by university scholars, 13 by practitioners (43.3%), and four (13.3%) as a result of collaborations between university scholars, professional, and industry researchers. Findings show 23 articles (76.7%) offered professional implications and seven articles (23.3%) included both scholarly and professional implications. None contained only scholarly implications. Many of the research articles in our randomly selected sample came from professional journals, with the aim to address practice rather than theory. These offered few scholarly implications such as methodological contributions, theory testing and model building, and generating knowledge or deepening understanding of the phenomenon under investigation. However, even articles published in scholarly journals tended to address practice as well. Thus, the findings suggest that information behavior researchers from both academia and professional fields strive for generating practical implications and offering suggestions that could be implemented by information professionals, system designers, policy makers, university faculty and administrators, and more.

In order to advance the field of information behavior, however, we may need to ponder how to produce well-evidenced generalizations on human information behavior. Although each individual study successfully generated findings to solve a problem in a constrained context (e.g., a specific organization), we did not find explicit efforts to forge connections among studies or promote the accumulation of research-based knowledge. The purpose of most studies was to identify how to solve a functional problem and improve a practice, instead of advancing theories or scientific progress. Yet, an effort to compare findings and find commonalities between discrete studies seems necessary to avoid amassment of similar projects with limited usefulness. Based on our analysis of research implications, we propose that closer relationships between theory, practice, and research must be achieved to advance the field of information behavior.

Reference

"Context" is a vague notion, which can mean almost anything in research. It seems that all factors that are expected to cause variation in a dependent variable can be called as context. As such this notion does not help researchers to distinguish between relevant and irrelevant factors, and to focus on a set of selected variables influencing the variation of the phenomenon the researcher is interested in. Instead of an empty and all encompassing notion of context, the research community should seek for definitions and categorizations, which steer to selecting a limited number of well-founded factors explaining the variation of the phenomenon of interest.

An option to define context is to conceptualize it as various levels of social reality (Iversen 1991). It is typical to differentiate between four major levels of social reality: individual level, group level, organization level and societal level. The upper levels functions as context of lower level. This notion allows researchers to analyze how variables on one level of social reality are associated to variables on another level of social reality. It facilitates also extending information behavior research from individual level behavior to observing also social structures in which this behavior is embedded (Vakkari 2008). E.g. one could analyze how the supply of information by various information services influences on the information behavior of individuals. The former factor represents variables on organizational level, and the latter one represents individual level variables. In the example, organizational characteristics form the context, which likely affects individual behavior.

The practical suggestions of information behavior studies concerning the design of information services are mostly vague (McKechnie et al. 2008) due to the exclusion of variables representing information services. The proposed notion of context provides information behavior studies also with a desired practical tool to infer suggestions from research results to improve information and library services. The characteristics of information supply in organizations are variables, which can be manipulated by the managers of these organizations to better match with the actual behavior of the clients of that organization. One can consciously include in research designs variables on organizational level like various characteristics of information provision, which can be redesigned by the management. By analyzing how the current information provision is associated to organization members’ information behavior, the results can be used for informing the design of those services.

In social sciences this type of multi-level analysis is called contextual analysis. It is frequently used in social sciences, but there are only a handful of studies in information science using this methodology. These studies analyze e.g. how institutional resources affect on information behavior of securities analysts (Baldwin & Rive 1997) and how public library supply influences the frequency of adult library use (Vakkari 1988; Sin 2012).
In the speech I’ll highlight this notion of contextual analysis by motivating its importance, by briefly introducing its basic concepts, some intermediating mechanisms between levels of contexts, and by providing an example analysis.

References


A Time Analytic Framework for Information Practice

In the past decade, information practice research in the field of information studies has begun to shift away from examining source and channel use toward encountering, seeking, and ascribing meaning to information (Case, 2012, p. 279). This shift has made way for a focus on the information context. In his comprehensive review of time as a contextual element influencing information practice, Reijo Savolainen (2007) provides a look at efforts in information studies to overcome the spatial and temporal barriers to information access. Various, the concept of time in information studies refers to duration of search, frequency/regularity in information source use, and a continuum during which changes in relevance judgments occur. Yet, the effects of cultural time orientation on information practice remain unexplored. In fields such as cultural studies and organizational behavior, time orientation has been described as a cultural trait with significant implications for societal and business activities (Hall, 1959; Hofstede, 1980, 1994; House et al., 2004; Schwartz, 1992; Trompenaars, 1993). These analyses of cultural dimensions offer an inroad to identifying causal links between time orientation and information practice. Given the instrumental nature of time in both the work environment and information practice, a better understanding of the temporal factors influencing information activity likely will help identify best practices and resource allocations to optimize the outcomes of individual and group information practice in cross-cultural business environments. Therefore, I present a time analytic framework for information practice to identify how culturally influenced decision rules govern prioritization of information action.

An analysis of 20 models of information practice indicates that models accommodating an evolving search and leveraging opportunities for serendipitous information acquisition tend to be more sensitive to culturally derived contextual factors like time orientation. Unlike linear models of information practice that commence with the user’s single search query, several non-linear models depict what Marcia Bates calls “evolving search” (Bates, 1989, p. 410). Bates’s Berrypicking Model of Information Retrieval focuses on the sequence of user activity to demonstrate how the user adapts her strategy dynamically throughout the search process. The variety of socio-cultural contexts accommodated by Diane Sonnenwald’s “information horizon” is similar to the vast knowledge context of Bates’s model (Sonnenwald, 1999). In both frameworks, the search query is dynamic and may be refined over time in response to serendipitous information encounters, as well as cognitive, affective, and contextual factors.

Both Peter Ingwersen and Tefko Saracevic similarly depict the potential for novel search patterns in their cognitively based models; the information seeker interprets encountered information based on his or her particular worldview, which stems from the current context, as well as his or her past socio-cultural experience. Given this understanding of the cognitive view, the time orientation associated with the individual’s culture influences the meaning ascribed to the information, as well as the manner in which the seeker goes about acquiring it.

A bevy of work-oriented behaviors are associated with various cultural time orientations, and many of these have obvious ramifications for information practice. For example, planning activities tend to be more beneficial for team members from polychronic cultures than for those from monochronic ones (Arman & Adair, 2012, p. 657-680). Further, investigations into innovation and creativity reveal the integral role of time orientation as a confounding factor in the mismatch between managers’ assumptions about how creative people work and the counterintuitive reality of the creative process (Persing, 1999, p. 359).
I propose the Time Analytic Framework for Information Practice (TAFIP) to guide researchers in assessing how a culture’s time orientation might manifest in information contexts by encouraging the contemplation of underlying socio-cultural attributes that may contribute to information practice. Rather than beginning with the information item, the TAFIP may be approached best by focusing first on the user’s interpretation, evaluation, and prioritization of an information item (see Figure 2).

Figure 2. The Time Analytic Framework for Information Practice

Both cognitive and contextual effects are among the many influences that shape the meaning a user ascribes to an information item, as well as his assessment of the item’s usefulness. In the TAFIP, one is concerned with how the usefulness of the information shapes the prioritization of activities. Whatever information item is salient—either simultaneously in a polychronic culture, or next in a monochronic culture—becomes the object of interpretation by the user, subject to the contextual forces stemming from the user’s cultural background. One could conceive of this phenomenon as an individual algorithm, comprising the assumptions, beliefs, constraints, expectations, principles, and rules stemming from multiple domains, including culture, physical environment, cognitive capability, resource constraints, and affect, among others. For every information encounter, a sort of calculus of interpretation ascribes meaning to that information item, which informs the user’s prioritization of activity in the context of continuous and interconnected information assessment and decision making. Even as this activity grows in complexity, the decision rules governing the algorithm remain relatively simple. Executives and managers have their own algorithms, too, which undergird their expectations of corporate information practice. At each temporal juncture—the moment when assessment of an information item is subject to interpretation that draws from an individual’s time orientation, consciously or not—lurks the possibility for an unanticipated interpretation that can manifest in surprising activity (or inactivity). The more opportunities for surprise in an information context, the more difficult it is to control business outcomes.
Figure 3. Factors underlying context and expectations in the TAFIP

The TAFIP provides insight into the influence of cultural time orientation on the simple calculus that aids individuals in interpreting information and making decisions based on these interpretations. Because the decision rules are relatively simple, understanding an individual’s time orientation can reduce significantly the vulnerability to unexpected information interpretation and the subsequent surprises that may result from such unintended meaning. Individual decision making is fractal in nature—self-organizing and governed at multiple scales by relatively simple principles shaped by past experience, yet non-deterministic. Just as chaos theorists seek to unearth the self-organizing patterns in natural phenomena, information theorists can and should delve into the nature of highly influential self-organizing principles such as time orientation, which govern how humans engage with information.
References


Temporality in Models of Information Behavior, Information Seeking and Information Search
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Time is an important contextual and situational factor of information-seeking and information behavior. Savolainen (2006) identifies time as a primary factor of the information-seeking context in his review of temporality in everyday life information seeking. He describes three major approaches to the treatment of time in the information-seeking literature: "as a fundamental attribute of the situation or context of information-seeking, (ii) time as qualifier of access to information, and (iii) time as an indicator of the information-seeking process" (p. 110). This proposal for a SIG USE lightning talk proposal will provide a brief summary of the temporal context of information-seeking. In addition, I will provide an overview of how time is included in models of information behavior, information-seeking, and information search both as an implicit factor and as an explicit factor.

The participants in the SIGIR 2005 Workshop on IR in Context (IRiX) identified user, system and environment as the three main facets of the context of information retrieval. The environmental factor included four elements of the temporal context important to information retrieval: clock-time, search phase, constraints and duration (short terms vs. long term) (Ingwersen & Järvelin, 2005a). Other temporal factors of information-seeking include the timeframe of the information need (past, present or future) (Bruce, 2005; Julien & Michels, 2004) and an individual’s time horizon (Chatman, 2000).

Many models of information-seeking include a temporal component and may represent information needs and behaviors at a specific moment in time (e.g., Dervin’s (1983) sense-making model) or show their evolution over time (e.g., Bates’ (1989) berrypicking model). The information-seeking process has been modeled as a representation of events or stages that occur over time in a linear, iterative or cyclical sequence (e.g., Godbold, 2006; Kuhlthau, 1991; Marchionini, 1995; Sutcliffe & Ennis, 1998; Vakkari & Hakala, 2000). Models of the context and situation of the information-seeker may implicitly include time (Byström & Järvelin, 1995; Ingwersen & Järvelin, 2005b) or have an explicit temporal element (e.g., the Vakkari & Kuokkanen (1997) extension of Byström & Järvelin’s (1995) model of information seeking).

Despite the inclusion of time in some information behavior models, few empirical studies have investigated information behaviors under time pressure. A small number of empirical studies in the information science literature have described the presence of time pressure reported by participants in observational or interview studies (Chen & Rieh, 2009; Julien & Michels, 2004; Slone, 2007) or as an alternative explanation for why the study results differed from what was expected or suggested by the literature (Kules & Shneiderman, 2008; Slone, 2007). Even fewer studies have explicitly examined time constrained or time pressured information behaviors in naturalistic (Allen, 2011; Chen & Rieh, 2009), survey (Heinström, 2003) or experimental settings (Crescenzi, Capra, & Arguello, 2013; Hertzum & Holmegaard, 2013a, 2013b; Higgins, 1999; Liu, Yang, Zhao, Jiang, & Zhang, 2014; Padovani & Lansdale, 2003; Tombros, Ruthven, & Jose, 2005).

The temporal context of information-seeking and information behavior is an important area of research. As Savolainen (2006) posits, “we lack conclusive empirical studies of the significance of time affordance, that is, the ways in which time pressures affect source preferences and perceptions of source accessibility” (p. 116-117). This lightning talk would serve to highlight the importance of the temporal context in information-seeking.
References


The impact of time as a contextual factor in health information seeking

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Time is a fundamental attribute of context in which information needs emerged and information behavior is situated. Savolainen (2006) has pointed out two ways through which time can impact information seeking: (a) imposing a constraint or time limit on an information seeking task. Typical examples include an imposed deadline for a school assignment or a standard timeline for prenatal visits (Davies & McKenzie, 2004); (b) serving as qualifiers of the information seeking process. Information seeking, like any activities, always unfolds through a time period, be it a short search session or a longitudinal task. Making explicit the time dimension not only recognizes that information seeking is a process that consists of distinct steps, but also suggests that it may or may not have a clear ending point. That is, it may last in a limited time frame or might extend into an undetermined future point. It is also possible that information seeking being cyclic, ending at one time point, and resuming at the other.

Using this conceptualization of time as a starting point, we examined the role of time plays in health information seeking scenarios, with an intention to achieve a better understanding of general consumers’ health information seeking behavior (e.g., the sources that they refer to, the order in which sources are consulted, subjects of interest, and the evaluation of information quality), and to inform the design of health information systems. Towards this end, we examined data collected in two studies, one in which we analyzed questions posted on a social Q&A website (Zhang, 2010), and the other in which we interviewed 21 participants about their experiences with searching for health information using the critical incident interview technique (Zhang, 2014). Three distinct mechanisms that time impacts health information seeking behavior were identified in our preliminary analysis.

First, the time in a day when a medical event takes place has an impact on information seeking activities. For example, in the interviews, one participant mentioned that her husband had a severe back pain at night, they wanted to go to the emergency room, but waited until the morning because they did not want to wake up the kids. Therefore they first turned to the internet, medical reference books at home, and a nursing hotline for information.

Second, the nature of medical conditions in relation to time, that is, how long a condition lasts or whether it is acute or chronic, has an impact on information seeking. When it is the former, the information seeking tended to take place intensively in a short period of time; searchers would consult any sources that they could access, and information seeking was often emotionally loaded. In the chronic condition scenarios, information seeking tended to spread out through the time. For many, seeking information has become a habit, a part of everyday life activities, and a way of life. It not only is a way to problem-solving, but more importantly, a way to learn about their conditions. They also have a set of sources that they are familiar with, and would turn to when needed. A characterizing source that searchers with chronic conditions or their caregivers turn to is online peer support communities. Many of them engage with such communities in a
Third, time impacts information seeking by denoting the stage of a person’s condition, particularly in the case of chronic diseases. At different stages, searchers often had different information needs. For example, after being diagnosed, there always was a pressing need for information about treatments. After recovery, information about reoccurrence and lifestyles was more of interest.

The preliminary results suggest that time is a factor for system designers to consider when designing health information systems, as it impacts many aspects of health information seeking, ranging from information needs and sources to use. In most current systems, time is implicitly reflected in system design, in the sense that most systems serve people after they have been diagnosed or when receiving treatments, while largely ignore the needs of those who intend to find preventative information or those who are recovering. System design implications are expected to be generated in our further analysis of the impact of time on information seeking behavior.


Wearing different hats for the context of communities and topics: 
Health information activities in Facebook communities 

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Social networking sites (SNSs) have been widely used by young adults. Young adults use Facebook for their everyday life information seeking including health-related issues. Research has recognized the great potential of Facebook for disseminating health-related information to young adults (Moreno et al., 2011). The Internet and SNSs are identified as common sources for health information among college students (Kwan et al., 2010) mainly due to availability and convenience. In addition, the social features of SNSs enabled users to participate in interacting with others in SNS communities (Hardey, 2008). Previous studies have examined user behaviors in terms of activities users perform on Facebook. For example, Underwood, Kerlin, and Farrington-Flint (2011) indicated Facebook users’ roles as broadcasters and communicators, and found that they are influenced by different factors in making interactions with Facebook. This study identified Facebook user activities with two roles, information seekers who ask questions and read information posted and information providers who post answers to questions community members asked on Facebook pages. It aims to understand how users would participate in Facebook communities as information seekers and providers and how such activity intentions would differ depending on the context on Facebook including sensitivity levels of the health topics discussed and information sources where the health issues are shared and discussed.

Data was collected through an online survey distributed to undergraduate and graduate students at one private university and one public university between February 27, 2013 and June 27, 2013. Participants who are between the ages of 18 and 29 and users of Facebook were recruited. A total of 325 responses were included for analysis. The survey asked on users’ intentions for the roles in two different contexts. The first context is related to the types of health topics sought; one with highly sensitive health topic and the other with low sensitive health topic. The second context in consideration is the information sources as on Facebook the pages information sources create set an environment for formation of Facebook communities. The information sources were categorized as authorities and personal. The authorities category included Facebook pages provided by health professionals, health organizations, and government agencies, whereas the personal category included Facebook pages provided by friends, family, and patients & caregivers. The data collected from the online survey was analyzed based on user roles in Facebook communities.

The results show that regardless of sensitivity level of health topics, young adults tend to prefer to act as information seekers than as information providers. When the topic sensitivity levels are considered, their intentions to participate as information seekers or providers are statistically significantly higher (Table 1). Two-way ANOVA tests revealed that participants are more willing to seek for health information and contribute to health-related communities when the health topic is less sensitive (Table 1). Table 2 shows that participants would generally act as information seekers in any health information sources, although participants seem to be more comfortable in participating in authorities Facebook pages. It is worth noticing that young Facebook users tend to contribute more as information providers for personally related health information sources compared to authorities information sources when health topics discussed are not sensitive.

Since SNSs enables users to become both information consumers and providers, the correlations between participation intentions as information seekers and providers were analyzed. There was a significant and
positive correlation between information providers’ and seekers’ participation regardless of topic sensitive levels, although the correlation was consistently stronger when the topic is less sensitive. When analyzed by health information sources, the correlations between information providers’ and seekers’ participation were stronger in Facebook pages of personal relationships than of authorities.

Facebook is considered to be a good communication channel for young adults in disseminating health related information. The results of the survey demonstrate that young adults’ intentions to participating in different roles, information seekers and information providers, may vary depending on the context of Facebook pages and health topic being sought. The findings also provided needs for better understanding of contexts in SNSs environments as setting contexts may become good predictors of users’ engagement and lead to enhancement of user participation.

Table 1. Mean ratings of intentions on user roles by topic sensitivity levels

<table>
<thead>
<tr>
<th>User Roles</th>
<th>Low Sensitivity</th>
<th>High Sensitivity</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Information seekers</td>
<td>325</td>
<td>2.52</td>
<td>0.76</td>
</tr>
<tr>
<td>Information providers</td>
<td>325</td>
<td>2.16</td>
<td>0.91</td>
</tr>
</tbody>
</table>

* 1 = most unlikely, 2 = unlikely, 3 = neutral, 4 = likely, 5 = most likely

Table 2. Means and standard deviations of intentions on user roles by health information source categories and topic sensitivity levels

<table>
<thead>
<tr>
<th>User Roles</th>
<th>Topic Sensitivity</th>
<th>Health Information Sources</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Authorities</td>
<td>2.66 (1.01)</td>
<td>2.44 (0.87)</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Personal</td>
<td>2.40 (0.91)</td>
<td>2.16 (0.85)</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td></td>
<td>2.53 (0.88)</td>
<td>2.31 (0.79)</td>
</tr>
<tr>
<td>Information Seekers</td>
<td>Low</td>
<td></td>
<td>2.20 (1.06)</td>
<td>2.21 (0.98)</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td></td>
<td>1.92 (1.01)</td>
<td>1.84 (0.87)</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td></td>
<td>2.06 (0.94)</td>
<td>2.03 (0.84)</td>
</tr>
</tbody>
</table>

* 1 = most unlikely, 2 = unlikely, 3 = neutral, 4 = likely, 5 = most likely

References


HackHealth is an afterschool program that seeks to teach underserved tween populations about health information literacy. The program was designed by UMD researchers as a sandbox for developing effective health information literacy curriculum for young people. In partnership with school librarians, the HackHealth researchers developed curriculum modules – groups of activities loosely organized by theme – for use with students participating in the HackHealth afterschool programs. HackHealth seeks to improve the health literacy skills of disadvantaged youth and to serve as a context for research into the health literacy skills of this population in order to find effective ways to further develop and improve these skills within the school library environment. Middle school students participating in HackHealth each select a health topic of personal relevance, conduct research on this topic, and then prepare some type of deliverable (such as a presentation, play, or poster) in which they present their findings. Our research targets a population that is understudied, and moreover focuses on health information literacy among this population – one of the strongest predictors of an individual’s future health (Weiss, 2007).

During the program’s first year, the curriculum was revised iteratively after presentation at each of three local middle schools. In addition, participating librarians offered comments and suggestions while the HackHealth program was running, and during two co-design workshops hosted by researchers. This curriculum was developed using design-based research (DBR), through which educational programs are developed on a strong theoretical foundation and then iteratively evaluated and modified (Collins, Joseph, & Bielaczyc, 2004). Therefore, HackHealth is both a context for research in information behavior and the result of research in that context.

At the first HackHealth school, information literacy activities developed for the students were based on the classroom experience of research team members, and on recommendations from literature. An example activity involved helping students understand the concept of key words for searching. A volunteer came to the front of the room and saw an object concealed from the other students, such as a tape dispenser. The student then had to think of words to describe the object to others in the group, who tried to guess what it was. The activity went through a number of revisions based on student response. For one thing, students at some of the schools associated the idea of key words with dictionary practice and vocabulary – a much despised activity. As we prepare to present this activity in the second year of the program, the students get a handout that shows a phone from the 80’s, a clamshell phone, and an iPhone. The idea is for students to recognize that one word can refer to all three objects, but that you would have to be more specific if you wanted to get just one of the objects.
Another activity that has changed significantly in response to student and librarian comments is the search log. Originally conceived as a data collection instrument that would also help students keep track of their research, the first version of the search log was several pages long and took almost longer to complete than students spent reading the original material. We reduced the kinds of information asked for on the search log, and then converted it to a note-taking tool with a credibility checklist, and for the coming year we expect to use a digital tool which will enable students to make notes and retain source information for their presentations, and enable us to see how they are judging the credibility of their sources.

As researchers and practitioners, we have ideas about information literacy at different grade levels, but because these skills are spread across a number of classes and a number of years, and because there are no standardized tests for information literacy, students end up with widely varying exposure to basic concepts. Our modules are therefore useful to practitioners, because these variations are acknowledged. While there is benefit to organizing activities so that each one creates a scaffolding for the next, we suggest that greater flexibility is a greater benefit.

During the coming year, we will continue to refine the modules based on student response and suggestions from the librarians using the modules, and we will also work to develop a health literacy assessment tool to quantify the progress that HackHealth students make. Our experiences in HackHealth have led us to conclude that this type of on-the-ground research, through more in-depth and long-term engagement with participants, can lead to increased validity, increased relevance of findings, and a greater, more immediate impact. HackHealth is an example of a study that blurs the contextual boundaries between research and practice, drawing on the benefits of each to develop findings that are richer and more context-sensitive and, thus, have greater potential for real-world effect.

References


Context-making in information work

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‘Context’ is not only something that influences information practices (and/or information behaviour) and the outcomes of informational activities but it is also a 'thing' that frames the underlying primary activities of their (often) secondary information pursuits. Work is a 'context' (or upper-level activity) of information work (or activities if you prefer) similarly to how it is a context a broad range of other secondary level activities [2][3]. Even if the conceptual difference between these two layers of activities may be clear, in practice, the difference is made in each and every context again and again. In information behaviour research, the making of a context is often one of the fine lines (using the words of Eviatar Zerubavel [4]) we as researchers draw when we are determining the object of our analysis. But the context is similarly made by the research subjects as well. When they do things and especially when they reflect about the things they are doing they are categorising things as belonging to context and to be of the principal subject matter.

The lightning talk discusses the observations made during an interview study of the Swedish stakeholders of archaeological archiving and the differences how the study participants reflected upon the focus of their and their colleagues work and informational pursuits relating to archaeological information. Archaeological information was discussed in broad terms to comprise all types of archaeologically (i.e. for archaeologists, about archaeology) relevant information from the perspective of the interviewees. During the analysis of the empirical data, it became apparent that the perception of what is contextual and what is that what is contextualised in archaeological information as a part of their work differed considerably between the study participants and was actively shaped rather than merely explained during the interview process. After initial attempts to explain the differences by referring to the differences in the 'background context' of the actors (i.e. education, demographics, worktask), another alternative emerged from the analysis of the empirical material. Similarly to how information behaviour researchers draw lines between contextual and primary aspects of human activity, the study participants were actively involved in a process of making the contexts of their work. In a similar sense to how, for instance, boyd [1] has discussed context in an infrastructural sense as an enabler and platform of social situations and interaction, the study participants’ framing of their work and archaeological information could be be seen as
an active collective and individual making of work and information work related infrastructures and things supported by them.

The aim of this presentation is to explicate how the framing of work and information work and on-going context-making of the interviewees could provide an alternative and possibly, in some respects a better explanation of the differences how archaeological information is conceptualised and used by the different actors. At the same time, a closer look at the practices of both information work and (primary) work related context-making have a capability to shed light to the practices of information processing as a part of human pursuits.

References


The Meta-Context of Information Behavior: The Importance of Multiple Lenses and Mixed Methods Tension
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The advantages of mixed methods research designs (Creswell & Plano Clark, 2011) for studies of information behavior cannot be overstated. In combining qualitative and quantitative methods together, they allow multiple paradigms to contribute to knowledge building (Ridenour & Newman, 2008) about information behavior in varied contexts. An ethnographic study incorporating mixed methods allows multiple lenses and contexts to be considered, respected, understood, and applied within a given study, “actively engag[ing] with epistemological differences” between them (Greene, 2007, p. 27). This can lead to tensions and contradictions between contexts, as sometimes seen between the person-in-context and socially constructed context views related by Courtright (2008). This lightning talk presents an empirical example to strengthen the argument that such tension can lead to insight about what we might call the meta-context for information behavior, learning the most from our data and producing true, thick description and “conversation” about the cases we study (Geertz, 1973; Greene, 2007).

My recent study of groups of users on LibraryThing and Goodreads included the facet of information behavior as part of describing the roles they play within and across communities (Worrall, 2014; further publications in preparation or under review). This was my chosen meta-context, but providing for a full, thick description of the roles required examining multiple other contexts within this framing. Much data on the social context came from content analysis of 519 messages posted in the nine groups selected for the study, which led to observing conventions, sharing of information, editing of posts, creation of new threads, and following of structure within the socially constructed context of each group and thread. The additional context provided by the two sites as a whole, beyond each individual group, factored into this; many users used the technological features provided to link beyond their group to pages for books, authors, or series, within the flow of their information behavior. Group moderators provided further context by encouraging activities that they understood would help build their groups as communities.

Individual and cognitive contexts were an additional necessary component of the study, and showed a stronger role for information behavior than the social context lens. One primary source for this data was from a quantitative survey of 142 users of the nine groups. Individual facets of information behavior and activities were examined by asking users about their experience with and use of LibraryThing or Goodreads. Participants provided individualized cognitions of whether their information behavior and needs were similar to the broader context they were part of. This data found LibraryThing and Goodreads to play strong, significant ($p < 0.001$) roles in the information behavior and activities of users. Another source of data on cognitive contexts came from qualitative, semi-structured interviews with 11 of the users who completed the survey. Interviewees discussed their information behaviors and needs with the researcher, explaining how they used the site and groups they visited, and discussed the social context of their behaviors, considering which behaviors and needs they shared with other users they interacted with. Tension occurred when findings differed from the content analysis or between interviewees.

Synthesis of this data across interviews and with data from the content analysis and survey addressed this tension through careful consideration and analysis. Having data from multiple contexts allowed nuances and facets of information behavior to play off of each other, leading to deeper and richer conclusions on the multiple contexts of users’ information behavior in LibraryThing and Goodreads and on the meta-context of the groups as communities. Information behavior and activities, as facilitated by
LibraryThing and Goodreads, play a clear role in the latter; this role is not always manifest as evident in the tensions and differences seen in the data. This should not be surprising; context is important to information behavior, and none of the participants shared the exact same context.

Three roles were identified as played by LibraryThing and Goodreads in users’ communities, of which a structure-based role was strongest for the phenomenon of information behavior. This was most true for participants who found the sites fit their chosen individual information behaviors and activities, which were often mutually influenced by other users or by the social contexts participants found themselves in. The technology provided by the two sites and by the Internet as a whole was a significant contextual factor in facilitating users to engage in the full spectrum of information behavior. Moderation of the role allowed many threads and groups to have sufficient information behavior in common with other community contexts on the site, thus encouraging broader convergence across each site. Some conflicts were observed where these contexts differed enough to cause disagreements. Those contexts and communities leading to engagement in everyday life information behavior (Savolainen, 1995) contributed to a social network-based role being significant for some users, as the establishment of connections, social ties, and a common community culture enhanced a network context for them.

This example illustrated the incorporation of a view through multiple lenses and of multiple contexts through a mixed method research design, which can be vital for meaningful study of information behavior. A meta-context may be necessary for our research purposes, as it was here. Such a meta-context can be very complex under the surface; cognitive and social facets shape information behavior, and other phenomena such as the site, technology, or value judgments may become significant factors and present tensions in the data and in information behavior. As Courtright (2008, p. 293) has argued, mixed methods research that iterates through “ethnographic observation and study of artifacts” alongside “questioning of human actors” can help a “dynamic view” of the meta-context of information behavior emerge from such tension. We should continue to practice this in individual research studies (as in this example), but also work together as a field in applying a multi-contextual view to users and their information behavior as individuals, collectives, and societies.

References

Analytic bracketing: a method for understanding the contexts of information behaviour
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This lightning talk will present an interpretive methodological approach for studying several facets of information behaviour in a particular context: “keeping track” across the multiple contexts of everyday life.

For many 21st century North Americans, everyday life requires the coordination of people and resources in time and across multiple physical spaces and organizational settings. Monitoring the process and reminding oneself and others of what needs to be done and when, where, and by whom, is an important part of the work of coordination. Keeping track is a form of personal information management (Jones and Teevan 2007) that takes considerable time and energy but is often overlooked, both by analysts and by those who do it. The work of keeping track transcends dichotomies of work and home, it involves artifacts, people, and physical arrangements, and it operates across rather than within individual bureaucratic organizations and their associated physical spaces and temporal constraints.

“Keeping track” therefore embeds three intertwined contextual levels:
- the material, situated, documentary and non-documentary practices through which individuals keep track,
- the organization of that work both within households and from without
- the discourses of workplace and family life that are taken up in people’s talk about keeping track and, conversely, tee ways that keeping track figures into their descriptions of their lives and selves.

This talk presents a broad interpretive/social constructionist perspective that Holstein and Gubrium (2005, 489) call an “analytics of interpretive practice.” This perspective combines ethnomethodologically informed approaches that pay close attention to the hows of interaction – the situated and material ways that people “do” social life (Crabtree 2003) – with approaches that attend to the whats – the location of everyday work within a complex of infrastructures, institutions, and discourses that operate beyond individual homes and workplaces (DeVault 2000, 501). This approach recognizes that everyday life is negotiated and coordinated on several levels and brings to light the ways in which the social and material context is both shaped by and in turn shapes what individuals do.

Holstein and Gubrium advocate a strategy of “analytic bracketing,” a “skilled juggling act, alternatively concentrating on the myriad hows and what’s of everyday life” (Holstein and Gubrium 2005, pp. 495-496). Analytic bracketing requires the researcher alternately to focus on the practices through which everyday life is accomplished and the discursive context that gives meaning to those practices, “documenting each in turn, and making informative references to the other in the process” (Holstein & Gubrium, 2005, p. 496). Consistent with this approach, I will show how this approach can shed light onto all three contextual levels by approaching the data
- ethnomethodologically, to identify the artful material practices whereby people coordinate their involvement in social systems such as work, family, and leisure;
- relationally, to show how work done in one setting hooks into the organizational requirements of workplaces, schools, and other institutions;
- discursively (Potter, 1996), to show the interplay of talk about organization work, discourses of home and workplace, and identities as “good” workers, parents, students, etc. (Holstein & Gubrium 2005).


DeVault, Marjorie L. 2000. Producing family time: practices of leisure activity beyond the home. Qualitative


Context in Mobile Information Overload

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Introduction

Information overload is a research topic that has been studied for decades in various research disciplines, such as economics, organization science, psychology, and library and information science. Generally, the concept of information overload refers to various phenomena and theories related to “too much information” (Bawden, Holtham, & Courtney, 1999). Meanwhile, the increasing use of web-enabled mobile devices is making mobile information and communication technologies (ICTs) ubiquitous, blending into the background of people’s everyday work and life (Sørensen & Gibson, 2004).

Therefore, our study investigates information overload in the context of ubiquitous usage of mobile devices and mobile information and communication technologies (ICTs). Specifically, we aim to understand the information overload phenomenon when people are using mobile devices and mobile ICTs, which we refer as mobile information overload, as well as people’s coping behavior towards such phenomenon.

In the lightning talk, we plan to present the findings of our pilot study with a focus on how context impacts people’s experience and coping behavior with mobile information overload. We will argue the importance and complexity of thinking of context itself as mobile and changing when studying mobile ICT use.

A Brief Literature Review

Previous information overload research addressed several key aspects: the situations, the causes, and the effects of information overload, as well as people’s countermeasures against information overload.

The information overload literature has identified many reasons that contribute to information overload, at both organizational and personal levels (Eppler & Mengis, 2004). Bawden and his colleagues (1999) deemed the amount of information (“too much information”) and the variety of information (type, format, version, etc.) two major causes of information overload. The current study aims to understand causes of mobile information overload at the personal or interpersonal levels.

Previous studies also explored people’s countermeasures of information overload, that is, how people reduce the negative effects of information overload. In this study, we
mainly focus on personal countermeasures as coping strategies, such as queuing, satisficing, withdrawing and filtering (Bawden & Robinson, 2009). Savolainen (2007) found that people tended to employ withdrawing and filtering strategies to cope with everyday life information overload, which was obviously different from the strategies used at work (e.g. queuing). Nowadays, people often deal with both work-related and non-work information on their mobile devices via mobile ICTs, which complicates people’s coping behavior toward mobile information overload. Our study also tackles how people cope with mobile information overload.

Besides information overload research, research on mobile information behavior and mobile human-computer interaction (HCI) has been booming in recent years. Context is a key concept in information behavior research (Courtright, 2007), and findings from many mobile information behavior and mobile HCI studies support that context might play a particular vital role when people use mobile devices. Their portability tends to diversify people’s information needs (Church & Smyth, 2009) and information usage (Falaki, Mahajan, Kandula, Lymberopoulos, Govindan, & Estrin, 2010). In the current study, we also explore how various types of context impact people’s experience of mobile information overload.

Research questions and methodology

We expect our study to help to answer the following three research questions: (RQ1) What kinds of mobile information overload, if any, do people experience when using web-enabled mobile devices or mobile ICTs? (RQ2) What factors cause mobile information overload? And (RQ3) how do people cope with mobile information overload?

Since few studies have examined the topic of information overload on mobile devices, the current study is relatively exploratory. Therefore, we use the qualitative method of semi-structured interviews in order to gain a deep understanding of mobile information overload and to provide data for deeper continuing analysis. A pilot study consisting of five individual interviews has been conducted and data analysis is currently underway. We will present our findings from the pilot study and specifically address the role of context in mobile information overload.

Highlighted Findings

The pilot study reveals several significant preliminary findings. First, smartphone users are likely to experience mobile information overload when using their smartphones and mobile ICTs. Second, a wide variety of factors contribute to mobile information overload, such as the need to monitor “too much information” (TMI) via smartphones, the increasing functionality and complexity of mobile ICTs, and the limited affordances of smartphones. Third, those who experience mobile information overload intentionally or unconsciously use coping strategies to mitigate the problem.

In terms of context, we found that context is a vital for both people’s experience and coping behavior with mobile information overload. Similar to findings of many previous
information behavior studies, temporal and spatial factors of context were shown to be fundamental attributes in people’s experience and coping strategies for mobile information overload. For example, participants reported they often used their smartphones to conduct information tasks at the times which they had previously considered dead times, often during physical spatial transit such as air or rail trips. Sometimes they were not able to process the full range of typical daily information tasks during these limited time slots, so they employed filtering or withdrawing strategies to cope with context-based mobile information overload.

Social factors of context also played a significant role and they were multifold. One participant reported that he used his smartphone in a social event to exchange contact information with another person, but they spent a lot of time to figure out which way among various mobile applications would be best for them to connect with each other, which was considered low efficiency caused by “too much information”. Another participant confirmed how social factors influenced her coping strategies with mobile information overload. Because she believed using smartphones during face-to-face interactions with people was impolite, she tended to ignore most information pushed to her smartphone during in-person interactions.

The pilot study demonstrates how context impacts people’s experiences and coping strategies toward mobile information overload in one way or another. We expect findings from our full study will shed further light on the topic.

References


Today, more than one billion individuals worldwide are considered part of the ‘mobile working population’; this figure includes 75 percent of the workers in the US, Canada, and Latin America (Business Wire, 2012; eWeek, 2012), and is one that is projected to keep rising (de Carvalho, Ciolfi, & Gray, 2011; Su & Mark, 2008). The proliferation of digital technologies and global economic expansions and recessions are two important factors for human information behavior (or information practices) scholars to consider in relation to the prevalent class of mobile workers. As will be discussed below and during this lightning talk, both serve in some way to differentiate the information practices that take place in mobile work contexts from the information practices that take place in traditional work contexts, typified by centralized office buildings and singular organizational affiliations. Mobile work, in contrast to traditional working arrangements, is defined as a greater-than-episodic professional travel (Erickson, Jarrahi, Thomson, & Sawyer, 2014) across any of several different ‘boundaried’ spheres, whether spatial, temporal, organizational, cultural, and/or otherwise.

As a narrower group of mobile knowledge workers is of interest to the current research study, and in turn in this lightning talk, a brief word is first said about them. Knowledge workers are generally understood as those whose primary work products are of an intangible variety—taking the form of professional services and inputs, for example—as opposed to a tangible one (such as, for example, goods made or sold using special tools found only in certain locations). Because of the nature of their work, knowledge workers often avail themselves of digital technologies in order to carry out their work tasks (Davis, 2002). Prototypical knowledge workers are found in creative and analytic fields, including architecture, design, music, economics, science, and consulting. Given that most knowledge work: 1) does not often need for location-specific facilities or site-specific tools; 2) is digital in nature, enabled by ICTs; and 3) in its ‘digitality,’ comes with all of the untethered, ‘anytime, anyplace’ (Davis) allowances of ICTs, Rainie and Wellman (2012) have coined contemporary knowledge work as “bit work.”
Knowledge work, spatial mobility, and digital technologies are strongly aligned. And, while technology has contributed to changes in individuals’—particularly knowledge workers’—work practices, so too has the global market. Expansions and recessions have made for a workforce in which modular and project-based contracts are increasingly common (Barley & Kunda, 2006; Herbsleb, 2007; Schultze & Boland, 2000). Thus, mobile knowledge work today is not only about extending and expanding (Middleton, 2008) the spaces and the times across which one works, moving beyond an office-based nucleus, but also about perhaps having various other organizational, technological, social, cultural, and conceptual mobilities in addition. A mobile knowledge worker may have one, more than one, or no organizational affiliation of which to speak, and find that they instead ‘orbit’ around clients and colleagues, and through their extended professional networks (Costas, 2013; Czarniawska, 2011; Jones, 2013). This is a significant departure from the traditional paradigm of “organizational information behaviour” (Huotari & Wilson, 2001, Introduction) and organization-based “small worlds” (Huotari & Chatman, 2001) commonly researched in information science (e.g., Courtright, 2007).

This lightning talk reports on an exploratory study aimed at gathering a broad understanding of the information practices of mobile knowledge workers and the role of digital technologies in these. Much traditional work takes place in environments explicitly “set up... [and] designed” to handle workers’ information needs, “to acquire, share and disseminate [the] information” (Huotari & Wilson, Introduction, emphasis added) they need to perform their jobs, and involves collocated coworkers who follow the broadly discernible patterns of information practice, ones that are systematic, rule-based, “programmed,” “verging on ritualistic” (Johnson, 2003). Having completed interviews with ten mobile knowledge workers and begun preliminary data analysis, it is evident that—under the contemporary paradigm of mobile knowledge work—it is not uncommon for one individual to be contracted with two or more organizations simultaneously, contributing components to larger team projects within these. One organization may be located in another country, the other might require special VPN (virtual private network) access and installation of a special technological platform, and, in two weeks, another contract may be accepted that involves initial travel to an on-site location for a longer-term engagement.

This lightning talk will illuminate the contextual complexities and intricacies of the understudied mobile knowledge work domain with empirical insights drawn from a rich sample of textual and visual data, and theoretical insights about the landscape of professional information practices.


Information Behavior of International Students Settling in an Unfamiliar Geo-spatial Environment

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As international education increases in importance and popularity, more and more students go to another country to participate in higher education. Whether they are U.S. students studying abroad or are one of the many students coming to the U.S. for undergraduate or graduate education, these students bring their own cultural backgrounds with them (Open Doors, 2013). Like any new student, international students face significant challenges associated with gathering critical information about their new, unfamiliar environment. However, for international students these challenges are compounded by complex interactions between their own background and the cultures, languages, customs, and social structure found in their new context. While information science research has begun to consider the daily information behavior of sojourners such as international students (Sin & Kim, 2013) and migrational individuals (Lingel, 2011), little is known about international students’ information behavior varying in different temporal, social, and geospatial contexts.

Context is particularly critical when examining the information behavior of people in new environments. New arrivals, such as individuals from different nations and cultures, must necessarily navigate complex interactions between their prior knowledge and expectation, and those embedded in their new environment. This, in turn, suggests that the effects of the immediate context may themselves be dependent on prior contexts that an individual has experienced.

To develop a rich model of the implications of context for information behavior, we have begun an investigation of the information behavior of new international students in an unfamiliar environment. As students in a new institution and residents in a new community, international students necessarily have a variety of information needs that must be met as they attempt to live, work, and adjust in an unfamiliar
place. As they work to meet these needs, there are many ways in which context affects their information behavior.

In Fall 2013 our research team conducted a mixed-method exploratory study of 20 international graduate students who had been in the United States for approximately one year. The results of this study highlight several general ways that contexts affect the information needs and behavior of individuals entering a new, unfamiliar environment.

First, the results of the initial study highlighted temporal aspects of contextual influences. Individuals’ information needs changed over time as their perceived importance of basic local information (e.g. banks, international student office) decreased and their perceived importance of recreational local information (e.g. theaters, parks, and cafes) increased in the time after their arrival in the community. During this time both their information needs and their perceptions of their environment changed significantly. Moreover, while the individuals had a significant amount of autonomy, their information needs, behaviors, and sources also reflected the larger context in different ways as events occurred, services were discovered, and emphases shifted. Contexts and contextual influences change over time.

Second, the findings revealed ways in which prior and current social contexts can interact to affect information behaviors. International students with many co-national students (Chinese, Indian, and Korean) in the new environment heavily relied on social networks with people of the same nationality for on- and off-line information sources. In contrast, students without many co-national students (Argentinean, Salvadorian) relied more on non-human information sources such as search engines and online maps. How individuals met their information needs in a new environment developed from the interplay of their prior national/cultural context and the social composition of the new environment.

Third, interviews with these international students showed the degree to which they met their information needs by interacting with their immediate physical environment. Much of the information
that individuals needed to navigate a new community is embedded in the geospatial context where it is located. As a result, when seeking information of new local environment, participants used an information tactic of intentionally “wandering around” (Lingel, 2011) often leading to opportunistic information encountering (Erdelez, 1999) within the geospatial context of their activities. This and other information gathering strategies were further enabled by the pervasive availability of mobile technologies that allowed individuals to move between offline and online environments.

The findings from this initial study highlight some of the nuanced ways that the different contexts of information seeking behavior interact. Temporal, social, geospatial, and technological contexts affect individuals’ information behaviors, and when taken together these contexts interact to further shape the ways that individuals interact with information sources and meet their needs. Individuals, such as international students, who move into new environments must navigate this complex mix of interacting contexts. Information behavior studies that take into account interaction of different contexts and the strategies individuals use to deal with the challenges of an unfamiliar social, cultural, and geospatial environments will broaden our understanding of these critical situations.

References


The Impacts of Time Pressure and Emotion on the Information Behavior of High Stakes Decision Makers: The Home Buying Experience

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Decisions. As we move through our everyday activities, we make decisions. Many are routine, do not involve risk or focus on a single issue. We know what to expect. Some decisions, however, entail risk, uncertain outcomes and a high cost financially and/or emotionally. Such decisions are referred to as "high stakes" (Kunreuther, et al., 2002). Regardless of the decision type, decisions inevitably involve information, and thus deciders proceed to carry out one or more forms of information behavior, for example, seeking, sharing, using, avoiding, managing, creating or destroying. In addition, each manner of information behavior requires that a choice be made, and choices can be shaped by numerous factors (Fisher & Julien, 2009). Of specific interest to this study are the factors of time pressure and emotion.

Motivated by the absence of research addressing the interaction of time pressure and emotion, this research investigated how the interaction of such factors influence people's information behavior when engaging in high stakes decision-making, how high stakes deciders experience information when decisions are made under time pressure and how they experience information when a decision is emotionally charged. Moreover, the context of high stakes deciding was explored within the context of the Seattle, Washington metropolitan area home buying experience, wherein the 2012 residential real estate market shifted from a state of low demand to one involving low inventory, high demand and competitive situations (Bhatt, 2013; Pryne, 2013). Although a previous examination into the information behavior of homebuyers exists, the inquiry focused on homebuyers’ interpretations of informational cues derived from “for sale” print and web-based listings (Savolainen, 2009).

To determine the impact of emotion and time pressure on the information behavior of high stakes deciders, the researcher conducted an exploratory study using triangulated and qualitative methods. In preparation for fieldwork, Landry undertook an immersive, mock home buying experience to equip herself with the language and knowledge of the process as well as obtaining an understanding of homebuyers and home buying stakeholders' concerns and expectations. To elicit rich data regarding the phenomena under study, Landry employed in-depth, semi-structured interviews using a timeline approach with 21 homebuyers and 12 home buying stakeholders. Stakeholders consisted of real estate agents, lenders and escrow agents. Finally, Landry used
eight observations to attain firsthand, open-ended information regarding interactions between stakeholders and their clients. Observations included attending an open house, two property showings, one initial client meeting and four home buying classes. Body language, tone of voice and nonverbal language were observed for instances of emotion and time stress with regard to home buying information behavior. Interview and observation data were analyzed using Miles and Huberman's (1994) iterative pattern coding method.

By using this strategy, a general picture of high stakes deciders' information behavior materialized, wherein "information use" presented as the primary behavior. Moreover, findings show that deciders' use of information resulted in emotional feelings at varying levels of intensity, for example, strong anger/outrage, medium anger/irritation or light anger/frustration. Additionally, information use produced a sense of time urgency as well as generating an interaction between emotion and time pressure. Despite the predominance of information use, however, it was not an exclusive behavior. Participants also revealed myriad "non-use" information behaviors (e.g. information-seeking, sharing, needing, etc), but unlike information use, emotion and time pressure motivated non-use behaviors. As such, emotion and time pressure created a notable divergence between high stakes deciders’ use of information and non-use behaviors.

In addition to familiar forms of information behavior, the study identified the emergent phenomenon of "information use by proxy." That is, homebuyers engaged others to use information for making decisions on their behalf. Here, too, one finds evidence of emotion's influence as such feelings as fear, uncertainty or trust prompted participants to rely on supportive family members or principled professionals to make home buying decisions for them. This suggests then that emotion is a leading factor in one's employment of information use by proxy.

Finally, study findings demonstrate that emotion and time pressure have the ability to alter high stakes deciders' information behavior. Participants revealed that the presence of emotion, time pressure or the interaction of the two factors caused them to modify or abandon typical information behaviors. In some instances, such alterations were positive in nature like changing from an information use by proxy strategy to using information by and for oneself. Less constructively, however, time urgency compelled participants to forego systematic information-seeking and use in favor of a more impulsive or arbitrary approach, while emotions such as despair shifted active information use to that of blunting or information avoidance. Participants indicated that emotion and time pressure induced modifications were generally unwelcomed and suggested that such alterations went against their very natures. Participants wanted control over their information behavior.

By understanding how people experience emotion or time stress within the context of high stakes deciding, research can help deciders make decisions, to make decisions less stressfully and to
work more easily with other decision stakeholders. Further, given that emotions are likely to influence the information behavior associated with high stakes decision-making, system designers must attend to such variables. Julien, McKechnie and Hart (2005) noted that little thought has been devoted to this aspect of design. Time pressure, too, must be a consideration in system design, as high stakes decision-making may precipitate the use of new and unfamiliar technology when engaging in information behavior. Designers should embrace a user-centered attitude and create systems that do not require a large learning curve, as decision makers may not have the luxury of time nor the emotional resilience to learn how to operate them. Additionally, study results offer transferability to other high stakes contexts such as deciding to buy an airplane or making important medical decisions. Transferability also applies to low stakes contexts. For example, decisions made regarding offers on daily deal websites like GROUPON.com can concomitantly engender emotion and a sense of time urgency when considering the purchase of a “bargain” and doing so within a short window of time.

In sum, the study demonstrates that, within the context of high stakes decision-making and the home buying experience, emotion, time pressure or the interaction of the two can impact one's information behavior.

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