On the importance of framing questions for user research in the experience-centered design process

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ABSTRACT

A defining challenge for HCI researchers and practitioners of experience-centered design is generating holistic understandings of particular situations and phenomena observed and analyzed for design. As a result, inquiries into the complex, fluid nature of human experience have led to the development and use of numerous methods rooted in less-reductive theories and epistemologies of understanding experience. While the emergence of these practices is undoubtedly important, we argue, beyond structure and format, careful attention to the selection and framing of questions guiding user research is critical to crafting the dialogical user-designer relationships essential to enable effective—and *affective*—experience-centered design practice. In this workshop paper, we begin to unpack this argument by exploring a case study conducted with students enrolled in a design methodology class. We discuss the types of user research questions developed and used by students, and extract key insights from their reflections. Following a brief discussion, we conclude with emerging principles to guide the experience-centered design process.

Author Keywords

Experience-centered design, empathy

INTRODUCTION

As the theme of this workshop emphasizes, there remains a gap between research and practice in the ideas of experience design. As a means to establish one possible approach to address this issue, we discuss the importance of enabling designers and user researchers to attain a experience-centered perspective or 'mindset' that can guide user research beyond the influence of the respective methodical structures and formats employed during the design process. We claim that this is possible by helping

designers and user research practitioners ask *appropriate* user research questions to frame and guide the experience-centered design process. This claim is grounded in findings resulting from the collective outcomes produced by students in a design methodology class assignment, which was conducted by one of the authors.

The assignment required graduate students to first select a practical design project, and then use that project as basis to contextualize and conduct an in-depth focus group session. In the analysis of their assignment outcomes, the manner in which questions were framed and subsequently posed to focus group participants emerged as chiefly important, particularly in terms of enabling an *affective* experience-centered perspective to understand participants—a notion we distinguish from use or device-centered perspectives for interpretation of the collected data.

In this paper, we first discuss our perspective of experience-centered design as a foundation for this research; then introduce the background of our research, explaining the context of the assigned student assignment project and how we reviewed and analyzed those assignment outcomes. Following this, the findings from our analysis are discussed and interpreted with an eye towards effectively enabling affective experience-centered design. We finally discuss the implications of emphasizing the importance of framing 'good' questions to guide experience-centered design practice, and ultimately how this might contribute to reducing the gap between theory and practice.

RESEARCH FOUNDATION

One of the challenging issues for experience-centered design is generating and embracing holistic understandings of the situations observed and analyzed for design. Many existing user research methods characterizing the design process are not fully successful in addressing this need, conversely focusing on pulling out problems and requirements—i.e. mechanical descriptions and understandings of contexts (opposed to meaning-making)— a notion discussed by Dourish in [2]. In light of the criticism of requirement-centered model's potential marginalization and reification of human experience, several other practices emphasizing reflective inquiry into

the subjective nature of human experience have emerged; notable examples include the increasing use of ethnographic methods [2] and cultural probes [4]. More broadly, the uptake of hermeneutical phenomenology as an alternative underlying epistemology guiding HCI research can be seen parallel to the emergence of these approaches.

In particular, proposed frameworks of experience [e.g. 3] and theoretical guides [e.g 7] are key contributions to establishing essential starting points and helping frame the appropriate 'mindset' for experience-centered design. In this context, the idea of *empathy* is essential to establishing the affective dialogical relationships crucial to experience design, a notion discussed by Wright & McCarthy in their treatment of Bakhtin, "*For Bakhtin, aesthetic seeing is different from scientific inquiry. It involves a felt, valuational response from one's own particular, unique value position to the other (the user) who is also seen as a separate and unique center of value. …This cannot be neutral, indifferent contemplation of the user. On the contrary it can sometimes involve strong feelings between self and other and is certainly always more than instrumental contemplation.*" [8] The theoretical contributions discussed here have importantly helped make the case that more nuanced perspectives are required to understand how to design for human experience (as reflected in Wright et. al's statement), nonetheless how is this collective theoretical push meaningful to practice? And, in what ways is it helpful? Our pilot study examining students' reports on focus group sessions provided productive insights into understanding this connection. In particular, our preliminary study suggests that the manner in which user research questions are framed is key to enabling affective experience-centered design—and such practice can be effectively supported by theoretical contributions [e.g. 5, 6, 7].

The research briefly discussed in this workshop paper represents a *bottom-up* approach, rather than *top-down* as we did not begin with particular theory to guide students' focus group activities. Conversely, through reflection on the outcomes students produced through their practice of conducting design-oriented focus groups, we realized the possible value of where theory may be able to meaningfully inform practice. In what follows, we discuss insights arising from our study, with particular emphasis on key issues to be considered when thinking about the connection between theory and practice in the context of developing a unified framework for practice in experience-centered design.

ANALYSIS OF USER RESEARCH ASSIGNMENT OUTCOMES

In the Department of Industrial Design at KAIST, this semester (Fall 2008) one of the authors (Lim) teaches the ID508 User-centered Design Methodology course. The students' learning goal of this course is to understand and apply various user-centered design methods, such as focus group, contextual inquiry, ethnographic field study, and cultural probe for various design projects. The course places emphasis on understanding users before students have any concrete design concepts, rather than evaluating concepts with users.

For this paper, we specifically discuss the outcomes of the focus group assignment. In this assignment, each student was required to recruit 3 to 5 participants for one focus group session, and to report the findings. As a part of preparing for the focus group session, students were required to decide topics to be discussed and questions to ask for each topic. Their design project theme and goal was the driving source for deciding the topics, however for the questions to be asked for each topic, the students were not given any specific rules to decide them. Through our review and analysis of their focus group reports, a major emergent finding centered on the importance of framing questions to enable experience-centered insights to be extracted from field research.

Questions Asked and Insights Gathered

We reviewed and analyzed a total of 25 reports, each of which was tied to a different design project. The foundation of our analysis of the questions was the concept of empathy. We primarily draw on Wright and McCarthy [8]'s discussion of empathy as a perspective, grounded in pragmatism, which explores questions such as "what it feels like to be that person" and "what their situation is like from their own perspective" [8]. The idea of empathy in design literature can also partially be attributed to Lipps' notion of *Einfühlung*, which Chapman describes as "the capacity of the spectator [i.e. designer/user researcher] to project his personality into the object of contemplation [i.e. user]" [1]:20.

Keeping this concept in mind, we examined students' ways of inquiring and interpreting users' comments and discussions during the focus group sessions. For this, we considered the following: 1) how the questions were phrased, 2) what words were included in the questions, and 3) what the underlying reasons and rationales were for specifying the questions. We also focused on the effects of these factors toward students' interpretations and insights for users' comments.

The most interesting findings overall were as follows: 1) the distribution of the reports that emphasized an experiential and empathetic perspective and those that did not address such a perspective were fairly even—i.e. 11 out of 25 were experience-centered ones although the boundary for making the distinction was not clear cut; and this helped substantiate our emerging claim that what matters in practice may be more related to the ways designers frame their mindset through user engagement, rather than the method itself (for our case, focus group), 2) the ways of phrasing user research questions were more important than defining the topics to be discussed since some students who set the topics to explore experience and meaning of activities could not pull out experience-centered insights when they did not ask questions in an empathetic way, and

3) empathetic interpretations of users' comments started from framing empathetic inquiries to be examined in the user study.

We extracted several patterns of user research questions and categorized them into the following subsections. In these subsections, we draw on case examples to discuss key characteristics of each type of question and the resulting insights.

Particular situation-centered vs. Overall Pattern-centered

The students, who phrased their questions with emphasis on actual instances of situations and people's behaviors in those situations, tended to be more interested in people themselves rather than the devices or contents of the design target. For example, one student used the question "Have you ever had any kind of special incident happen to you in a café?" for the project to design a new café in a city district where there is rapid increasing of café usage. For the topic of investigating the purpose of going to café alone, she also asked the question like "What is something special that you do when by yourself in a café?" We consider these types of questions are exploring *contextualized activities*. By contextualized activities we mean the questions probing people's activities in relation to where, when, and in which situation they are happening.

However, questions such as "How much do you spend for listening to music?", "How often do you use emoticons or abbreviations for instant messaging?", "How many times do you go to the student cafeteria?", etc., failed to result in any experience-centered empathic interpretations of the participants' activities and use situations.

Personal meaning-centered vs. Device function-centered

Some students directly used the term "mean" in their questions. For example, "What does 'eating alone' mean to you?", "What does 'eating together' mean to you?", "Define the café as you like. What does that mean to you personally?", etc. Students who asked such questions pushed further to understand people, beyond what was superficially visible. Using the term "value" also seemed to be helpful in engaging participants in discussion about their personal experiences.

On the contrary, the students who were more interested in the devices or contents that were directly related to their narrowly defined design space, tended to ask questions about overall function, usage patterns, efficiency, and functional benefits of the devices. For example, in a project related to designing a new mobile phone, one of student asked, "What kind of function do you typically use aside from communication functions like phone call, text message?". Although this student phrased her design project as "Design of new mobile phone *experience*", the insights she gathered were related to the functions of a mobile phone, without in-depth discussion on people's actual experiences. This instance illustrates that, while the student aimed to develop a new mobile phone experience,

the way in which questions were framed generally did not lead to productive insights to adequately inspire such a design.

Feeling-centered vs. Task-centered

Several students directly used the term "feel" in their questions, and most of those questions elicited very personal and experiential comments from the participants. We believe that the use of this term, here in the context of focus groups, signifies an attempt to provoke users to express something deeper in their activities with objects. Equally for designers, this term may help re-frame their design space and consider people in a more empathic and experience-centered way. For example, a student used the questions, "Do you usually eat alone while you are on the way to somewhere, or you eat with your friends? How do you feel in those situations?", which resulted in a participant describing that "she feels enviable when seeing other people eating together. Particularly she tries to eat the same or something similar to the food the other people are eating." On the contrary, when the questions address more of task-centered inquiries such as "What size would you like to make for your messenger windows?" or "What kind of particular things do you do in relation to using personal sound devices?", the resulting insights were generally about the device functions and their utilitarian effectiveness.

DISCUSSION AND CONCLUSION

Through this paper, we are beginning to propose that the prefigurative process of *appropriately* framing questions prior to user research is crucial to the experience-centered design process—and, in practice, may be more important than the rigid formats and structures of user research methods. Nonetheless, how are designers to cultivate a sensibility for framing questions more likely to result in empathic, dialogical relationships with their participants? We posit that theoretical frameworks of experience are particularly apt at informing this process, representing a potentially productive area to link theory with practice. While realistically the incorporation of terms such as *feel* and *meaning* may not necessarily result in more beneficial user research insights, they do represent initial signifiers of ways in which user research can be re-oriented to experience-centered design practice. Specifically, these initial steps could be built upon with the application of theories of experience to develop designers' (i) critical capacity for effectively framing questions and (ii) *in-practice* recognition of useful experience-centered insights when in the field.

In this paper we have discussed initial research exploring ways in which the framing of user research questions might impact the outcome of fieldwork aimed at informing the experience-centered design process. An underlying hypothesis guiding this work is that the 'operationalized' or 'formalized' structure of user research methods may lead to misappropriations by designers, thus marginalizing user experience and potentially resulting in a misguided final

design. By critically inquiring into the particular qualities of questions guiding user research in the experience design process, we may be able to suggest ways of avoiding this potentially problematic circumstance and reveal productive avenues to apply theory in the service of improving experience-design practice.

For the further exploration on this line of the subject, it would be interesting to probe the following:

Is it possible to have experience-centered insights when the questions were not, even if the method was designed to enable experience-centered approaches?

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