

*Article*

# Contextualizing Information Behavior: A Methodological Approach

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## ABSTRACT

Building on recent developments in information behavior theory and research, this paper explores the role of context in methodological approaches to the investigation of everyday information behavior. In particular, the author examines the implicit role of Western constructs in existing models and theories of information behavior, and illustrates how a more contextually responsive method for investigating information behavior may provide more robust and accurate indices of how individuals interact with information in their everyday lives in diverse contexts. The value of a contextualised understanding of information behavior is demonstrated by drawing on two studies examining the role of contextual factors in everyday information behavior in non-Western societies. In doing so the author identifies several factors with considerable contextual variation that play a strong role in how individuals need, seek, and use information in their daily lives, particularly social and cultural values. The author also demonstrates the value in further exploring this contextual variation in information behavior research, supported by relevant theoretical and philosophical considerations. The resulting information behavior research methodology is aimed at identifying the contextual factors present in everyday information behavior, which may enable information scientists to better understand variation in information behavior and develop more robust tools for investigating information behavior in diverse communities. I conclude by suggesting that the implementation of this method may also lead to better understanding of the relationship between information practices and

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well-being, as well as having implications for international development and cross-cultural collaboration.

## INTRODUCTION

### Information Behavior in Context

Over the course of the past five decades human information behavior has been investigated using many different methodologies, informed by numerous theories and models of information behavior.<sup>1</sup> While a great deal of research has contributed to the development of information behavior theory, some scholars have recognised the gap in knowledge related to the role of context in information behavior.<sup>2</sup> In particular, very little research thus far has investigated contextual factors influencing everyday information behavior in a non-Western society, and a method for rigorously investigating these factors with potential for systematic application in diverse contexts has not yet been described in the literature.

While studies by pioneers in the field such as Tom Wilson, Brenda Dervin, and Carol Kuhlthau provide invaluable insight into how individuals interact with information, some gaps in our understanding still remain. In particular, the role of context in information behavior remains somewhat ambiguous, resulting in an understanding of information behavior that may not be as comprehensive as needed in today's global information society.

### Definitional Nature of "Context"

According to Dervin<sup>3</sup> there "is no term that is more often used, less often defined, and when defined, defined so variously as *context*" (p. 14).<sup>4</sup> In reviewing the literature, Dervin's observation has proved accurate. The *Oxford English Dictionary*

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<sup>1</sup> Karen E. Fisher, Sanda Erdelez, and Lynne McKechnie, eds., *Theories of Information Behavior*. ASIST Monograph Series (Medford, N.J.: Published for the American Society for Information Science and Technology by Information Today, 2005).

<sup>2</sup> C. Courtright, "Context in Information Behavior Research," *Annual Review of Information Science and Technology* 41, no. 1 (2007): 291; Amanda Spink and Charles Cole, "Introduction to the Special Issue: Everyday Life Information-Seeking Research," *Library & Information Science Research* 23, no. 4 (2001): 30, doi:10.1016/S0740-8188(01)00090-1; Anita Komlodi, "Cultural Models of Hall and Hofstede," in *Theories of Information Science Behavior*, eds. Karen E. Fisher, Sanda Erdelez, and Lynne McKechnie, ASIST Monograph Series (Medford, N.J.: Published for the American Society for Information Science and Technology by Information Today, 2005), 112; and Sanda Erdelez, "Information Encountering: It's More than Just Bumping into Information," *Bulletin of the American Society for Information Science and Technology* 25 no.3 (1999): 26–29.

<sup>3</sup> Dervin, Brenda. 2003. ". Given a Context by Any Other Name: Methodological Tools for Taming the Unruly Beast". In *Sense-Making Methodology Reader : Selected Writings of Brenda Dervin*, edited by Brenda Dervin, Lois Foreman-Wernet, and Eric Lauterbach, 197–213. Cresskill N.J.: Hampton Press. 2003.

<sup>4</sup> Ibid.

*Online's* definition of "context" has been slightly adapted to develop the following working definition used in this research: "The totality of circumstances that form the setting for an event, statement, or idea, and through which understanding is constructed."

The understanding mentioned in the above definition is conceptualized as being constructed amongst individuals, as this method was developed from a social constructionist perspective. Context, therefore, forms the background in which the individual, as well as his or her thoughts and behaviors, is embedded. This definitional nature of the term *context* underpins the development of the method described in this paper.

## EPISTEMOLOGICAL CONSIDERATIONS, CONSTRUCTS, EMPIRICAL REFINEMENT, AND THEORY

### Justification for the Development of a New Method

Recent research into cognitive neuroscience has revealed that cultural and social contexts play a role in how the brain processes information.<sup>5</sup> Many benchmark studies into human information behavior were published prior to such discoveries in the emerging field of cultural neuroscience which support a model of information processing that varies from one cultural or social context to another.

Other evidence suggests that findings resulting from data gathered from participant samples consisting primarily of Westerners are not reflective of all of humanity in general, but rather only generalizable to the "populations from which they sampled."<sup>6</sup> Henrich, et al. observe that "despite their narrow samples, behavioral scientists often are interested in drawing inferences about the human mind and human behavior."<sup>7</sup> The same may be said of information scientists and information behavior research, which often makes inferences about *human information behavior* based on samples consisting primarily of North Americans. According to Henrich et al. participants in most published research are not representative of human behavior, as they are "Western, Educated, Industrialized, Rich, and Democratic (WEIRD);"<sup>8</sup> an assertion that

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<sup>5</sup> Shinobu Kitayama and Jiyoung Park, "Cultural Neuroscience of the Self: Understanding the Social Grounding of the Brain," *Social Cognitive and Affective Neuroscience* 5, no. 2-3 (2010): 111–29, doi:10.1093/scan/nsq052.

<sup>6</sup> Joseph Heinrich, Steven J Heine, and Ara Norenzayan, "The Weirdest People in the World?" *The Behavioral and Brain Sciences* 33, no. 2-3 (2010): 63, doi:10.1017/S0140525X0999152X.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.,63.

provides further incentive for investigations into a specific context or community which may provide more accurate understandings of information behavior.

This social nature of information receives greater recognition in user-centred information behavior research, but epistemologically the conclusions drawn from the Western based samples used in most information research present a gap in our understanding of human information behavior. Myers<sup>9</sup> asserts that in interpretivist research reality is seen as a subjective social product that is constructed and interpreted by humans, according to their beliefs and value systems. This emphasis on the social construction of reality and the communicative process of information behavior is often under-acknowledged in qualitative information behavior research, despite many of these studies employing an interpretivist epistemological stance. A method and research paradigm were therefore developed to address these epistemological gaps, taking a holistic perspective of the ontological and epistemological perspectives and methodological tools used in information behavior research.

An understanding of information behavior in context has the potential to provide practical contributions as well, such as the development of more effective, culturally relevant information services for non-Westerners. Finally, the development of the method was motivated by the desire to establish a framework from which further exploration of the relationship between information behavior and quality of life could be explored.

## Constructs and the Research Paradigm

Information behavior research is often conducted within a qualitative interpretivist paradigm, using interviews and surveys amongst other tools for data collection, and a qualitative analysis method such as discourse analysis, as demonstrated in research conducted by McKenzie,<sup>10</sup> Pettigrew,<sup>11</sup> and Nahl<sup>12</sup> and others. The role of context in information behavior has received attention in research conducted by authors such as Solomon<sup>13</sup> and Ingwersen and Jarvelin,<sup>14</sup> amongst others.

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<sup>9</sup> MD Myers, "Qualitative Research in Information Systems," *Management Information Systems Quarterly* 21, no 2 (1997): 241–42.

<sup>10</sup> P.J. McKenzie, "A Model of Information Practices in Accounts of Everyday-Life Information Seeking," *Journal of Documentation* 59, no. 1 (2003): 19–40.

<sup>11</sup> Karen E. Pettigrew, "Waiting for Chiropractic: Contextual Results from an Ethnographic Study of the Information Behavior among Attendees at Community Clinics," *Information Processing & Management* 35, no. 6 (1999): 801–17, doi:10.1016/S0306-4573(99)00027-8.

<sup>12</sup> Diane Nahl, "A Discourse Analysis Technique for Charting the Flow of Micro-Information Behavior," *Journal of Documentation* 63, no.3 (2007): 323–39. doi:10.1108/00220410710743270.

<sup>13</sup> Paul Solomon, "Discovering Information Behavior in Sense Making. I. Time and Timing," *Journal of the American Society for Information Science* 48, no.12 (1997a): 1097–1108.

Methods such as contextual inquiry currently used in information systems research are also emerging as a potentially useful set of tools for studying information behavior,<sup>15</sup> demonstrating our field's move towards more contextually aware methods. This method shifts the focus even further onto the role of context in information behavior, and continues to develop in this vein as it is further tested and refined in various settings.

A clear articulation of the researchers' perspective with regards to the nature of reality and the knowledge from which the research is to be undertaken is critical to a successful research activity, and the method described in this paper reflects a relativistic ontological stance and interpretivist epistemological position. Research undertaken with a relativistic ontology is informed by the perspective that "multiple realities exist as subjective representations of the mind."<sup>16</sup> An interpretivist epistemological stance means that the research is undertaken from the perspective that there is no universal truth, and reality is seen as a subjective social product that is constructed and interpreted by humans, according to their beliefs and value systems.<sup>17</sup>

The social constructionist perspective also informed the development of the method. Rather than assuming cognition occurs within an isolated individual, independent from historical or cultural contexts, the key tenets of social constructionism identify factors such as social processes, history, and culture that play important roles in perception, understanding, and the development of individual values

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[http://works.bepress.com/paul\\_solomon/28/](http://works.bepress.com/paul_solomon/28/); Paul Solomon, "Discovering Information Behavior in Sense Making. II. The Social," *Journal of the American Society for Information Science* 48, no.12 (1997b): 1109–26, doi:10.1002/(SICI)1097-4571(199712)48:12<1109::AID-ASIS>3.0.CO;2-Y; and Paul Solomon, "Discovering Information in Context," *Annual Review of Information Science and Technology* 36, no. 1 (2005): 229–64, doi:10.1002/aris.1440360106.

<sup>14</sup> Peter Ingwersen and K. Järvelin, *The Turn: Integration of Information Seeking and Retrieval in Context* (Dordrecht: Springer, 2005), <http://www.ebib.com>.

<sup>15</sup> Y.P. Jones, "'Just the Facts Ma'am?': A Contextual Approach to the Legal Information Use Environment," in *Proceedings of the 6th Conference on Designing Interactive Systems*, (New York: Association for Computing Machinery, 2006), <http://dl.acm.org/citation.cfm?id=1142463>; and Stephann Makri, Ann Blandford, and Anna L. Cox., "This Is What I'm Doing and Why: Methodological Reflections on a Naturalistic Think-Aloud Study of Interactive Information Behavior," *Information Processing & Management* 47, no. 3 (2011): 336–48, doi:10.1016/j.ipm.2010.08.001.

<sup>16</sup> B. Fitzgerald and D. Howcroft. 1998, "Towards Dissolution of the IS Research Debate: From Polarization to Polarity," *Journal of Information Technology* 13 (1998): 319.

<sup>17</sup> Myers, "Qualitative Research."

and thoughts. According to Holland<sup>18</sup> cultural, traditional, political and historical contexts are fundamental to understanding information practice in social constructionist theory.

Social constructionists take issue with the traditional, Western individualism, an often unrecognised inherent feature of many epistemological stances.<sup>19</sup> Furthermore, social constructionists are reluctant to favor knowledge developed in one context over knowledge developed in another, which makes it a more relativistic perspective.<sup>20</sup> This lack of preference for Western knowledge parallels the aim of gaining an objective understanding of information behavior in a non-Western society, independent of the influence of Western models of information behavior.

Social constructionism in information science promotes the concept that information practice, though individually manifested, is not the sole product of one individual, but is in fact the product of the social environment, in conjunction with a number of other components internal and external.

Berger and Luckmann<sup>21</sup> asserted the interdependent nature of the individual and their social environment with the following statement: "Man's specific humanity and his sociality are inextricably intertwined. *Homo sapiens* is always, and in the same measure, *homo socius*" (p. 49).<sup>22</sup> According to Burr (2003),<sup>23</sup> "our ways of understanding the world do not come from objective reality, but from other people, both past and present,"<sup>24</sup> thereby endorsing both the social and historical dimensions of understanding. Burr described the human condition of being born into a world of pre-existing conceptual frameworks and categories used by the people in our culture that shape the formation of our individual thoughts. As we explore the understandings of information and context among individuals we should remember these understandings are socially constructed.

According to Tuominen, Talja and Savolainen,<sup>25</sup> the social constructionist perspective in information studies "provides a dialogic viewpoint to study the

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<sup>18</sup> George Holland, "Associating Social Constructionism and Extended Cognition in Information Studies," *Journal of Documentation* 62, no.1 (2006): 91–100, doi:10.1108/00220410610642066.

<sup>19</sup> J. D. Raskin, "Constructivism in Psychology: Personal Construct Psychology, Radical Constructivism, and Social Constructionism," in *Studies in Meaning: Exploring Constructivist Psychology*, ed. J.D. Raskin and S.K. Bridges (New York: Pace University Press, 2002), 1–25.

<sup>20</sup> Ibid.

<sup>21</sup> Peter L. Berger, and Thomas Luckmann. 1967. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Garden City, N.Y.: Doubleday.

<sup>22</sup> Ibid.

<sup>23</sup> Vivien Burr, *Social Constructionism*, 2nd ed. (London: Routledge, 2003).

<sup>24</sup> Ibid., 7.

<sup>25</sup> Kimmo Tuominen, Reijo Savolainen, and Sanna Talja, "The Social Constructionist Viewpoint on Information Practices," in *Theories of Information Behavior*, edited by Karen E Fisher; Sanda Erdelez; Lynne McKechnie, 328–345, Medford, N.J.: Information Today. 2005

assumptions and implicit theories that people draw on when they engage in information practices and produce accounts of them” (p. 328).<sup>26</sup> Tuominen et al.<sup>27</sup> suggested that the dialogue amongst individuals informs assumptions and implicit understandings upon which the individual manifestations of information practices are based, and that information behavior research should aim to capture “the socially and culturally shaped ways of understanding information practices” (p. 328).<sup>28</sup> Information practices include the ways in which individuals seek, access, create, use, and share information.<sup>29</sup>

Dervin<sup>30</sup> supported the view that information seeking and use are communicative practices.<sup>31</sup> Practices of researching information needs and seeking are also communicative practices according to Dervin<sup>32</sup> and produced collaboratively amongst researchers and participants. In this sense, both the researchers and participants can claim ownership over the research and its outcomes. Conceptualizing the researcher and the participants as such supports a relativist ontology and interpretive epistemology.

### Conceptual Foundations and Benchmark Empirical Work in Information Behavior

Decades of research and investigation into information behavior undertaken by scholars such as Wilson,<sup>33</sup> Kuhlthau,<sup>34</sup> Dervin,<sup>35</sup> Chatman,<sup>36</sup> Fidel,<sup>37</sup> Savolainen,<sup>38</sup>

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<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>28</sup> Ibid.

<sup>29</sup> Ibid.

<sup>30</sup> Brenda Dervin, “On Studying Information Seeking Methodologically: The Implications of Connecting Metatheory to Method,” *Information Processing & Management* 35, no.6 (1999): 727–50, doi:10.1016/S0306-4573(99)00023-0.

<sup>31</sup> Ibid., 729.

<sup>32</sup> Ibid.

<sup>33</sup> T.D. Wilson, “Human Information Behaviour,” *Informing Science* 3, no.2 (2000): 63–66; and T.D. Wilson, “Information Behaviour: An Interdisciplinary Perspective,” *Information Processing & Management* 33, no.4 (1997): 551–72.

<http://www.sciencedirect.com/science/article/pii/S0306457397000289>.

<sup>34</sup> Carol Collier Kuhlthau, “Inside the Search Process: Information Seeking from the User’s Perspective,” *Journal of the American Society for Information Science* 42, no. 5 (1991): 361–71; and Carol Collier Kuhlthau, “Kuhlthau’s Information Search Process,” in *Theories of Information Behavior*, ASIST Monograph Series, ed. Karen E. Fisher, Sanda Erdelez, and Lynne McKechnie, 230–34, (Medford: Information Today, 2005).

<sup>35</sup> Brenda Dervin, “Interviewing as Dialectical Practice: Sense-Making Methodology as Exemplar,” in *Proceedings of the International Association for Media and Communication Research Annual Meeting* (Stockholm, Sweden, 2008); Brenda Dervin, “The Everyday Information Needs of the Average Citizen: A Taxonomy for Analysis,” in *Information for the Community*, ed. M. Kochen and J. Donahue (Chicago: American Library Association, 1976), 19–38; and Brenda Dervin,



Ingwersen and Jarvelin<sup>39</sup> and many others has been instrumental in the development of our understanding of human information behavior and of the method described in this paper. This foundational empirical work in information behavior concreted many of the theoretical and methodological approaches used in following research, and provided a conceptual background to the development of the method described in this paper. In particular, Dervin's sense-making metaphor,<sup>40</sup> and its associated methodology, are well suited to data collection and analysis using the method described in this paper. The sense-making perspective proposes that human use of information and information systems must be conceptualised as behaviors. This can be illustrated by Dervin's sense-making metaphor.<sup>41</sup>

The sense-making metaphor is summarised by Naumer, Fisher, & Dervin as follows:

A person is seen as embedded in a context-laden situation, bounded in time-space. The person pictured as crossing a bridge is used to metaphorically describe the way that humans are mandated by the human condition to bridge gaps in an always evolving and ever-gappy reality. The person is seen facing a gap (i.e., a sense-making need) that arises out of a situation. Through the process of gap bridging, people seek inputs (sometimes the stuff systems call

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"Sense-Making Theory and Practice: An Overview of User Interests in Knowledge Seeking and Use," *Journal of Knowledge Management* 2, no.2 (1998): 36–46.

<sup>36</sup> E.A. Chatham, "A Theory of Life in the Round," *Journal of the American Society for Information Science* 50, no.3 (1999): 207–17; and E.A. Chatham, "Framing Social Life in Theory and Research," *The New Review of Information Behavior Research* 1 (2000): 3–18.

<sup>37</sup> Raya Fidel, *Human Information Interaction : An Ecological Approach to Information Behavior* (Cambridge, MA: MIT Press, 2012). Available from: eBook Collection (EBSCOhost).

<sup>38</sup> Reijo Savolainen, "Everyday Life Information Seeking: Approaching Information Seeking in the Context of 'Way of Life,'" *Library & Information Science Research* 17, no. 3 (1995): 259–94; and Reijo Savolainen, "Approaching the Motivators for Information Seeking: The Viewpoint of Attribution Theories," *Library & Information Science Research* 35, no. 1 (2013): 63–68, doi:10.1016/j.lisr.2012.07.004.

<sup>39</sup> Ingwersen and Jarvelin, *The Turn*.

<sup>40</sup> Charles M. Naumer, Karen E. Fisher, and Brenda Dervin, "Sense-Making: A Methodological Perspective" (paper presented at the Sensemaking Workshop at CHI 2008, Florence Italy, April 6, 2008).

<sup>41</sup> Dervin, "Interviewing as Dialectical Practice," 17.

information) and engage in other activities through the time-space continuum that lead to outcomes.<sup>42</sup>

Unlike some models of information behavior, Dervin's sense-making metaphor places explicit emphasis on the contextual nature of the behavior under investigation. The sense-making metaphor (SMM) recognises that the informant and the researcher are not simply participants in a research project, but contribute to the research itself, and co-construct research findings. Further exploration of information behavior theories developed by Wilson,<sup>43</sup> Kuhlthau,<sup>44</sup> Fisher & Naumer<sup>45</sup> Ingwersen and Jarvelin,<sup>46</sup> and Chatman<sup>47</sup> provide additional insight into the contextual factors affecting information behavior, such as:

- Wilson's "intervening variables" in which certain contextual factors that may be "psychological, demographic, interpersonal, environmental..." etc. impact information seeking in either a "supportive" or "preventative" manner.<sup>48</sup>
- Kuhlthau's "information search process" model which takes into account contextual factors Kuhlthau views as "three realms: the affective (feelings), the cognitive (thoughts), and the physical (actions)."<sup>49</sup>
- Fisher's "information grounds" in which "sub-contexts exist within information grounds and are based on people's perspectives and physical factors; together these sub-contexts form a grand context."<sup>50</sup>
- Chatman's "information poverty" theory which "small worlds" exist with specific contextualised understandings of "legitimised others who share a common

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<sup>42</sup> Naumer, Fisher, and Dervin, "Sense-Making," 2.

<sup>43</sup> Wilson, "Human Information Behavior."

<sup>44</sup> Carol Collier Kuhlthau, "Investigating Patterns in Information Seeking: Concepts in Context." In *The 2nd International Conference on Research in Information Needs, Seeking and Use in Different Contexts*, 10-20. London: Taylor Graham Publishing. [http://www.informationr.net/isis/ISIC1998/ISIC98\\_index.html](http://www.informationr.net/isis/ISIC1998/ISIC98_index.html).

<sup>45</sup> Karen E. Fisher and Charles M. Naumer, "Information Grounds: Theoretical Basis and Empirical Findings on Information Flow in Social Settings," in *New Directions in Human Information Behavior*, Vol. 8, ed. Amanda Spink and Charles Cole, Vol. 8 (Berlin/Heidelberg: Springer-Verlag, 2006).

<sup>46</sup> Ingwersen and Jarvelin, *The Turn*.

<sup>47</sup> Chatham, "Framing Social Life in Theory and Research."

<sup>48</sup> T.D. Wilson, "Models in Information Behavior Research," *Journal of Documentation* 55, no 3. (1999): 249-70.

<sup>49</sup> Kuhlthau, "Inside the Search Process," 366.

<sup>50</sup> Fisher and Naumer, "Information Grounds."

landscape of cultural meaning”, that affect the ways in which people seek and use information.<sup>51</sup>

- Ingwersen and Jarvelin’s “cognitive framework in information seeking and retrieval” which explores the role of contextual factors “as when perceived by the information seeker at his/her cognitive-emotional level.”<sup>52</sup>

These examples above provide some evidence of the varying understandings and descriptions of the role of context in existing information behavior literature. The method described in this paper was informed by and further extends the understandings and conceptualizations of context in information needs, seeking and use. The following sections explore the more relevant information behavior theory and literature in greater detail.

## APPLYING CONTEXTUAL INVESTIGATION TO INFORMATION BEHAVIOR RESEARCH: THE METHOD EXPLAINED

In the same way a needs assessment can be used in a healthcare environment, a community setting, or an organizational context, the method for contextualising information behavior can be used in any environment where a specific group or community shares a similar culture. This method may be useful to researchers working in organizational, community (both physical and virtual), or regional contexts who want to understand how individual members of the community engage in information behavior. Undertaking this method will also permit a researcher to develop an in-depth and nuanced understanding of the factors affecting how and why information behavior of the community under investigation is unique; which could be useful for individuals working with marginalized or less mainstream groups or in non-Western societies.

The method makes use of social research methods such as ethnographic techniques including participant observation and interpretive case study research to address the above research questions. Bryman<sup>53</sup> (2008) describes ethnology as the following:

The researcher is immersed in a social setting for an extended period of time, listens to and engages in conversations, interviews informants on issues that are not directly amenable to observation, and develops an understanding of the

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<sup>51</sup> Chatman, “Framing Social Life in Theory and Research,” 3.

<sup>52</sup> Ingwersen and Jarvelin, *The Turn*, 278.

<sup>53</sup> Alan Bryman, *Social Research Methods*, 3rd ed. (Oxford: Oxford University Press, 2008).

culture of the group and the people's behaviour within the context of that culture.<sup>54</sup>

Walsham<sup>55</sup> described the participant observer as "a member of the field group or organization, or at least becoming a temporary member for some period of time,"<sup>56</sup> and suggested that

interviews are the primary data source, since it is through this method that the researcher can best access the interpretations that participants have regarding the actions and events which have or are taking place, and the views and aspirations of themselves and other participants.<sup>57</sup>

In the past a number of methods attempted to explore information behavior in various contexts and develop an understanding of the contextual factors affecting information behavior. Authors such as Beer,<sup>58</sup> Yeh,<sup>59</sup> and Evelyn<sup>60</sup> have used case study and ethnographic approaches to investigating information behavior in specific contexts; the outer Scottish Islands, Taiwan, and Ghana, respectively. Pettigrew<sup>61</sup> used Granovetter's<sup>62</sup> theory of the strength of weak ties within a social network theory framework for carrying out research into the information behavior in North America. Pettigrew's method later developed into the theory of "information grounds", which has been used to investigate factors affecting information behavior in diverse settings.<sup>63</sup>

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<sup>54</sup> Ibid., 402-403.

<sup>55</sup>G. Walsham, "Interpretive Case Studies in IS Research: Nature and Method," *European Journal of Information Systems* 4, no. 2 (1995): 74–81.

<sup>56</sup> Ibid., 77.

<sup>57</sup> Ibid., 78.

<sup>58</sup> Sue Beer, "Information Flow and Peripherality in Remote Island Areas of Scotland," *Libri* 54 (2004): 148–57, <http://www.degruyter.com/view/j/libri.2004.54.issue-3/libri.2004.148/libri.2004.148.xml>.

<sup>59</sup> N.C. Yeh, "A Framework for Understanding Culture and Its Relationship to Information Behavior: Taiwanese Aborigines' Information Behavior," *Information Research* 12, no. 2 (2006): 11.

<sup>60</sup> Evelyn D. Markwei, "Everyday Life Information Seeking Behavior of Urban Homeless Youth," (PhD diss., University of British Columbia, 2013).

<sup>61</sup> Pettigrew, "Waiting for Chiropody."

<sup>62</sup> M.S. Granovetter, "The Strength of Weak Ties," *The American Journal of Sociology* 78, no.6 (1973): 1360–80.

<sup>63</sup> Spencer Lilley, "The Impact of Cultural Values on Maori Information Behavior," *Libri* 62 (2012) 377–88, doi:10.1515/libri-2012-0029.

As described above, sense making has been used to study information behavior in various contexts, such as adolescent health,<sup>64</sup> a coup d'état in Thailand,<sup>65</sup> and amongst Puerto Rican migrants.<sup>66</sup> However, sensemaking research and publications lack a consistent method of analysis. The majority of Dervin's publications provide little or no discussion of analysis or analytical techniques, and those that do only briefly mention what they describe as "content analysis."<sup>67</sup> The publication by Cardillo<sup>68</sup> (1999) describes the use of sensemaking methodology, however provides no description of how analysis was undertaken. Choemprayong<sup>69</sup> used a grounded theory approach that made use of inductive and deductive coding for content analysis of interview data gathered using the sensemaking micro-moment timeline approach as well as a document analytic method. Rodriguez-Mori<sup>70</sup> used a grounded analysis method to analyse interview data collected using Dervin's Micro-moment time-line approach. Beer<sup>71</sup> mapped "information flow" in a remote community using case study method and qualitative analysis techniques. Lacking a unified approach, various other scholars have used a multitude of methods to analyse data gathered under the sensemaking paradigm.

### Closing Gaps – Towards Contextually Aware Methods

Spink & Cole<sup>72</sup> suggested that a deeper understanding of everyday information behavior from diverse cultural and social perspectives would provide a foundation for "the development of generalizable process models [of information behavior] that hold across situations."<sup>73</sup> This method, however, was undertaken with an awareness that it might not be feasible to develop "generalizable process models [of information

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<sup>64</sup> L. W. Cardillo, "Sense-Making as Theory and Method for Researching Lived Experience: An Exemplar in the Context of Health Communication and Adolescent Illness," *Electronic Journal of Communication/La Revue Electronique de Communication* 9, no. 2 (1999): 3–4.

<sup>65</sup> S. Choemprayong, "The Transition of Worldviews: Collective Information Behavior during the 2006 Thai Coup D'état," (University of North Carolina, PhD diss., 2010).

<sup>66</sup> Howard Rodriguez-Mori, "The Information Behavior of Puerto Rican Migrants to Central Florida, 2003-2009: Grounded Analysis of Six Case Studies Use of Social Networks during the Migration Process," (Florida State University, Phd diss., 2009), <http://diginole.lib.fsu.edu/etd/1943>.

<sup>67</sup> Brenda Dervin, "Mass Communicating: Changing Conceptions of the Audience," in *Sense-Making Methodology Reader : Selected Writings of Brenda Dervin*, ed. Brenda Dervin, Lois Foreman-Wernet, and Eric Lauterbach (Cresskill N.J.: Hampton Press, 2003), 197-213.

<sup>68</sup> Cardillo, "Sense-Making as Theory and Method."

<sup>69</sup> Choemprayong, "The Transition of Worldviews."

<sup>70</sup> Rodriguez-Mori, "The Information Behavior of Puerto Rican Migrants to Central Florida."

<sup>71</sup> Beer, "Information Flow and Peripherality."

<sup>72</sup> Spink and Cole, "Introduction to the Special Issue."

<sup>73</sup> *Ibid.*, 304.

behavior] that hold across situations” unless they are capable of accounting for variations in information behavior due to the effects of different contexts. Instead, a more reasonable objective was the creation of a generalizable set of procedures for systematically investigating the contextual factors influencing information behavior for a specific locality or community.

The set of tools used in this method have been developed and applied previously in various different projects by many different scholars, however the use of the sense-making methodology’s robust data collection tools alongside Gee’s<sup>74</sup> “Seven building tasks of language” discourse analysis tools have previously not been applied to information behavior.

## OVERVIEW OF THE METHOD

### Research Questions

The method presented in this paper addresses a set of research questions and objectives that can be tailored to suit diverse contexts. This generic set of research questions are:

- What are the contextual factors that affect everyday information behavior of individuals in X context?
- How do those factors affect the individuals everyday information behavior?

These questions can be adapted as needed to fit the specific community of interest, and take a user-centered approach to information behavior.

### Gathering Data

A combination of convenience and purposive sampling methods are used in the recruitment of participants, providing a suitable range and depth of information behaviors for investigation. Social research is often based on convenience sampling<sup>75</sup> and Patton<sup>76</sup> suggested purposively seeking information-rich cases “from which one can learn a great deal about issues of central importance to the purpose of research.”<sup>77</sup> These sampling methods were chosen for a variety of reasons, primarily because they

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<sup>74</sup> James Paul Gee, *An Introduction to Discourse Analysis: Theory and Method*, 3rd ed. (New York: Routledge, 2011a).

<sup>75</sup> Byman, *Social Research Methods*, 183.

<sup>76</sup> Michael Quinn Patton, *Qualitative Evaluation and Research Methods*, 2nd ed. (Newbury Park, CA: Sage Publications, 1990).

<sup>77</sup> *Ibid.*, 169.

permit for the gathering of a suitable quantity of quality data in the field by outsider researchers with limited access to participants.

Information rich cases are drawn from individuals who:

1. Have either unique or highly developed information behavior,
2. Engage in a wide variety of information behavior on a regular basis, or
3. Are able to richly articulate their information behavior

The purposive sampling method used in this methodology was developed with an awareness of the potential for bias due to the possible exclusion of individuals with less developed information behavior or those who engage less frequently information behavior not meeting the sampling criteria. However, all individuals engage with information behavior on a regular basis, and even those with less developed information skills still have the potential to richly articulate their behaviors and therefore still have the potential to contribute an information rich case under the purposive sampling criteria in this method. Examples of information rich cases reflecting the three criteria above are provided in the “method illustrated” section of this paper.

Demographic information is also collected to help in describing the participants.<sup>78</sup> The critical incident technique (CIT) provides a basis for the data collection method. CIT is a “set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles,”<sup>79</sup> and uses qualitative interviews to facilitate “the investigation of significant occurrences (events, incidents, processes or issues) identified by the respondent, the way they are managed, and the outcomes in terms of perceived effects.”<sup>80</sup> CIT informed development of the data collection instrument and identification of the unit of analysis which aimed to capture incidents of “critical importance” as perceived by the participant.

Cardillo<sup>81</sup> compared CIT investigations using a single case study or a high number of incidents, and described the advantages of and disadvantages of both extremes. Flanagan<sup>82</sup> suggested fifty through several thousand incidents were needed,

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<sup>78</sup> S. Fisher and T. Oulton, “The Critical Incident Technique in Library and Information Management Research,” *Education for Information* 17, no.2: (1999) 113–25.

<sup>79</sup> J. C. Flanagan, “The Critical Incident Technique,” *Psychological Bulletin* 51, no. 4 (1954): 327.

<sup>80</sup> Elizabeth Chell and Luke Pittaway, “A Study of Entrepreneurship in the Restaurant and Café Industry: Exploratory Work Using the Critical Incident Technique as a Methodology,” *International Journal of Hospitality Management* 17, no. 1 (1998): 25, doi:10.1016/S0278-4319(98)00006-1.

<sup>81</sup> Cardillo, “Sense-Making as Theory and Method.”

<sup>82</sup> Flanagan, “The Critical Incident Technique.”

Hamer<sup>83</sup> conducted 75-minute in-depth CIT interviews with just eight participants, where Radford<sup>84</sup> collected 2,416 critical incidents. Both studies effectively captured adequate data and reflect how the number of incidents collected can vary depending on the complexity/diversity of the community under investigation. The researcher must be prepared to adjust sample size as needed to achieve saturation.

The data collection instrument is based on the SMM micro-moment time line in which informants describe their “sense-makings and sense-unmakings as they occurred in the time-line steps of a given situation,”<sup>85</sup> and “is the deepest dig into a single situation.”<sup>86</sup> This tool is used to help participants recall a specific incident of information behavior they deemed to be of a critical nature (CIT), and questioning around this incident using the micro-moment timeline follows.

Fisher & Oulton<sup>87</sup> suggest the use of piloting in developing CIT questions and probes, a technique also supported by Ellinger and Cseh.<sup>88</sup> An initial focus group interview with individuals belonging to the community under investigation is undertaken to pilot the interview roster, after which questioning can be adapted based on focus group participant comments. During the pilot phase four to six example general information incidents are identified to use as prompts to facilitate data collection. These four to six prompts should be relevant to each context under investigation and generally unique to that specific community to elicit rich data.

Walsham<sup>89</sup> (1995) suggested that note-taking supplemented by audio-recording where appropriate is one sensible approach; however it is important to bear in mind that the presence of an audio-recording device may be intimidating or inappropriate in some circumstances. Audio recording ensures accuracy of data collection, and thought must be given to the benefits of the use of an audio recording device in light of the potential negative consequences. Detailed field notes are also recorded during interviews, however the verbatim transcriptions of audio recorded interviews provide the bulk of the data used for analysis.

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<sup>83</sup> Judah S. Hamer, “Coming-out: Gay Males’ Information Seeking,” *School Libraries Worldwide* 9, no.2 (2003): 73–89.

<sup>84</sup> M.L. Radford, M. L., “The Critical Incident Technique and the Qualitative Evaluation of the Connecting Libraries and Schools Project,” *Library Trends* 55, no.1 (2006): 46–64.

<sup>85</sup> Dervin, “Interviewing as Dialectical Practice,” 20.

<sup>86</sup> *Ibid.*, 23.

<sup>87</sup> Fisher and Oulton, “The Critical Incident Technique.”

<sup>88</sup> Andrea D. Ellinger and Maria Cseh, “Contextual Factors Influencing the Facilitation of Others’ Learning through Everyday Work Experiences,” *Journal of Workplace Learning* 19, no.7 (2007): 435–52, doi:10.1108/13665620710819384.

<sup>89</sup> Walsham, “Interpretive Case Studies.”



## Understanding the Data

In the case of the critical incident technique, the unit of analysis is the incident. In SMM<sup>90</sup>, Dervin recommends using the “informant-in-situation” unit of analysis. The data collected through interviews is examined using a three-phase qualitative analysis method.

Phase one uses the critical incident technique to identify everyday information behavior of the participants. These incidents are then coded as discrete units of analysis for further investigation.

The information behavior incidents are classified into groups then further classified to determine the domain of information behavior, the formats of information, and the sources of information consulted by the participants to provide an overview of the information behaviors collected. Dervin’s components of sense-making (Situation, Gap, Sense-making, Bridge, Outcome)<sup>91</sup> provide the framework for secondary coding in phase one.

Phase two analysis is carried out with the aim of establishing which contextual factors affected the previously identified information behaviors of the participants, thereby addressing the first research question. This aim is achieved through the use of elements of Dervin’s SMM, as well as Gee’s<sup>92</sup> discourse analytic method.

Gee describes seven “areas of reality” that are constructed through the use of language.<sup>93</sup> According to Gee, “whenever we speak or write, we always (often simultaneously) construct or build seven things or seven areas of reality.”<sup>94</sup> The seven building tasks identified by Gee are:

- Significance
- Practices (Activities)
- Identities
- Relationships
- Politics (the distribution of social goods)
- Connections
- Sign Systems and Knowledge<sup>95</sup>

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<sup>90</sup> Dervin, “Interviewing as Dialectical Practice,” 22.

<sup>91</sup> Naumer, Fisher, and Dervin, “Sense-Making.”

<sup>92</sup> James Paul Gee, *How to Do Discourse Analysis: A Toolkit*, 3rd ed. (New York: Routledge, 2011b); Gee, *An Introduction to Discourse Analysis*.

<sup>93</sup> *Ibid.*; Gee, *How to do Discourse Analysis*.

<sup>94</sup> *Ibid.*, 17.

<sup>95</sup> *Ibid.*, 17-20.

Data are coded to identify the “area of reality” constructed by the language of the participants. The use of these tools is explored in great detail in Gee’s<sup>96</sup> work, including specific advice on how to code the discourse according to the seven “building tasks of language.”

The objective of phase three is to address the second research question, in which the influence of the contextual factors emerging from phase two of analysis are examined in relation to the information behavior identified during phase one of the research. This aim is achieved through the use of discourse analysis as the primary analytical tool with additional investigation and interpretation informed by Dervin’s SMM.

Gee’s seven areas of reality<sup>97</sup> are used to explore the contextual factors present in the information behavior incidents, and then mapped to corresponding commonly occurring behaviors, resulting in the identification of *features of information behavior* for the given context under investigation. An example of how these two tools are used in analysis is provided in the full thesis from which this methodology emerged.<sup>98</sup> The results of the third phase of analysis relating to the contextual factors present in the information behaviors identified in phase one of analysis are interpreted to reveal how the contextual factors affected the information behaviors, and to what extent. The frequency and extent of individual contextual factors found to be present in information behavior incidents provide some indication of how contextual factors affected the information behaviors of the participants.

While the results can be interpreted systematically, the qualitative nature of the data means the interpretation is subject to researcher’s own understanding. The researcher therefore must be aware of his or her role in the research project, as described above, and of his or her subjectivity.

The interpretation of the results provides a *contextualized understanding of information behavior* for the specific community under investigation based on the *features of information behavior* identified during analysis. This contextualised understanding of information behavior provides insight into how individuals in the community need, seek, and use information, and how models of information behavior can be adapted to better suit the context of that community. Interpretation of the

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<sup>96</sup> Gee, *An Introduction to Discourse Analysis; Gee, How to do Discourse Analysis*

<sup>97</sup> Ibid.

<sup>98</sup> Nicole Marie Gaston, “Contextualizing Information Behavior: The Example of Laos,” (Victoria University of Wellington, PhD dissertatopm, 2014), <http://researcharchive.vuw.ac.nz/handle/10063/3196>.

findings and further consideration for their implications done in collaboration with a community insider provide meaningful insight.<sup>99</sup>

For the purposes of assessing the quality of qualitative research, trustworthiness is the principal criterion used.<sup>100</sup> Within trustworthiness are four sub-criteria: credibility, transferability, dependability, and confirmability.<sup>101</sup> The research methods were developed so as to address these criteria and produce valid, reliable, trustworthy results.

## DEVELOPING A CONTEXTUALISED UNDERSTANDING OF INFORMATION BEHAVIOR: THE METHOD ILLUSTRATED

The method described above emerged out of research exploring the relationship between contextual factors and information behavior in a specific non-Western society. The initial project investigated the following research questions:

1. What are the contextual factors that influence everyday information behavior of individuals in **Laos**?
2. How do these factors influence the everyday information behavior of individuals in **Laos**? (Gaston, 2014, p. 8)

The theories and considerations outlined above provide some background on the development of the method. The operationalization of these concepts during a research project are illustrated using the example of the authors' investigation into everyday information behavior in Laos.<sup>102</sup> The same set of research questions was used in a subsequent study that investigates information behavior in Samoa.

During the fieldwork, data was collected over a period of nine weeks in Laos and four weeks in Samoa, and recruitment was undertaken collaboratively by the principal researcher and an insider research assistant/co-investigator in the communities. As this method utilises an ethnographic fieldwork approach to understand contextual phenomena it was important that the researcher invest a considerable amount of time

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<sup>99</sup> Sharan B. Merriam et al, "Power and Positionality: Negotiating Insider/outsider Status within and across Cultures," *International Journal of Lifelong Education* 20, no. 5 (2001): 405–16, doi:10.1080/02601370120490.

<sup>100</sup> Bryman, *Social Research Methods*, 377.

<sup>101</sup> Ibid.

<sup>102</sup> Gaston, "Contextualizing Information Behaviour."

into getting to know the community under investigation, including an awareness of and demonstrated interest in the locality and relevant general issues.<sup>103</sup>

My experiences conducting research in Laos and Samoa confirm Moser's<sup>104</sup> findings regarding the personality of the researcher as playing a key role in the research outcomes; revealing several characteristics of an effective researcher using the method described in this paper. Navigating the complexities of interviewing and interpersonal communication, personality, and behavior during data collection whether as a community insider or outsider was achieved through flexibility, sensitivity and respect for the participants at all times.

During the data collection, not all participants had the same native language as the researcher. Some participants communicated in a non-native language (i.e. English) if their level of fluency was adequate, or in their own native language, which was simultaneously translated into the native language of the researcher (English) by an experienced interpreter.

The audio interviews were transcribed verbatim in English. The lead researcher transcribed the data, as this provided the researcher with a better understanding of the data that had been collected, and she was able to begin preliminary analysis. In the case of the doctoral research, the transcribed interviews accounted for over 250 pages of text, representing more than thirty-five hours of audio data. Field notes were carefully examined and relevant information was documented in each individual interview transcript.

A three-phase data analysis process was carried out using the method describe above. In the case of Laos, social and cultural contextual factors were present in every information incident under review. Therefore, the social and cultural contexts were identified as being "primary contextual factors" affecting information behavior, and specific examples from interview data were able to illustrate how these factors affected the information behavior of the participants.

Other factors appeared less frequently, or affected information behavior to a lesser extent. These factors were identified as "secondary contextual factors", and included physical context, socio-economic context, educational context, personal context, and situational context.

In Laos, a great deal of the information behavior scenarios reflected the strong role Buddhism played in individuals' everyday information behavior. This finding and its implications were the subject of a subsequent paper exploring spirituality in information

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<sup>103</sup> Henry Scheyvens, Regina Sheyvens, and Barbara Nowak, "Personal Issues," in *Development Fieldwork: A Practical Guide*, ed. Regina Scheyvens, 2nd ed. (London: SAGE Publications, 2014), 125-140.

<sup>104</sup> Sarah Moser. "Personality: A New Positionality?" *Area* 40, no.3 (2008): 383-92, doi:10.1111/j.1475-4762.2008.00815.x.

behavior.<sup>105</sup> Prayer and self-reflection were often cited as a sense-making activity, even though they may not be considered information seeking behavior in the sense defined by most mainstream scholarly literature. This finding reflects the variety and diversity in information behavior captured by the purposive sampling methods. Lao participants also relied heavily on interpersonal information sources, even with the emergence of the Internet for informational purposes growing rapidly in the preceding years, which appeared to slowly be superseding traditional non-electronic information sources. This finding is explored in a paper considering how rapid ICT expansion across the Southeast Asian region between 2005 and 2010 impacted information behavior.<sup>106</sup>

Information behavior incidents gathered in Samoa also reflected a strong preference for interpersonal information slowly being superseded by electronic sources as ICT penetration rates grew. More significantly, the majority of the information incidents gathered related in one way or another to what is known as *Fa'a Samoa*, or the Samoan Way. *Fa'a Samoa* refers to the indigenous and traditional socio-political and cultural way of life of individuals in Samoa which has been in place for thousands of years. With particular implications for information behavior is the Samoan system of communal land ownership and chiefly titles, described in detail by Linkels.<sup>107</sup> In contemporary Samoan society lands and titles are often the subject of lengthy and complex legal disputes brought before a court system modelled on typically Western legal systems. The resulting information behaviors required to prepare for and undertake legal disputes over lands and titles is multifaceted and uniquely Samoan. Individuals engage in various information activities that require navigating not only traditional and often solely orally transmitted information, but also paper based archival materials, court records and traditionally Western records of information, some of which are now beginning to appear in electronic format. Understanding the implications of these information behaviors is the subject of a forthcoming publication exploring the factors involved in navigating the Samoan information environment.

Research carried out in Laos and Samoa using the method described in this paper confirmed the understandings of the role of context in information behavior as

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<sup>105</sup> Nicole Marie Gaston, Daniel G. Dorner, and David Johnstone, "Spirituality and Everyday Information Behaviour in a Non-Western Context: Sense-Making in Buddhist Laos," *Information Research* 20, no.2 (2015), [http://www.informationr.net/ir/20-2/paper665.html#.VX9Qm\\_mqpBc](http://www.informationr.net/ir/20-2/paper665.html#.VX9Qm_mqpBc).

<sup>106</sup> Nicole Marie Gaston, Dan Dorner, and David Johnstone, "Information Behaviour in Transition: A Developing Country Perspective," *Proceedings of the American Society for Information Science and Technology* 50, no.1 (2013): 1–16, doi:10.1002/meet.14505001060.

<sup>107</sup> Ad Linkels, *Fa'a-Samoa : The Samoan Way between Conch Shell and Disco : A Portrait of Western Samoa at the End of the Twentieth Century*, (Tilburg: Mundo Etnico Foundation, 1997).

put forth by Wilson's<sup>108</sup> "Model of Information Behaviour" and Dervin's<sup>109</sup> "Sense-making metaphor"; both of which provide an accurate broad conceptualisation of the role of context in information behavior in the case of the contexts studied thus far. A full discussion of the findings from the Lao study, their implications, and further recommendations are presented in the full PhD thesis.<sup>110</sup> The findings from the Samoan study also revealed social and cultural factors played a significant role in how people needed, sought, and used information in their everyday lives whether the information need related to *Fa'a Samoa* or not.

## DISCUSSION AND FUTURE RESEARCH

Information science researchers have been attempting to develop an accurate model of information behavior for close to thirty years.<sup>111</sup> Currently several widely-cited models exist, each with their own strengths and weaknesses, advocates and critics. This method for in-depth investigation of information behavior has the potential to reveal certain important features or characteristics of information behavior not taken into account in existing models of information behavior. This method described in this paper contributes to understanding information behavior from diverse social and cultural perspectives; providing added insight into the relevance and accuracy of existing information behavior models in diverse locations.

Contextualised understandings of information behavior may help individuals develop insight into their own information behavior, and possibly improve the efficacy of their existing information practices. This improved capacity to resolve information needs may then allow individuals to more effectively address their basic needs, permitting them to respond to more advanced needs as depicted in the following figure:

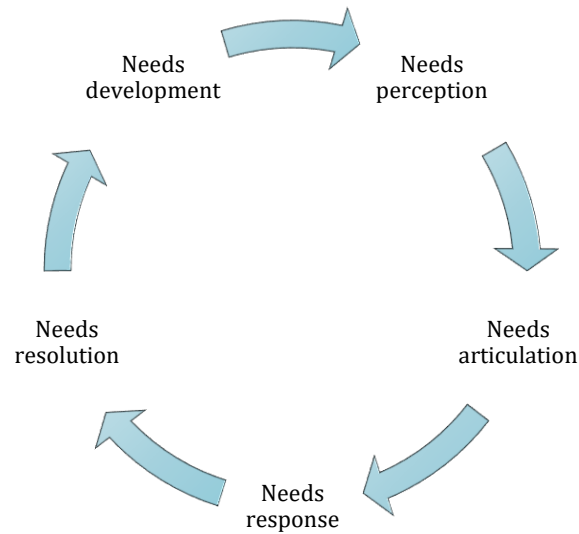
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<sup>108</sup> Wilson, "Models of Information Behaviour Research."

<sup>109</sup> Dervin, "Interviewing as Dialectical Practice."

<sup>110</sup> Gaston, "Contextualizing Information Behaviour."

<sup>111</sup> Wilson, "Models of Information Behaviour Research."



**Figure 1.** A dynamic cycle of needs

Thus far little research has examined the relationship between information behavior and quality of life, or the potential for information behavior research to improve the quality of life for people with less effective information practices. The relationship between quality of life and information behavior is an intended future research direction that relies on the ability to develop contextualized understandings of information behavior in diverse local conditions, an objective the development of this method addresses.

### Practical Implications for the Use of the Method in Non-Western Contexts

There are a number of possible implications and applications that motivated the development of this research method. An understanding of the contextual factors influencing information needs, seeking, and use derived from the application of the method described in this paper may provide insight into the design of more relevant and usable information system interfaces for non-Western contexts. A contextualized understanding of information behavior might also benefit international organizations involved in training or education in non-Western contexts.

Information professionals in developing countries often lack formal qualifications in information studies, or are educated abroad, in Western educational institutions. They need better understanding of how people need seek and use information in their community, rather than trying to adapt non-local information behavior theories to their community.

In any application, the insights provided by a contextualized understanding of information behavior are most effectively leveraged when the researcher is or collaborates closely with a community insider.

## Considerations and Issues

An individual's status as an insider or outsider with regards to knowledge, perception, and reality has implications for information behavior research. This method has been developed to be used by a team of researchers with an outsider primary investigator and an insider co-investigator or research assistant to study a community of insiders. Chatman suggested that "only insiders can truly understand the social and information worlds of other insiders."<sup>112</sup> However, according to Chatman,<sup>113</sup> outsiders can also claim access to new knowledge, simply as part of their role within the larger society. Chatman<sup>114</sup> provides a comprehensive overview of insider/outsider theory, related to that of ethnocentrism. Essentially, an outsider researcher does not share the same "expected norms", or "ways to approach the world" as insiders, which presents challenges when trying to understand the "why" and "how" behind behaviors. While gaining an insider's understanding of the social and information worlds of the participants may be nearly impossible as an outsider, the outsider researcher benefits from being able to investigate the embedded values and assumptions identified by Cutler,<sup>115</sup> and being able to communicate the results of this investigation with the larger research community. Therefore, an insider/outsider research team is the ideal collaboration to provide critical insight into the findings and aid in their interpretation.<sup>116</sup> Alternatively Leck<sup>117</sup> suggests working closely with an interpreter or research accomplice can ensure a successful project outcome if no insider co-researchers are available. Ethnographic researchers suggest integrating into the

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<sup>112</sup> E. A. Chatman, "The Impoverished Life-World of Outsiders," *Journal of the American Society for Information Science* 47, no.3 (1996): 193–206.

<sup>113</sup> Ibid., 165.

<sup>114</sup> Ibid., 194.

<sup>115</sup> John Cutler, *The Cross-cultural Communication Trainer's Manual* (Aldershot: Gower, 2005), 75.

<sup>116</sup> J.M. Bartunek and M.R. Louis. *Insider/outsider Team Research*. *Journal of Management Inquiry* 1, no. 2 (1992): 101-110; Merriam et al., "Power and Positionality"; Eva Kipnis and Aurelie Bröckerhoff, "The Homecomer and the Stranger: Reflections on Positionality and The Benefits of An Insider-Outsider Tandem in Qualitative Research," *London School of Economics Field Research Method Lab* (blog), December 10, 2014, <http://blogs.lse.ac.uk/fieldresearch/2014/12/10/the-homecomer-and-the-stranger-reflections-on-positionality/>.

<sup>117</sup> Hayley Leck, "Whose Voice? Ethics and Dynamics of Working with Interpreters and Research Assistants," in *Fieldwork in the Global South: Ethical Challenges and Dilemmas*, ed. Jenny Lunn, 59–68 (London and New York: Routledge, 2014),



community under study as much as possible, including adopting the customs and clothing of the locals to minimize outsider status.<sup>118</sup>

The method takes a general holistic and participatory approach involving a semi-structured interview technique that is most effective when the primary researcher is able to genuinely connect reflexively on a personal and individual level with the research participants. According to Collins and Cooper<sup>119</sup> qualitative inquiry requires both “emotional maturity and strong interpersonal skills to ‘collect data’ or, more precisely, hear the stories of others and use their words to describe phenomena.”<sup>120</sup> Anecdotally, their assertion accurately reflects the experiences of the primary investigator while gathering data using the method described in this paper.

An awareness of the role of the researcher’s personality and emotional intelligence in data collection, as discussed by Moser<sup>121</sup> and Dickson-Swift, James, Kippen, and Liamputtong<sup>122</sup> can help ensure more successful data collection. Cultural sensitivity is particularly important for the outsider researcher.<sup>123</sup> An understanding of the critical role of a researcher’s “soft-skills” or emotional intelligence is essential when considering the method described in this paper as the tools presented here cannot be considered independently of the researcher. Collins and Cooper<sup>124</sup> suggest that emotional intelligence “can strengthen a researcher’s ability to connect and communicate with participants, skilfully listen and react during interviews, and eventually come to more clearly understand the lifeworlds participants articulate.”<sup>125</sup> Though difficult to define and even harder to prescribe, this ability to reflexively communicate with participants is essential to successful data collection and analysis using the method described in this paper.

Also of importance is that members of the research team be flexible, demonstrate that the research interest is worthwhile of investigation, have an awareness of cultural norms in the community under investigation, dress and behave politely according to those norms.<sup>126</sup> Recently authors such as Moser<sup>127</sup> and Collins and

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<sup>118</sup> Scheyvens et al., “Personal Issues.”

<sup>119</sup> Christopher S. Collins, and Joanne E Cooper, “Emotional Intelligence and the Qualitative Researcher,” *International Journal of Qualitative Methods* 13, (January 2014): 88–103, [http://www.researchgate.net/publication/273438890\\_Emotional\\_Intelligence\\_and\\_the\\_Qualitative\\_Researcher](http://www.researchgate.net/publication/273438890_Emotional_Intelligence_and_the_Qualitative_Researcher).

<sup>120</sup> *Ibid.*, 12.

<sup>121</sup> Moser, “Personality: A New Positionality.”

<sup>122</sup> V. Dickson-Swift, E. L. James, S. Kippen, and P. Liamputtong, “Researching Sensitive Topics: Qualitative Research as Emotion Work,” *Qualitative Research* 9, no. 1 (2009): 61–79, doi:10.1177/1468794108098031.

<sup>123</sup> Scheyvens et al, “Personal Issues.”

<sup>124</sup> Collins and Cooper, “Emotional Intelligence.”

<sup>125</sup> *Ibid.*, 13.

<sup>126</sup> Scheyvens et al, “Personal Issues,” 127.

Cooper<sup>128</sup> have brought increased awareness to the issues of researchers' personality and emotional intelligence with regards to data collection. Some of those characteristics include an inclination toward extroversion, an open, flexible, and friendly demeanor, and above all else, a sense of humor. Navigating the complexities of interviewing and interpersonal communication, personality, and behavior during data collection whether as a community insider or outsider is best achieved through flexibility, sensitivity and respect for the participants at all times, as well as strict adherence to all applicable ethical guidelines.

### Further Research

Once contextualized understandings of information behavior in numerous diverse social and cultural settings have been developed, it may then be feasible to refine existing information behavior models with the aim of creating a model that takes contextual variation into account.

There are two principle areas in which further research can build upon the development of the research methods described in this paper. These are:

- Contextualized understandings of information behavior
- Investigation of the relationship between quality of life and information behavior

Once contextualised understandings of information behavior in numerous diverse social and cultural settings have been developed, it may then be feasible to refine existing information behavior models with the aim of creating a meta-theory or model that takes contextual variation into account.

### CONCLUSIONS

This paper reports on an interpretive research method using qualitative methods to investigate the contextual factors that influence information. The development of this method was motivated by the identified lack of understanding of how context affected information behavior in non-Western societies and developing countries, and can be adapted to suit a variety of different contexts and communities.

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<sup>127</sup> Moser, "Personality: A New Positionality."

<sup>128</sup> Collins and Cooper, "Emotional Intelligence."

The development of this method has also produced the following insights:

- Information behavior is not culturally neutral.
- Information behavior is influenced by a number of critical primary and secondary contextual factors that act in combination with each other to produce varying information related behaviors.
- In-depth exploration using the method described in this paper can produce contextualised understandings of information behavior and critical “features” of information behavior in a given context.
- The use of the critical incident technique, Dervin’s SMM, and discourse analysis provide a useful set of research tools for the investigation of context and information behavior.

In particular, this method extends existing theory with regards to the role of context in information behavior. The development of the research methods forms a starting point from which investigation of the relationship between quality of life and information behavior can begin to be explored.

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