
Boundary Crossings

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The Issue

Critically-reflective HCI research requires crossing boundaries, not just between disciplines, but what Haraway calls “mixed literacies and differential consciousnesses” ([4], p. 3). How do we do this, and encourage others to?

Why This Is Important

A critically-reflective approach to any topic requires questioning what’s taken for granted. In addition, a critical approach that is only negative is not likely to be effective, so we need resources for an affirmative critical practice.

A major source of inspiration for a critical perspective, different assumptions and worldviews, and affirmative alternatives to the *status quo* is other disciplines, other perspectives, Haraway’s other literacies and consciousnesses. Crossing these boundaries is not simply a matter of reading different literatures, but of being sympathetic to, if not adopting, very different ways of seeing and engaging with the world. A critical practice requires a deep engagement with these as alternative literacies and consciousnesses.

Our Story

In our project, The Social Uses of Personal Media (http://www.sims.berkeley.edu/~vanhouse/photo_proj ect/index.php), we have been concerned understanding

users' appropriation of new technologies and media [8, 9, 10]. Our reasons are twofold: first, we can better design technology to be useful and usable if we better understand the sociotechnical networks that surround and incorporate these technologies, the multiple meanings people assign to the technologies, and the processes by which they appropriate new technology and redesign it in use. Ours is not a design project, but we see our work as developing understanding that will improve designs and design processes. Second, we contend that new technologies, by making visible, breaking, or changing practices, may reveal previously invisible, taken-for-granted assumptions and understandings.

In the first instance, our understanding of the uses and meanings of technology will help design. In the second, changing technology will help us understand people's activities and the social.

In our project, we are studying how new image-related technologies are used in ways both continuous and discontinuous with the past. Specifically, we have been studying the adoption and use of cameraphones, especially a cameraphone-internet system called MMM2, developed by Marc Davis and his colleagues [1]. We are now moving into looking at internet-based shared image systems like Flickr™.

Our approach is rooted in Activity Theory (AT) [2] and science and technology studies (STS) [7]. Our premise is that technologies are interpretively flexible, that is, the same technology has different meanings for different individuals or groups; and these meanings are highly contingent. We contend that people incorporate technologies in their higher-order, more enduring goals

– what AT calls activities – but that activities and practices are also shaped by technology and other factors. One challenge, then, is identifying these meanings and activities.

Our current work, in line with HCI “user” research, includes empirical investigations of the current and emerging uses of images and cameraphones. We are interviewing photographers of various kinds, examining their images, and otherwise studying current practices and goals.

Mixed Literacies

However, photography in general and personal photography in particular have been examined in a variety of domains, including visual studies, visual anthropology, visual sociology, cultural studies, and new media. Other areas that we have found useful that do not address personal photography directly include the sociology of objects and semiotics. We're turning to these fields to help us formulate questions, and, more generally, understand personal photography.

Interestingly, the literature of these fields (other than new media) says little about digital imaging, and virtually nothing about internet-based image sharing or cameraphones. The boundary-crossing that's needed is two-way; there is much for them to learn from HCI.

Our engagement with these other research areas is significant for a critical practice in at least two ways. First, a strong critical orientation runs through many of these research communities — e.g., a number of British sociologists are concerned with personal photography's role in consumer society and the ideology of the family [5]. Second, these fields have very different

The development of useful systems must be a boundary-crossing activity, taking place through the deliberate creation of situations that allow for the meeting of different partial knowledges. Suchman [6]

understandings of personal photography, of the research enterprise, and of scholarship. To engage with these literatures is to admit that ours and theirs are what Haraway [3] and Suchman [6] call “partial knowledges,” which is at least a step along the way to seeing one’s own epistemic domain critically.

Like any epistemic community, each of these domains (including HCI) is deeply situated in a history, a set of problems and approaches, values, language, a set of canonical research methods, studies, and publications — in short, each is a social world all its own its own worldview. Membership in any epistemic community requires longtime immersion.

The “outside” — e.g., HCI — reader is not generally able to situate a piece of work in its field: to know the schools of thought and the controversies; the core arguments, readings, and participants; the research problems, perspectives, and scholars that are on the ascendant, and those in decline.

How can we usefully cross these boundaries for the purposes of a reflective critical practice? How do we (1) learn how to use this kind of work, and (2) learn how to evaluate and trust it — on its own terms, and not superficially? This is not a trivial problem, nor have we found an easy answer. I describe here what we have done.

What We Have Done

We have been fortunate to have the thread of personal photography to follow across a varied landscape. It has led us into domains that we didn’t know about, and to people who can help guide us. Personal photography has also helped us to focus our explorations.

Our research group is multi-disciplinary — an effect of the multidisciplinary nature of the School of Information Management and Systems (SIMS), which attracts people from many disciplines and encourages boundary-crossing by faculty and students. Our group is also relatively egalitarian. It’s often the newcomers/outsideers who find themselves questioning the *status quo* and looking for alternatives.

We participate in our campus’ Center for New Media, an interdisciplinary group with members from philosophy, journalism, art, architecture, literary studies, and others, including SIMS. (The discipline most notably under-represented is computer science.) Here we have been challenged to think differently, and to understand other worldviews and disciplines. We have also gotten practical help in navigating these fields.

The process is slow. We have had to immerse ourselves in various disciplines’ literatures and engage with scholars in those domains.

One thing we have not done, but would like to do, is to bring in people from some of these new media disciplines who are not part of SIMS.

As Suchman [6] says, this kind of boundary-crossing can be uncomfortable; but it can also be fascinating, even exhilarating.

Conclusions for HCI

Some of the obstacles that we have encountered are common to boundary-crossing work, and need to be addressed by HCI in general and this workshop:

In those cases where boundary crossings do occur, we discover that they involve encountering difference; entering onto territory with which one is unfamiliar and, to some significant extent therefore, unqualified to act. For those who have spent many years building up competence and identity within a domain of specialized professional practice, placing oneself again onto unknown ground is a difficult thing to do, particularly insofar as it may lead to painful reflections on one's own life and positioning.

Suchman [6]

- *Where to publish?* Work that doesn't fit disciplinary boundaries also doesn't easily fit into journals and conferences. The narrow and therefore highly competitive publication base of HCI is not likely to offer many opportunities for unusual, critical work, so we need to develop publication venues — but not isolate ourselves from the mainstream of HCI.
- *How does this work get evaluated?* This is a problem for publishing, dissertation-writing, and academic personnel review. Different fields have different standards of what is "good" research. We have to face this problem both internally — how do we design our work? — and externally.
- *How to bring the discussion into the HCI mainstream?* We need to address these issues visibly within HCI.
- *How to engage with other disciplines?* We also need to engage with scholars in the domains with which we need to converse.

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