A Sample of One: First-Person Research Methods in HCI

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Abstract

First-person research (i.e., research that involves data collection and experiences from the researcher themselves) continues to become a viable addition and, possibly even, alternative to more traditional HCI methods. While we have seen the benefits of using methods such as *autoethnography, autobiographical design,* and *autoethnographical research through design*, we also see the need to further explore, define, and investigate the practices, techniques, tactics, and implications of first-person research in HCI. To address this, this one-day workshop aims to bring together a community of researchers, designers, and practitioners who are interested in exploring and reimagining research in HCI and interaction design, with an emphasis on first-person methods.

Author Keywords

First-person research; autoethnography; autobiographical design; research through design; design research.

CSS Concepts

• Human-centered computing~HCI design and evaluation methods

Figure 1. Living in a prototype: Desjardins investigated the ongoing and slow process of turning a van into a home.

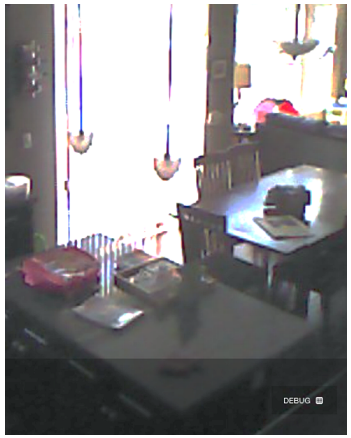

Figure 2. The Moments system: an always-on video recording system for families to capture everyday moments [8]. Created for the Neustaedter household to capture their children growing up.

Background

Workshop Rationale

Within the fields of Human-Computer Interaction (HCI) and interaction design, there has been a growing desire to more deeply understand the use of technology within real, everyday settings [7]. The goal is to gain a deep and experiential understanding of the effect of technology on people, society, and everyday life. Yet this goal has brought about methodological frictions in the field over how one ought to study the increasing ubiquity of technology and the complex world in which it is used [1][7]. Drawing from DIS 2019's theme of 'Contesting Borders and Intersections', such frictions offer new opportunities to engage in and explore alternatives to the methodological traditions found in HCI and interaction design.

Offering an alternative to HCI's epistemological commitments (i.e., objective, third-party knowledge), first-person research continues to become a viable addition to more traditional HCI methods. In this workshop proposal, we refer to first-person research as research that involves data collection and experiences from the researcher themselves, as opposed to external users. While already informally part of longstanding design practices of making and testing technology, first-person design efforts and inquiries have recently become more visible through approaches such as the application of *autoethnography* [2][9][11], *autobiographical design* [4][6][12][13], or *autoethnographical research through design* [3].

Autoethnographies focus on personal experiences to understand broader cultural meanings of technology. Building on traditions in anthropology (e.g., [5]), this method relies on researchers observing, noting, and reporting on personal encounters, or engagement with technology. In HCI, researchers often attempt to reconcile autoethnography with a more traditional view on methods, either by adopting a fully 'scientific' prose that avoids the use of evocative first-person narratives, and/or by concluding the autoethnography with specific design guidelines, or a concrete set of opportunities for design. Notable exceptions to this include Sengers's reflections on IT and pace of life [13], Williams's use of personal fitness and self-tracking technologies to lose weight [14], and Lucero's experiences living without a mobile phone for nine years [11].

Autobiographical design focuses on design research that draws on extensive, genuine usage by those creating or building a system. This enables designers/researchers to rapidly respond to real-life needs and frictions encountered when using the system. Through 11 interviews with established HCI researchers, Neustaedter and Sengers [12] found that autobiographical design was a common practice in HCI, however, rarely reported on. This is due to a perceived contradiction between the pervasiveness and usefulness of autobiographical design as a design practice and its incompatibility with widespread research practices. Further, Desjardins and Ball [4] have discussed tensions that arise when conducting autobiographical design, such as the delicate balance between various roles including designer, researcher, observer, parent, partner, etc. (Fig. 1)

Autoethnographical research through design is similarly inspired by self-design as a method of research. As a mode of knowledge production, autoethnographical research through design combines the openness and richness of individual accounts of a phenomenon with a

Figure 3. Wei-Chi Chien and his partner explored how custom-made devices support alternative communication practices in their long-distance relationship.

Figure 4. Cecchinato studied how smartwatch use and non-use affect social and personal interactions with respect to multi-device interactions and work-life balance.

systematic analysis to reduce complexity and to interpret these accounts in light of theoretical knowledge. Chien and Hassenzahl point out that without the latter dedicated interpretative step, detailed accounts of autoethnographical design risk remaining accounts of attempts to design and will hardly contribute to the body of knowledge in HCI and Interaction Design [3].

So far, we have seen a glimpse of the potential benefits of using these first person research methods in HCI and interaction design for the rich data and fruitful insights they can bring around topics that are often difficult to access, such as long-term use of personal technology (e.g., mobile phones, wearables) (Fig. 4), or use of technology in the private sphere (e.g., the home), and over distance (e.g., long-distance relationships) (Fig. 3) or in ethically challenging situations (e.g., couple technologies). However, we also see the need to further explore, define, and investigate the practices, techniques, tactics, and implications of first-person research in HCI and interaction design. For example, autoethnography as a research practice in other disciplines already evolved into a number of different genres, ranging from fictional or evocative to analytical [10]. There is a need to engage in a thorough discussion about the requirements, potential approaches and envisioned benefits of "auto-approaches" to research and design in HCI with opportunities to "reimagine taken-for-granted boundaries"[1] as it relates to methodological practices. To address this, we propose this workshop.

[1] DIS 2019 website. https://dis2019.com

Issues to Be Addressed

- What are the main challenges encountered when doing, writing, and publishing first-person research in HCI?
- What are examples of successful research protocols and research tactics when doing first-person research in HCI?
- How do we deal with authenticity, bias, and subjectivity in first-person research projects in HCI? How different are those concerns from other qualitative or design research work?
- How might we understand the various roles of team members (e.g., grad students/advisors, interns/supervisor, designer/developer) within first-person research in HCI?

Workshop Goals

- Foster a deeper understanding of first-person research in HCI and interaction design.
- Identify valuable areas of interest and key opportunities for first-person research.
- Consider best strategies to plan a first-person research project.
- Examine ways to make the knowledge gained by using first-person methods more accessible and impactful.
- Investigate connections between first person research methods and other complementary methods in HCI, thereby exploring the frictions and intersections between such methods.

Figure 5. Soma Mat: an interactive experience leading to deepened body awareness.

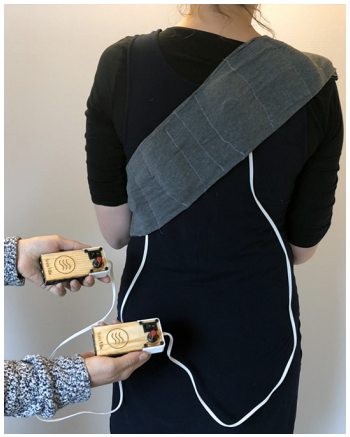

Figure 6. Soma Bits: designing bodily engagements with a first-person perspective using a toolkit of simple interactive devices.

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