

Discerning Designers' Intentions

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Abstract. Design is often done by teams of designers and other stakeholders. Design also creates a time-lapsed collaborative relationship between designer(s) and user(s), who “complete the design through use”. The intentions of designers in designing and crafting computational artifacts are therefore important for multiple HCI and CSCW related research and design traditions, including (a) appropriation studies, (b) participatory design, (c) design criticism, and (d) design collaborations in organizational contexts. All of these design philosophies handle intentions differently, including normative, organizational, and ethical aspects of what designers and designs ‘should’ intend. Some people consider intentions to be highly important, and demand explicit articulations of intentions; some people question whether we give the wrong kind of weight to designers’ intentions. With this panel, we will bring these notions to the discussion table to allow a deeper understanding of the diverse theoretical perspectives and research methods available to account for designers’ intentions. This will help to theorize design as a social activity, and to understand how people negotiate, evolve, and change designs over the lifecycle of a product or a system. This panel opens a conversation, comprising multiple perspectives, to help HCI and CSCW develop new ways to consider designers’ intentions from an empirical and theoretical perspective.

Introduction

Physical and digital artifacts are part of our daily experience during work, play, sometimes love, and sometimes contemplation. We may find those artifacts to be well designed, aesthetically or functionally pleasing, fit-to-task, or not. There are rich debates about how to characterize attributes of an artifact (e.g., Fuchsberger et al., 2016), and about how to regard users and other stakeholders in relation to those artifacts. Nevertheless, there exists only little consensus about how the concepts of function and use relate to one another, to the designers' and users' intentions, or to their actual actions and encompassing contexts (Vardouli, 2015).

Further, designers' and users' intentions of how to use an artifact may be different, and therefore, a source of possible conflict (e.g., in workplaces), but also a source for innovation (e.g., users finding new uses for an artifact). Thinking about intentions from the two perspectives of designers and users allows us to understand that both, the intentionality in *designing* an artifact, and *actually* using it, play a fundamental role of how we research, understand, and design for *use*. Intentionality can be viewed as an imagined potentiality, opening up to a wide range of possibilities which may, or may not, be actualized. The focus on intentionality opens up the possibility to investigate how visionary intentions and imagined potentialities of designers and users are enacted and actualized in and through design processes of artifacts.

In this panel, we want to broaden the discussion to involve not only the artifact and the people who use and are affected by it, but also the designers who created or deployed the artifact. We are concerned with questions such as

- *How can we understand the ways in which individual (or groups of) designer(s) reach their decisions?*
- *Is it beneficial for designers to reflect about intentions? If so, how can we encourage designers to reflect upon their intentions? And what do we gain from reflecting upon designer's intentions?*
- *How can we help clarify and understand the intentions of the designers?*
- *How can we explore designer's intentions in relation to intentions of users and their un/anticipated use?*

Designers create or amend designs for many reasons. A design may solve a practical problem (Biskjaer, 2014), or it may compel users to work faster or more productively (Hasan and Al-Sarayreh, 2015). A persuasive design may move, motivate, or influence its user (Fogg and Hreha, 2010). An ambiguous design may open a space for contemplation, exploration, and reflection (Gaver and Martin, 2000). A strategically incomplete design may pose the question of how it can be used (Kaye, 2006), or what its worth may be (Cockton, 2006), and allows us to study how users "complete a design through use" (Carroll, 2004). Designers' decisions may contain and produce a certain 'geography' of

responsibilities, or causes – that are open to question and may be resisted (Akrich, 1992). However, HCI lacks a well-developed literature and vocabulary on designers' intentions; how designers' intentions relate to users' intentions; and what potential impact, matching or mismatching intentions between the two have on our ways of researching and designing for use. The designers' intentions are important for at least four traditions in HCI:

Appropriation studies focus in part on how people make use of designs for “unanticipated users, usage, circumstances” (Krischkowsky, 2015), helping us to learn about new arrangements of people and things, and about how unanticipated usage generates and ‘naturalizes’ new forms and orders of causality and knowledge about the world (Akrich, 1992). Can we theoretically and empirically investigate how the designers' intentions are ‘encoded’ in the artifact and ‘interpreted’ (in either anticipated or unanticipated ways) by the users? Vardouli (2015) identified three attitudes towards human-artifact engagements: design-centric, communicative, and use-centric. We hope to add designers' intentions to Vardouli's analytic framework, through reflective inquiry with and by designers and users, as they consider unanticipated and unintended usages *and* users.

Participatory Design (PD) advocates for involving democratically all stakeholders in the design process in order to ensure their needs are heard and met. PD acknowledges that design processes often take place in a space of contested interests (Bjerknes and Bratteteig, 1995; Bratteteig and Wagner, 2016). Therefore, PD scholars raise questions such as, who benefits from a design (Beck, 2002), or how can a project be re-designed to benefit particular stakeholders, such as workers (Bødker, 2009). However, complex projects often have more than one “designer”, and these designers may work at various levels of specificity and policy (Light and Akama, 2012), entangled in complex webs of intention, difference, and power (Muller, 2007). Indeed, if PD is deliberately “multi-voiced” (Törpel, 2005), then the concept of “designer” becomes multiple by definition, and the questions of intention and values become a study of negotiation, compromise, and emergent innovation (Björgvinsson, 2010).

Design criticism refers to historically and theoretically informed interpretations of the relationships among one or more *design activities, events, processes, and/or products*, including their performative, material, and perceptual qualities and broader situatedness in culture, and *experiences* of those designs, including meanings, behaviors, perceptions, affects, insights, and social sensibilities in the context of the design product, its use, and its outcomes (Bardzell and Bardzell, 2015). A Romantic conception sees art as a vehicle for personal expression (Croce, 1909); such a view might locate meaning in the artist's intentions. Against such a view have been theories such as Wimsatt and Beardsley's (1954)

“intentional fallacy” and Barthes’ (1967 and 1998) “death of the author”—both of which argue that readers should attend to works themselves and/or in relation to other works. A third perspective is that we perceive creators’ intention through our awareness of how the work “hangs together”, how individual choices contribute to its overall purpose, how the work expresses a perspective (Booth, 1983; Carroll, 2001). We ask, is “design intention” located in the minds of individuals, or is it manifested in the design of the artifact?

Design in Organisations is influenced through negotiations involving many stakeholders (Neto, 2005), who may or may not agree in their intentions (Fleron, 2005; White, 2007; Winn and Novick, 1995). There may also be a timecourse of design leadership through a product’s development lifecycle (Pew and Mavor, 2007), consequently changing priorities in intentions of the current leader (White, 2007). Discerning intentions in an organizational context requires first to discern who the stakeholders are, what aspects of the design are influenced by each of them, and the relevant influences of each respective stakeholder at various moments-in-time. In this context, understanding designer intention is part of understanding the changing organizational configurations during the conceptualization and development of a complex system.

Methods

To ensure engaging discussion and debate between the panelists, we have invited them to represent diverse views on design traditions, the importance of design, and the work of designers. We anticipate the emergence of contrasting views, but also converging agreements, generating new understandings across our panelists’ diverse perspectives and experiences.

We will begin the panel with a brief (provocative, speculative, narrative) statement from each panelist, followed by 3-4 questions from the moderators. We will then invite the audience to join the conversation and broaden the discussion.

In addition to conventional position statements, questions, and dialogues among members of the panel, we plan to conduct an experience where we present the audience with (representations of) digital and physical artifacts, in order to invite their interpretations, collect their responses in real-time, and display them on a large screen via a Twitter hashtag or paper cards. To enrich the discussion, we will solicit artifacts in advance from panelists and moderators, for interpretation during the panel. Our intention (as designers of the panel) is to create a space of interpretation in which panelists and audience take turns in creating a rich dialogue about designers, design, and intentions, which can lead to a more formal HCI discourse afterwards. We will use these different forms of presentation and interaction strategically, to keep the panel experience interactive and engaging.

After the Panel

Having two moderators will allow us to carefully document the discussions, supplemented by the Twitter feed and/or paper cards. Based on those notes, we will submit a report for *interactions*. We hope that this panel will result in generating solid and rich material for a formal paper to be submitted to ECSCW 2019. Depending on the outcome of our experiment with presenting artifacts for interpretations, we may also create an online space to allow the continuation of such discussions.

Confirmed Panelists

Jeffrey Bardzell is known for his work on interaction criticism and aesthetic interaction, developed in and through a humanistic approach to HCI.

Nina Bouhus-Rødje is known for studying the design, implementation and use of various technologies and collaborative practices.

Michael Muller is known for studies of participatory and collaborative activities in organizations.

Antti Salovaara is known for his field trials on appropriation of everyday technologies. He is interested in the situated cognitive processes that underlie discoveries of novel use.

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