

Continuing the Dialogue: Bringing Research Accounts Back into the Field

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ABSTRACT

This paper examines the work to bring HCI research back to the people and sites under study. We draw on our ongoing collaboration with members of feminist hackerspaces in Northern California where we conducted fieldwork over eighteen months in 2014 and 2015. Together we created and distributed a zine — a self-published magazine produced with a photocopier — that knit together content of a published paper with local histories of feminist print production. By tracing the efforts involved in this collaboration and its effects on our research project, our research community, and ourselves, we extend HCI's efforts to foster continued dialogue with our sites of study. We end by outlining strategies for bolstering this mission both within and beyond HCI.

Author Keywords

Alternative distribution; zine; feminism; design research.

ACM Classification Keywords

K.4.0 Computers in Society: general.

INTRODUCTION

Over the years, the HCI community has developed multiple and varied approaches to maintaining connections within and beyond its sites of investigation. From postcards to pots of clay, a tradition of probes has called on designers and researchers to develop conversational artifacts left open to interpretation [9,21]. In neighborhoods and among grass-roots organizations, community-based projects organize initiatives that cultivate dialogue among multiple actors, priorities and interests [3,4,7]. At workshops and conferences, organizers invite industry colleagues and interlocutors to serve on panels and attend gatherings [22].

Yet, this work to extend conversations from the “field,” or those people and sites so studied, exists primarily as a form of inquiry or professional development, and less as a mode

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of *knowledge transmission*, as sociologist Kat Jungnickel [13,14] would describe. Despite an ongoing interest in broadening research audiences, “innovative findings are often transformed back into conventional presentational formats,” [14, p.138]. Beyond sending papers to our interlocutors and delivering presentations, we rarely communicate research insights to those we study — or the broader audiences we engage when we develop HCI papers, but who never encounter the work in its finished form. As HCI's research programs involve increasingly indeterminate and collaborative methods, we need to ask what new kinds of translations our scholarship might require.

This paper is about the work to communicate HCI research and continue conversations from the field. We examine our extra-academic collaborative activities to refigure traditional models of participation for researcher and subject. After publishing an academic paper on our study of feminist hackerspace in 2015 [8], a chance encounter led us to collaborate with members of these sites on a zine — a self-published magazine typically made with a photocopier — that knit together content from our published paper with local histories of feminist print production. Since 2012, community-organizers have developed feminist hackerspaces as workspaces oriented toward alternative legacies of technology development. We use this case to illustrate the opportunities and limitations of alternative modes of research distribution. In creating our zine, we not only acknowledged the active role our interlocutors played in our research process, but also broadened the impact of our work and sharpened our analytic focus. In doing so, we advance two central arguments. First, connecting modes of knowledge transmission with our methods of knowledge production may help researchers communicate in the field, reflecting the range of concerns that reach beyond textual authorship. Second, ongoing communication helps, in turn, extend the scope of our studies, enabling collaborations that cut across the seams of our research worlds.

BACKGROUND

Before discussing our efforts to reimagine our work for new audiences, we wish to revisit a growing body of research within and beyond HCI that seeks to treat interlocutors as collaborators. From the adoption of action-research methods to co-design [3,11,18], this research has sought to upend the researcher/subject dynamic as traditionally constituted. Rather than passive participants, community mem-

bers contribute to and shape research outcomes. Projects range from the development of neighborhood sensor networks [4], a collaborative system for a social movement [3], and a digital photo-album to facilitate cultural sharing among residents of a women's center [1]. In addition to the design of some artifact or system that may benefit the community in question and a peer reviewed publication accounting for the work, several of these projects have organized a means of sharing the knowledge gained from this collaborative process beyond academic or industrial circles. For instance, Clarke et al. regularly facilitate exhibitions of workshop participants' photos in community settings [1] and Taylor and colleagues describe a process of 'insight journalism' [19], claiming it provides both design inspiration and a means for locals to represent themselves through a written newsletter.

Just outside HCI, similar concerns have emerged predominantly in the fields of sociology and science and technology studies. These include Lury and Wakeford's [16] inventive methods, Junknickel and Hjorth's [14] methodological entanglements, and Rabinow and Marcus' [17] studio-based inquiry. Margery Wolf's [23] early experiments involved comparing her presentation of the same story, a Taiwanese woman's departure from her village, in three different authorial accounts: a fictional tale, field notes, and anthropological argument. In her analysis, she suggests retaining firm boundaries between fiction and ethnographic research. Otherwise, she affirms, "[w]e will have blurred the ethnical assumptions of our craft" [p.59].

In other work this skeptical relation to authorial encoding extended to new media. Wakeford's [20] analysis of Powerpoint recommends "keeping open the relationship between the researcher and the PowerPoint" by, for example, "leaving traces of our own relationship to the participants within the slides." Drawing on the anthropological notion of "thick description," she frames Powerpoint as "thick" events locally informed and contextually dependent; for the corporate ethnographer, they require significant descriptive work to comprehend [20, p.100]. Highly influential on our work is the related series of experiments discussed by Junknickel and Hjorth [14] that draw on Wakeford to illustrate the promise of entangling methods and knowledge transmissions. Most recently, Junknickel's *Bikes and Bloomers* project prompts people to reconstruct and wear bloomers designed for Victorian women bicyclists. The project asked "what making *and* wearing your research bring to an understanding of mobility, gendered citizenship and the changing nature of public space" [13]. Our work expands these experimental modes of collaborative making and performance to wrestle with the "mess of method" [15] not in our empirical studies as much as the curation, summation and dissemination of research insights. Rather than approach the development of a single account, we show how knowledge transmissions might originate from multiple perspectives, take several forms, and appeal to different audiences.

METHODS

Our project draws on ethnographic methods that foreground engagement and interpretation over analytic distance and transcription of empirical phenomena. We conducted fieldwork and 13 ethnographic interviews in four hackerspaces that engaged in processes of redefining the role of marginalized groups, primarily women, in technology production and hacking. The second author additionally interviewed ten organizers of related technology development endeavors such as Survival Research Labs and the Flaming Lotus Girls in Northern California. Lastly, the first author visited and conducted participant observation within two zine festivals: one in Seattle, Washington and one in New York, New York. We subsequently transcribed interviews and reviewed our empirical materials during weekly meetings to discuss and draw out relevant themes.

CASE OF THE ZINE

Our efforts to collaboratively produce a zine came on the heels of an eighteen-month multi-sited ethnographic study. In the first several months of the research, we primarily occupied the role of a participant-observer. Over time our work became more collaborative as we organized workshops with members of two hackerspaces around questions of feminist technology design. Before publishing a paper about our fieldwork to that point, we sent a copy of the paper to the groups with whom we worked, hoping for any comments or reactions to our writing. Instead, we received an email asking for the rewording of one sentence (conveying a member's background more accurately). We ultimately published the paper with this change, but found ourselves underwhelmed by the modest response. Their reaction seemed markedly out of character for members of a group who had devoted hours to speaking candidly with us about their frustrations around the treatment of gender in sites of male dominated technology development. Beyond these conversations, they let us sit alongside them at workshops in their spaces and answered questions about their finances and how they interpreted their own positions of power and privilege. We suspected that they had more to say about the work we had been doing, but perhaps we weren't talking in a way that prompted discussion.

Developing the Zine

The idea for the zine came out of this dissatisfaction with existing models of knowledge transmission — and a chance encounter. While attending a Seattle's Short Run festival — a temporary zine fest for artists to showcase and sell their own work — the first author ran into Amy Burek, a feminist hackerspace member. Burek was a scientist who had previously been a PhD student herself and, thus, found the academic style of writing and the format of the conference paper more-or-less familiar. Through this zine fest we also met Emily Alden Foster, an independent illustrator and animator who had recently completed a zine of personal histories and comics around the theme of women in the workplace. She also ran a subscription service that delivered a collection of zines called the Womazine Delivery Service

made by women on a quarterly basis. Over email and video chat, we continued to discuss combining our research findings with the Burek's own experience as a member and the illustrator's watercolor images into a single piece named for the academic paper. After the initial meetings, Burek and Foster worked together for just over a month, combining text and image, before they asked us for final comments and edits. We compensated both artists for their work through a fund that had also covered the observational research.

The zine differed from our published paper. The artists added evocative comic imagery illustrating key ideas. They removed sections of our paper discussing theory and related literature to focus, instead, on our descriptions of the spaces: how they were run, what activities happen within them, and what motivated members to create them. Pushing beyond our published academic paper, our collaborators reframed a buried discussion of race and economic privilege, moving it from the middle of a section in our published paper to a page titled "The problems with 'hacking' and 'making'." With new language and sharp imagery, they described how "the terms 'hacker' and 'maker' may not properly represent people of color and the economically disadvantaged groups." Together these edits had the unanticipated outcome of sharpening our analytic focus on questions of marginality.

The artists then attributed the zine to multiple sources, noting that the work was "inspired by and sourced from research" published in our original paper [8]. Otherwise our names did not appear on the zine. But should they have? Should the zine have articulated who paid the artists and who curated the content? Whose zine was this anyway? Through attribution, the zine drew attention to multiple authorial voices and details of their relation.

In electing to put together a zine, we were situating the work in the prior practice of Burek and others who were a part of the spaces we studied. For instance, a cofounder of the San Francisco site had made zines since childhood and the hackerspace regularly hosted workshops for its members to come together to craft zines as a group. Several members also spoke of the commonalities between feminist hackerspaces and the Riot Grrrl movement of the 1990s, which sought to challenge the masculine culture of punk rock through the exchange of craft-based knowledge and the formation of spaces to practice and record music [10]. Zines were an important means of communicating sometimes highly personal stories of abuse and injustice and to document their own histories of the movement.

Debuting the Zine

We debuted the zine at a feminist zine festival hosted by Barnard College in New York. In the winter of 2015, the first author traveled from Pacific Northwest with about 150 handmade zines and 50 copies of the academic paper to distribute to the hundreds of students, community organizers, professors, activists, and curious locals who gathered at



Figure 1: Zine illustrations, ©Emily Alden Foster & Amy Burek

the event. Also exhibiting were some 40 other zine makers "who [identified] on the feminist spectrum" [24].

Over the course of the day, the zine received several consistent reactions. Visitors regularly inquired about the types of activities that the feminist hackerspaces facilitated and a few people asked what constituted 'hacking'. Several conversations concerned concepts of invisible work mentioned in the zine. When visitors seemed particularly interested, the first author offered them a copy of the conference paper.

Yet, even with this consistent interest, we saw a striking difference among visitors emerge. "So are you a hacker?" one man asked. "Do you code?" The visitor only ceased asking questions when the first author explained she had done some front-end web development. At an adjacent table, a woman presented a zine openly grappling with histories of American slavery. Her zine used images she had digitally manipulated to contest the continued regulation of black women's bodies. At about midday, another visitor stopped at her table after circling a few times. As he thumbed through a zine, he paused to ask where she had gotten the photos. When she said she'd downloaded them from the Internet and he probed again, asking about the digital textures they featured and eventually suggested they be altered in Photoshop.

We share this vignette to show how an alternative means of research transmission opened our project to new observations. Notable here is a focus on technical ability over other forms of work, which found its way into a space meant to hold up voices and knowledges often unacknowledged. The visitors' comments recall Ron Eglash's discussion of masculine geek identity, which can play a gatekeeping role [6] that, in Christina Dunbar-Hester's words, "restricts nonwhites or women from embracing a geek identity" [5, p.67]. At the festival, this sort of questioning was not limited to zine makers whose zine titles included the word 'hack'. Like our prior encounters within feminist hackerspaces, our interlocutors surfaced an imposing regulation of what does and does not belong and a concentration on the technical. However, we were only able to surface these connections because of our own involvement in this alternative form of publication. In this sense, the zine helped expand our questions and sites of inquiry.

Extending the Dialogue

Over the coming months, the conversations and ideas that developed at the zine fest continued through the circulation of our zine. After the Barnard festival, the zine found a home in several sites just beyond it. The Barnard zine library and the Philadelphia Public Library took copies to add to their collections. We soon hosted a .pdf version of the zine on our project website, along with an offer to mail a printed copy to interested parties at no cost. A few months after this release, the popular feminist writer Ann Friedman recommended the zine in her newsletter. With this endorsement, we immediately noticed a marked increase in traffic to our project website. Several mentions of the piece on Twitter and Facebook and dozens of requests for paper copies soon followed. In a surprising turn of events, the zine even re-appeared in our own research circles. Mentions of the work popped up in twitter chats about civic media and in a blogpost about limitations of discussions of in/visibility by a digital humanist. Over time the zine helped us gather and broaden a conversation on issues of feminism and design.

DISCUSSION

This paper has so far examined the processes of knowledge production and sharing that emerged from our zine case study. The zine makers rewrote our original paper in ways that blurred authorship and claims, trusting, perhaps, that a reader might decide whose authority to accept. In the process, we learned how definitions of hacking (what one member called “shit-testing”) circulate well beyond the walls of San Francisco and Portland hackerspaces to meet local patterns of zine distribution. But what do these hackerspace members, zine makers, and festivals have to do with HCI’s sites of study? How do the inner workings of our extended dialogue speak to other areas of technological production such as sustainable computing or ICTD? How do they shed light on HCI knowledge transmissions more broadly?

As HCI’s empirical focus continues to grow beyond conventional sites of technology production, our understanding of participation among those represented will continue to change, complicating our expectations for knowledge transmission in the field. Intertwining our objects of study with the people and ideas represented changes the accounts we produce. The moments of production, debut and distribution outlined above show the importance of reflecting back on our techniques of representation — and imagine what translations (while always partial) might effectively extend them.

Alongside highlighting this possibility for knowledge transmission, our project reveals something for the research study itself. The zine development not only helped the research team bring our accounts back to the field and reinterpreted it for new audiences; it also extended the scope of our project. For example, our experience observing the zine fest prompted us to ask what makes something a *feminist*

design, where the design might entail a feminist hackerspace, zine, technology, and so on. Conversely, it prompted us to ask how a design activity may refigure feminist ideals. Following up on these questions in ongoing fieldwork, our publication — as a product of our methods and transmissions — created a “thick” [20] device for thinking with our communication media.

However, the zine’s role in our project was by no means a given. The zine would not have been appropriate in every setting and it was certainly not the only form for this site either. Perhaps a hackathon with a critical bent would have opened our conversations to broader audiences. Or a twitter chat would have more thoroughly catalogued our conversations beyond local sites. Each mechanism offers a different set of partial openings into HCI’s sites of study. To help HCI researchers produce their own extensions, we submit three questions for those reporting back to the field:

(1) *What transmissions emerge in the site?* Within a given field site particular communication media (zines, tweets, tumblr feeds, podcats) come to convey insights and shape enrollment. These media provide a means of examining alternate platforms for distribution (here, short-run publications).

(2) *What kinds of authorship do people gather around?* Exploring moments of acknowledgement and visibility already reverberating in a site suggests alternative modes of recognition (here, often collective and collaborative).

(3) *What rhetorical devices do people use to make their arguments?* The ways arguments circulate — and the form they take — offer lessons for overturning the “form fetish” [2,23] of paper presentations, wherein an established textual presentation prefigures evidentiary claims (here, comic illustrations and manifestos).

Together these questions help explain how new knowledge representations might come to inhabit HCI research. Their commonsense form invites us to ask why so little experimentation has occurred already. Perhaps one answer lies in the feminist case study we began with. Feminist anthropologists like Marilyn Strathern and Margaret Wolf have long questioned representations of the “other” by recognizing the remnants of colonialism in their wake (see [23]). As a community engaged in the examination of technology development, HCI has a similar responsibility to surface and make sense of the power relations within [12]. Beyond telling a convincing or evocative story, our transmissions require incorporating new kinds of participation for those being represented and, in doing so, reaching beyond our paths for research dissemination already underway.

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REFERENCES

1. Rachel Clarke, Peter Wright, Madeline Balaam, and John McCarthy. 2013. Digital Portraits: Photo-sharing After Domestic Violence. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, ACM, 2517–2526. <http://doi.org/10.1145/2470654.2481348>
2. James Clifford and George E. Marcus. 1986. *Writing Culture: The Poetics and Politics of Ethnography: a School of American Research Advanced Seminar*. University of California Press.
3. Jill P. Dimond, Michaelanne Dye, Daphne Larose, and Amy S. Bruckman. 2013. Hollaback!: The Role of Storytelling Online in a Social Movement Organization. *Proceedings of the 2013 Conference on Computer Supported Cooperative Work*, ACM, 477–490. <http://doi.org/10.1145/2441776.2441831>
4. Carl DiSalvo, Illah Nourbakhsh, David Holstius, Ayça Akin, and Marti Louw. 2008. The Neighborhood Networks Project: A Case Study of Critical Engagement and Creative Expression Through Participatory Design. *Proceedings of the Tenth Anniversary Conference on Participatory Design 2008*, Indiana University, 41–50. Retrieved August 28, 2015 from <http://dl.acm.org/citation.cfm?id=1795234.1795241>
5. Christina Dunbar-Hester. 2014. *Low Power to the People: Pirates, Protest, and Politics in FM Radio Activism*. The MIT Press, Cambridge, Massachusetts.
6. Ron Eglash. 2002. Race, Sex, and Nerds: From Black Geeks to Asian American Hipsters. *Social Text* 20, 2: 49–64.
7. Sarah Fox and Christopher Le Dantec. 2014. Community Historians: Scaffolding Community Engagement Through Culture and Heritage. *Proceedings of the 2014 Conference on Designing Interactive Systems*, ACM, 785–794. <http://doi.org/10.1145/2598510.2598563>
8. Sarah Fox, Rachel Rose Ulgado, and Daniela Rosner. 2015. Hacking Culture, Not Devices: Access and Recognition in Feminist Hackerspaces. *Proceedings of the ACM 2015 conference on Computer Supported Cooperative Work*.
9. Bill Gaver, Tony Dunne, and Elena Pacenti. 1999. Design: Cultural Probes. *interactions* 6, 1: 21–29. <http://doi.org/10.1145/291224.291235>
10. Kathleen Hanna and Johanna Fateman. 2014. *The Riot Grrrl Collection*. The Feminist Press at CUNY, New York.
11. Gillian R. Hayes. 2011. The Relationship of Action Research to Human-computer Interaction. *ACM Trans. Comput.-Hum. Interact.* 18, 3: 15:1–15:20. <http://doi.org/10.1145/1993060.1993065>
12. Lilly Irani, Janet Vertesi, Paul Dourish, Kavita Philip, and Rebecca E. Grinter. 2010. Postcolonial Computing: A Lens on Design and Development. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, ACM, 1311–1320. <http://doi.org/10.1145/1753326.1753522>
13. Kat Jungnickel. In Press. Making things up: Design perspectives from a study of Victorian women’s convertible cycle. *interactions*.
14. Katrina Jungnickel and Larissa Hjorth. 2014. Methodological entanglements in the field: methods, transitions and transmissions. *Visual Studies* 29, 2: 136–145. <http://doi.org/10.1080/1472586X.2014.887263>
15. John Law. 2004. *After Method: Mess in Social Science Research*. Routledge, London ; New York.
16. Celia Lury and Nina Wakeford (eds.). 2013. *Inventive Methods: The Happening of the Social*. Routledge, Place of publication not identified.
17. Paul Rabinow, George E. Marcus, James D. Faubion, and Tobias Rees. 2008. *Designs for an Anthropology of the Contemporary*. Duke University Press.
18. Elizabeth B.-N. Sanders and Pieter Jan Stappers. 2008. Co-creation and the new landscapes of design. *CoDesign* 4, 1: 5–18. <http://doi.org/10.1080/15710880701875068>
19. Nick Taylor, David M. Frohlich, Paul Egglesstone, et al. 2014. Utilising Insight Journalism for Community Technology Design. *Proceedings of the 32Nd Annual ACM Conference on Human Factors in Computing Systems*, ACM, 2995–3004. <http://doi.org/10.1145/2556288.2557054>
20. Nina Wakeford. 2006. Power Point and the Crafting of Social Data. *Ethnographic Praxis in Industry Conference Proceedings* 2006, 1: 94–108. <http://doi.org/10.1111/j.1559-8918.2006.tb00039.x>
21. Jayne Wallace, John McCarthy, Peter C. Wright, and Patrick Olivier. 2013. Making Design Probes Work. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, ACM, 3441–3450. <http://doi.org/10.1145/2470654.2466473>
22. Amanda Williams, Johanna Brewer, Alicia Gibb, Wilhelm Eric, and Hugh Forrest. 2012. Indy R&D: doing HCI research off the beaten path. *CHI’12 Extended Abstracts on Human Factors in Computing Systems*, ACM, 1131–1134.
23. Margery Wolf. 1992. *A Thrice-Told Tale: Feminism, Postmodernism, and Ethnographic Responsibility*. Stanford University Press, Stanford, Calif.
24. NYC Feminist Zine Fest: A Showcase. *Barnard College*. Retrieved from <http://barnard.edu/events/nyc-feminist-zine-fest>