Introduction to the Special Issue on First-Person Methods in HCI

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In this introduction to the special issue on First-Person Methods in (Human-Computer Interaction) HCI, we present a brief overview of first-person methods, their origin, and their use in Human-Computer Interaction. We also detail the difference between first-person methods, second-person, and third-person methods, as a way to guide the reader when engaging the special issue articles. We articulate our motivation for putting together this special issue: we wanted a collection of works that would allow HCI researchers to develop further, define, and outline practices, techniques and implications of first-person methods. We trace links between the articles in this special issue and conclude with questions and directions for future work in this methodological space: working with boundaries, risk, and accountability.

1 MOTIVATION FOR THIS SPECIAL ISSUE

Alongside the array of Human-Computer Interaction (HCI) methodological tools, first-person research methods offer a chance for researchers to not only investigate the mundane, ongoing, and ubiquitous presence of technology in everyday life, but also to acknowledge their own positionality in research and design, and to rely on first-hand experience as a mode of knowing. Through past and current usage of first-person methods, we notice how this shift in epistemological commitments has the potential of yielding rich, honest, and authentic reflections and insights about our ongoing lives with technology. We have seen, for example, the benefits for HCI and design researchers of using methods such as autoethnography (e.g., [8, 49, 67, 69]),

duoethnography (e.g., [10, 24]), autobiographical design (e.g., [13, 25, 26, 43, 53, 55, 56]), autoethnographical research through design (e.g., [9]), micro-phenomenology (e.g., [60]), somaesthetics (e.g., [22, 30–32, 62, 73]), embodied ideation (e.g., [37, 47, 48, 79]), design memoirs (e.g., [14]), and more. While examples are starting to accumulate into a strong and inspiring corpus of work, 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.

In this special issue, we draw together articles reporting on the use of first-person research methods. Together, the articles push further how HCI researchers might plan for, execute, and evaluate first-person research. By bringing articles together, our goal is to further deepen the HCI community's understanding of such practices, to continue building a repertoire of examples, and to trace links between techniques. In addition, by seeing the special issue articles together, we hope to reinforce a sense of community among HCI and design practitioners drawn to first-person methods.

While we present our general goal for this special issue, in the spirit of first-person research, we share our unique perspectives for why we were each invested in this issue. As co-guest editors, we had each practiced first-person methods in the past, with variations in our techniques. Neustaedter and Desjardins had focused more on autobiographical design, and Lucero and Cecchinato were more familiar with autoethnography, and Tomico has expertise in embodied ideation. While we present this special issue as a group, we also find it relevant to express our own motivations.

> I have always seen the value of first-person research. In my early experiences in graduate school, we would actively use software in our research group that a fellow student had made. I've continued that practice into my own research group now as a professor. The field of human-computer interaction continues to expand its perspectives on how various methods can be used to study people and technology design; the time is ripe to provide more evidence and documentation of the value of first-person research methods.
>
> —Carman Neustaedter

> I first used first-person research during my doctoral research to explore slow processes of making in intimate spaces like home. Since then, in addition to using the method again, I have worked with students who wanted to use their own personal experiences to create new knowledge in design and HCI. In that process, it has become very clear to me that, as a community who is slowly embracing this new methodological approach, we need transparent and strong examples of first-person research in HCI, as well as deeper theoretical reflections and methodological developments. These are needed to continue solidifying first person research methodologies via authenticity, ethics and rigor.
>
> —Audrey Desjardins

> Over the years I've been trying to reduce the distance between design research and the context where it happens, transitioning from a 2nd to a 1st person perspective. In my PhD I looked at interaction design from the lenses of constructivist psychology, afterwards I explored development of collaborative reflective practices (co-reflection), to finally focus on expanding the application of embodied ideation techniques to the notion of first-person perspective design interventions. I believe that taking a first-person perspective will support HCI research to explore topics like sustainability and care in more meaningful ways.
>
> —Oscar Tomico Plasencia

The first-person perspective has been very much present in my graphic design practice since my days as a student. I somehow steered away from the first-person perspective for a good 10–15 years as I became interested in research and did my PhD in human-computer interaction at a University of technology. I guess the time has come to go back to the origin for me. I am interested in what the first-person perspective might bring in terms of revisiting, rethinking and enriching some of our established human-computer interaction research practices, methods, and ways to collect and analyze data.

—Andrés Lucero

As I stumbled across first-person research early on in my career, I found myself curious about it but at the same time questioned its rigour, having come from a Psychology background. As I started using these methods in my own work, I've found first-person research to be a great tool to deepen the reflexive practice that is inherent in research and to question my own assumptions and biases. With first-person research gaining more traction in the HCI community, this special issue helps validate these research methods and exemplify how they can be adapted and adopted to better understand how technology is embedded in our everyday life.

—Marta E. Cecchinato

As seen in these personal statements, some of our overlapping motivations revolve around rigor, evidence, documentation, value, and validation, but also involve reconnecting, embracing, and being authentic when using these methodological approaches. The final selection of articles that constitute this special issue achieve a balance between articulating theoretical and methodological points about first-person research, while offering personal, direct, and real narratives around the use of the method.

2   WHAT ARE FIRST-PERSON RESEARCH METHODS?

First-person methods are qualitative research approaches that turn to the researcher as the subject of inquiry. The insights rely on the researcher's own firsthand experience of a phenomenon as the starting point of knowledge production [20]. First-person methods can involve observing one's own experience within a particular group or subculture, one's own usage of a technology, or perhaps a designer's or researcher's own process of designing and using a new artifact. Outside of HCI, first-person methods started to draw interest and gain traction in the 1980s, during the "crisis of confidence" in the social sciences, inspired by postmodernism [19]. Starting in the 1900s, and prior to the 1980s, qualitative researchers in the social sciences aimed at creating objective and neutral accounts of social phenomena by "going into the field" and writing about the field and people they observed and met, often from a distanced perspective. However, in the 1980s, researchers questioned and confronted the said objectivity of research and instead turned to their own experiences in the field and paid attention to their own voice in writing [19]. As autoethnographers Ellis et al. articulate: "scholars began illustrating how the "facts" and "truths" scientists "found" were inextricably tied to the vocabularies and paradigms the scientists used to represent them; they recognized the impossibility of and lack of desire for master, universal narratives; they understood new relationships between authors, audiences, and texts" [19:274]. In response, researchers reworked their methods—turning to first-person methods—to "facilitate a more personal point of view by emphasizing reflexivity and personal voice" [17:30]. Ellis et al. further argue "consequently, autoethnography is one of the approaches that acknowledges and accommodates

subjectivity, emotionality, and the researcher's influence on research, rather than hiding from these matters or assuming they don't exist." [19:274].

In the social sciences, first-person research is also referred to as "personal ethnography" [11], or at times "confessional tales in ethnography" [77], in addition to the more common terminology of autoethnography.

The practice of first-person methods usually involves the gathering and analysis of data and an extensive and skillful practice of writing. First-person research methods are not simply the recounting of personal experiences or personal opinions. Rigor is achieved through various modes of data collection, which allow triangulation, often between "participant observation, reflective writing, interviewing, and gathering documents and artifacts" [18:31]. Researchers have developed a variety for gathering data, through self-reflections [18] and retrospective reflections [61]. The process of writing autoethnographies or personal ethnographies relies on descriptive details [66] and can involve self-reflexive and self-revealing accounts of the research process [77]. Furthermore, autoethnographers use "storytelling, showing and telling, and alterations of authorial voice to produce accessible texts that describe [...] patterns, with the aim to reach a more diverse mass audience than the traditional research readership." [49:766]. Attention to detail in the writing and a focus on the authorial voice are central to conveying the meaning of what is uncovered during a first-person method study.

While the main tenets of first-person research were well established in the 1980s, social scientists continue to develop and refine autoethnography. For instance, duo- or trio-ethnography were developed to invite dialogical reflections between two researchers who are both reflecting on their own experiences [1, 61]. In this case, meaning is created in articulating the differences between the experiences. This further extends how first-person methods were originally used, reinforcing connections to feminisms, [35] and highlighting its relational approach [23, 36].

3   WHAT IS FIRST-PERSON RESEARCH IN HCI?

While first-person methods were often meant to be used to explore everyday life experiences, as described above, within HCI and design, researchers have turned their attention to their own design processes. Involving yourself personally in a design process is a long-term practice in HCI that coexists and gives support to a broader list of objective tools and techniques [71]. HCI researchers have involved themselves in many stages of a design research process by defining requirements using themselves as a user, getting an empathic understanding of a situation [6, 59], experimenting and tinkering with ideas with their own bodies [16], role-playing and performing in context early prototypes, [7, 38] and experiencing and testing a design through self-usage [3]. These actions are common practice and are intuitively used to fill in the gaps of what cannot be addressed objectively. Most of them remain silent even today, being considered experiential or tacit knowledge [65], and are kept in the researchers' personal repertoires.

Slowly but certainly, interest has grown into these "complementary" subjective approaches as HCI has permeated everyday life. The effort made by the research community to make explicit, document, and communicate first-person research started to create a body of knowledge expanding in different directions. Using the body as an ideation and validation tool is one of these directions. Bodily explorations for close to the body applications [64] focus on movement-based interaction design [47], considering movement as a design material [37]. Transferring movement qualities from personal experiences to design [29, 74] or the somatic connoisseurship [63] are different modes of observation and acting developed focused on the bodily felt experience.

Understanding the role of designers' personal everyday experiences [81] as self-evidence is another direction that first-person research can take. Situated design practices involving self-ethnography, imply living with the systems, we are designing continuously for a period of time

[25]. Their results can steer imagination, making, and reflection. Autobiographical design [56] includes designing a system with yourself as a target user with genuine needs and evaluating and refining the design through your own self-usage. Designing systems from within [75] means being one of the actors that design and build the system bottom up.

In parallel, there has been an important effort to unpack the process of unveiling, documenting, and communicating subjective experiences in a way that is relevant to HCI. Researchers have been expanding the theoretical background coming from social sciences. A multiplicity of theoretical framings related to phenomenological hermeneutics [21], phenomenology [72], embodied cognition [44], somaesthetics [45, 62], and pragmatist Somaesthetics [58] have created a solid ground for more experimental techniques to emerge that push the boundaries of what was possible. Let us have a look at some of them.

Höök et al.'s [33] somaesthetic appreciation design applied feldenkrais as a resource in the design process to foreground bodily inquiry in order to create more intimate and subtle interactions. Desjardins and Wakkary [13] took autobiographical design a step further by living in a prototype as a way of characterizing the evolving relationship between the makers and the lived-in environment. Van Dijk and Hummels [15] explored what it means to design for embodied being-in-the-world and developed seven principles based on embodied cognition supporting embodied activity in the here-and-now, and developmental processes over a longer time-scale. Claudia Nuñez and Liam Loke's [57] tangible props for focusing, facilitated the articulation of the tacit dimension of people's experiences, allowing them to connect to unknown aesthetic aspects of their personal stories. Lockton et al. [46] created self-probes as tools to support autoethnography, which were deployed by students as part of an undergraduate course. Cecchinato, Cox & Bird [8] mixed qualitative methods like diary-based autoethnography and semi-structured interviews to study the user experience of being always on-line in multi-device ecologies. Lucero's [49] long term autoethnography (multiple years) used self-reflection and field notes to create a retrospective account on an experiment driven by a personal need to reduce stress.

As more articles are published looking back at what has been done until now [31, 48, 51], first-person research is increasing its sense of maturity as a field of study in HCI. Compilations of existing variety of approaches [32, 47, 50] analytical frameworks [79], toolkits for researchers and practitioners [76], and critical reflections [12, 60] are helping to get to know the work done and increasing the amount of researchers involved in these practices day by day. Workshops are also set up to create a sense of community within HCI [51].

Lately, first-person research is supporting HCI to expand and bridge other areas of research and disciplines that require a strong personal positioning, and a clear sense of responsibility and care like feminist studies [27, 28, 42], gender studies [69, 70], disability studies [4, 5, 39–41, 80], and fashion studies [2, 53].

4 FIRST-PERSON METHODS IN RELATION WITH SECOND AND THIRD PERSON PERSPECTIVES

For a better understanding of the role of first-person research, it is important to position it in relation to second- and third-person perspectives. First-person research can be distinguished from third-person research by its focus on personal experience or on the perspective of the individual. First-person research embraces subjectivity, and the subjectivity of the researcher. It focuses attention on self-experience and the senses. As Hornecker, Marshall, and Hurtienne [34] point out: "It relies on methodological rigor in how attention is directed to experience and how it is described. Rather than for repeatability and objectivity, it aims for relevance and rich descriptions that other people resonate with."

Varela and Shear [78] make a distinction between first-person events (the subjective experience related to one's cognitions, of intentions and doings, in everyday practices) and third-person descriptions (descriptive experiences associated with the study of other natural phenomena). A distinction that is not based on the dual opposition between private and public, or objective and subjective. These two perspectives are structured based on the level in which they are inserted in the network of social exchanges. Tomico, Winthagen, and van Heist [75] use a similar differentiation based on the level of integration in the socio-technical systems. A third-person point of view to systems implies designing for society in general; a second-person point of view implies designing with a group of people part of society; and a first-person point of view implies designing for yourself within the society and proposed system. Smeenk, Tomico, and Turnhout [68] elaborated it further. For them, a third-person perspective is non-situated. The designer becomes an expert in the context of study by taking an objective view and designs for people without involving users and professional experts. Key actions are contextual inquiry, ethnography, surveys, and interviews to name a few. In a second-person perspective, the designer is socially involved and facilitates co-design sessions or other kinds of workshops or forms of participation with users and professional experts who are part of the context [52]. A first-person perspective means that designers are personally involved since they are part of and actors in the system object of study. Designers design for themselves within the context and involve their own experiences in the process.

Instead of looking at first-person research as the study of human interaction with the world and social and physical context through the body, we can also focus on the body itself and how it shapes our experience and attitude toward the world [34]. Merleau-Ponty [54] separates a first-person perspective of being a body and a third-person perspective of seeing the body as an object in the world. In similar terms, Fdili et al. [22] analyzed different modes of observation based on first-, second-, and third- person perspectives to describe the challenges of observing movement in Embodied Design. For them, third-person perspectives look at observation as objectively gathering data from the world, thus removing the bias of the self. On the contrary, first-person perspectives' main goal is to seek for interactions that afford self-connection. They focus on self-observation and exploration of one's own experience in developing and testing technologies. In between first- and third-, they describe second-person perspectives as observational methods that facilitate collaboration and build a shared knowledge to connect to others' experience. In a similar way, Svanæs and Barkhuus [73] describe a first-person perspective as accessing one's own bodily user experiences through somaesthetic reflection, second-person as gaining insight about the bodily user experiences of the users through kinesthetic empathy, and a third-person as being a detached observer to oneself and the users.

5   SPECIAL ISSUE CONTENT OVERVIEW

In this special issue, we assemble five articles, which help deepen our understanding of first-person research methods in HCI. We see these articles as beacons at the edge of what we know about the methodological orientations of first-person methods and as indicators of what is coming in the field of HCI and Design if or when researchers engage with first-person methods. Each article offers one step further in articulating the methodological implications of first-person research, in the particular spaces of soma design, self-observation, retrospective exploration, and trio-ethnography.

"*Validity and Rigour in Soma Design—Sketching with the Soma*" by Ståhl, Tsaknaki, and Balaam describes the creation of two soma design projects, the Pelvic Chair and the Breathing Wings, which both use soft shape-changing technology to help people become more aware of their own bodies. The article illustrates the value of deep, careful, and reflective first-person research approaches to design where knowledge can be developed through "intra-actions" between the body

and design materials. In their article, the authors foreground the importance of a holistic perspective on the mind and the body.

Mah, Loke, and Hespanhol similarly emphasize the relation between the body and the mind. Their article *"Towards a contemplative research framework for training self-observation in HCI: A Study of Compassion Cultivation"* offers a rich description of how Mah, the first author, developed techniques for self-observation, within the practice of Tonglen, a Buddhist meditation technique. As more contemplative and reflective practices arise in HCI, the authors contribute precise process notes and documentation strategies (such as somatic snapshots and reflective journal writing) for self-inquiry with regards to research in body and mind cultivation.

In *"Unpacking non-dualistic design: the soma design case"* Kristina Höök and her co-authors report on a somaesthetic design workshop conducted between two research groups, the Soma Design studio and the Mixed Reality studio, both interested in exploring bodily interactions. Their detailed analytical work reveals how soma design entails taking a non-dualistic design stance—moving away from mind-body dualism and body-world separation. From a methodological standpoint, the authors astutely and precisely expand on first-person research perspectives by attending to the deep entanglements between first-, second- and third person perspectives in design research.

Wirfs-Brock, Fam, Devendorf, and Keegan present a detailed case of first-person research in interaction design. *"Examining Narrative Sonification: Using First-Person Retrospection to Translate Radio Production to Interaction Design"* uses a first-person retrospective exploration to describe the design of two radio sonification pieces that employ narrative scaffolding. The article applies a first-person perspective to highlight the role of narrative in designing to support audiences in the process of learning how to listen to data.

Finally, Howell, Desjardins, and Fox use retrospective trioethnography, a variation of first-person methods that allows for parallel personal reflections and analysis to come together in dialogue and discourse as a way to pull new meaning from lived experiences. *"Cracks in the Success Narrative: Rethinking Failure in Design Research Through a Retrospective Trioethnography"* presents a personal and honest look at failures in design research challenging the normative positivity in design research. It provides a methodology for retrospection and shared meaning making, and presents a series of reflections to support a different way of reporting more in line with real design research practice.

6 LOOKING FORWARD

"For the most part, those who advocate and insist on canonical forms of doing and writing research are advocating a White, masculine, heterosexual, middle/upper classed, Christian, able-bodied perspective. Following these conventions, a researcher not only disregards other ways of knowing but also implies that other ways necessarily are unsatisfactory and invalid" [19:275]. As part of the special issue, we want to acknowledge the value of subjectivity and diversity of practices that first-person research entails. With this introduction, we aim at offering clarity about where first-person research comes from, what first-person research is in HCI, and how it differentiates from second- and third-person perspectives in research. Furthermore, we hope that the special issue articles—which present a range of ways of conducting first-person research—will inspire a diversity of researchers, designers, practitioners, and students to try this method and share their experiences via their own voice.

Building on the recent history of first-person methods in HCI as well the articles present in this special issue, we conclude by highlighting a few opportunities for reflection. We propose three provocations—perhaps questions or meditations—that HCI researchers should attend to while planning, executing, analyzing, and sharing results from first-person methods. We touch on expanding boundaries, taking risks and accountability.

As first-person research expands into different areas of application, one question that arises is: how might the techniques, tools, and practices of first-person research evolve and adapt based on new areas of study. For instance, as Höök et al. move away from mind-body dualism and body-world separation, they also further articulate how researchers may traverse the spaces of first, second, and third person perspectives to move away from dualisms. Wirfs-Brock et al. discuss a specific design process for learning how to listen to data sonification. In an effort to decelerate the rapid pace design process, the authors wrote retrospective design accounts which eventually allowed them to articulate the implicit (or tacit) knowledge embedded in their work. As boundaries expand, how are the tools of first-person research also expanding?

If first-person research is about taking things personal by situating ourselves in the context of study, how might we approach the process of taking risks? What is the process of putting limits between what should be shared or not? Is everything allowed, and who gets to decide? What is acceptable, and by whom? Ståhl et al. explored validity and rigor in Soma Design. Mah et al. explicitly focus on contemplative and reflective practices in HCI. Howell et al. move away from the success narratives of design to articulate their own failures. With these articles, we can start to ask: What impact can these publications have on the authors' careers and lives? How might we create mechanisms for checking in and stopping the inquiry process? How might we develop ethics frameworks to protect ourselves and others?

In first-person research, the line between the personal and the professional gets blurred. Our opinion, point of view, decisions, and mistakes can be seen as a valuable starting point for learning. How might a first-person recounting of the design process produce a space for accountability in design? How can we make our design research process more transparent by building on the work presented by Wirfs-Brock et al. and Howell et al.? What roles might we need to take on as first-person researchers? How does our responsibility change when doing it ourselves, when teaching it, or when mentoring others who are becoming their own subject of inquiry?

We conclude on these questions and with an invitation to explore the articles of this special issue.

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