

# Social Technologies: The Changing Nature of Participation in Design

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## Introduction

This paper is about emerging design methods that respond to the participatory, emergent, and social nature of social technologies. Social technologies are, in effect, designed through use. They are containers or scaffolds that rely on participation and user-driven contributions to take their form. Their shape emerges through the activities of use, over time, and their use is social and situated and depends on the activities of those who use them. The facilitation of participation becomes a primary concern for designers of social technologies. The embedded and contextual nature of using social technologies suggests that, when designing, evaluating and evolving new social technologies, users' experiences of, and feedback about, use are most meaningful if those users have been given the opportunity to experience the technologies in the actual context in which they will be used.

In their 2002 paper titled "PD in the Wild: Evolving Practices of Design in Use," Dittrich, Eriksén, and Hansson explored the multiplicity of ways in which design was taking place beyond the traditional boundaries of IT software development projects.<sup>1</sup> They highlighted the need for new Participatory Design methods and models that better supported design as ongoing and intertwined with use. In this paper, we use this concept of "Participatory Design in the wild," along with other current examples and discourse in Participatory Design, as the perspective through which to analyze our practice-led research into early design research methods suitable for social technologies and to identify new forms of participation enabled by social technologies themselves. We focus in particular on the development of social technologies in community settings where use is voluntary, and how we might facilitate participation within these settings in the early stages of their design. Specifically, we show how the use of social technologies reconfigures the traditional role of self-reporting to become an opportunity to *design through use* by enabling participants to: *socialize the research, bridge existing and future practices, and develop seed content*. We reflect on the potential conditions for participation that these three phenomena represent, the role of social technologies in enabling these

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1 Yvonne Dittrich, Sara Eriksén, and Christina Hansson, "PD in the Wild: Evolving Practices of Design in Use," in *Proceedings of the 7th Participatory Design Conference: Inquiring into the Politics, Contexts and Practices of Collaborative Design Work* (New York: ACM, 2002), 124-34.

- 2 Leah Lievrouw, "Oppositional and Activist New Media: Remediation, Reconfiguration, Participation," in *Proceedings of the 9th Participatory Design Conference: Expanding boundaries in design* (New York: ACM, 2006), 115–24.
- 3 See for example Eevi Beck, "P for Political: Participation Is Not Enough," *Scandinavian Journal of Information Systems* 14, no. 1 (2002): 77–92; and Joan Greenbaum and Kim Madsen, "PD: A Personal Statement," *Communications of the ACM. Special Issue on Graphical User Interfaces: The Next Generation* 36, no. 6 (1993): 47.
- 4 Interested readers can find a fuller account of the research in Penny Hagen and Toni Robertson, "Dissolving Boundaries: Social Technologies and Participation in Design," in *Proceedings of the 21st Annual Conference of the Australian Computer-Human Interaction Special Interest Group: Design: Open 24/7* (New York: ACM, 2009), 129–36; Penny Hagen and Toni Robertson, "Seeding Social Technologies: Strategies for Embedding Design in Use," paper presented at DRS 2010 Conference (Montreal, Canada, 2010); Penny Hagen and Toni Robertson, "Social Technologies: Challenges and Opportunities for Participation," in *Proceedings of the Participatory Design Conference: Participation: The Challenge* (New York: ACM, 2010), 31–40; Penny Hagen, "The Changing Nature of Participation in Design: A Practice-Based Study of Social Technologies in Early Design Research" (PhD Thesis, University of Technology, Sydney, 2011); and Penny Hagen, Toni Robertson, and David Gravina, "Engaging with Stakeholders: Mobile Diaries for Social Design," in *Proceedings of the 2007 Conference on Designing for User Experiences* (New York: ACM, 2007): Article 5.
- 5 As social software, see danah boyd, "The Significance of Social Software," in *Blogtalks Reloaded: Social Software Research & Cases*, ed. Thomas N. Burg and Jan Schmidt (Norderstedt, 2007), 15–30; as social media, see Sirkka Heinonen and Minna Halonen, "Making Sense of Social Media Interviews and

participation experiences, and the potential impact they suggest on how we approach early research and design of social technologies in community settings.

As Lievrouw has pointed out, Participatory Design in the context of social technologies, or new media as she describes it, is *necessarily recursive*.<sup>2</sup> Participation is both the means of designing usable and meaningful technologies, as well as the *outcome* of successful systems. As social technologies become central to how we live our community, social, civic, political and professional lives, Participatory Design offers a critical, political frame through which these forms of "participation" can be understood.<sup>3</sup> Underpinning our research is a question of how the commitment to participation, as defined by Participatory Design, can be taken up in these environments; our aim is to contribute to understandings of how participatory approaches can be understood, enabled, and supported. The findings and discussion on participation reported in this paper form one aspect of a larger, practice-led research project into the impact of social technologies on participation in early design.<sup>4</sup>

The paper begins with a definition of the term "social technologies" and the considerations about participation that these technologies foreground for designers. We then outline participatory approaches to the design of social technologies, described as "prototyping in the wild," that have emerged as a result of, and in response to, the inherently participatory and emergent nature of social technologies. A brief summary of our empirical research is then provided. This summary is followed by a description of the findings from our practice-led work into self-reporting and the new opportunities for participation they suggest. We conclude the paper with a reflection on the significance of a participatory approach to the design of social technologies more broadly.

### Social Technologies: A Definition and Focus for Design

Social technologies, also known as social software or social media, refer to the combinations of mobile and online tools and systems that enable and seek out participation and contributions by users.<sup>5</sup> Examples include Facebook, MySpace, Flickr, Twitter, YouTube, FourSquare, personal blogs, and discussion platforms, as well as more localized community or campaigning sites. Also integral to this landscape are mobile phones, short message servicing (SMS), picture messages (PXT) also known as Multimedia Message Service (MMS), and other personal production and communication devices and channels (e.g., instant messaging). The use of "social technologies" here is intended to refer both to the tools and to the emerging practices of connecting, producing, sharing, sending, replicating, locating, publishing, and distributing that these tools constitute.<sup>6</sup> Although no fixed definition of what a "social

- Narratives," SOMED Foresight Report 2 (Espoo: VTT, 2007), 6.
- 6 Heinonen and Halonen, "Making Sense of Social Media Interviews and Narratives."
  - 7 danah boyd, "Social Network Sites: Public, Private, or What?," [www.danah.org/papers/KnowledgeTree.pdf](http://www.danah.org/papers/KnowledgeTree.pdf) (accessed March 9, 2009).
  - 8 Margot Brereton and Jacob Buur, "New Challenges for Design Participation in the Era of Ubiquitous Computing," *CoDesign* 4, no. 2 (2008): 112.
  - 9 Carl DiSalvo, Jeff Maki, and Nathan Martin, "Mapmover: A Case Study of Design-Oriented Research into Collective Expression and Constructed Publics" in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (New York: ACM, 2007), 1249-52.
  - 10 For example, see Susanne Bødker and Kaj Grønbaek, "Cooperative Prototyping: Users and Designers in Mutual Activity," *International Journal of Man-Machine Studies*, (Special Issue on CSCW) 34, no. 3 (1991).
  - 11 See Fiona Redhead and Margot Brereton, "Nnub: Getting to the Nub of Neighbourhood Interaction," in *Proceedings of the 10th Participatory Design Conference: Experiences and Challenges* (New York: ACM, 2008), 270-73; Andrea Botero and Joanna Saad-Sulonen, "Co-Designing for New City-Citizen Interaction Possibilities: Weaving Prototypes and Interventions in the Design and Development of Urban Mediator," in *Proceedings of the 10th Participatory Design Conference: Experiences and Challenges* (New York: ACM, 2008), 266-69; Michael Twidale and Ingbert Floyd, "Infrastructures from the Bottom-Up and the Top-Down: Can They Meet in the Middle?" in *Proceedings of the 10th Participatory Design Conference: Experiences and Challenges* (New York: ACM, 2008), 238-41.
  - 12 Botero and Saad-Sulonen, "Co-Designing for New City-Citizen Interaction Possibilities," 269.
  - 13 Brereton and Buur, "New Challenges for Design Participation," 111.

technology" is (or isn't) is in play, social technologies can be characterized as enabling greater social participation in technology-mediated contexts.<sup>7</sup>

However, as Brereton and Buur point out, "participation is predicated upon delivering value to those who participate."<sup>8</sup> Use of social technologies in community settings is voluntary. In designing successful social platforms around which communities grow, evolve, and share, our role as designers extends beyond researching, defining, creating, and releasing a product to include how designs will be connected to, embedded within, and taken up in the world. Perhaps we might even need to bring the community "into being" as part of the project.<sup>9</sup> Equally, our design methods need to account for the social, participatory, and emergent nature of social technologies.

### Prototyping in the Wild

One of the ways in which practitioners of Participatory Design have responded to the participatory and emergent nature of social technologies has been to extend prototyping into the settings where the technologies are being used. As a collaborative and experiential method, prototyping has always been an important part of the Participatory Design toolkit.<sup>10</sup> Extended "into the wild," prototyping becomes a "living form" of design research that can enable designers to co-design with community members in the context of their daily lives. Examples of this approach include the Nnub electronic community noticeboard developed by Redhead and Brereton, Botero and Saad-Sulonen's development of the Urban Mediator software, and the "Patchwork Prototyping" of collaborative software described by Twidale and Floyd.<sup>11</sup> In such approaches, rudimentary prototypes or "patchworks" are pulled together and then evolve *in situ* with the community, in response to use and to community feedback. Rather than undertaking traditional usability evaluations of isolated software components, existing software is repurposed to create "concrete interventions" that can be co-evolved.<sup>12</sup>

For Redhead and Brereton, such an embedded approach was critical to engaging participation by the community in the design of the Nnub electronic community noticeboard. They reported that traditional methods (e.g., workshops) were only attended by a few of the identified stakeholders. However, installing a functioning prototype in a local store—a location that was physically shared by many members of the community—allowed people to experience (and evaluate) the design as part of their daily lives. For these researchers, this approach was a significant departure from earlier consultative community informatics approaches; rather than seek consensus on intended use, stakeholders were able to indicate "usefulness through use itself."<sup>13</sup>

Floyd et al. also argue that the advantage of such an approach is that design and development decisions are based on users' actual experience of integrating the software into their everyday activities, rather than on predictions or design principles.<sup>14</sup> Moving prototyping into settings of everyday use provides participants with a concrete and visceral experience of use as a way to evolve and participate in design. Through this experiential process, both researchers and community members come to understand how such technologies become useful and meaningful in people's lives. For example, for Botero and Saad-Sulonen, the use of "seed prototypes" in the development of Urban Mediator enabled an understanding of how social technologies could give citizens a more active role in shaping council policies and council responses to community issues.<sup>15</sup> The community defined the purpose and value of the software as they used it.

The approaches to "prototyping in the wild" described here are possible because social technologies lend themselves to the deployment of simple prototypes that can be modified and evolved through feedback.<sup>16</sup> Twidale and Floyd argue that such approaches only exist as a result of the current ecology of information technologies.<sup>17</sup> Social technologies themselves become the design material, allowing the activities of researching, designing, and using to become concurrent practices. Design emerges *through everyday use*. The examples of "prototyping in the wild" outlined above help to frame and motivate the analysis of findings from our practice-led research, which we report in the following section.

### Research Background: Self-Reporting with Social Technologies

The empirical research reported in this paper took place in the context of a commercial design agency committed to social change. Many of the agency's clients were motivated by the potential for social technologies to reach and engage existing and new audiences in ways meaningful to those different stakeholder groups. We were involved in practice-led research to determine early design methods that would help the design agency and its clients understand what kinds of community platforms or social media strategies would be appropriate.

Specifically, we experimented with emerging self-reporting techniques that made use of social technologies themselves as tools for self-documentation. Inspired by methods such as Mobile Probes, in which research participants use the photo function on their mobile phones to collect and share aspects of their daily lives, we also appropriated existing communication devices such as mobile phones, video cameras, and blogs as self-reporting tools.<sup>18</sup> The method we developed, known as Mobile Diaries, was deployed and evaluated in four different studies.<sup>19</sup> Participants representing potential future community members were recruited and

- 14 Ingbert Floyd, M. Cameron Jones, Dinesh Rathi, and Michael Twidale, "Web Mash-Ups and Patchwork Prototyping: User-Driven Technological Innovation with Web 2.0 and Open Source Software," in *Proceedings of the 40th Annual Hawaii International Conference on System Sciences* (Washington, DC: IEEE, 2007).
- 15 Botero and Saad-Sulonen, "Co-Designing for New City-Citizen Interaction Possibilities," 267.
- 16 Brereton and Buur, "New Challenges for Design Participation in the Era of Ubiquitous Computing."
- 17 Twidale and Floyd, "Infrastructures from the Bottom-up and the Top-Down," 238.
- 18 Sami Hulkko, Tuuli Mattelmäki, Katja Virtanen, and Turkka Keinonen, "Mobile Probes," in *Proceedings of the Third Nordic Conference on Human-Computer Interaction* (New York: ACM 2004), 43-51.
- 19 See, e.g., Hagen, Robertson, and Gravina, "Engaging with Stakeholders: Mobile Diaries for Social Design."

asked to complete diaries for a period of between one and three weeks. The goal was to provide an insight into how the particular design topic (e.g., sustainability or personal health) came to have meaning in their lives.

Participants used multi-media picture messages and video to capture and share rich, personal messages and snap-shots of their daily lives. In the last two studies, the mobile messages were sent to private research blogs or “participant mobile diaries.” These diaries were created using a customized version of Wordpress, the open-source content management system (CMS), and could be accessed by both participants and researchers for the duration of the study. The use of mobile phones and blogs as self-reporting tools allowed for the real-time collation of data. This in turn enabled mutual reflection and discussion by both participants and designers, not just on the materials collected throughout the study, but also on the questions and comments they generated. Importantly, the tools and technologies used for the diaries were often the same as those used for the final, public, custom community platforms that were implemented.

Taking a participatory approach to self-reporting requires supporting participants’ active involvement and influence over design. Thus, our studies have had to be open-ended and participant-led to allow participants control over what and how “data” are collected. In addition, the active role that participants have played in the interpretation of the collected material is part of their ongoing participation in the design process as a whole.<sup>20</sup> In the process, we found that using social technologies themselves as tools in the research and design of social technologies offered other forms of participation. The *doing* of Mobile Diaries, in addition to helping us understand what kinds of community platforms and social technologies might be appropriate, also contributed to bringing those future platforms and communities of “users” into being. We present and discuss these findings in the next section, drawing on concepts and examples from Participatory Design to explore how these findings suggest new forms of participation.

### **Self-Reporting as “PD in the Wild”**

As a contextual method, self-reporting is already located “in the wild.” However, its role in design is generally understood as a “research” or data collection technique. Using social technologies as reporting tools started to blur the boundaries of research, design, and use, creating opportunities for people to participate early in the design process *through use*. We examine from this perspective three outcomes in particular that were identified in the research as being enabled by the use of social technologies. These results included the capacity and tendency for participants to *socialize the research*, the ability to *bridge existing and future practices*, and the potential to

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20 Elizabeth Sanders, “Design Research in 2006,” *Design Research Quarterly* 1, no. 1 (2006): 1-8.

*develop seed content.* Although not traditionally valued as outcomes of self-reporting, our proposal is that these three phenomena represent potential new patterns of participation enabled and made valuable by the participatory and emergent nature of social technologies. We examine each of these phenomena in the following sections and describe how they can support forms of participation important to the early design of social technologies in community settings; in particular, we consider how they can foster participation by the “future community” and can create space for the new design to be taken up within that community as part of people’s existing ecologies. We reflect on how these findings potentially reconfigure self-reporting to extend beyond a form of research data collection to become an opportunity for “PD in the wild;” we then consider the implications this transformation has for the role of methods such as Mobile Diaries.

### *Socializing the Research*

The focus on self-reporting as a research method is most often as a personal activity, where individual participants record, reflect, and share aspects of their lives with researchers, as a precursor to design. Although there are some existing studies that document self-reporting as a shared activity, these collaborations tend to include recruited participants and are orchestrated as formal parts of the research design.<sup>21</sup> In our use of Mobile Diaries, social aspects of the method emerged that were initiated and defined by the participants themselves. For example, for some participants, the creation of images and video and the review of uploaded materials on the “private” Mobile Diary blog became a shared process of reflection and play, in which other family members, friends, and peers were invited to participate. Participants reported back to us that the project and the method were often the subject of discussion, and at times the experiences of participation were shared across existing networks. For example, one participant described her Mobile Diary experiences on her MySpace page while another hoped to post “self-reporting” diary material to her MySpace profile.

The conditions for *socializing the research* demonstrated here are made possible by the capacity and expectations of sociability, distribution, and sharing inherent in social technologies. In using social technologies as tools for research, we appropriated not just the technologies but also the practices of sharing and communication they make possible.

Although this sharing raises some ethical questions to consider about confidentiality for the client organization and about the need for consent from “informal participants,” it also has important implications from a participatory perspective. For example, Merkel et al. suggest that in the context of community technologies, the role of designers goes beyond that of eliciting project requirements

21 For example, see research with “households” by Bill Gaver, Tony Dunne, and Elena Pacenti, “Design: Cultural Probes,” *Interactions* 6, no. 1(1999); research with “friendship groups” by Wendy March and Constance Fleuriot, “Girls, Technology, and Privacy: ‘Is My Mother Listening?’” in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (New York: ACM, 2006), 107-10; and research with ‘pairs’ by Minna Isomursu, Kari Kuutti, and Soili Väinämö, “Experience Clip: Method for User Participation and Evaluation of Mobile Concepts,” in *Proceedings of the 8th Participatory Design Conference: Interweaving Media, Materials and Practices* (New York: ACM, 2004), 83-92.

and includes finding ways to seed ownership.<sup>22</sup> We propose that the spontaneous inclusion of others in the process of self-reporting reflects a sense of control and ownership by participants over the research process, the design project, and the topic being investigated. Participants determined not just when and how documentation took place, but also with whom. We also propose the possibility that the process can be conceptualized as one of appropriation, prior to the creation of any code or system. Even without a finished artifact, the project is becoming “a public thing open for controversies.”<sup>23</sup> A sense of momentum and interest is being built around the project by the “future community” as its members engage with it and give it meaning in their everyday lives and with their surrounding networks.

Given the inherently social nature of social technologies, this outcome is relatively predictable. However, such outcomes are neither accounted for in current methods of self-reporting nor particularly supported by our current methodological infrastructures. This absence raises the question of how to better support and leverage this kind of community appropriation as a form of participation central to the design of social technologies.

#### *Bridging Existing and Future Practices*

For participants, accommodating the activities of self-reporting has always meant altering their daily practices to some extent. The intervention of self-documentation facilitates reflection and at times behavior change.<sup>24</sup> In our case, participating in Mobile Diaries involved experiences similar to those characterizing participation in community platforms. Participants made videos, sent picture messages, created mobile blog posts (mo-blogs), and commented on blog messages—all actions common to participation in social technologies. In many cases, participants were using these technologies for the first time, learning experientially about the technologies and the various forms of interaction they allow as they produced “self-reports.” Some participants said that, as a result of the study, they intended to buy camera phones or start mobile blogging. For others, the Mobile Diary experience helped them to articulate what had held them back from participating in online forums, including concerns with privacy and negative interactions with others online.

Such outcomes have a number of implications from a participatory perspective. Dearden and Light note that one of the emerging roles for designers working with community platforms is the up-skilling of community members.<sup>25</sup> Mobile Diaries became a playful and safe environment for participants to explore new technologies. By participating in the studies, participants had the opportunity to experiment and develop skills and knowledge relevant to participation in social technologies. In developing Mobile Diaries, participants negotiated, incorporated, and appropriated

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- 22 Cecelia Merkel, Lu Xiao, Umer Farooq, Craig H. Ganoë, Roderick Lee, John M. Carroll, and Mary Beth Rosson, “Participatory Design in Community Computing Contexts: Tales from the Field,” in *Proceedings of the 8th Participatory Design Conference: Interweaving Media, Materials and Practices* (New York: ACM, 2004), 1-10.
- 23 Pelle Ehn, “Participation in Design Things” in *Proceedings of the 10th Participatory Design Conference: Experiences and Challenge* (New York: ACM, 2008), 96.
- 24 See, e.g., Rebecca Grinter and Margery Eldridge, “Wan2tlk?: Everyday Text Messaging,” in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (New York: ACM, 2003), 441-48.
- 25 Andy Dearden and Ann Light, “Designing for E-Social Action: An Application Taxonomy,” paper presented at *DRS’08* (Sheffield, UK, 2008).

particular physical, social, and technical devices and practices into their daily lives, producing and sharing digital artifacts. Participants experienced something of how such technologies might take up physical, technical, and social residence in their lives.

Botero and Saad-Sulonen discuss how the use of “living prototypes” used during the Urban Mediator project created conditions not only for the development of the system but also for the practices that would make them viable.<sup>26</sup> We found that Mobile Diaries created a similar pathway. Self-reporting allowed participants to develop the skills necessary to participate in future designs, making this approach more viable because of the bridging of existing and future practices.

#### *Developing Seed Content*

In social technologies designed for community settings, contributors share stories, images, and experiences around topics relevant to them. The shape of the community platform evolves in response to these contributions from “community members.” The use of social technologies as self-reporting tools blurred the distinction between self-reporting and the production of user-generated content. At times, there was little difference between the material participants produced during the Mobile Diaries and what we would hope to see on the user-generated sites or platforms we envisioned designing, other than the framework under which it was produced. This overlap resulted both from the subject matter of the reports (i.e., personal images, stories, and videos about a particular topic of interest, told from the perspective of the participant), and from the tools and format through which the reports were produced (i.e., MMS, blog posts, and MPEG-4 video formats developed for communication, publishing, and distribution).

For example, Mobile Diary reports included content such as the tour of a rooftop garden, home cooking experiments, and demonstrations of strategies for reducing household waste. From a design research perspective, these reports told us something of participants’ motivations and interests around sustainability, but such personal stories were also ideal seed content for a future-planned community site around that same topic.

Social technologies are not about building a database and populating it with content. Rather, contributions by community members are the central, ever-evolving building blocks of design; they bring meaning to, and measure, the success of any scaffolds that we as designers might create. Content creation usually takes place after a system has been in some way formed and released to the public. The use of tools such as videos and camera phones early in the design research process meant that the creation of seed content could begin earlier, opening up the potential for the future

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26 Botero and Saad-Sulonen, “Co-Designing for New City–Citizen Interaction Possibilities,” 269.



platform's structure to emerge from the "bottom up."<sup>27</sup> Themes, navigation structures, and taxonomies thus can emerge out of the content, rather than being defined *a priori*.

The idea that material from self-reporting, usually a private endeavor, could potentially be put to more public uses raises a number of questions about privacy and consent and about how data collection is framed. It also offers potential new ways in which participants can actively influence and participate in design through activities related to use early in the design process. Managed appropriately, self-reporting studies can be used as sources of seed content, presenting an opportunity for future community members to contribute directly to the design of future platforms *through use*.

Such studies also are means through which ownership of the developing technology can be fostered. In reflecting on Context-mapping—a method that makes use of self-reporting—Rijn and Stappers state that when looking at final research reports, "users will automatically experience results with [their] personal expressions as their belongings."<sup>28</sup> Their research looks at fostering a sense of authorship among participants as contributors to the final reports that are created out of their research. We suggest that in the design of community platforms, the opportunity arises for the material to be taken up in the design itself. Inviting participants to take the role of author and contributor prior even to the development or specification of any particular platform creates the potential for a stronger personal connection between the design project and the participant.

### **Reconfiguring Self-Reporting to Support Design Through Use**

Socializing the research, bridging existing and future practices and developing seed content can all be understood as examples of participation and design *through use*. Using social technologies themselves as tools for research into future community platforms created the potential for roles and activities typically acted out in use (e.g., the appropriation of design as a public object or the development of user-generated content) to be brought into the early phases of design and research. Participants engaged in a concrete experience of the modes of interaction and self-expression that constitute participation in social technologies, enabling a form of "prototyping in the wild." The direct engagement of design through use provided opportunities through which people could actively shape, influence, and take ownership in the design. Embracing this potential extends the role of methods like Mobile Diaries beyond self-documentation, reconfiguring them as exploratory interventions "in the wild" and producing rudimentary prototypes and compositions of existing social software. This creativity has implications for how

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27 Twidale and Floyd, "Infrastructures from the Bottom-up and the Top-Down."

28 Helma van Rijn and Pieter Jan Stappers, "Expressions of Ownership: Motivating Users in a Co-Design Process," in *Proceedings of the 10th Participatory Design Conference: Experiences and Challenges* (New York: ACM, 2008), 179.

we conceive of the potential of self-reporting to support participation early in the design process and for the role of both designers and participants.

Our experiences have encouraged us to begin thinking of Mobile Diaries less as structured research studies with a finite beginning and end and more as pilot projects or “hybrid exploratory prototypes” that can make visible, and evolve in response to, existing energies and interests within the community. Mobile Diaries might be the starting point of engagement with the future community, so that rather than closing the projects down at the end of the “research phase,” the community and momentum created during the studies can evolve and keep growing. Rather than framing the Mobile Diaries as a constrained, separate and discrete research activity, they become an initial intervention that could lead the way into the next iteration or configuration. In practice, this perspective on Mobile Diaries includes adding, extending, or reconfiguring the Mobile Diary platform using existing technologies in response to participants’ feedback and use. For example, we might add menus or navigation systems that reflect the ways in which participants have begun to sort and manage self-reported material. Instead of working with the community to identify specifications for development of a new artifact or platform, the goal becomes identifying “near enough” existing tools that enable co-discovery and design *through use*. Finding ways to incorporate existing technologies that already serve a particular purpose (e.g., Flickr.com for photos or Delicious.com for bookmarks) becomes the starting point for experimentation and expansion of the existing platform. For designers the emphasis is on identifying how existing tools can be brought together in ways relevant to the specific community platform being developed and developing channels through which feedback from members of the community about their use and experiences of use can be understood.

Participatory Design has long conceptualized design research as going beyond data collection to becoming participatory action research.<sup>29</sup> The inherently participatory nature of social technologies makes this kind of proposition more viable: Where self-reporting once represented an opportunity for designers and researchers to conduct contextual research, it now presents an opportunity for future community members to participate in design through informed through experiences of use.

The examples of “prototyping in the wild,” given earlier in this paper, along with our more ad hoc experiences with self-reporting, suggest ways in which social technologies allow and prompt traditional design methods to be reconfigured to more readily engage design through use. The emergent and participatory nature of social technologies opens up new ways in which participants can have ownership and control over the design, as the shape of design

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29 See Pelle Ehn, *Work-Orientated Design of Computer Artifacts* (Stockholm: Arbetslivscentrum, 1988).

can emerge through their use. However, work still needs to be done to support these kinds of approaches in the commercial sectors in which we work. For instance, the blurring of boundaries between private and public participation and the shifting roles of participants require consideration. We have begun this process by including clauses in consent forms that cover the potential to negotiate more public use of material. Technically, we would also need the resources to evolve the platform from the initial “diary” state into its next, more public form. However, as we have seen, social technologies lend themselves to exactly this sort of recomposition and reconfigurability. The real challenge is how these more “causal and exploratory formats” become manageable in a commercial context.<sup>30</sup> Organizations need to be culturally and politically mature enough to take on such approaches and sufficiently resourced to support the level of engagement required. A key barrier identified in our research includes a common approach to design project infrastructure that assumes a linear development between research, design, and use.<sup>31</sup> Whether organizations have the capacity and maturity required to allow a more participant-led design approach is also questionable. Twidale and Floyd are at pains to point out that, although the malleable nature of technologies is what makes approaches such as Patchwork Prototyping possible, the appropriate values and attitudes must also be present in the organization to allow design to emerge through use.<sup>32</sup>

## Conclusion

In this paper, we have focused on opportunities to support participation in the design of social technologies, through use, in community settings. We have presented new opportunities for participation both demanded and enabled by social technologies themselves, and we have suggested potential implications for how we conceive of the early design of community platforms. We conclude by suggesting that such participatory approaches to the design of social technologies have a broader value. Commercial, government, and not-for-profit organizations increasingly are embracing social technologies as a way to support mass “participation.”<sup>33</sup> Although social technologies are “participatory” in that they require and rely on participant involvement to take their form, they are not exempt from important ethical issues. We might ask who, exactly, benefits from this participation and how can we, as designers, act to maximize the benefits to the participants while avoiding their possible harm and exploitation? If we take as our starting point Greenbaum and Madsen’s political perspective of Participatory Design—that people have the right to influence their own lives—then bringing a participatory approach to the design of such social technology systems is critical to ensuring that people have the ability to negotiate, control, and understand the implications of

30 Brereton and Buur, “New Challenges for Design Participation,” 111.

31 Penny Hagen and Toni Robertson, “Social Technologies: Challenges and Opportunities for Participation,” 7-8.

32 Ingbert Floyd and Michael Twidale, “Learning Design from Emergent Co-Design: Observed Practices and Future Directions” paper presented at *Design for Co-designers Workshop*, at the *10th Participatory Design Conference: Experiences and Challenges* (Bloomington, USA, October 1-4, 2008).

33 For example, see Hillay Cottam, “Participatory Systems: Moving Beyond 20th Century Institutions,” *Harvard International Review* 31, no. 4 (2010), 50-55.

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- 34 Greenbaum and Madsen, "PD: A Personal Statement," *Communications of the ACM. Special issue on graphical user interfaces: the next generation*, 36, no. 6 (1993): 47.
- 35 See Kurt Opsahl, "Facebook's Eroding Privacy Policy: A Timeline" [www.eff.org/deeplinks/2010/04/facebook-timeline](http://www.eff.org/deeplinks/2010/04/facebook-timeline) (accessed May 10 2010).
- 36 See Nicholas Carlson, "Warning: Google Buzz Has a Huge Privacy Flaw," [www.businessinsider.com/warning-google-buzz-has-a-huge-privacy-flaw-2010-2](http://www.businessinsider.com/warning-google-buzz-has-a-huge-privacy-flaw-2010-2) (accessed February 10, 2010).

participation as they evolve.<sup>34</sup> Ongoing issues with privacy, ownership, opting-out, and sharing of personal information by major social network providers such as Facebook can be seen as indicators of what can occur when full participation is not at the core of the development of participatory systems.<sup>35</sup> The risks are not limited to a failed website with no users. As the non-consensual exposure of private data in the case of Google Buzz showed, the use of these technologies can be dangerous to people's personal safety.<sup>36</sup> Participatory approaches sensitize us to the inherent politics involved in participation, and, as this paper has suggested, offer some starting points for how we might integrate a more participatory approach into the systems that are now a central part of how we interact, communicate, and construct our identities in daily life.