
Domain Crossing: How Much Expertise is Enough?

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Abstract

In CSCW, how much do we need to know about another domain/culture before we observe, intersect and intervene with designs. What optimally would that

other culture need to know about us? Is this a “how long is a piece of string” question, or an inquiry where we can consider a variety of contexts and to explicate best practice. The goal of this panel will be to develop heuristics for such practice.

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General Terms

Design, Experimentation, Human Factors

Introduction

When treading in another’s domain – whether that domain is expertise, culture, gender, orientation that is somehow “other” - how much domain expertise do we need, either to observe effectively or to design interventions sensitively – that at worst “do no harm” and at best, improve our collective quality of life? Within CSCW, we seem to address this question in an ad hoc way, drawing methodological rationale often implicitly from ethnography or grounded theory at one end of the continuum, to what might be called general usability from participatory design to focus groups to personas, where some understanding of “The User” is seen as a necessary first position. Yet even these approaches are at times undertaken without deep domain expertise. Some might consider this

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problematic, some might argue that domain expertise can get in the way of seeing clearly: we can observe health delivery practice without being neurologists; go to “the third world” and do good, without being a third worlder. If that is so, is it always so? How do we know? Do different domains more obviously require different expertise? What are those traits by which we might define heuristics for better practice? The goal of this panel will be to bring together expert domain crossers from the ethnographic to the design end of the CSCW spectrum in order to see whether or not we can come to some kind of consensus on expertise for domain interrogation.

Expertise of Intervention: Decision Point

Each of the members of this panel has explored the question within their work of what do I need to know to engage this space, and has had to come to conclusions to say that what they are doing, methodologically, is sufficient. In the discussion we will surface some of these decision points, and from these, to explore possible heuristics towards if not best practice, then better practice for determining how best one’s approach best respects the culture/domain.

Panelist Gary Marsden

Gary Marsden is a professor in the Computer Science Department at the University of Cape Town. His research is in Mobile Interaction Design and ICT for Development. He co-authored with Matt Jones “Mobile Interaction Design” (2006). He is currently director of the UCT ICT4D research centre and the UCT-Hasso Plattner Research School. He won the 2007 ACM SIGCHI Social Responsiveness award for his research in mobile technology in the developing world. Despite this, he still cannot use all the features on his phone.

Position. Every community has its own nuanced way of working. In an ideal world designers would study each community and create something tailored just for them. Economically, this is not possible, so in the designs that we do deliver, there needs to be scope for domain experts to tailor the system to their needs. The ethnography then is about working towards a flexible design focusing, perhaps, on the domain expert rather than the ultimate end users of a system.

Panelist Wendy Kellogg

Wendy A. Kellogg is Manager of Social Computing at IBM’s T.J. Watson Research Center in Yorktown Heights, NY where she studies computer-mediated communication. She has served in a variety of roles from CHI, DIS and CSCW program co-chair and related. Wendy is a former member of the National Academies of Science Computer Science and Telecommunications Board, an ACM Fellow, member of the CHI Academy and IBM Academy.

Position: George Furnas in 2000 described the “proper context for the design of information technology” as a Mosaic of Responsive, Adaptive Systems (the MoRAS), ranging from “parts of the human mind to work groups, communities, markets, and society” and considered what kind of pragmatic approaches might be effective in addressing this essential truth about users and contexts of use. HCI design, given this perspective, must be considered increasingly difficult the further away a designer’s own context is from the context being designed for. Even when a deep understanding of users and use context is present, integrating this knowledge effectively into design is problematic. We do the best we can, but it is important both to draw the line at what is unacceptable in terms of understanding

users and contexts, and to leverage tactics to work around limitations. I share lessons learned from over two years of mobile design research in Africa by a New York-based team.

Panelist: Susanne Bødker

Susanne Bødker is Professor of Human Computer Interaction, Computer Science Department, University of Aarhus. Her research areas in HCI/CSCW include participatory design, and activity theoretical HCI.

Position. My participatory design background makes me believe in active user involvement and mutual learning. In other words, it is necessary that designers take the time to get to know the domain and the people they are designing for, at least to the extent where they may recognize the expertise of the users, and engage with this a basis for shared design processes

Panelist: Susan Wyche

Susan Wyche is a Computing Innovation Fellow at Virginia Tech's Center for HCI.

Position. After a recent returned from rural Kenyan and visiting homes with no or inconsistent electricity, made deployment of a prototype challenging. This obstacle has broader implications for CSCW researchers interested in developing applications for users in the developing world. Specifically, this insight suggests researchers must broaden their focus beyond developing mobile phone applications and design user-friendly and workable power systems.

Panelist: Mark Ackerman

Mark Ackerman, professor, School of Information and in the Division of Computer Science and Engineering in

the College of Engineering. Mark is a member of the CHI Academy (HCI fellow) and leads the SocialWorlds Research Group at Michigan.

Position: How much domain knowledge does one need to understand the work involved? The answer is a lot. Usually it's in-situ. But when not, it's still a lot. Many HCI studies are shallow. We in CSCW, of course, know better than that. But what is "better" and how does it fit into the conference paper cycle?

Panelist Mark Rouncefield

Mark Rouncefield is a Senior Research Fellow in the School of Computing and Communications, Lancaster University. He is particularly associated with the development of ethnography for design and evaluation.

Position. Understanding domains of use and users has always been something of a shibboleth in HCI/CSCW. Perhaps more than any psychiatrist, priest or lover, researchers here seek to 'really get to know' their particular setting and its users. They often 'fail', and not infrequently this results in a collection of methodological techniques, 'findings' and 'design recommendations' that range from the obvious to the bizarre. Of course, none of this work is easy, and Wittgenstein was probably right when he claimed that "If people never did silly things nothing intelligent would ever get done", but I am interested in whether in embracing Grudin's 'turn to the social' in design, HCI can avoid, not silliness, but embrace the fate of Sociology; that is, whether CSCW can avoid drowning in a sea of essentially 'undoable' projects, or, as Clint Eastwood says: "a man's gotta know his limitations".

Panelist: Madhu Reddy

Madhu Reddy is an Associate Professor, College of Information Sciences and Technology, Penn State University. His main research interests are CSCW and Medical Informatics, around collaboration surrounding information technologies in clinical settings.

Position: Designers face many challenges in building systems for particular settings. One challenge is “understanding” the domain. This is particularly true in healthcare where the nuances of the field require designers to have more than a “surface” knowledge of the domain.

Panel Chair: m.c. schraefel

schraefel is a Reader in the Faculty of Applied and Physical Sciences’ Electronics and Computer Science U of Southampton; she holds a Royal Academy of Engineering Senior Research Fellowship. Themes in schraefel’s work are interaction and web scale and more recently design and evaluation methods to support creativity, innovation and discovery in science.

Position: Once, working with chemists to design IT for them, we knew we could not become chemists, so we developed a method we called “Making Tea” (CHI04) to use analogy to help us discuss their practice with them. We would agree where the analogue worked and where real practice differed. We validated with them our assumptions via the Tea Making Model. More recently, to approach our design interventions in proactive health care, I have been gaining formal qualifications in related practice. Why this difference in approach? What are the qualities of one domain that seemed to be satisfied with analogy in the one case, but formal

domain training in the other? What are the heuristics of making such a determination? Are they important?

Structure/Format

Prior to the panel, the panelists will prepare example stories that focus on the decision points around domain expertise/interaction in an example of their work. These stories and reflections on decision points around expertise will be presented in brief at the panel and also made available on a blog set up specifically for the panel so that there is a persistent resource for the discussion. At the panel we have coupled stories in two domains: health information (Mark, Mark and Madhu) and experiences in Africa (Gary, Wendy, Susan). We have also a suite of methods from ethnography to participatory design represented. During the panel presentations, we have two interlocutors: Gary coming in from Africa and Susanne from the EU by skype. They will be commenting on the panel to a live text stream via skype comments with the audience via **twitter**, as well as presenting their stories. Post Panel Notes and comments from the session will go to the panel blog after the session.

Expected Outcomes

The goal of the pre, post and discussion components of the panel will be less to argue each others approaches but more to work with the audience and panelists to define commonalities for recommendations and identify gaps for research in the methodology or meta-methodology around domain expertise engagement for our CSCW/HCI interventions. By leveraging multiple input threads both live and before/after the panel we hope to encourage participation towards an explicit “better practice” and identify opportunities for ongoing methodology development.