Siyao Cheng, University of Illinois Urbana-Champaign, School of Information Sciences, USA

Lo Lee, University of Michigan—Ann Arbor, School of Information, USA

Melissa G. Ocepek, University of Illinois Urbana-Champaign, School of Information Sciences, USA

Merin Oleschuk, University of Illinois Urbana-Champaign, Human Development & Family Studies, USA

"I'm Bored, and I Want Something New!": Affective Information Acquisition in Everyday Culinary Practices (Paper)

The impact of emotions on information behavior, defined as "the totality of human behavior in relation to sources and channels of information, including both active and passive information seeking, and information use" (Wilson, 2000, p. 49), is a continuous discussion in information science. Emotions have been "an overriding influence" in daily life and are deemed significant in educational research regarding their potential to prompt achievement and learning (Demasio, 2004; Pekrun, 2006, 2014). Emotions are continuously expressed and critical for maintaining social connectivity (Dahlquist, 2022), serving as motivators for accessing or avoiding certain information (Savolainen, 2014). However, exploring and gauging different emotions is usually challenging due to their complex relationship with cognitive behavior, especially when placed in an information landscape. Such difficulty has been noted in prior research where scholars acknowledged an intellectual gap in information science concerning the need for more discussion on affective information seeking (Lopatovska & Arapakis, 2011; Savolainen, 2015a). This relative lack of conversation on emotions in our community is also well reflected by Fisher and Landry (2007), saying, "Affect as a lens for understanding information behavior has always lurked predominantly in the field's theoretical shadows" (p. 211). Based on this issue, we investigate the role of emotions in everyday life by focusing on a routine episode to see how affect per se may facilitate or hamper information acquisition.

Across the holistic everyday life context, food preparation is a dynamic process in which dense information can be involved. Gradually switching attention from academic and professional settings to everyday lived experiences, information behavior scholars have begun examining those fun, intimate, and familiar moments, including cooking (Hartel, 2019). Research on diverse forms of culinary practices is conducted, such as cooking as an information rich hobby (Hartel, 2006; Tsai & Chen, 2021) and cooking and eating as health information behavior responding to a specific health condition (e.g., diabetes, see Broekhuis et al., 2022; Whetstone, 2013). Nonetheless, it is still somewhat unknown how emotions may influence the way people make sense of food-related information, let alone how information interaction may be altered when people experience emotions prior and/or during food preparation. Here, we did not include sensory experience as food-related information. Following this trend, we present an ongoing study as part of a bigger project to pinpoint how affect may interfere with information interaction

in a culinary episode. In particular, to reflect more diverse living arrangements, we target individuals living alone, which encompass nearly 30% of all U.S. households in 2022 (U.S. Census Bureau, 2022). Aiming to understand how emotions may shape the information interacting process in quotidian culinary activities, we ask two research questions: 1) What emotions do people convey while interacting with food-related information? 2) How may emotions influence people to interact with food-related information?

In recent literature, an increased amount of scholarly discourse on emotions and information behavior, especially seeking, has emerged. This may also be due to the growing interest in human-computer interaction and robotics, in which emotions are considered one of the underlying factors shaping user interface design (Arapakis, 2008; Kalbach, 2006; Mokdad & Abdel-Moniem, 2017; Norman, 2004). In the work of Kalbach (2006), he built on a classic model in information science: the Information Search Process (ISP). ISP was developed by Kuhlthau (1991), who illustrated information seeking as a stage-by-stage discrete process where its cognitive and affective aspects are interrelated. Among the various dimensions of information seeking, Kuhlthau identified a series of feelings library users displayed when they fulfilled information needs, including uncertainty, optimism, confusion, frustration, doubt, clarity, sense of direction, confidence, relief, satisfaction, and disappointment. This model has been widely adopted since its development in the late 20th century and has been acknowledged as still being useful in the 21st century, both theoretically and practically (Kuhlthau et al., 2008). Beyond a school setting, Savolainen (2015b) investigated the emergence of various emotions in an online discussion forum. Observing a mix of positive and negative emotions while users joined the conversations on customer awareness, Savolainen posited that emotions were expressed in the context of information sharing and seeking. Truly, emotions are a fruitful topic to probe in the information behavior field, prompting us to conduct this research while looking at an emerging population that has yet to be fully studied.

This study is part of a bigger project that explores different research inquiries, but all are tailored toward the role of affective factors in the food behaviors of people who live alone. A total of 59 participants of diverse backgrounds living in Illinois were recruited. We employed qualitative research methods encompassing two individual interviews, demographic surveys, 7-day food diaries, and a photo reflection exercise. To begin with, participants of this study completed a demographic survey, followed by a 60 to 90 minutes interview. At the end of the first interview, we gave each participant a food diary to document their food intake, and they were asked to take photos that convey information about food in their everyday lives. Then, participants were invited to join a second 60-minute follow-up interview, during which food diaries and photos were discussed, and information from the first interview was clarified. Both interviews occurred virtually via Zoom or over the phone. With participants' consent, we audio-recorded the interviews for transcription and analysis. We assigned pseudonyms to each participant to protect their privacy before examining the interview transcripts. We iteratively coded these transcripts to identify themes by performing the thematic analysis (Braun & Clarke, 2006).

After analyzing our empirical data, we found seven genres of affect. These are a mix of positive and negative emotions, including joy, loneliness, insecurity, pride, boredom, stress, and indifference. The classification between positive and negative emotions came from the interview guide, where we broadly distinguished emotions. In addition to that, participants did not mark a

fine line between their feelings, especially those treating cooking as both a hobby and a chore. Findings show that feelings of boredom, insecurity, loneliness, joy, and pride could initiate information behavior ranging from seeking to monitoring. Among the five genres of affect having the potential to facilitate information acquisition, joy is ranked as the most frequently recognized emotion. For instance, Renata articulated her excitement as a form of joy when talking about recipes with friends: "Usually, I save a recipe on my Pinterest board. I have a board of recipes and things like that, just to save it, so it doesn't get lost in messages. Then if I remember it and get excited to make it, I'll make it." Here, the feeling of joy prompted Renata to engage in information sharing and monitoring, where Pinterest played a key role in information provision. Similarly, boredom is another emotion that can encourage information acquisition, such as seeking. For example, Tracy stated that she was passionate about discovering new recipes if she was bored: "Okay, I need a new recipe for this; Hy-Vee's got this whole thing out of all these Super Bowl recipes. So, I'll look through there to try to find something [...] I'm bored, and I want something new!"

Compared with those emotions encouraging information behavior, the feeling of stress could hamper information acquisition when, for instance, participants stuck to the recipes too much. Ellen said, "I don't think it's boring. Because I usually end up getting stressed out about following the recipe and like I'm doing a million things at once." Unlike emotions listed above that explicitly interfere with information behavior, indifference seemed to be a special and relatively neutral emotional factor, for it neither promoted nor hindered information interaction. When participants were indifferent to cooking and eating, they tended to simply choose quick and easy information to decide what to cook. Niko gave a great explanation, "If it's just like 'I need food to eat food,' then I don't usually think a whole lot about what I'm eating. It's sort of 'I need to consume something." This result reveals that without serving as a trigger or a barrier to information interaction, indifference could drive ambivalent attitudes in which participants' awareness of food, rather than embarking on seeking new information, sufficed their needs.

This research is significant both theoretically and practically. Theoretically speaking, unlike previous work often considering information behavior as a linear or discrete process accompanied by emotions (e.g., Kuhlthau, 1991), we adopt a slightly different lens to examine how emotions are conveyed during cooking and eating and how such expression may shape interaction with food-related information. Although there is a stream of research on cooking and eating following the everyday-life focus in the information behavior community (Hartel, 2019), studies targeting emotions in this context are still few. This study enabled us to gain insight into a spectrum of emotions spanning positive, neutral, and negative in a solitary population's everyday culinary episodes. Moreover, we did not focus on investigating one specific type of information behavior. Instead, we look at information experience as a whole and cover both active information acquisition (e.g., seeking and sharing) and passive acquisition (e.g., monitoring). From this viewpoint, we foreground the lived experience of participants by examining their culinary practices. Our results expand the literature where an extensive discussion addressed affective information seeking at work, school, or problem-oriented situations, demonstrating the dynamics of emotions in information landscape. From the practical aspect, this study is significant because we suggest emotional factors can play a pivotal role while developing information services and systems. Specifically speaking, this can relate to an existing concept in human-computer interaction: emotional design (Norman, 2004), in which

Norman posited that a great design should not only function well but harmonize with our feelings. Emotional design has been applied broadly in product design, where practitioners create products to maximize positive emotions (Mokdad & Abdel-Moniem, 2017). Therefore, building upon this thought, we argue that it would be worthwhile to probe how emotions may be embraced in designing food-related information systems and services. For example, how do we lessen stress when people follow recipes too seriously to avoid them giving up possibly? Or how do we make food-related information acquisition more fun without compromising efficacy to engage individuals indifferent to routine cooking and/or eating? These are all potential inquiries that scholars and practitioners can creatively answer using interdisciplinary approaches to enrich our understanding of cooking and eating.

References

- Arapakis, I. (2008). Affective feedback: An investigation into the role of emotions in the information seeking process. In *Proceedings of the 31st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (pp. 395-402).
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101.
- Broekhuis, M., van Velsen, L., De Franco, D., Pease, A., & Hermens, H. (2022). Contextual health information behavior in the daily lives of people with type 2 diabetes: A diary study in Scotland. *Health Communication*, *37*(3), 272–284.
- Dahlqvist, C. (2022). Understanding information-seeking achievement emotions exploring a cognitive appraisal theory framework. In *Proceedings of CoLIS*, the 11th. International Conference on Conceptions of Library and Information Science, Oslo, Norway, May 29 June 1, 2022. Information Research, 27(Special issue), paper colis2214.
- Demasio, A. (1994). Descartes' error: Emotion, reason, and the human brain. Grosset/Putnam,
- Fisher, K. E., & Landry, C. F. (2007). Understanding the information behavior of stay-at-home mothers through affect. In D. Nahl & D. Bilal (Eds.), *Information and emotion: The emergent affective paradigm in information behavior research and theory* (pp. 211–233). Information Today, Inc.
- Hartel, J. (2006). Information activities and resources in an episode of gourmet cooking. *Information Research*, 12(1) paper 281.
- Kalbach, J. (2006). "I'm feeling lucky": The role of emotions in seeking information on the Web. *Journal of the American Society for Information Science and Technology*, 57(6), 813–818.
- Kuhlthau, C. C. (1991). Inside the search process: Information seeking from the user's perspective. *Journal of the American society for information science*, 42(5), 361–371.
- Kuhlthau, C.C., HeinstrÖm, J. & Todd, R.J. (2008). The 'information search process' revisited: Is the model still useful? *Information Research*, 13(4) paper 355.
- Lopatovska, I., & Arapakis, I. (2011). Theories, methods and current research on emotions in library and information science, information retrieval and human–computer interaction. *Information Processing & Management*, 47(4), 575–592.
- Mokdad M, & Abdel-Moniem, T. (2017). New paradigms in ergonomics: The positive ergonomics. In: O. Korhan (Ed.), *Occupational Health*, pp 3–24.
- Norman, D. A. (2004). *Emotional design: Why we love (or hate) everyday things.* Basic Civitas Books.
- Pekrun, R. (2006). The control-value theory of achievement emotions: assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review*, 18(4), 315–341.

- Pekrun, R. (2014). Emotions and learning. Educational Practices Series, 24(1), 1–31.
- Savolainen, R. (2014). Emotions as motivators for information seeking: A conceptual analysis. *Library & Information Science Research*, *36*(1), 59–65.
- Savolainen, R. (2015a). The interplay of affective and cognitive factors in information seeking and use: Comparing Kuhlthau's and Nahl's models. *Journal of Documentation*, 71(1), 175–197.
- Savolainen, R. (2015b). The role of emotions in online information seeking and sharing: A case study of consumer awareness. *Journal of Documentation*, 71(6), 1203–1227.
- Tsai, T. I., & Chen, H. Y. (2021). Examining cooking hobbyists' information-seeking behavior in different situations and in different stages from a serious leisure perspective. *Data and Information Management*, 5(1), 167–173.
- U.S. Census Bureau. (2022, November 17). America's Families and Living Arrangements: 2022. Retrieved January 13, 2023, from https://www.census.gov/data/tables/2022/demo/families/cps-2022.html
- Whetstone, M. (2013). Information needs of adults living with type 2 diabetes: When cookbooks are more than just recipes. *Proceedings of the American Society for Information Science and Technology*, 50(1), 1–4.
- Wilson, T. D. (2000). Human information behavior. *Informing Science*, 3, 49–55.