FEMINIST HCI FOR REAL: DESIGNING TECHNOLOGY IN SUPPORT OF A SOCIAL MOVEMENT

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FEMINIST HCI FOR REAL: DESIGNING TECHNOLOGY IN SUPPORT OF A SOCIAL MOVEMENT

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For the Hollaback activists and for those working to stop street harassment.

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LIST OF SYMBOLS OR ABBREVIATIONS

CSCW	Computer Supported Cooperative Work.
HCI	Human Computer Interaction.
ICTD	Information Communication Technologies for Development.
ICTs	Information Communication Technologies.
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer.
PD	Participatory Design.
SMO	Social Movement Organization.

SUMMARY

How are technologies are designed and used tactically by activists? As the HCI community starts to contend with social inequalities, there has been debate about how HCI researchers should address approach this type of research. However, there is little research examining practitioners such as social justice activists who confront social problems, and are using technology, such as mobile phones, blogging, and social media to do so. In this dissertation, I build on this knowledge within the context of a social movement organization working to stop street harassment (harassment towards women and minorities in public) called Hollaback (ihollaback.org). I position myself as an action researcher doing research and building technologies such as mobile apps and a blogging platform to collect stories of harassment and to support activists. The organization has collected over 3000 stories and represents 50 different locales in 17 countries. Through a series of studies, I examined how technology impacts the organization, activists, and those who contribute stories of harassment. I found evidence that the storytelling platform helps participants fundamentally shift their cognitive and emotional orientation towards their experience and informs what activists do on the ground. My results suggest that doing activism using technology can help remove some barriers to participation but can also lower expectations for the amount of work required. I also looked at how different social media tactics can increase the number of followers and how traditional media plays a role in these tactics. My work contributes theoretically to the HCI community by building on social movement theory, feminist HCI, and action research methodology. My investigation also sheds light empirically on how technology plays a role in a social movement organization, and how it impacts those who participate.

CHAPTER 1

INTRODUCTION

For a lot of women and LGBTQ (lesbian, gay, bi-sexual, transgendered and queer) people in the world, public space is something to be negotiated every day. Harassment such as threatening or lewd comments, stalking, groping, and even assault is a global reality that is often experienced daily on the streets. In 2005, a group of activists in New York City were tired of walking away from harassers which made them feel victimized and helpless; but they also knew that if they fought back, the situation could escalate. They decided to use a blog in order to share their stories of these experiences. This was a start of a movement to end what has come to be known as street harassment.

The field of Human Computer Interaction (HCI) is beginning to examine the role of technology in issues of social justice. Researchers in HCI have moved beyond workplace issues and have started to engage with social issues such as health, the environment, international development (ICTD), and the experiences of "marginal" users. Movements such as the Arab Spring and Occupy Wall Street, that have taken advantage of social media, have piqued interest within the HCI research community. But there is little work within HCI that examines activists that contend with issues of social justice, and are using information and communication technologies (ICTs) to do so. There is also debate in popular media about the extent to which technologies can assist in social movements. Gladwell states for instance that, "the revolution will not be tweeted," and polarized, polemical claims such as Gladwell's are typical of this discourse (Gladwell, 2010).

A recent contribution to HCI is Bardzell's Feminist HCI which offers strategies for

dealing with ethical issues while working in areas of social justice (Bardzell, 2010). As a tradition that strives to address various forms of oppression in a specifically activist stance, feminism offers a "natural ally to interaction design." That is, feminism is specifically about intervention and can offer insight into design that aims to change norms and practices. Similarly, action research also grapples with the role of the researcher outside of workplace settings, such as in social movements.

In this dissertation, I provide empirical evidence on how technology impacts activists. My goal is to enrich the conversation about activism and to add more nuance to the discussion of its relationship to technology. My work also builds on social movement theory, feminist HCI, and action research in the context of technologies and issues of social justice. I examine a feminist activist organization, Hollaback! that has explicitly built technology with a feminist and activist orientation. In addition to critiquing existing technology, I describe new technology that I created for the group and investigate the relationship between activism and feminist technology in practice. This orientation is inspired by the feminist anthology, *Feminism FOR REAL*, which explores what feminism looks like in action, outside of academia (Yee, 2011). In this work I adopt an emancipatory action research approach and am positioned both as a member inside the organization and as a researcher.

1.1 Hollaback! A Movement to End Street Harassment

Hollaback! is a social movement organization (SMO) to end street harassment. Street harassment is a new term to describe an old phenomenon of harassment in public. The positioning of this type of harassment builds on frameworks of workplace harassment, and more generally violence against women and LGBTQ groups. According to Hollaback, street harassment can be anything from verbal harassment to groping, stalking, flashing, and sexual assault. Hollaback started as a blog in New York City in 2005, that enabled the sharing of street harassment—both as a way to call





attention to this phenomenon, but also as a way to understand its boundaries and pervasiveness.

Access to and participation in public space is and has historically been limited to certain groups of people. That is, groups such as women and non-heterosexuals have had limited access to public spaces, such as sidewalks and public transportation. One example of such a limitation is the public harassment and assault towards women and LGBTQ people regularly face. Hollaback works to end this harassment and positions it within a broader spectrum of gender-based violence. Historically, access to public space is a "mechanism by which urban dwellers assert their right to participate in society" (Loukaitou-Sideris & Ehrenfeucht, 2009). Thus Hollaback! is also about reclaiming the right of women, non-whites, and LGBTQ individuals across the world to participate in their respective societies.

Hollaback is an organization that is part of the third wave feminist social movement. A social movement is defined by Sidney Tarrow as "collective challenges by people with common purposes and solidarity in sustained interactions with elites, opponents, and authorities" (Tarrow, 2011). Tarrow explicitly distinguishes social movements from political parties and advocacy groups, both of which tend to work within existing political systems.

Feminism as a social movement has had different "waves," or periods characterized by different issues and participant demographics. The first wave, in the early turn of the 20th century in the United States and United Kingdom, focused on officially mandated inequalities such as the denial of voting and property rights for white women. The second wave or Women's Liberation Movement, focused on the "problem with no name"—the rigid gender roles imposed on middle-class white women post World War II. The second wave also focused on issues arising from this problem, such as sexual violence and pay discrepancies. The third wave feminist movement is a continuation of the second wave, but differentiates itself by resisting other forms of oppression such as racism, homophobia/transphobia, classism, and ableism. The third wave has had to contend with similar issues of the second wave, such as sexual violence, due to the backlash movements of the 1980s (Faludi, 2006).

Thus, I position my work with Hollaback within the context of social movements and contentious collective action, or actions used by people who lack regular access to representative institutions, who act in the name of new or unaccepted claims, and who behave in ways that fundamentally challenge others or authorities (Tarrow, 2011). I wish to differentiate this kind of activism from civic participation or actions that work to reform established governmental and economic systems.

1.2 Researcher Positionality

Here I give an overview of how I became involved with Hollaback. I became familiar with how technology and violence against women can be intertwined in my study of residents in a domestic violence shelter (Dimond, Fiesler, & Bruckman, 2011). I recognized an opportunity to work with Hollaback, seeing the emancipatory nature of designing technology for a social movement, rather than examining technology as an impetus for violence. I started my work with Hollaback first as a volunteer.

Since my involvement with Hollaback starting in June 2010, I have been an action researcher (Reason & Bradbury, 2008) as a technology developer and have built many aspects of their infrastructure. That is, I work as both a researcher and member of Hollaback. I have implemented a network of sites by extending the Wordpress Multisite framework, and provided internationalization and support for local dialects. I also have developed two versions of the Hollaback Android app and assisted with the iPhone app. These apps are within the suite of technologies that Hollaback uses to collect stories of street harassment. All of these systems have been co-designed with input from core leaders and feedback from local Hollaback sites. I delve more into my position with respect to the organization in Chapter 3.

1.3 Research Framing

The overarching question that drives my participation in Hollaback is: "How does the Hollaback organization working and what are areas for improvement?" This question stems from an action research approach that both produces practical action and also contributes to a research community. My technical work with Hollaback serves both the organization and HCI research community.

For this dissertation, the driving question that relates to the HCI research community is: "What is the role of technology in a social movement organization?" As Herr and Anderson note, the dissertation writing process is typically not a collaborative process because the impact factor of the dissertation is less relevant to organizations outside of academia than with other types of publications (Herr & Anderson, 2005). Thus, my results here are positioned more for the academic community. In particular, the following research questions are directed towards contributions of interest to the HCI community.

1.3.1 RQ 1: What is the relationship between the Hollaback organization and the technology?

For this question, I look at how technology interacts with both the individual activists and the organization. I answer this question in Chapter 4 based on data collected through observation, participation, design, and interviews with Hollaback site leaders. Using qualitative analysis and activity theory, I explore how technology shapes attitudes towards activism, shapes the organization, and presents tensions between sustainability and local control.

1.3.2 RQ 2: What technological tactics do activists use in social media?

Due to the appropriation of technologies by activists, there is a question about how activists use social media in order to spread word about their cause, and how it affects on-the-ground efforts. Hollaback activists use a variety of social media such as Facebook, Twitter, online fundraising, and online petitions in order to advance their cause. For this question, I examine common Twitter tactics, and how they impact the size of the audience reached.

1.3.3 RQ 3: What is the role of storytelling using technology in a social movement organization?

For this question, I seek to understand how storytelling online affects both the individuals who share stories and how the activists who receive them. In particular, I use the social movement theory concept of framing to examine how technology can make a new kind of meaning making possible.

1.3.4 RQ 4: What are the opportunities and challenges for doing action research in a social movement organization as a technology developer?

This question is a reflective one that is based on my participation and ethnographic notes as a researcher and technical developer for Hollaback. I examine my experience with action research as a developer within the context of a social movement organization.

1.4 Overview of Dissertation

The remainder of this dissertation is as follows. In Chapter 2, I examine related work, including scholarship on street harassment, feminism and ICTs, social movement theory, and non-profit, community, and service design.

For Chapter 3, I discuss my theoretical underpinnings, describe action research, and give an overview of the methods I have used in this dissertation.

In Chapter 4, I address RQ1 and focus on the relationship of technology to the Hollaback organization and site leaders. I discuss the role of technology for individual activists, and tensions within the Hollaback organization.

In Chapter 5, I examine the use of social media within Hollaback, with a particular focus on Twitter. I address RQ2 using quantitative data analysis that analyzes how different Twitter tactics are correlated with an increase of followers.

In Chapter 6, I explore the impacts of storytelling online addressing RQ3. I report on semi-structured interviews with story contributors and site leaders.

In Chapter 7, I address RQ4 by situating my work within the Feminist HCI framework and discussing how action research can build on the value of participation. I then discuss opportunities and challenges for doing emancipatory action research and respond to questions of validity.

Finally, in Chapter 8, I review my research questions and reflect on how I have answered them. I then discuss the contributions of this work to the HCI community.

1.5 Contributions

Beyond the scope of the individual organization of Hollaback, my examination of the tactics and technology used help to illustrate the role of technology in doing activism online and offline. My broader claim is that technology plays a role in how the activity

of activism is conceptualized and performed, and also assists in drawing experiences together that otherwise would not be acknowledged.

My contributions are both theoretical and empirical. I build on social movement theory to explain how storytelling online can help to frame individual and organizational conceptions, and how this fundamentally challenges how social movement organizations frame issues. I also illustrate the use of action research to expand upon the value of participation in Feminist HCI and researcher participation in social justice issues within the HCI community. Empirically, I illustrate how technology is practically designed and used in a social movement organization, and how specific tactics are used in social media. I also show how the act of sharing stories online fundamentally changes emotional and cognitive orientations towards harassment experiences.

CHAPTER 2

RELATED WORK

As a field, HCI has moved out of its workplace origins and taken a cultural turn. New contexts of study include the home (Shehan & Edwards, 2007), cross-cultural investigations (G. Bell & Dourish, 2007), health (Mamykina, Mynatt, & Kaufman, 2006), emotion (Hudlicka, 2003), and play (Gaver et al., 2004). There have been efforts to understand the "marginalized", or neglected areas and subjects of study within HCI (Le Dantec et al., 2010). This shift has been a part of the third wave of HCI (Bødker, 2006).

Along with this shift, there has been an uptake in addressing social issues and advocating for social change using technology. For instance, there has been a recent focus on technical design for economic and human development in the "developing" world (Ho, Smyth, Kam, & Dearden, 2009). Other strands of research consider the role of technology in sustainability (DiSalvo, Sengers, & Brynjarsdóttir, 2010), and how technology can be positioned in times of natural disaster (Palen & Liu, 2007). There are more politically charged research areas in the areas of civic participation and engagement (Assogba, Ros, DiMicco, & McKeon, 2011a). However, there is very little work that considers social change outside of political structures and in the context of social movements. In this chapter, I first review the context (street harassment) for this work, and then examine prior work related to technology, feminism, and social movements.

2.1 Street Harassment

Street harassment is a common and pervasive problem. The term street harassment was first used in 1981 and is not a commonly recognized term (Leonardo, 1981)).

Although there are not conclusive statistics that represent the entire US or world, studies in Indiana, California, and Canada, indicate that as many as 80 percent of women face occasional harassment in public (Kearl, 2010).

Street harassment or public harassment is a "group of abuses, harryings, and annoyances characteristic of public places and uniquely facilitated by communication in public. [It] includes pinching, slapping, hittings, shouted remarks, vulgarity, insults, sly innuendo, ogling, and stalking." (Gardner, 1995) However, this definition and what exactly constitutes street harassment is still being negotiated. Gardner puts this harassment on a continuum of gender-based violence that can end in rape, assault, or murder (Gardner, 1995). However, the stories gathered from Hollaback also reveal that street harassment is intersectional or exists at the boundaries of class, race, gender representation, sexual orientation, and disability.

2.1.1 Theories of Street Harassment

Lenton et al. discuss three different arguments and potential explanations as to why street harassment happens (Lenton, Smith, Fox, & Morra, 1999). The social control argument states that sexual harassment is a way of controlling and policing gender representations and establishing male dominance. The social-structural argument places sexual harassment within the greater framework of an unequal power relation between men and women. Meanwhile, the socio-cultural perspective indicates that street harassment a means for gender roles to be enacted and maintained.

Class also plays into the way street harassment is talked about and managed. Research in Italy and San Francisco illustrates that women's denial of street harassment is a result of social class (Guano, 2007; Sewell, 2000). Specifically, by denying that street harassment exists, women deny their contact with people and places not appropriate for someone of their stature. That is, a respectable woman does not get street harassed because men of "lower" classes should not have access to them in order to do so.

Street harassment in some cultures also plays into a romanticized vision of courtship. For example in Argentina, harassment is referred to as "piropos" (Achugar, 2010). These comments made by men towards women help to construct women as passive and reactive recipients and men as active producers and initiators.

2.1.2 Impact of Street Harassment

There are some documented effects of street harassment. Research has illustrated that women change their route, dress, exercise locale (inside a gym vs outside), or transportation choice (driving instead of walking) to avoid harassment (Kearl, 2010). Street harassment policies "appropriate" gender representations and dress, as well as enforcing heterosexual relationships. Further, for women and LGBTQ people who have been assaulted or raped, street harassment can be triggering of that past trauma. Conversely, street harassment can also escalate into other forms of violence such as rape and assault (Kearl, 2010).

2.2 Feminism, Activism, and ICTs

Although there is no singular definition of feminism, current feminist activists who take up the word are usually concerned with ending oppression in various and generally intersecting forms such as sexism, classism, racism, ableism, homophobia, transphobia, and other forms of oppression resulting from culture, religion, and nationality. Although there is a history of the examination of gender within HCI, explicit conversations about feminism are just starting to inform generative design principles (Bardzell, 2010). However, feminist activists have long taken up ICTs as part of their toolkit.

2.2.1 Cyberfeminism and Feminism Online

In the 1980s and 1990s, technology was romanticized as utopian by some cyberfeminists as a way to escape gender oppression. Sadie Plant, in her influential book *Ones and Zeros* imagined, "the revolt of an emergent system of women and computers, against the world view and material reality of a patriarchy which seeks to subdue them" (Plant, 1997). Just as, "nobody on the Internet knows you're a dog," nor do they know you are a woman, she implied.

However, research has illustrated that it is difficult to escape gender online. For example, Herring showed that language online is gendered (Herring, 1996), and Haraway argues through her famous cyborg example that the body is connected to technology in intersecting ways (Haraway, 1991). Moreover, as third wave activists (e.g. (*Incite!Women of Color Against Violence*, n.d.)) focused on intersections of oppression that occurred both online and offline, the promise and idealization of the mind/body separation of the internet dissipated. Now, social media such as Facebook, Twitter, and blogging are part of how third wave feminist activists organize (Kennedy, 2007). Prominent examples of these blogs include the Crunk Feminist Collective (crunkfeministcollective.wordpress.com), a blogging collective that focuses on issues of gender and race; and Feministing (feministing.com), a blog directed towards young feminists.

In fact, such technologies have given rise to a new form of organizing known as transnational feminist networks. *Trans*national organizing is different from *inter*national organizing as it "suggests a conscious crossing of national borders and superseding nationalist orientations" (Moghadam, 2000). An example of this is the APC Women's Programme, a global network of women that focus on women's access and use of ICT's; their Take Back the Tech campaign examines violence against women and how technology is implicated therein.

2.2.2 Feminism and Design

Feminism in academia has existed as part of critical theory and is used, for example, to examine and critique the ways in which knowledge and technology are socially constructed. In HCI, there has been a move to use feminism to inspire generative design principles. Taking inspiration from Studies of Technology and Science (STS), Architecture, Industrial Design, as well as prior HCI papers that use feminist theory. Bardzell provides a HCI feminist framework in which to guide the design of feminist technologies. She states that there are six qualities to a feminist design, and that the constellation of these qualities make it a feminist technology (Bardzell, 2010). These qualities include pluralism, reflexivity, participation, advocacy, ecology, and self-disclosure. I situate my work and expand upon these qualities in Chapter 7.

2.3 Non-Profit, Community, and Service Design

Another strand of research that aligns with my work with Hollaback is the area of non-profit and community-based design and research. Technology in the context of corporate organizations has long been an area of research for Computer-Supported Cooperative Work (CSCW). More recently, organizational research in non-profits and government services have started to emerge. For example, Le Dantec's study of a non-profit that provides social services to the homeless suggests that technology can help constitute a "Deweyian public" between the homeless and the non-profit, in which people can come together around a shared problem (Le Dantec et al., 2010). Voida et al. examine the information complexities within non-profit organizations (Voida, Harmon, & Al-Ani, 2011), while Stoll et al. survey the informational exchange between such groups (Stoll, Edwards, & Mynatt, 2010). Others explore the way technology can assist in fundraising (Goecks, Voida, Voida, & Mynatt, 2008). In addition, Parker designed technology to help community organizations engage people with health issues (Parker et al., 2012). In the realm of design and HCI, there is work that seeks to use design to liaise between government service providers and citizens. The research emphasizes participatory processes and co-production because the services are often monopolies and do not have market pressures to be as usable or relevant. Projects in this area have striven to improve transit services (Yoo, Zimmerman, Steinfeld, & Tomasic, 2010), report problems with city parks and road infrastructure problems (Mathur et al., 2010), and to enable citizen science around environmental issues using mobile sensing (Aoki et al., 2009).

There is also work that seeks to use design as a vehicle for community engagement. DiSalvo's work in neighborhoods uses technology design as a way to create a public community around social and environmental issues (DiSalvo, 2009). Similarly, citizen and street science (Corburn, 2005) are also ways in which research and design can engage citizens in research about their communities. One such citizen science project design explored air quality sensors (Kuznetsov, Davis, Cheung, & Paulos, 2011). There is much less work, however that positions such community engagement within broader social movements.

2.4 ICTs and Social Movements

In HCI, there is research in the area of collective action—a broader term for activism that includes the spectrum of political engagement such as, civic participation (Assogba et al., 2011a), community engagement (as described previously), and humanitarian action, such as responses to natural disasters or crisis informatics (Palen, Vieweg, Liu, & Hughes, 2009). However, there is much less research specifically focused on social movements in HCI.

The study of social movements, from feminism to the civil rights, is an area of research in sociology that examines "organized collective contentious activity that usually happens outside of political structures" (Snow, Soule, & Kriesi, 2004). There are three concepts that are prevalent within this field (McAdam, McCarthy, & Zald, 1996): mobilizing structures, opportunity structures, and framing processes. These concepts will help to explain the strategies of Hollaback and build on work done before it. I now define each of these concepts as they relate to ICTs.

2.4.1 Mobilizing Structures

Mobilizing structures are formal and informal networks, groups, and organizational vehicles that movements use to recruit participants and organize action campaigns (McAdam et al., 1996). These structures also include tactical repertoires—forms and types of protest activities with which activists are familiar and know how to implement. People are more likely to participate when there is a formalized organization and recognized types of protests.

According to Garrett, ICTs present a new way to mobilize people by creating a collective identity (Garrett, 2006). One example of how ICTs can be used in this space is Voz Mob, a text message blogging platform that gives a voice to immigrant communities, who may not have regular access to smart phones or computers (Bar et al., n.d.). Another example is Turkopticon which allows for Mechanical Turk workers to hold employers accountable and to organize around worker's issues with the crowd sourced digital work industry (Silberman, Ross, Irani, & Tomlinson, 2010). In 1994, the Zapatista movement in Mexico used the Internet to build a transnational solidarity network (Gelsomino, 2010). More recently, the Arab Spring and Occupy movements have also used social media such as blogs and social network sites to mobilize and to cultivate a collective voice (Starbird & Palen, 2012; Tufekci & Wilson, 2012).

Contestational design also deserves mention here (Hirsch, 2007). Contestational designers are described as political activists and their design approach differs from designers in industry (Hirsch, 2009). "While mainstream design emphasizes workplace productivity and consumer experience, activist innovation is generally concerned with

personal empowerment, collective action, and non-hierarchical organizational models" (Hirsch, 2009). However, in this work the designer is often positioned as a sole artist and professionalized designer, and not as a participant within a broader social movement. An exception to this work that places the design within the social movement of immigration rights is the Transborder Immigrant Tool, a system that helps people to find an aid site and other navigational information in crossing the US-Mexico border (Cardenas, Carroll, Dominguez, & Stalbaum, 2009).

ICTs present a new way of organizing traditional contentious activities such as protests, but also give rise to a distinctly new breed of contentious activities, such as "hacktivism" (Bonneau, 2010). Examples of this include hacking and denial of service attacks on websites and the distribution of leaked information. Wikileaks, Anonymous, and the Occupy Movement have all employed these tactics (Coleman, 2011).

2.4.2 Opportunity Structures

Opportunity structures are resources and social climates that social movements can take advantage of (McAdam et al., 1996). Technology can help gauge particular moods and climates. There is much work in this space outside of social movements natural disasters and the stock market are two applications of this area (Gilbert & Karahalios, 2010). For example, mobile text messaging donation campaigns following natural disasters take advantage of both technology and the emotions immediately surrounding the event, as in the case of the Haiti earthquake and Japanese Tsunami (Shklovski, Palen, & Sutton, 2008).

Resources such as ICTs can also be examined to look at the diffusion of information within the context of social movements. Meier examined whether the diffusion of ICTs predicted anti-government protests. His results suggest that ICTs do empower resistance movements, but possibly less so in regimes with high levels of access to technology (Stodden & Meier, 2009). There are also many large scale studies that examine how information propagates through social networks such as Twitter, but fewer such as Romero et al., apply their analysis to specific contexts where the results could suggest effective tactics, particularly for social justice activists (Romero, Meeder, & Kleinberg, 2011; Diakopoulos & Shamma, 2010).

2.4.3 Framing Processes

Framing processes entail persuading people about the values and the goals of a movement such that people then can develop a willingness to participate. The concept of a frame is derived from Goffman who defined it as a "schema of interpretation" that enables people to "to locate, perceive, identify, and label" experiences they have within the experiences of society (Goffman, 1974). There is some work in this area within HCI, but not within a social movement paradigm (Grimes' work on food and communities (Grimes & Harper, 2008).) One example of feminist activism in this vein is blogging and storytelling around digital violence, exemplified by the Take Back the Tech campaign (Newsom, Cassara, & Lengel, 2011). I use the concept of framing to look at the role of storytelling in Hollaback in Chapter 6.

In CSCW and HCI, storytelling is used as a method to inform design (Erickson, 1996). This technique has been used in different contexts such as international development (Bidwell, Reitmaier, Marsden, & Hansen, 2010). Some of these applications have been inspired by "digital storytelling," a particular technique and kind of storytelling that uses video (Meadows, 2003). Storytelling technologies have been used in the area of education to increase motivation, teach programming (Kelleher & Pausch, 2007), and more generally, in the classroom (Di Blas, Garzotto, Paolini, & Sabiescu, 2009). Technology has also been designed to support personal storytelling in applications such as creativity and personal narrative (Landry & Guzdial, 2006) as well as health (Grimes, Bednar, Bolter, & Grinter, 2008). However, there is little research concerning storytelling in the context of social movements. This is where I position my work.

CHAPTER 3

METHODS

In my dissertation, I have approached research via several intellectual traditions. In this chapter, I give an overview of these approaches and delve into detail within subsequent chapters. Liberation sociology and feminist methodologies help to define the underlying epistemology, methodologies, and methods for carrying out my research. By methodology, I refer to the way a given epistemology is carried out through specific methods. As Bardzell and Bardzell state, a methodology is the "glue that ties together our epistemologies and our methods: they help us choose which methods to use, and they become our tacit or explicit rationale for doing so" (Bardzell & Bardzell, 2011).

The epistemology that underpins feminist methodologies is informed by standpoint theory—the idea that all knowledge is located within a particular social and physical place (Harding, 1993; Collins, 2000). This is in contrast to a positivist view which holds that knowledge is neutral and is positioned as a "view from nowhere" (Harding, 1993). Harding states, "the grounds for knowledge are fully saturated with history and social life rather than abstracted from it" (Harding, 1993). Standpoint theory requires research activities to focus on the marginalized who have traditionally been left out of the production of knowledge. In doing so, Harding argues that we can start to achieve "strong objectivity", a more complete understanding of the world (Harding, 1993).

The fact that my research topic focuses on young women and LGBTQ people, a historically marginalized population, is rooted in feminist methodology. In addition, the way that my research and participation helps to work against oppression *and* to further knowledge in HCI and social movements is guided by a commitment to scientific and moral objectives. This stance is informed by both emancipatory action research and feminist methodologies.

My work also draws from the field of studies of technology and science (STS) and from socio-technical theories, that bring into high relief how social and technical worlds are intertwined and mutually shaping (Bauchspies, Croissant, & Restivo, 2006). This situates my work outside of sociology proper due to the added focus on the technology and the design process. In particular, I am influenced by activity theory, Winner's assertion that artifacts have politics, Star's ecologies of infrastructure, and Bijker's social shaping of technology theory (Nardi, 1996; Winner, 2000; Bijker, Hughes, & Pinch, 1987; Star & Ruhleder, 1994).

A tradition that also applies to my work is liberation sociology, a sub-discipline of sociology that includes methodologies from feminism, critical race theory, emancipatory action research, and Frankfurt school traditions (Feagin & Vera, 2001). At the heart of liberation sociology is the acknowledgement of social oppression and the construction of research activities in ways that work against those oppressions. The emancipatory action research methodology can be applied to many disciplines and my activist approach to research is informed by action research (Hinchey, 2008). Next, I describe the effect of borrowing from these different theories and disciplines.

3.1 Theoretical Reflection

My work appropriates theories, frameworks, and approaches from many different disciplines. Here I will reflect upon my decisions to adopt theories from these different fields and describe the context of their uses.

I think that HCI has a unique opportunity to put theories into action because of its tradition of intervention—many fields have not historically taken nor would agree with this approach. Additionally, HCI has just started to engage with issues of social oppression. By social oppression, I refer to systemic inequalities and domination suffered by particular groups of people (Young, 2009). My working definition of the different types of oppression is most informed by Mia Mingus, Andrea Lee Smith, Chandra Mohanty, Patricia Hill Collins, bell hooks, Michel Foucault, Judith Butler, Anne Fausto-Sterling, the Crunk Feminist Collective, the Incite Women of Color Against Violence collective, and Jessica Yee to name a few. This definition includes but is not limited to oppression resulting from systems of racism, patriarchy, colonialism, orientalism, capitalism, ableism, nationalism, homophobia, and transphobia. I argue that in order for researchers in HCI to address issues of social oppression in their research, they must first engage with an understanding of it in order to minimize harm. This is a big undertaking, and through out my work I have struggled in trying to understand and incorporate these different understandings of oppression. As evidenced through issues of representation experienced by Hollaback, there is more work to be done.

I also use theories from HCI such as activity theory. This theory emphasizes the socio-technical relationship but does not necessarily engage with social oppression or a closeness to the object of study. Thus, my approach in using activity theory pushes the boundaries of its use in HCI because of my focus on social oppression and a closeness to my object of study.

By contrast, in sociology it is fairly common to undertake issues of social oppression, though it is less common for the researcher to be a member of the group under study. Another difference with my approach is the emphasis on the socio-technical system and technical design due to my position within HCI.

Feminism as practiced in academia has a complex relationship with activism. Although there are many examples of activist scholars (such as Andrea Lee Smith and the Crunk Feminist Collective), as a field, feminism has been critiqued as distancing itself from action (Yee, 2011). Thus, my approach as an activist scholar provides a needed example of how academic feminism can be practiced.

Action research also does not require a focus on social oppression. Thus there is a need to distinguish different types of action research as emancipatory or feminist. I further distinguish my use of the theory from traditional approaches of participatory action research by focusing on the technical design and socio-technical relationship. I describe action research and its different strands.

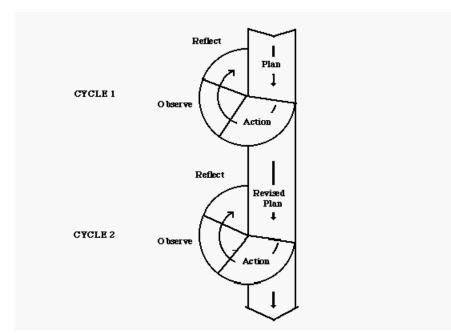
3.2 Overview of Action Research

Action research or participatory action research is an "orientation of inquiry that seeks to create participative communities of inquiry" (Reason & Bradbury, 2008). Rather than separate the researcher from the subjects of study, action research is a practice of participation that starts from working *with* others towards change, rather than changing others "*out there*". Although there are many definitions of what exactly constitutes action research, there are four major themes: empowerment of participants, acquisition of knowledge, collaboration through participation, and social change (Masters, 1995; Herr & Anderson, 2005).

Action research projects also typically engage in systemic cycles: from action phases, where members can try out new methods and techniques, to reflection phases, where members can then try to make sense of data to inform new action phases (Kemmis & McTaggart, 1988).

Within HCI, the explicit use of action research is new. Hayes argues that there are many methods and issues within action research that are familiar to HCI researchers, such as fieldwork and iterative design (Hayes, 2011). But there are also some differences: for example, in action research, the researcher is often positioned as a "friendly outsider." Research questions and interventions are also co-constructed with members of a community or group with which the researcher is working.

Figure 2: Action Research Phases



However, there are different knowledge goals of action research that can disrupt the role of the researcher as a "friendly outsider." Emancipatory action research is one example. My research constitutes this specific kind of action research along with methods from feminist HCI. I now summarize the different knowledge goals of action research including scientific-technical, pragmatic, and emancipatory action research (Masters, 1995; Hinchey, 2008; Herr & Anderson, 2005). These different knowledge goals are based on the work of Habermas who pointed out that knowledge and human interests were inseparable (Habermas, 1971).

3.2.1 Scientific-Technical

The scientific-technical thread of action research is based on the work of Lewin as a means of scientific problem solving in a positivist paradigm (Masters, 1995; Hinchey, 2008). That is, the goal of the researcher is to test an intervention "out in the wild" based on a pre-defined theory. Participants then collaborate with the researcher, offering technical and facilitation skills. This approach to action research results in the accumulation of predictive knowledge and validation and refinement of existing theories. This type of action research is also used in organizations to enhance a technical skill or managerial practice.

3.2.2 Practical/Pragmatic

In addition to improving a specific technical practice or skill, practical action research also aims at expanding participants' knowledge and increasing participation in society. This type of approach is based in Dewey's pragmatism, and applications of this kind of work are often seen in organizational and educational settings. The researcher's role is that of a friendly outsider, whose goal is Socratic and who facilitates reflection and knowledge building. Researchers and practitioners come together and co-construct research questions and action. The knowledge interests in this case are to illuminate the understandings of participants and can be considered to belong under the interpretative paradigm (Herr & Anderson, 2005).

Pragmatic action research is the type of action research described by Hayes (Hayes, 2011). As she notes in HCI, participatory design (PD) methods come close to action research, but do not necessarily co-construct the research questions with participants nor do implement an "action" phase. Still, pragmatic action research does not work towards social change or engage with the reconstruction of existing institutions or power structures.

3.2.3 Emancipatory

In contrast to the pragmatic, emancipatory or liberation action research has its roots in radical social movements of Marxism, anarchism, feminism, anti-racism, environmentalism, and liberationist movements in Latin America (e.g. (Freire, 2011).) In addition to co-constructed research and action, this approach also works towards ending intersecting layers of oppression such as racism, sexism, and classism, and to unravel dominant epistemologies and structures.

Emancipatory action research differs from critical and postmodern ethnography and anthropology mainly in the position of the researcher and the type of action called for. Critical ethnographers speak to an audience on behalf of their subjects as a means of empowering them and giving more authority to the subjects' voice (Thomas, 1993; Madison, 2011). That is, "Conventional ethnographers study culture for the purpose of describing it; critical ethnographers do so to change it" (Thomas, 1993). Critical ethnography is also in contrast to postmodern ethnography that focuses on changing ways of thinking rather than doing or calling for action based on these changes (Thomas, 1993). In contrast to both critical and postmodern ethnographers, emancipatory action researchers seek to dissipate the power dynamic between the researcher and subject. Also, emancipatory action researchers engage in implementing actions beyond the construction of knowledge—they actively participate in the community with which they are situated. Liberation sociology is a research agenda that employs action research to doing research and is very similar to emancipatory action research in terms of its goals; but it is positioned within sociology whereas emancipatory action research can be applied to different questions (Feagin & Vera, 2001).

Not surprisingly, there is a dearth of this kind of work in HCI. One exception is Turkopticon, a system for Mechanical Turk workers to hold employers accountable and to organize around issues unique to crowd sourced digital work (Silberman et al., 2010). The technology helps to fundamentally challenge the way that Mechanical Turk is used by empowering workers. The Liberation Technology center at Stanford uses the liberation terminology, but has focuses on international development and economic development "over there" which maintains existing structures oppression.

3.2.4 Spectrum of Researcher Participation

There are also different ways that the researcher can participate in the generation of knowledge and action. Herr and Anderson have identified a spectrum of action researcher participation, from insider to outsider (shown from 1 (insider) to 5 (outsider) in Table 1) (Herr & Anderson, 2005). In my work, I am mostly positioned as an insider in collaboration with other insiders at Hollaback (number 2). It is no surprise, given Hollaback's feminist orientation, that the tradition in which I do this work is grounded in feminist social science as noted in the table. However, I do contribute to the HCI community and at times shift into a reciprocal collaboration when I examine and critique research participation through the publication of this dissertation. However, as Herr and Anderson note, this is typical of action research dissertations to exhibit more distance during the writing phase (Herr & Anderson, 2005).

3.3 Overview of Methods

Action research does not prescribe particular methods, but rather gives an approach to participating and doing research as well as making clear the objectives of such work. Here I describe the specific methods that I have used in this dissertation including qualitative, quantitative, and design methods. Feminist methodologies do not strictly call for the exclusive use of qualitative methods, but historically tend to favor them. Bardzell points to opportunities for building on quantitative methods for feminist methodologies. Here I provide an overview of these methods while I delve into detail in subsequent chapters.

3.3.1 Design Methods

Within HCI communities there has been recent growth in value sensitive design (Friedman, 1996) and participatory design methods (Muller, 2009). This work has made much progress towards the inclusion of historically marginalized voices in design. However, these methods do not always reflect the position of the researcher with respect to the project. That is, participatory design practices may engage individuals

Positionality of Researcher	Contributes to:	Traditions
1. Insider (researcher stud-	Knowledge base, Im-	Practitioner research, Au-
ies own self/practice)	proved/critiqued practice,	tobiography, Narrative re-
	Self/professional transfor-	search, self-study
	mation	
2. Insider in collaboration	Knowledge base, Im-	Feminist consciousness rais-
with other insiders	proved/critiqued practice,	ing groups, Inquiry/Study
	Professional/organizational	groups, Teams
	transformation	
3. Insider(s) in collabora-	Knowledge base, Im-	Inquiry/Study groups
tion with outsider(s)	proved/critiqued practice,	
	Professional/organizational	
	transformation	
4. Reciprocal collaboration	Knowledge base, Im-	Collaborative forms of par-
(insider-outsider teams)	proved/critiqued practice,	ticipatory action research
	Professional/organizational	that achieve equitable
	transformation	power relations
5. Outsider(s) in collabora-	Knowledge base, Im-	Mainstream change agency:
tion with insider(s)	proved/critiqued practice,	consultancies, industrial
	Organizational develop-	democracy, organizational
	ment/transformation	learning; Community
		empowerment
6. Outsider(s) studies in-	Knowledge base,	University-based academic
sider(s)	University-based aca-	research on action research
	demic research on action	methods or action research
	research methods or action	projects
	research projects	

 Table 1: Continuum of Action Researcher Positionality (Herr and Anderson, 2005)

with the design process, but often, those very same people do not decide the origins of the project or have complete ownership of it. Participatory design is often in conflict with various "stakeholders" within a power structure even if the purpose is to create a community.

The origins of participatory design are in Scandinavia's traditions of union involvement in workplace decision making, where the power difference being addressed was between the union and the management (Muller, 2009). In current practice, this power difference is often between those who are being researched and the researchers. The researcher's role is often reflective of a pragmatic paradigm—that of a friendly outsider whose goal is Socratic and facilitates the design process. However, a distinguishing feature of my approach is the way in which the researcher is situated with respect to the design process. This approach is informed by emancipatory action research. That is, I have been involved as a design participant, rather than as a facilitator. I describe the details of my involvement and design process in Chapter 4.

3.3.2 Qualitative Methods

In Chapters 4 and 6, I use ethnographically inspired methods and action research to collect data. These methods include observation, researcher participation, coconstruction of research questions, and semi-structured interviews.

3.3.2.1 Data Collection

Through my participation as an action researcher, I was privy to experiences and interactions with site leaders and the Hollaback leadership on an almost daily basis. I participated as an activist and researcher from June 2010 and my participation is currently ongoing. Through my participation as an authentic member of Hollaback, I was able to record events and observations consisting mostly of digital interactions through social media, email, video-conference, phone, and instant message. In addition, I spent one week with Emily May, one of the leaders of Hollaback, in October of 2011 attending conferences in Portland and Atlanta. In Chapter 4, I discuss in more detail the way I collected data. I delve more into the action research approach in Chapter 7.

I also used semi-structured interviews based on an interview guides based on methods from (Seidman, 2006). These interview guides were a result of a co-construction of research questions between the Hollaback leadership and me. This way, the data collected served both research and practical needs of the organization to further participation, awareness, and funding.

3.3.2.2 Data Analysis

The interpretation and selection of data in this dissertation is positioned more for the HCI research community, while the practical findings were communicated and implemented directly in the Hollaback organization. For example, we learned from site leader interviews that the email listserv was not working, and as a result the Hollaback organization tried a Facebook group. Thus, the analytic paradigm I use for the qualitative data in this dissertation is an interpretivist one, but also features feedback and input from Hollaback (Bernard, 2011). The findings communicated to Hollaback are positioned within an emancipatory action research paradigm (discussed in more detail in Chapter 7.)

My approach to the analysis of the data involved iterative coding of the data collected from observations, participation, and semi-structured interviews. I did this by myself in Chapter 4 and with another researcher in Chapter 6. I used these codes to develop themes using both inductive and deductive approach where I first open coded, and then later consulted related theory to inform themes (Miles & Huberman, 1984). This approach is informed from grounded theory and other qualitative analysis methods (Bernard, 2011; Glaser & Strauss, 1967; Miles & Huberman, 1984). However, in contrast to grounded theory, I do not attempt to make a new theory but use my

findings to expand upon other design frameworks (Feminist HCI) and theories (social movement theory.)

3.3.3 Quantitative Analysis of Social Media Data

In Chapter V, I used a quantitative approach to analyze data on social media tactics using statistical methods. Specifically, I have collected usage data on social networks over time and analyzed using statistical regression. I use these methods to study the effectiveness of different tactics used in activist usages of social media.

3.4 Researcher Self-Disclosure

Researcher self-disclosure is a method used in feminist methodology and action research. According to Bardzell, researcher or practitioner self-disclosure is a discussion of "the researcher's position in the world, her or his goals, as well as the researcher's position in her or his intellectual and, to an appropriate extent, political beliefs" (Bardzell & Bardzell, 2011) Here I share my position, values, and political beliefs, and discuss how they do or do not align with members of Hollaback. The intent of this disclosure, based on standpoint theory, helps to describe how the researcher is situated and how this also situates the knowledge produced.

I share many values and experiences with most site leaders and members of Hollaback. I am a white, Western, able-bodied, middle-class, 20-something, heterosexual, cis-gendered woman whose experience reflects a majority of the Hollaback site leaders. By cis-gendered, I refer to the privilege that individuals have when there is a match between the gender they were assigned at birth, their bodies, and their personal identity; this is in contrast to transgendered people who face oppression based on this mismatch. I also identify as a feminist similar to other Hollaback site leaders. I have often experienced street and workplace harassment many times. I have been groped, stalked, cat-called, and flashed many times and this regularly affects my choice of transportation. I have used the Atlanta Hollaback to report two of these incidents. My political values, on the whole, are also similar to other Hollabackers, in terms how we are positioned on the left-end of the political spectrum. I am friends with many of the site leaders. However, I do differ slightly from the leaders of Hollaback at times as I am uneasy about the hierarchy of Hollaback. That said, I do also understand that the first version of Hollaback in the past was not working (I discuss this in Chapter 4.) I feel that I bring the value of horizontal organizing to the group and at times, I do speak up around this belief. I use this value to help spread technical power and promote decentralized control over individual sites. Yet, I am also busy with doing research activities and cannot get as involved as I would like in implementing these ideals.

I first approached Hollaback because I wanted to volunteer. Early on in this process, I also recognized that this work could be appropriate for my research because of its relevance to HCI. Thus my continued commitment to Hollaback is both from an activist and researcher standpoint. After I complete my dissertation work, I will continue to work with Hollaback.

CHAPTER 4

BUILDING AN INTERNATIONAL FEMINIST COMMUNITY OF PRACTICE

For this chapter of the dissertation, I look at the history of Hollaback and its organizational model. I look to answer *RQ1: What is the relationship between the Hollaback organization and its technology?* Historically, HCI and CSCW have examined how technology impacts the workplace but there is little work within HCI that looks at social movement organizations and how technology shapes those organizations and individual activists. I study the relationship between a more decentralized model and how technology impacts the way the organization works. Specifically, I trace the role of technology within Hollaback and how it has helped to create an international organization.

I also examine in depth three local sites in Buenos Aires, Atlanta, and Edmonton, Alberta. I use activity theory as a lens to frame my findings and to highlight the relationship between the tools, individuals, and organization. These findings point to challenges and opportunities for technological design to support a more decentralized social movement organization that functions both on and offline. As I illustrate, there are tensions within this model, but the technology helps to enforce local action and shapes how Hollaback site leaders conceptualize activism.. My findings also suggest opportunities for design to support emotional ties.

4.1 Methods

4.1.1 Data Collection

For data collection, I used a mixed methods approach that includes participant observation, interviews, and researcher participation. With respect to observations, I worked daily with the organization starting in June of 2010. Formal documentation of these observations started after IRB approval in September 2010 and is ongoing.

With respect to the field notes, I followed methods from Emerson et al. (Emerson, Fretz, & Shaw, 1995). When events happened during the week, I wrote down quick notes and then later expanded upon them. In addition to these notes, I also took a historical approach and used the timeline of my participation and the history of the organization to recall the more general experience and facts that the jottings did not capture (Emerson et al., 1995).

With respect to interviews, along with two summer interns (Alex Alston and Amalia Sirica) from Hollaback, I conducted semi-structured interviews with 13 of the Hollaback site leaders. I also attended a conference with Emily May, one of the founders of Hollaback, where I was able to gather a more detailed account of the history of Hollaback. The interview questions were co-constructed with the Hollaback leaders to understand how the organization could be improved and to gain general feedback on the organizational structure, technology, and potential areas for support. We asked questions such as what the leaders were doing, what they needed help with, and the relationship they had with the technology. The interview guide can be found in Appendix I. I followed up via email with the site leaders to ask additional questions to get more information about the level of support they received and needed.

In addition, I used case study methods in order to focus in on three different sites: Atlanta, Buenos Aires, and Edmonton, Alberta. Case studies are used to answer "how" and "why" questions, and are an intensive analysis or description of an individual unit (such as a local Hollaback organization) (Yin, 2009). Yin states, "In brief, the case study method is used to retain the holistic and meaningful characteristics of real-life events—such as individual life cycles, small group behavior, organizational and managerial processes, neighborhood change, school performance, international relations, and the maturation of industries" (Yin, 2009). I use this method in order to complement the data I collected from site leader interviews which gave a higher level overview of their individual experience. The case studies provide a richer description of the issues and realities of a local site's experiences.

I chose these three sites for different reasons. First, I wanted to illustrate a successful organization, which is why I chose Buenos Aires. Secondly, I chose Atlanta because of my experience with it and the opportunity to understand the lifecycle of an organization up close. I also chose this one because it represents an organization in which all of the original founders later quit. Third, I chose Alberta because it represents a more typical branch in terms of the frequency of events. To collect this data, I emailed Buenos Aires and Alberta site leaders for additional questions and focused on the events that happened within their local sites. I then sent drafts of this chapter to them for further clarification and feedback.

4.1.2 Data Analysis

Interviews were transcribed by the two Hollaback summer interns and me. I conducted an inductive qualitative analysis on my data of interviews and field notes. I first inductively coded the data and grouped together emergent themes (Miles & Huberman, 1984). These themes were also informed by theories of legitimate peripheral participation (Lave & Wenger, 1991) and activity theory (Nardi, 1996). For the discussion, I specifically use the activity theory framework to organize and bring data into high relief—this technique is more informed by Strauss (Corbin & Strauss, 2008). I then shared the chapter with the Hollaback leader Emily May, and site leaders Daphne Larose, Inti Maria Tidball, Crystal Rogers, and Lauren Alston for comments on the chapter. I incorporated their feedback into this chapter. My advisor Amy Bruckman also gave me feedback as she has more distance from the project and is not a member of Hollaback.

4.2 History of Hollaback

In 2005, a group of friends (four women and three men) in their early 20s in New York City were sitting at a bar. The women were exchanging their countless experiences of being harassed on the street. Their stories contained everything from groping and stalking to catcalls and even assault. Samuel Carter, one of the young men, stated that "you live in a different city than we do." They wanted to do something about it and were inspired by the recent story and actions of Thao Nyguen.

In the summer of 2005, Thao Nygen used her cell phone to photograph a man who was masturbating on a subway in front of her. She brought the photo to the police, but they refused to do anything about it. Next, she posted the picture on Flickr and an online community bulletin board, and the photo went viral. The New York Post made it their front page story and the man was arrested.

Inspired by this technological method, the group of friends created a blog and a collective called Hollaback! to which people could submit their stories and photos. The term "Hollaback!" means "to respond to." The original tagline of Hollaback was "If you can't slap em, snap em." Technology was from the beginning a necessary tool for calling attention to this unnamed phenomena now referred to as street harassment.

The collective of activists in New York made decisions by consensus and each had different roles. Their activism was also not solely online as they still engaged actively with traditional media and held face-to-face events to raise awareness. Within just a few months of the creation of the blog, stories began to arrive from outside of the US. Clearly, this was a global phenomenon and touched upon an issue that had not been widely addressed before. Some allies of the project recommended that Hollaback become a Craigslist of street harassment where sites would be organized by geographic locale. However, the Hollaback collective knew that what made them successful was having a local presence—they knew that they could not speak for everyone around the world. Instead, they assembled a startup packet to help those who wanted to a Hollaback in their city. As a result, 20 different local Hollaback branches launched their own blogs and groups.

All of these branches had different branding and approaches, and it was hard to recognize that they were fighting for the same thing. Additionally, a listserv was created for the groups but no one used it. There was no community amongst the branches and no support. Of these 20 original branches, only three remained active in 2010: London, Israel, and Washington, DC. The activist collective in New York did not have enough resources to both sustain their activities locally and help maintain a larger international movement.

Emily May, one of the activists in the NYC collective, decided that she wanted to devote more time making Hollaback international. After saving some money, she quit her job at a non-profit and decided that she would take on Hollaback full-time. When asked why she decided to do this, she said she felt that she had a responsibility to do so.

" I had a responsibility to step it up – a responsibility to all those people who submitted stories over the years. A responsibility to all the young people who hadn't been street harassed yet, but would be. It didn't feel like a choice. I had to do it." – Emily May

4.2.1 My Involvement

In the winter of 2010, I was working on a study of the implications of technology for intimate partner violence. I saw how technology was used as a tool for abusers to stalk and threaten their partners, but also how partners used technology as an act of resistance by empowering themselves to find jobs and connecting with friends and family (Dimond et al., 2011; Massimi, Dimond, & Le Dantec, 2012). Women were afraid that mobile phones and social networking sites could be used to track them, but they devised work arounds enabling them to continue using the technology. They changed their phone numbers, used pseudonyms, and developed social tactics in order to avoid contact with their abusers. Inspired by the resilience of these women and their ability to appropriate technology, I wanted to look at ways to further empower people against violence in my research.

However, there wasn't a clear path to do this within the domestic violence shelter system. Shelters are steeped in process and bureaucracy as many have noted (Le Dantec & Edwards, 2008). In addition, the women who ended up in the shelter were not there just because of violent partners, but also because they lacked the resources and support to go anywhere else. The issues at the shelter were not just based on partner violence, but were a culmination of issues at the intersection of class, race, and gender. Domestic violence shelters provide a needed service, but they are not necessarily committed to social change.

Via a social network, I saw that an organization called Hollaback was in need of volunteers to help develop technology. They were a group of activists working to end violence in the street. Instead of providing a social service, they were actively looking to enact change and were using technology to do so. I thought that this would be a great way to offer my services but also to continue my line of research. I was also interested in complicating my role as researcher and becoming more involved as an activist under an action research paradigm. I had been introduced to action research through the learning sciences, the area in which I had begun my doctoral studies. I delve more into action research in Chapter 7.

4.3 Hollaback Organizational Model

Hollaback is organized in a decentralized model, yet not completely so. Complete decentralization, as described in the Hollaback history, was found to have some weaknesses in sustaining activists and local branches. Hollaback is instead organized as a federation of sites around the world, but coordinated by the original Hollaback located in New York City. The New York City chapter of Hollaback became known as the "Mothership," a term that was first coined by May to refer to how the New York City branch related to the other sites. The local site's degree of autonomy is a source of contention especially regarding funding and resources. I will discuss this in detail in Section 4.6.

The original Hollaback located in New York City (consisting of Emily May and Samuel Carter) decided to ecome a non-profit with 501(c)(3) status in the fall of 2010 (501(c)(3) organizations are tax-exempt, nonprofit corporations.) May explained that the reason for doing so was to be able to collect tax deductible individual donations and the amount of time spent applying to grants and other resources. Coming from the non-profit world, May saw the weaknesses and baggage that comes with having non-profit status: accountability to a board, and the amount of time writing grants to apply for funds. In selecting the board, May was clear that its main role was to advise and help with fundraising, but not to dictate what the local branches should do.

The next step was to encourage other activists to Hollabacks in their own city. Without soliciting or advertising, dozens of people from cities around the world came forward wanting to start their own Hollaback. May solicited sought New York-based volunteers to help organize these activists. I return to the launch process in section 4.4.1. The timeline of the Hollaback organization with major events highlighted is shown in Figure 3.



drops ersion s	an, CA Ann, CA Aenya cenco cisco	
El Paso drops New version of apps	Class 5 Austin, TX Brussels Brussels Romania Dresden Dresden Edmonton, CA Wales Nova Scotia Nova Scotia Nariobi, Kenya Miami Omaha New Haven San Francisco South Africa	2012
Isla Visla drops Dortmund drops due to conflict	Class 4 Boston Cal Poly Chile Chennai Dusseldorf Twin cities Montreal Portand ME Bogota NYC	
	Class 3 Des Moines Chicago Richmond Birmingham, UK Brazil Bristo Chandigarh, India Chandigarh, India Lawrence, Kansas Mexico Puerto Rico Istanbul, Turkey Weilington, New Zealand West Yorkshire	
Juan Terranova conflict s, Guardian	Class 2 Alberta Berlin Columbia MO Croatia Dortmund Isla Vista, CA Israel Manchester Manchester Mexico City New Delhi Ottaw Delhi Ottawa San Jose San Jose	
Juan Terrar Nytimes, Guardian coverage	Class 1 Atlanta Baltimore Buenos Aires Erance Houston London Mumbai Portland Southern California	2011
	Nytimes, BBC coverage Website and app release non-profit May takes on Hollaback fulltime	2010
	s Only 3 of the original blogs remain	× 2009
	Press coverage on NPR, Fox, and the Guardian About 20 different Hollaback blogs start in different cities start in different cities start of from around the world	2006 111111 2009
	Hollaback is founded as a collective	2005

Figure 4: Map of local Hollaback sites

4.3.1 Statistics of Usage

At the time of writing in the winter of 2012, Hollaback has 55 different local organizations (listed in Figure 5) comprised of 150 local leaders (a map of the different locations is shown in Figure 4). Each of these organizations has their own Twitter and Facebook accounts.

As of January 2012, Hollaback has collected 3,000 stories around the world (shown in Figure 6). Collectively, Hollaback has been featured in about 200 press articles. The website, ihollaback.org, has had 750,000 visitors, and this total does not include visits to the local sites. Local site leaders choose whether to implement their own site analytics if they wish, and the Hollaback organization does not keep track of local site visits.

Some site leaders really like the Hollaback organizational model.

"I'm so used to hierarchal type organizations, they are very stifling. But everyone [at Hollaback] is taken seriously — everyone has their ideas and Figure 5: Hollaback sites as of June 2012

Argentina

Buenos Aires

Brussels

Canada Alberta, Montreal, Ottawa, Winnipeg

Chile

Santiago

Colombia Bogotá

Croatia Czech Republic France Germany

Germany Berlin, Duesseldorf

Honduras Tegucigalpa

India Chandigrah, Chennai, Delhi, Mumbai

Israel

Mexico Mexico D.F., Queretaro

New Zealand Wellington

Puerto Rico South Africa

Turkey Istanbul

United Kingdom Birmingham, London, Manchester, West Yorkshire

United States

Atlanta, Baltimore, Berkeley, Boston, Chicago, Columbia MO, Des Moines, Houston, Lawerence KS, NYC, Philadelphia, Palo Alto, Portland, Portland ME, Richmond, San Luis Obispo, SoCal, Twin Cities



Figure 6: Map of street harassment stories, March 2012

they can carry them out."

4.4 Fostering Community and Accountability

The evolution of Hollaback was designed to foster a better community to ensure that local sites would be sustained, and guided in their activism. This included the development of a launch process that would introduce them to a community and keep them accountable.

4.4.1 The Launch Process and Newcomers

Because the leaders at Hollaback NYC envisioned creating a tight community, and could not practically launch more than 10-15 sites at a time, they decided to launch the sites in "classes" of around 10 sites each. For the first class, there was little structure as the process was still being refined. We first tried a Skype conference call, but there were audio and connection problems. Coming from the non-profit world where web seminars are very common, May suggested we look for some software that would more easily connect everyone. After trying a few different products, we found one that worked for us.

The first meetings in the fall of 2010 were exciting because people joined from all around the world and we felt as though we were doing something new and important. We first held an introductory meeting that described how Hollaback works and May's vision for the local sites. Next, logos and website accounts were sent out. In the following meeting, I explained how the technology works and another volunteer from NYC Hollaback introduced the Hollaback style guidelines. The bulk of my work at the time was to provide technical support and training on how to use Wordpress and how the story submission system worked. The last meeting was on how to write a press release and how to handle the media. All of the sites are required to write a press release to send to local media announcing the launch of their site.

Country,City	e 2: Loca Leaders	Posts	Stories	Press	Facebook	Twitter	Class
Argentina, Buenos Aires	3	57	100	20	811	305	1
Canada, Alberta	3	28	18	2	163	131	2
Canada, Montreal	3	26	6		81	26	4
Canada, Ottawa	1	40	13	2	101	398	2
Canada, Winnipeg	2	7	3	1	238	107	4
Chile, Santiago	3	3	0	0	0	0	4
Colombia, Bogota	2	10	6	2	68	641	4
Croatia, Croatia	2	48	20		77	25	1
Czech Republic	1	12	5		106	534	1
France	1	104	74		80	71	1
Germany, Berlin	2	115	30	14	315	207	2
Germany, Duesseldorf	1	6	4	0	74	0	4
Honduras, Tegucigalpa	3	4	3	3	648	49	3
India, Chandigarh	3	4	17	1	267	238	3
India, Chennai	3	8	15	6	129	68	4
India, Delhi	4	6	12	5	138	329	1
India, Mumbai	1	60	10	20	199	83	3
Israel	4	338	60	20	624	200	2
Mexico, Mexico City	2	67	90		1294	1356	1
Mexico, Queretaro	3	50	37		1174	20	3
New Zealand, Wellington	4	13	16	3	222	102	3
Puerto Rico		9	7		71	36	4
Turkey, Istanbul	3	35	37	5	708	333	4
UK, Birmingham	2	3	18	1	144	452	4
UK, London	3	118	110		403	452	1
UK, Manchester	4	23	25		168	48	3
UK, West Yorkshire	2	1	26	7	141	886	3
US, Atlanta	3	90	40	3	139	167	1
US, Baltimore	2	73	21	19	380	206	1
US, Boston	5	28	17	2	173	259	4
US, Chicago	3	2	14	1	161	122	4
US, Columbia	2	10	22	1	349	50	2
US, Des Moines	3	12	9		170	128	2
US, Houston	3	14	9	5	106	252	1
US, Lawrence	2	13	5	0	84	78	4
US, NYC			2000		21,100	5,612	0
US, Philadelphia	1	63	30	6	219	201	$\begin{vmatrix} 3 \\ 3 \end{vmatrix}$
US, Palo Alto	2	4	1	0	19	NA	4
US, Portland	$\begin{bmatrix} 2\\2 \end{bmatrix}$	29	12	5	223	92	1
US, Portland ME	3	$\begin{bmatrix} 20\\ 0 \end{bmatrix}$	6		62	17	3
US, Richmond	$\begin{vmatrix} 0\\2 \end{vmatrix}$	3	12	1	185	83	3
US, San Luis Obispo	$\begin{vmatrix} 2\\4 \end{vmatrix}$	20	9	1	68	168	4
US, SoCal	2	$\frac{20}{34}$	32	10	206	115	1
US, Twin Cities	1	12	4		62	NA	4

Table 2: Local Hollaback site statistics

The new site leaders stated they liked receiving support and building community in the launch process.

"I was one of the first ones. What was good, we started preparing in October, and it was slowly preparing and building. By the time it was February, I was really ready." -P10

"The best part about Hollaback especially from the training period has been about how we've been able to associate with fellow Hollabackers. Like when I see how the Hollaback's in the UK or the US work. The introduction on how to handle the media was brilliant."

We picked a day on which all of the sites would officially launch. About two days before the launch, about five sites dropped out, requiring everyone to change their press releases. One of the site leaders also approached a foundation for funding, but Hollaback NYC was already in the process of applying for the same grant. In response to these problems, the NYC team decided to create more coordination in the launch process.

First, Hollaback NYC created a list of Hollaback values. The following is a list of those values with a summary sentence.

- 1. A culture of badass: This point refers to how Hollaback is bold and encourages risk-taking to redefine the status-quo.
- 2. Making the impossible possible: Hollaback is united in the fact that they believe ending street harassment is a worthy and achievable goal together.
- 3. Transparency and honesty: The organization is built on trust and being transparent about where the "mothership" is in terms of finances and visions for what is next.

- 4. We've got your back: When times get tough, Hollaback pledges to stand behind its members if they are confronted with conflict.
- 5. A bunch of people that look alike does not a movement make: This value points to how Hollaback is not willing to fight street harassment at the expense of other oppressions such as racism and classism. Hollaback also seeks to understand street harassment in a pluralistic way.
- 6. Followers are the new leaders: This value is a commitment to a decentralized organizational approach.

Site leaders are required to have at least three people on their team and they are also required to sign an agreement form. This is to prevent sites from applying to the same grants, but also to hold them responsible for taking actions. In this form they have to agree to the following in starting a Hollaback local site:

- 1. Use the Hollaback platform and style guidelines
- 2. Post something to the blog at least once a week
- 3. Share expertise with the group through webinars or Facebook
- 4. Agree not to post business names to avoid liability
- 5. Not enter into contracts or legal agreements on the behalf of Hollaback
- 6. Prioritize diversity within the movement
- 7. Support fundraising efforts by promoting the twice annual "mothership" campaigns and agree not to reach out to foundations or charities with out the consent of Hollaback
- 8. Understand that Hollaback cannot providing funding at this time and that any funds raised will not be tax deductible with Hollaback

- 9. Agree to follow our anti-discrimination and comments policy
- 10. Agree to not share email addresses or real names of people who submit stories
- 11. Agree to set annual goals and set a six month benchmark and report back on successes periodically

In order to filter out people not up to the time commitment in running a local site, Hollaback NYC also requires that site leaders attend all webinars and complete homework. Homework includes writing a press release, a six-month action plan, filling their website with content, and organizing a local team.

4.4.2 Building Strong Ties and Community Online

When the first class of local Hollabacks launched, we first mainly communicated through an email listserv. Among the small number of leaders, people felt it was a safe place as evidenced by personal stories of sexual assault as an inspiration to start a Hollaback. When someone reported a success or shared a story, it was followed by numerous of responses of support.

"I think the email group has been great, because you know we can talk about ideas that we have or if we have questions, or something were not sure about, we have that aspect of it, also just to support each other too." -P11

"I love the positivity, the shout-outs, the yays." -P9

Some site leaders do not have a community in their country or city where they can share information around feminism or sexual violence.

"Positives is that we are part of a community, and that I gain access to things that really interest me. So I can read about harassment, about sexual violence, about feminism issues." -P7

"The feminist community in Houston is very scattered much like everything else"–P11

Hollaback provided a community that would not otherwise exist. Through continuous communication, site leaders felt that they were inspired and also held accountable by following the progress of the other sites.

"We have to stay in communication, and share ideas, because some ideas that I either have done or want to implement, I got from other people being like, hey this is what I did. And it's also not just accountability, but also like all these other Hollabacks are doing these great things, I better get my act together and do something awesome too." –P6

At one point, someone complained that traffic on the listserv was too high. However, at the time that person was in the minority as most site leaders appreciated all of the responses. It was suggested that if people were overwhelmed by the amount of traffic, they could opt for a daily digest.

But with the tremendous growth in new Hollaback sites, there have been some issues around maintaining a tight community, especially online. Some site leaders told me that it was hard to maintain a closeness to new members:

"Yes, I feel like there's new names, I'm sure it's not true but there are names that I have never seen before, and I don't know where these people come from, so yeah I don't feel close to them. " –P4

After the launch of the fourth class of sites, it became hard to keep track of who exactly was on the listserv and involved in Hollaback. I conducted interviews with site leaders from the first two classes in the fall of 2011 and asked them about their thoughts on the listserv. One of the site leaders suggested to trying a private Facebook group since many people were hanging out there already. Collectively, Hollaback decided to try a Facebook group while still maintaining the listserv. Currently, there are 90 members on the Facebook group and traffic is at about 5-10 posts per day while the email list has dropped to about a message a week. Perhaps due to privacy concerns on Facebook, there are less posts about personal experiences. However, there is an influx of sharing of media, links, documents, and other items of interest to the Hollaback community.

4.4.3 Creating Artifacts Together

The Hollaback community has created some organizational artifacts by consensus. For instance, the first class collaboratively developed Hollaback's anti-discrimination statement as follows:

"Replacing sexism with racism is not a proper holla back. Ditto to classism, homophobia, transphobia, and the usage of any other identity signifier. In our experience, street harassment comes from people in every facet of our cultures and every strata of society. We ask that you refrain from referencing the attributes of your harasser because this movement is about changing societal values, not pointing fingers. If you feel those details are important to your story, please make sure its relevance is explained clearly and constructively in your post."

The statement was developed on the listserv with the first class of Hollabacks. People talked about the different types of oppression that happened in their countries. For example, in India the biggest problem they were seeing in posts was that contributors were being classist about who was doing the harassing. In Israel, nationalism was a bigger problem. In combining various types of oppression, Hollaback was able to help one another identify many different types of oppression. Some sites stated that the conversation was very educational and that they learned how a prominent oppression in one country could also exist in another.

There are also groups working on an international street harassment survey, workshops for youth, and street art. These conversations have either started on the listserv or on Facebook, and then continue on Skype. For example, there is a Latina working group making a video based on the meme "Shit girls say," to be about things people say to minimize the experiences of those who are harassed.

4.4.4 Slutwalks

Another activity that many site leaders helped organize was the 2011 "Slutwalks". In the spring of 2011, a group of activists in Toronto organized a the first Slutwalk, a march to protest the attitude that rape is a result of women dressing like "sluts." The march was in reaction to a comment made by a Toronto police officer who said that "women should avoid dressing like sluts" in order to be safe from rape. The march resonated with many site leaders in Hollaback as dress was often used as an excuse for street harassment and violence perpetrated towards women in public.

Hollaback site leaders were instrumental in the spread of many Slutwalk marches around the world such as in Buenos Aires, Tegucigalpa, Mexico City, Houston, Baltimore, New York City, Edmonton, London, Los Angeles, West Yorkshire, and Delhi. Site leaders used the Hollaback community in order to get information on how to get a permit to hold a protest, what the activities should be, who should speak, and how to deal with the press. However, there was some controversy surrounding the walks. In one case, in Baltimore, a radical feminist blog (radical feminists are a type of feminism who are trans-critical, anti-pornography, and anti-prostitution) criticized the Baltimore Slutwalk of working with a man who, when he was a teenager, went by the username "molester" on Formspring, an internet chat platform (Hub Blog, 2011).

Other criticisms, not unique to Baltimore, targeted the name "Slutwalk". Slut is a name that is usually directed towards white women. Some prominent black feminist scholars and activists wrote about how the word "slut" was not something that they

Under 30	59/80, 74%
25 and Under	52/80,65%
LGBTQ	35/80, 44%
People of Color	21/80, 26%

 Table 3: Site Leader Demographics

could or wanted to reclaim (CrunkFeministCollective, 2011b). Reclaiming the word for them would be problematic because black women do not have the same history of sexual violence as white women. Historically, black women have been assumed to be hyper-sexual and deviant, and do not experience the madonna/whore dichotomy that slut-shaming tries to enforce. Still, some black feminists stood in solidarity with the cause, but then had to withdraw support after some racist practices at the New York Slutwalk. Several white women involved in the march held a sign that stated "Woman is Nigger of the World" (CrunkFeministCollective, 2011a). As a result of similar issues in Baltimore, the site leader, Shawna Potter, held a community forum to discuss the aftermath of the controversies and to talk about race.

4.5 Site Leaders

Hollaback has attracted people around the world to start new local Hollaback sites. One success of this model is the amount of young people and LGBTQ folks attracted to the movement as shown in Table 3. Note that the "People of Color" category relies on localized definitions of that term. This data was collected in the fall of 2011. The occupations of the site leaders I interviewed are in Table 4.

4.5.1 Getting Support

Many Hollaback site leaders have never done any kind of activism before, and thus need emotional and resource support. For site leaders, having local help offline and people on their local team is very important. As one site leader stated,

College Student	3
Community Organizer, Non-profit	
Marketing	1
Journalist	1
Technical Support	1
Therapist	1
Musician/Sales Clerk	1
Unemployed	1

 Table 4: Occupations of Site Leaders Interviewed

"I need more people in the team. I need them simply because I don't have time to do it on my own and also because I feel that I need inspiration from others, alone I losing my motivation." -P7

However, this site leader does not participate on the Facebook group making local support an important source of motivation.

One site leader did not want to launch her site until she had emotional support, particularly because she had never done any activism before.

"When I first tried to launch Hollaback Alberta (Jan 2011) I didn't have the resources, time, or the stamina due to personal and academic reasons, so I pushed back the launch to April 2011. By then I had a great group of volunteers and emotional support. I had to make sure it was the right time for me emotionally so I could fight street harassment to the best of my ability and really use my resources."–P2

A second site leader turned to May and another friend for support in writing an op-ed during the controversy around the Slutwalks (see Section 4.4.4).

"I was looking towards a friend and Emily May for guidance and at some point they just had to say: do it. I really wish I could have been working with someone who wants to write and in fact I am still looking for a volunteer for that specific purpose."–P6

Still, this site leader felt she needed more expertise and help with writing, something that she did not feel comfortable doing.

In terms of resources, site leaders wished they had more money to implement some of their ideas.

"Really I just want more printed postcards and pamphlets to spread the word and someone who has the time to run around town and drop them off everywhere. "–P6

Support comes from the Hollaback Facebook group, listserv, email, and phone contact with May, but a big portion also comes from other site leaders. Hollaback leaders also search for support and new members on Twitter and Facebook.

4.6 Sources of Contention

Even with all of the positives of the Hollaback community, there are still sources of contention. Some critiques come from sites that existed before Hollaback started their own platform. For example, the members of one of the sites state that they are more autonomous: they have their own team, are less money focused, and can do things on their own with out much guidance. Another group that existed prior to the incorporation stated that they had reservations in joining Hollaback:

"People had issues with the corporate nature of how Hollaback is now. They felt like they were being asked to work for someone, and a few people struggled with that, and the main thing is that the support is there, the encouragement, because it's a really scary, it's a really brave, scary thing to put yourself up for. " -P3 However, they felt that the community was a worthwhile tradeoff for less autonomy. Some other sites that joined after Hollaback became a non-profit had issues fundraising for the "mothership" because the model was confusing and did not necessarily apply to their locale.

"Even with the campaign right now, it's hard to explain people why they should donate to something that is not Hollaback France" -P4

Another site was confused as to why she could not approach companies or foundations for money. The leader stated that she is not as financially privileged as other site leaders while she understands that they do this as a labor of love, she has trouble paying the bills each month. May and one other employee are paid full-time from donations, grants, and their own savings. This issue is a recurrent theme pointed to in *The Revolution Will Not Be Funded* (Color Against Violence, 2007). Many people derive their income from doing activist and non-profit work, but this hurts people with different perspectives who want to participate, but have less access to resources.

Two Hollabacks thought that as an activist group that they should become a non-profit. However, few understood that a non-profit status means you have to have abide by certain rules, such as having a board of directors and that this might compete with the "mothership." But in response to this concern, the mothership changed its policy that local sites can become non-profits or NGOs if they would like.

Another site felt pressure to emulate the mothership:

"The mothership is like the big ideal. Everybody is trying to be like NY or Emily. They are good, they always provide info, links, talks, they're a great source. It's bit of pressure, to be big and important like them. "-P5

Because May has been the main spokesperson to the press for Hollaback, some feel some jealousy around access to it. Another issue that led to the dissolution of one of the sites is related to the control over the Hollaback technology. One site leader emailed me and stated that another person changed the password to their Hollaback site and was posting racist things. The other person emailed us as well and stated that the site leader was trying to change things on the site without consensus. Because the site was in a different language, the Hollaback NYC team and I could not determine if the accusations were fair. We thought that we could try to offer mediation between them and try to figure it out. We offered to to meet with them over Skype. However, both parties refused to cooperate and would not talk to each other. We told them that if they could not come to an agreement within one month, we would take the site down. They continued to refuse to talk, and we removed the site. Power in this conflict was exerted through the technology by changing passwords and the removal of the site. We see similar power exercised in the Atlanta case study in section 4.8.2.

4.6.1 Anonymous Participation

Five Hollaback sites are operated anonymously. This is because they live in countries where they could be endangered by their activism. In the shift from the listserv to Facebook, those activists stated concerns with Facebook's privacy policy and declined to join. This has produced a tension between Facebook's helpful features vs its poor level of privacy.

4.6.2 Non Participation

There is also tension around who can participate and legitimately align themselves with the Hollaback organization. The technology reinforces a Western sense of privileged class participation in some areas of the world. For example, there is not currently a text message version of the system, which limits participation to those who have computer and/or smart phone access. Although people can submit stories via text-to-email services, they are not able to participate and see other stories that have been submitted. As a site leader from India told us,

"The internet is still nearly unheard of for most working women or many many many aren't even familiar or comfortable." –P1

Thus, in order to participate as a site leader, one must have access to these technologies.

Another consequence of the Western origin of both the technology and the organization is the appearance of occasional political barriers. In Egypt and Lebanon, there are similar projects to Hollaback such as HarassMap (harassmap.org), but joining the Hollaback umbrella may delegitimize their cause because of regional attitudes towards the West. Hollaback as an organization is aware of these issues as they have been brought to its attention by me and other site leaders in Honduras, India, and Argentina. Efforts are underway to expand access and participation. For example, Hollaback is releasing new versions of its iPhone and Android apps that will include multiple languages.

4.7 Technology Description

Hollaback uses a suite of technologies to work against street harassment. Technology has always been at the center of Hollaback activism, but the variety of technologies used has grown. From the humble beginnings of a hosted blog to technologies ranging from mobile apps, interactive maps, blogs, and social media, the organization has steadily expanded its design and appropriation of technologies.

4.7.1 Apps

The mobile phone and blog were at the center of Hollaback activism in 2005. In 2009 over brunch, Emily May, Oraia Reed, and Holly Kearl (author of *Stop Street Harassment* (Kearl, 2010)) came up with the idea to turn Hollaback into a mobile app

and to map reported incidents. In order to fundraise for building the app, May and Carter used a new, scarcely known (at the time) web platform called "Kickstarter."

Using the proceeds, May hired a developer to make the iPhone app. Together with the developer, May and Carter decided on a small set of design principles based on the experiences of those who had submitted stories through email. They thought of the app as a tool to capture harassment in the moment, similar to the way that people had been using their phone to capture photos of their harassers. Inspired by this, the app starts with an option to take a photo and then asks for the kind of harassment. The submitter is then requested via email to tell their full story. The designers of the original app thought that submitters would want to return to their computer later and reflect on the experience, taking time to craft the story. Reflectively, the designers saw the phone as a secondary device to the computer.

The app's harassment menu is also only a single selection, and does not encode multiple intersections of harassment. That is, restricted by radio buttons instead of checkboxes, users can only select one type of harassment. At the time, this design choice was made to raise awareness of street harassment rather than complicate its definition.

After the app was completed, there were problems with listing it in the Apple store. Apple was concerned that the app would be collecting real names and photos of harassers, which could possibly result in defamation and lawsuits. Hollaback had to retain a lawyer to guarantee that real names would not be published. Ironically, around the same time, an app was accepted into the Apple store that gave directions on how to harass women in reaction to news about the forthcoming Hollaback app (MacWorldAppGuide, 2010). This incident is illustrative of the culture which Hollaback is working within and the types of speech that are valued, especially in technical communities. It also illustrates how technological control can be enacted through corporate ownership.

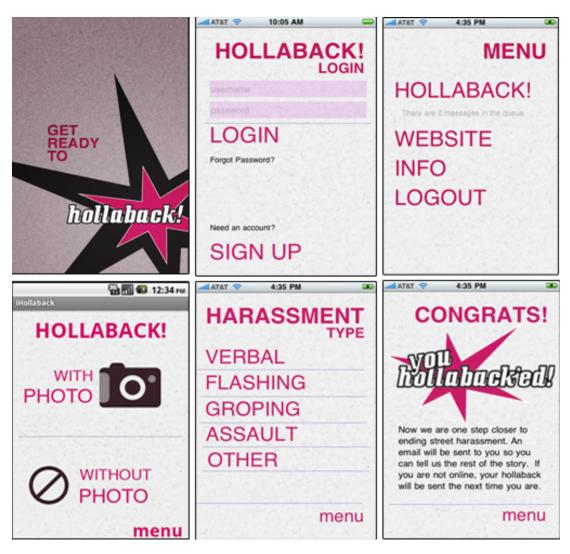


Figure 7: Hollaback App v1 Screenshots

At this time, in June 2010, I started to work on the Android app which was to work the same way as the iPhone app. In addition, developed the Wordpress platform and mapping capabilities. Screenshots of the first versions of the apps are shown in Figure 7.

In April of 2012, we released a new version of the app based on feedback.

4.7.2 Local Hollaback Implementation

After the launch of the apps and new website, May wanted to have all local Hollaback sites on the same platform to help sustain them. She told me she envisioned a kind of Craigslist of Hollaback sites, but wasn't sure how that could be done. May and I agreed that the local sites should have control over their content and how they present themselves, but should also have a similar look from a marketing standpoint. This way, visitors would know that the local sites were all part of the same organization and movement.

I met with May and suggested that we use the Wordpress multisite platform outfitted with a custom plugin that would collect stories locally and display a local map. Multisite Wordpress enables multiple blogs to be hosted from the same installation. I configured all of the sites to be hosted on the iHollaback.org domain name, with the city name the subdomain (e.g. baltimore.ihollaback.org).

In addition, each local Hollaback site has its own web form through which people can submit stories of harassment. Stories are then sent as a drafts to the local site. Hollaback leaders then moderate and decide whether stories get posted. When a story is posted to Wordpress, a marker shows up on the local map at the location that the submitter provided. I decided to use Google Fusion Tables in order to house the map data due to its ability to quickly process and visualize thousands of data points. Prior to the addition of the local sites, we had used javascript to add markers, which quickly got bogged down with the increasing amount of posts. I spent winter break of 2010 implementing these features.

Sites also had to be localized and translated into different languages such as Spanish, Czech, Hebrew, and French. I had to devise ways to allow sites to change their banners and to enable plugins. For example, some sites wanted the ability to automatically push their new blog posts to Facebook and Twitter. Others wanted plugins that would offer surveys or email moderators when a comment was posted.

Figure 8: Hollaback London



4.7.3 Internal Tools and Social Media

Local Hollabacks use a variety of technology in order to communicate amongst one another. In the beginning, much of the conversation was held over the listserv, but the amount of messages became overwhelming, and it was hard to keep track of who was who. After the interviews I conducted with the site leaders, Hollaback decided to move internal communications onto a Facebook group. The Facebook group is very active and has about 5-10 posts a day. It is also a place where memes are created and shared. For instance, some site leaders had commented on the difficulty of sustaining local volunteers. Due to this, the mothership is looking into other tools to help site leaders organize locally.

All sites are required to run their own Twitter and Facebook accounts. A more detailed study of Twitter usage is presented in Chapter 5.



Figure 9: Buenos Aires street art team doing mud stencils

4.8 Case Studies

4.8.1 Buenos Aires

Inti Maria Tidball-Binz is the founder of Hollaback Buenos Aires, a successful Hollaback branch. I define success by the amount of press coverage, actions done, stories collected, and time active. The Buenos Aires Hollaback has collected about 100 stories, and garnered press coverage in four national publications, three international publications, two radio shows, and 11 blogs such as Global Voices and Jezebel. Inti Maria has appeared on two local TV programs and her team does anti-harassment street art using mud stencils (See Figure 9.)

Inti Maria was part of the first "class" of Hollabacks launched in early 2011. Inti

Maria has citizenship in both Britain and Argentina, and speaks English and Spanish fluently. Prior to her involvement in Hollaback, she already considered herself a feminist but hadn't done any activism in the area. In the summer of 2010, she attended a feminist summer school in London where she heard about Hollaback and decided to start a branch in Buenos Aires. She comes from a heritage and family of activists but wanted to practice activism in her own way where Hollaback became that outlet.

" I grew up in a family of activists during a turbulent time in my country. My father worked for the Abuelas de Plaza de Mayo, grandmothers searching for kidnapped children and grandchildren during the military dictatorship here in 1976-1983. My mother who studied medicine has always been involved with helping people who do not have access to healthcare. I grew up around that and it's hard to distinguish my own activism from my family's. But I could say that I took my own direction with three causes close to my heart which were ecology, race, and feminism, which I didn't see reflected in my family."

In Argentina, Inti Maria has had to work against the culture of piropos, a word for a certain type of harassment that is considered acceptable (Achugar, 2010). Piropos refers to a romantic or flirtatious compliment from a man directed towards a woman in public. There is a lot of cultural baggage associated with the term because it is seen as a positive, wanted experience, and is even considered an art form. It is also considered an expression of gratitude for the beauty of women.

However, judging from all of the stories collected in Buenos Aires, a lot of people feel as though piropos is harassment and often escalates to violence. The concept of piropos also erases the experiences of LGBTQ people and the harassment they experience in the street because the term implies a heterosexual experience. Inti Maria's main work has been to rename and to deconstruct the concept of piropos. Before any work can be done in stopping it, she first has to work on changing the widespread acceptance of the practice.

Inti and the leader of the Mexico City Hollaback also wanted to change the logo to reflect a spanish translation of Hollaback. Together they came up with Atrevete! which translates loosely as "dare to."

4.8.1.1 Juan Terranova Conflict and Issues of Transnational Collaboration

The cultural acceptability and visions of piropos is seen in the reaction to the existence of Hollaback Buenos Aires. In March of 2011, journalist Juan Terranova wrote an article for El Guardian about how piropos should be acceptable and arguing that there is a "beautiful richness to obscene language" (Slater, 2011). Terranova, who is part of a new wave of contemporary Argentine literary authors, goes on to call for a new literary genre around piropos. He ends the article with the following sentence: "I finish here with a wish for 2011: to meet Inti Maria Tidball-Binz at a vernissage, share a drink, and later tell her that I would love to rape her in the ass" (Slater, 2011).

In response to this violent message, Inti Maria reached out to the Hollaback community. May and others thought that Hollaback should retaliate strongly. May had a contact at change.org and started a petition to get Terranova fired from his position at El Guardian. A volunteer blogger wrote the text of the petition. The Hollaback community rallied behind Inti Maria and spread the word through Facebook and Twitter. In retaliation for the petition, Inti Maria received death and rape threats via Twitter, email, and Hollaback site comments. Terranova started hurling insults at Inti Maria and provoking further response from Hollabackers on Twitter. The conflict was also waged on Wikipedia where Hollabackers changed Terranova's bio to include the petition.

After eight weeks of no response from the publication, the campaign started to

pressure the publication's sponsors, Fiat and Lacoste, to remove their ads. The petition collected 4,000 signatures and Fiat and Lacoste threatened to withdraw from the magazine. At that point, El Guardian finally published an apology and fired Terranova.

Yet, there were issues with this international collaboration and Inti Maria felt that the end result was not a sweeping success. Because Hollaback NYC was the dominant voice in the campaign, there was an issue about representation and power given the history of colonization. The influence of a Northern/Western organization (Hollaback NYC) in the conduct of campaign and resulting international press weakened the local Buenos Aires Hollaback's cause locally. The campaign's insistence on firing Terranova did not make as much sense in Buenos Aires as it may have in the US. The presence of Hollaback NYC also had an effect of silencing the voices of the feminist activist community in Argentina. Finally, many Argentines felt that a Western organization was saying that their culture was backwards. A local response would have been more effective at changing piropos culture rather than being perceived as attacking Argentine culture more broadly.

Inti Maria stated that because of her lack of experience in such issues and a minimal local support network, meant that she stood back and let Hollaback NYC take action. In retrospect, she says that she should have been more vocal to Hollaback NYC about local concerns and has learned tremendously about how necessary this is for transnational collaboration. She also states that because she did not have a local support network, her responses were not as effective, and she was perceived as an individual rather than an organization. Unfortunately as a result, the campaign was ultimately seen locally as a conflict between individuals with a Western organization. Inti Maria also lost some trust from Argentine feminists and journalists.

A lesson learned from this experience is that in transnational collaboration, activists need to have an awareness of histories of colonization when deciding who should speak and who is to be spoken for. Inti Maria states,

"I feel strongly that if Hollaback listens and is responsive to the effects of activism on local culture, this can help in making the system and the image of a North/Western 'corporate' feminism to become a bit more dynamic, international, and integrated."

Another takeaway is that an online support network cannot replace an offline one. Intistates that while having the listserv was great, it was a bit like having an "invisible friend." Thus, it is still imperative to have local support offline.

4.8.1.2 Other Actions

A few months later, a "Slutwalk" or "Marcha de las Putas" was held in Buenos Aires. The event was organized on the Facebook wall of the Buenos Aires Hollaback after Inti Maria posted news about the Mexico City Slutwalk. From there, people organized and created a Buenos Aires Slutwalk page which has the most followers of any Slutwalk page in the world. There are few feminist spaces in Buenos Aires, and so the Facebook group page provided a place to organize such an event, especially after all the press surrounding the Terranova incident. Inti Maria states that she has received many stories from young people and this has influenced her to do outreach to youth.

"When your body is changing you are young and people are telling you what is going on. For a lot of women, the first person that is going to be talking to you about that is someone on the street."

Inti Maria has also put on a web seminar for other Hollabacks on how to use art in activism.



Figure 10: Marcha de las Putas Buenos Aires (Photo: Jessie Akin)

4.8.2 Atlanta

In November of 2010, May asked me if I was willing to run an Atlanta chapter of Hollaback. I was already feeling overwhelmed with the amount of technical work plus school commitments. I said that I could help keep the website updated, but that I could not do on the ground events because of my limited time. A month later, three women independently emailed Emily stating that they wanted to start a Hollaback in Atlanta. I met with them at a local coffee shop and described my role. I stated that I would support them wholeheartedly, but could not initiate actions myself. The three women were all in their early 20s and had not done any activism before.

Crystal Rodgers was a student in women's studies at Georgia State University and wanted to help start a Hollaback because of her interest in the project and first-hand experience with street harassment. Her the experience would also fulfill a class requirement requiring students in her program to volunteer with a feminist organization. Liz Smith (name has been changed to protect her identity) was a recent college graduate looking to explore activism and other opportunities. She had been volunteering with another women's organization but she said that Hollaback really spoke to her because of all her personal experiences with street harassment. Daphne LaRose was a masters student at Georgia Tech, working with me on my research. I let her know about the meeting, stressing her involvement with the local branch was completely optional. Having just moved from New York, she had many stories about harassment and was excited about the Atlanta chapter.

During the ensuing year, Hollaback Atlanta quickly came to life. We had a launch party, started to collect data on street harassment on public transit, hosted a panels on street harassment at Georgia State and at a local feminist bookstore, and had press coverage in the local LGBTQ magazine.

We also created blogs posts and started a Facebook page and Twitter account. However, all of the original members except me have either quit or moved and the Figure 11: Atlanta Street Harassment Panel

Faces of Feminism presents **Street Harassment Panel**

Thursday, April 7 • 6:30pm • Troy Moore Library (GCB 9th floor)

Join us for a discussion on this prevalent yet overlooked form of discrimination.



Topics include:

- · Forms of street harassment
- Cultural perceptions
 Influence of gender, race, class, and sexuality

Speakers from Flux Projects and Hollaback! Atlanta • Film screening • Audience discussion

facesoffeminism@gmail.com

organization is struggling to survive. A new volunteer recruited by May is taking it over. One of the reasons that some members quit is due to Hollaback's inattention to how other oppressions (such as race) are intertwined.

4.8.2.1 Dealing with Race

At that first meeting we talked about what events we wanted to do. We also discussed some guidelines for submitted stories, including an anti-discrimination policy. This policy stated that we would not accept stories that were racist, homophobic, transphobic, classist, ableist, or any other indicator that would reinforce a particular stereotype. However, the anti-discrimination statement did not define these terms in detail and it later became clear that we did not have a collective understanding of them. This fact quickly became clear in the organization of our first event.

The first goal of our group was to launch the website and hold a party to celebrate and publicize the formation of our Atlanta chapter. In order to get the website rolling, we all agreed that we would post a personal story of street harassment. After Daphne posted her story, we all received an email from Liz who stated it contained racist language. Liz surprisingly edited Daphne's story with out her permission. Daphne is an African American woman and her story was about how a white man had called her a racist name while she was walking alone at night in New York City—it was a terrifying experience for her. Liz removed the description of the man because she interpreted the anti-discrimination statement to mean that no racial signifiers should be disclosed.

I stated my opinion that including the race of the man was not racist because a white man was the perpetrator. I suggested that it was something we could talk about when we next met. Daphne also stated that she thought it wasn't racist to include the race of the man, because of the history of racism directed towards African Americans. Liz replied that an explanation should be included in the story. Daphne confided in me that she was hurt and upset that Liz had edited her story with out her permission. Daphne also felt it was unfair that she had to write an explanation while the rest of us did not. Daphne stated that she felt that the group wasn't giving her support and that her story was put down in favor of other stories because it was too controversial. In this way, Daphne's terrible experience was minimized because it was not openly accepted as the other stories written about the experiences of white women.

We were unable to meet before the party to talk about the race issue, so we postponed the conversation until after. Crystal worked at a local coffee shop and was able to get space for the event for free. The event was successful with about 40 people in attendance. Stories were collected through a laptop bar and we all talked about our experiences with harassment.

After the party, we had the postponed discussion about race. Crystal, Daphne, and I shared our opinions the meaning of the anti-discrimination statement. Liz was unsure of how racism could be street harassment, but then seemed to come to an understanding of Daphne's position. Yet, she still maintained that the additional description of why race was disclosed should still be included. In retrospect, I feel that I should have fought harder against Liz's position because it was unfair to single out Daphne's story in this way.

Ironically, Liz also mentioned how the stories collected in Atlanta were all from the north, which neatly matched the race divide in the city. She said that she wanted to get stories from other parts of Atlanta. Afterwards, Liz went to a community forum at an LGBTQ space to talk about street harassment. No one else could go due to prior commitments. Liz stated that the experience was terrible for her. She stated that people accused her of not knowing the experiences of both LGBTQ and African American people, and that Hollaback only seemed to be for white, heterosexual, women. Based on Liz's actions towards Daphne, that description of Atlanta Hollaback was pretty accurate.

In the spring of 2011, a group of activists in Toronto organized a "Slutwalk" – a march to protest a comment made by the Toronto police that indicated that women should not dress like sluts to avoid being raped. Liz was excited to start a Slutwalk in Atlanta. However, someone else in Atlanta had already created a Slutwalk Facebook event and had amassed about 1,000 followers. The people that created the page soon renamed it to "WeWalk" because the term "slut" was not one that the black community identified with or wanted to reclaim. Liz and Crystal were disappointed because reclaiming the word meant something to them. Despite that, Liz and Crystal contacted the people who started the event to offer help but got no response. Weeks went on and the people who started the Facebook event postponed the date to October, and then it never happened. We were all frustrated.

After six months, Liz decided to step down. She emailed Emily and me about her reasons for quitting. First, she stated that she felt like she did not have a feminist background and this limited her capabilities in using terminology and language within different activist communities. Second, she was concerned that Atlanta is segregated in terms of race and sexual orientation and she did not feel welcome in trying to reach out to those different communities. Third, she was starting to interview for new jobs and thought Hollaback might be a deterrent in being hired. Last, she claimed there was a lot of "cattiness" in the feminist community (as evidenced by the Slutwalk experience, not Hollaback), and she found it too stressful.

4.8.2.2 Sustaining Hollaback Atlanta

At the end of 2011, both Crystal and Daphne graduated and moved to a different city. I could not sustain Hollaback Atlanta on my own because of my research commitments, and time devoted to upgrading the apps and other features. All of my volunteer time was spent on working on Hollaback technology. Through the international coordinator, Veronica, we found someone who was willing to lead Hollaback Atlanta. She is a white woman in her early 20s and works as a printmaker and a law firm specializing in domestic violence.

There is a need for site leaders to come to an agreement about how different oppressions intersect. This need is particularly important because many Hollaback site leaders have never done activism in their communities and may not have an understanding of how oppression works (many social justice organizers reject the term "reverse racism".) Using this research and experience, Daphne, Inti Maria, and others are starting conversations within the Hollaback community. Additionally, this understanding of oppression should be communicated in trainings with site leaders. Currently there are only 26% people of color within Hollaback. If the culture of Hollaback changes to better understand and accept the many ways that harassment happens on the street, then perhaps sites like Hollaback Atlanta can better organize in non-white communities and support site leaders of color.

4.8.3 Edmonton, Alberta

Lauren Alston, the site leader of Hollaback Edmonton, Alberta, is a student at the University of Alberta. She first heard about Hollaback through a friend who did her Ph.D in Boston. When Lauren told her friend about her experiences being harassed on the street, her friend showed her the NYC Hollaback site. Lauren said she had no idea that what she experienced was a phenomenon with a name.

When she took a women's studies course in 2010, she wrote about Hollaback for a class paper. For her final project, her professor suggested that she should start a local Hollaback instead of writing a final paper. She got into contact with Emily and the engagement became much bigger than a class project.

"I got so sucked in because I was so passionate about what they were

doing. I thought it was so awesome. Sort of near the end of school we launched the Hollaback Alberta in April and I've been hooked ever since."

Lauren was part of the first class of Hollabacks but had to delay launching until the second class due to school. At first, Lauren did not know how much time running a site would involve, especially in conjunction with a full course load. She says that it took her longer to get "into the groove" than other sites because she had never had a blog and did not even know what Twitter was. She also took on running the site alone and felt that she did not know what she was doing. Hollaback's launch policy has since changed to require a minimum of three organizers because of the work involved.

Since founding the site, Lauren has given a talk at gender equality week at the University of Alberta, partnered with a student from Calgary to make a documentary on street harassment, and participated in the Edmonton Slutwalk. As a result, at the most recent Edmonton Slutwalk, Lauren gave a speech at the closing rally and was interviewed on the local TV news station. She has also implemented a feature on the blog called the "Creative Corner" where people can submit art pieces or other ways of expressing their experiences with harassment. Lauren states that she is fairly dependent on the mothership for support and coming up with new ideas. Yet, in the past two years, Lauren has done many offline and online actions and has grown as a leader in her community.

4.9 Discussion

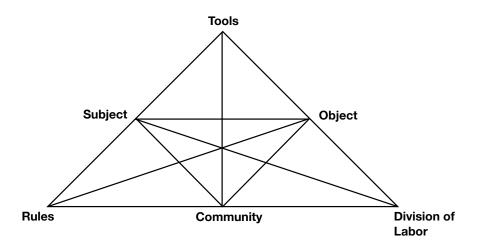
Hollaback is an organization that uses technical tools in service of a clear objective: stopping street harassment. It is a socio-technical system comprised of people and technology, and many of those people have never done activism before. A useful framework that is used to examine socio-technical systems with a clear objective is Activity Theory (Nardi, 1996). In general, Activity Theory is a framework used to examine a socio-technical system that has a common activity or "object." It has been used to look at how people contribute to Wikipedia (Bryant, Forte, & Bruckman, 2005) and how parents deal with rules about technology (Yardi & Bruckman, 2011). The objective of the Hollaback organization is to bring awareness to the newly named phenomenon of street harassment and to work to stop it.

Activity theory is comprised of the following interdependent elements:

- Object: The objective of the activity system (stopping street harassment)
- Subject: People directly involved in the activity (the site leaders)
- Community: A group of people involved in the activity (the Hollaback organization)
- Rules: The norms and guidelines for activities (e.g., the anti-discrimination statement)
- Tools: The artifacts or concepts used by subjects to accomplish tasks (e.g., the Hollaback sites and social media)

The theory is usually depicted as a triangle where each of the different elements relate to each other in multiple ways as shown in Figure 12.

I use Activity Theory in order to organize the discussion and highlight the ways in which digital tools affect activism in Hollaback. I examine how the tools impact the transformation of the subject, the community, division of labor, and rules. I specifically focus on the tools because I am interested in how technology design can impact the practice of activism. In doing so, this focus has implications for the design of digital tools for activism. Figure 12: Model of Activity Theory



4.9.1 Tools and the Subject: Activism as Hobby

For some people wanting to start a Hollaback, they were first interested because they perceived using digital tools as less work or less of a commitment than traditional activism.

"And, why I started one? It was one of these ideas when you say, wow that's it. Because I have a full time job, that doesn't have a lot to do with activism, more in the business sector, with marketing research. And this is something I can do relatively easily in my free time." –P8

Yet for the site leaders, it was much more work than they anticipated:

"My partner ended up having to drop out because it ended up being a boatload more work than we thought." –P9

One way to look at this relationship between technology and the Hollaback site leaders, and how they initially perceived running a site to be less work, is in terms of how capitalism and industrialization have shaped what people can do in their free time. Industrialism split life into separate spheres of work and leisure—differentiating them in terms of where they were, when, and why they were done (Gelber, 1999). Leisure came to represent freedom and separation from work, but ironically, many leisure activities amount to simply a different kind of work, such as woodworking or gardening. An alternative conceptualization sees participation in particular hobbies as an act of resistance to work. As another example, sedentary workers who engage in activities such as rock climbing may be fulfilling a desire to be outdoors, use the physical body, and belong to a close community of other rock climbers—experiences that cannot be realized at work. Thus hobbies, work-like or otherwise, can subvert and help people to cultivate alternative values and fulfillment.

Technology may help people conceptualize doing activism as a hobby. As a result of industrialization and specialized labor, there has also been a professionalization of activism and in particular an activist leader (Chatterton, 2006). Being an activist evokes a skilled profession and full-time endeavor, to which only certain people can have access. That is, being an activist has not been construed as a hobby activity, but rather as a full-time identity and specialized profession. This division of labor implies that only people with excess time, particular skills, and no other job commitments can do activism. In this way, activists set themselves apart and claim to represent people who can not realistically devote enough time or resources to social change, creating an implicit hierarchy that often counters the efforts of activists themselves.

Non-profits have also contributed to the professionalization of social change. The book *The Revolution Will Not Be Funded* looks at how the non-profit sector has commodified and encoded activism into a corporate structure with influence from the state (Color Against Violence, 2007). Furthermore, because activism is often relegated to non-profits, it is harder for people with historically less power (such as young women) to have influence over what actions and causes are pursued. Technology provides opportunities for people unable or unwilling to participate in traditional activities such as protests. In particular, mothers and young women may not have access or opportunities to have their voice heard in these activities and spaces.

Digital tools can help conceptualize activism as something that could be done in leisure time and parallel to work. While some have labeled this as "slacktivism," it may be a way to unravel the baggage that is associated with identity claims over activism, and lead people to engage with a larger community to enact social change. Because workers in Western countries increasingly work on computers, it is also harder to distinguish activities suitable for work from those that are not. Hollaback takes advantage of these digital tools by requiring site leaders to do the digital work of maintaining a website and social media accounts. However, not all of the work is digital. Site leaders are encouraged to reach out to their communities by having workshops and events to engage offline.

These technological tasks such as using social media, blogging, and collecting stories, have helped deconstruct the professional activist label allowing women and LGBTQ to become activist leaders.

4.9.2 Tools, Rules, and Division of Labor: A Tension Between Decentralization and Sustainability

The politic of decentralization and the division of labor in Hollaback is reinforced by its digital tools (Winner, 2000). Each local Hollaback has control over its own site which affords the leaders autonomy in what blog posts they write, resources they provide, widgets, and changes to aesthetics. Having a separate site and social media accounts divides the labor at a local level. For example, local sites cannot claim to represent Hollaback on a whole because they do not have access to the main site (ihollaback.org). The regulations enacted through the tools encourage local site leaders to focus on representing their locale.

Because their site is hosted on the same domain and platform (e.g. atlanta .ihollaback.org), they exist as a sub-site to the main ihollaback.org, which creates an implicit hierarchy of the mothership and subordinate sites. In the past before

Hollaback became a non-profit, the first Hollaback blogs were on different blogging platforms such as blogspot and tumblr. Indeed, the mothership's first URL was hollabacknyc.blogspot.com, which could have been viewed as equal in stature to the Washington DC branch (hollabackdc.blogspot.com).

iHollaback.org has removed the global map of harassment incidents and now acts as a landing page for the local Hollabacks. The old map has been replaced with a map of all of the local Hollabacks around the world. The main Hollaback site has also de-emphasized stories and put them on a secondary tab rather than on the main page. The "Share Your Story" page on iHollaback.org originally allowed people to submit stories. Now the page suggests that visitors to go to a local site to submit stories, and to only submit a story to iHollaback.org if there is not a local site. The mothership often reposts blog posts written by local leaders, giving them access to a broader audience. The mothership is responsible for the voice and direction of the organization and uses the multisite wordpress platform and domain names in order to indicate a hierarchy and division of labor.

The digital tools also control the branding of the sites to indicate that they are all part of the same organization. For example, Hollaback site leaders do not have full control over the site code: they can change their banner and add widgets but they cannot change the overall theme of the the site. Some sites have web developers on their team and have been given access to the code, but they still must not deviate from the Hollaback wordpress theme or the platform. In one instance, a local site wanted to try out a new platform from a local startup company. They were vetoed by the mothership but were allowed to try it out internally to organize volunteers. Before joining, site leaders must agree to follow the Hollaback style guide and use the Hollaback common platform. Adherence to a similar style is enforced by the mothership so that the sites aesthetically suggest membership in the same organization and possess a similar voice. Yet digital tools cannot enforce all the needed rules. Due to this, the mothership drafted a site agreement that site leaders must sign and agree to before starting a Hollaback. For instance, the mothership did not want the local organizations competing with each other and the mothership for grants. In the site agreement, local leaders must agree not to apply for grants with out first consulting the mothership.

Some other rules emerged from collaboration between site leaders and the mothership. The anti-discrimination policy was developed by the first class of site leaders to prevent stories that exhibiting racism or other forms of oppression. For example, in India, stories that called attention to a person's class reinforced the stereotype that only certain types of people harass. In Israel, discussion of nationality and ethnic group is problematic.

However, this rule has been shown to have some issues. For example, were disagreements in both Germany and Atlanta over whether posts were considered discriminatory. As already described, the site in Germany was closed and the leader in Atlanta quit. The mothership's power was therefore exerted through the control of the technology.

In Hollaback, there is an implicit assumption about when it is acceptable for race or other signifying factor to be included in a story. Specifically, the signifier (such as ethnicity, ability, class, etc.) should only be included if it is also oppressive. For example, if a person gets called a racist name and the harasser is of a privileged race, then including the race of the harasser is important for the story because it shows both race and gendered oppression. For new activists who have never dealt with different intersections of privilege and oppression, this is difficult to understand at first. I have reported this to the mothership and they are considering incorporating a discussion of the statement into the trainings.

There is a tension in helping to sustain a network of activists and controlling how activists represent themselves. This tension is manifested in the design of the local sites where activists have limited freedom in the styling and content of their site. Prior to the incorporation of Hollaback, site leaders could choose the technology they used, apply for funding if they wanted, and did not have to commit to maintaining the site. However, this proved to be an insufficient model for the cause against street harassment because activists did not have a community or accountability.

4.9.3 Tools and the Creation of Community

Prior to the incorporation of Hollaback, the individual Hollaback blogs did not have a community that would both give them support and hold them accountable. Due to this, only three sites remained after a year. In many cases, the community needed for support may be impossible to find locally because there may not be any kind of activist community much less a feminist activist community from which to draw support. The people drawn to Hollaback do not necessarily have experience in doing activism and need a community of practice in which to learn. The mothership set out to be the center of the community or the expert, providing resources and support to those who first started at the periphery.

Technology helped created a community that would not otherwise exist. The Hollaback community was first developed on a listserv and now exists on Facebook, and is also supplemented by Skype, Twitter, and software for online meetings. Beyond *thinking* globally, acting locally, Hollaback activists are able to *collaborate* globally. Hollaback is able to show that street harassment is truly a global phenomenon, which legitimates and raises awareness about the issue. The intentional crossing of national boundaries also illustrates a transnational activist feminism. Indeed, in *Feminism without Borders*, Mohanty suggests that one of the few ways in which women from the Global South and the Western world may truly work together is against the shared experience of violence (Mohanty, 2005).

However, at the same time, some of these same tools used to build an international

community prevent some people from participating. Hollaback site leaders need access to a PC or smartphone in order to be a site leader. Further, the discussions online are all in English. Yet, there are other organizations in the movement against street harassment, such as HarassMap, which represents women in the Middle East. Even if the Hollaback community was able to use technology that was more accessible to women in the Global South, this doesn't mean that they should necessarily be all under the same umbrella. If women from the middle east were to join women from the West, this very act might actually delegitimize and distract from their cause.

One example of how some sites have had difficulty in positioning their cause within the local activist community is Honduras, which was in the midst of civil unrest and government violence. When its Hollaback was founded, the site leaders there experienced significant criticism from other activists who accused the Hollaback leaders of distracting from their cause against the violent government. However, the Honduras site leaders were able to position street harassment as a part of state violence. For instance, violence from police in the street was usually directed towards the bodies of women. By casting harassment as a vehicle for oppression and control in public space, Hollaback Honduras was able to be heard and ally with other activists.

Similar accusations were used against Inti Maria Tidball-Binz in the Juan Terranova incident—that street harassment was being used as a way to distract from real economic inequalities and failings of the government. Terranova in his Tweets accused Inti Maria of being a part of a Western bourgeois non-profit. Thus, as argued earlier, it is crucial for transnational activist communities to be aware of the history of colonialism. This point is crucial for transnational collaborations to be effective. Also, this point is illustrative of the importance of local help and support in addition to the online community. In-person, emotional support seems to be crucial in dealing with potential personal attacks.

Technologies can also help to develop emotional support. However, there are few

tools that are built explicitly to develop and foster emotional ties and consensusbuilding. The Hollaback community has had to work hard to use existing tools to accommodate this community. In particular, emotional support and the creation of a safe space is imperative for Hollaback. There is an opportunity here for further research to develop technologies to support and foster emotional ties and consensusbuilding online.

4.10 Contribution

By examining the Hollaback organization, I have examined empirically how technology plays a role in a feminist social movement organization. I looked to answer the question, What is the relationship between the Hollaback organization and its technology? As a result, I have shown some evidence that enabling digital activism may help deconstruct the identity of the professional activist and help create a pipeline of new activists who have never engaged with activism before. This finding provides more nuance than charges that activism online is merely "slacktivism." In contrast, doing activism online helps position activism as something that does not conflict with work and can be done in spare time. Technology also helps historically marginalized people to engage with social causes they might not otherwise have time for or access to. Although Hollaback is principally construed as digital activist work, site leaders are required to engage locally. In some cases, this is more work than some site leaders anticipated.

The work in supporting new activists highlights the importance of creating a strong community online to help keep site leaders accountable. Although I have seen evidence of how the Hollaback community has appropriated tools such as the listserv and Facebook to foster strong ties, there is more work needed to examine how technology can better foster emotional support and create and maintain strong ties online. This is especially important for those activists who are not able to find much emotional support locally.

I have also shown how the configuration of the technology helps enforce rules and a particular politic of limited decentralization within a social movement organization. There is a tension between how the technology can help create a more unified voice and accountability while also creating conflict about autonomy and the interpretation of rules. The technology helps enact the division of labor by forcing activists to focus on their locale.

CHAPTER 5

TACTICAL SOCIAL MEDIA

Social media is becoming a widely used tool in social movements. From the Arab Spring (a revolutionary wave of protests that occurred in the Arab world in early 2011) to the Occupy Movement (an international protest movement working against unequal economic and social structures), tools such as Twitter and Facebook seem to be intertwined with how people do activism on the ground and virtually. Just prior to the Arab Spring in a 2010 New Yorker article, Malcolm Gladwell stated, "The revolution will not be tweeted." (Gladwell, 2010) He argued that social movements cannot effectively take place on social media and that strong social ties that are necessary for building and sustaining a movement. Gladwell states that these strong ties cannot be present on social network sites, which lacks the affordances to nurture such ties. He claims that participation in activism online is "slacktivism," and does not deeply engage people around a real cause. Citing Granovetter, Gladwell argues that social media is mostly comprised of weak ties making it good for the diffusion of information, but this does not lead to high-risk activism (Granovetter, 1973).

However, research illustrates that Twitter was used to disseminate on-the-ground information to Western audiences during the Arab Spring (Starbird & Palen, 2012). Other work illustrates that there are tactics used to spread propaganda with social media, which include sending large volumes of tweets from many accounts (Lumezanu, Feamster, & Klein, 2012). However, there is not much work examining whether these tactics are effective in garnering new followers. In eliciting new followers, social media use and on the ground organizing are not mutually exclusive. Rather, social media is often integrated into a broader program of action; it can serve as a conduit for actual happenings on the ground and communication amongst activists.

Yet, it is not clear exactly how activists tactically use social media. There is little empirical evidence surrounding the tactics activists use in spreading messages to elicit new followers. More broadly, we do not understand the best practices for Twitter use even non-activists. Advice from social media experts that recommend, for example, "to tweet three times a day," are based on intuitive or personal experiences, but usually not grounded in data (DIOSACommunications, 2011).

To answer the question, *What technological tactics are Hollaback activists using in social media?*, I will examine Hollaback's use of social media. Each Hollaback locale also has its own Twitter and Facebook account. This represents a different approach than adopted by most centralized activist groups that usually have just one Twitter account and one voice responsible for messaging.

In this chapter, I will first characterize Hollaback's usage of social media. Secondly, based on Hollaback's reported usage of social media, I will examine Twitter. I hone in on Twitter specifically because of its controversial purported role in activism. A statistical analysis of Hollaback's Facebook usage is left for future work. Specifically, I ask whether there is a relationship between the number of tweets per day, mentions, links posted, and retweets; and whether these factors have any correlation to an increase in the number of followers for a given account. I look at this in the context of Hollaback, which serves as an interesting case because of the similarity and cohesion of each of these individual Twitter accounts.

5.1 Social Media Usage

In addition to the individual Twitter accounts, there is a Facebook group for all Hollaback site leaders and volunteers. The internal Facebook group grew out of an active Listserv, when people complained about the amount of traffic.

In late February of 2012, I collected follower counts of each local site's Facebook

and Twitter accounts (if present.) As shown in the table, not all Hollabacks are active on both Twitter and Facebook, and the mothership's social media accounts are by far the most successful in terms of number of followers. As part of the interviews I conducted in Chapter 4, I asked site leaders how they used Twitter and Facebook, including what specific tactics they used.

Two site leaders stated that they tried to follow and reach out to local or related organizations.

"What we've done is we follow a whole bunch of Houston-centric things, like *The Houston Press* and *The Culture Map*, and those are kind of the alternative press type papers." –P11

Another site leader from the UK liked Twitter better than Facebook.

"I feel like Twitter generates much more traffic than Facebook does." –P3

Others spent more time on Facebook because they were already hanging out there.

"I'm just already there and I have profiles for myself but also for my band and my business, and it's all there in one place. I'm just there checking my friends links anyways." –P6

Another site leader preferred Facebook because she felt when using the Hollaback organizational account on Twitter, people were more aggressive and it was hard to find the correct "voice" for an organizational account.

"I didn't know how to engage with people as a Hollaback person as much because I can have nice conversations but some people are kind of aggressive when using the Hollaback account." –P10

However, several site leaders preferred Twitter because of the anonymity and privacy.

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US Mexico UK	NYC Mexico City	20,531	4526
UK	Mexico City		4920
		1294	1356
G.1. 1	West Yorkshire	141	886
Colombia	Bogota	68	641
Czech Republic	Czech Republic	106	534
UK	London	403	452
UK	Birmingham	144	452
Canada	Ottawa	101	398
Turkey	Istanbul	708	333
India	Delhi	138	329
Argentina	Buenos Aires	811	305
US	Boston	173	259
US	Houston	106	252
India	Chandigarh	267	238
Germany	Berlin	315	207
US	Baltimore	380	206
US	Philadelphia	219	201
Israel	Israel	624	200
US	San Luis Obispo	68	168
US	Atlanta	139	167
Canada	Edmonton	163	131
US	Des Moines	170	128
US	Chicago	161	122
US	SoCal	206	115
Canada	Winnipeg	238	107
New Zealand	Wellington	222	102
US	Portland	223	92
US	Richmond	185	83
India	Mumbai	199	83
US	Lawrence	84	78
France	France	80	71
India	Chennai	129	68
US	Columbia	349	50
Honduras	Tegucigalpa	648	49
UK	Manchester	168	48
Puerto Rico	Puerto Rico	71	36
Canada	Montreal	81	26
Croatia	Croatia	77	25
Mexico	Queretaro	1174	20
US	Portland ME	62	17
Germany	Duesseldorf	74	0
Chile	Santiago	0	0
US	Twin Cities	62	N/A
US	Palo Alto ₈₆	19	Ń/A

 Table 5: Numbers of Hollaback Twitter and Facebook Followers

"When it comes to Facebook, hell no, I'm a very private person, so Facebook is like the devil to me." –P8

Site leaders from Croatia, France, and Germany stated that Twitter was not very popular in their respective countries so they opted to use Facebook instead.

One site leader from Mexico City gave a webinar on social media because they have had so much success on Twitter and Facebook. Some of the tips she suggested were to engage in conversation with people and organizations with similar interests.

"When I found interesting tweets by such NGOs or people, I retweeted or began dialogues with them, showing solidarity, showing we were there."

She also thought it was important to illustrate that Hollaback is international and popular with the press by sharing links.

"I also tried to retweet the articles and media appearances of other Hollaback sites to show people about what the movement was about internationally, because it is amazing and now that it has grown so much there will be so much more info to share."

However, she also said that offline work is equally important.

"(It is) important to recognize that not everybody has the opportunity to access mobile and internet technology, so go out to the streets, spread the word so people can share their stories, become conscious about street harassment and feel the solidarity."

Thus, Hollaback site leaders use social media differently depending on privacy needs, perceived effectiveness, online harassment, and convenience. Based on these interviews, the webinar, participant observation, and information that people were sharing on the Listserv and Hollaback Facebook group about social media tactics,

Hollaback Site	Twitter Username
Canada, Alberta	@HollabackAB
Canada, Ottawa	@HollabackOttawa
Germany, Berlin	@hollabackBLN
India, Chandigarh	@hollabackCHD
India, Delhi	@delhihollaback
Mexico, Mexico DF	@atrevetedf
London, UK	@hollabackLDN
Atlanta, US	@hollabackatl
Philadelphia, US	@hollabackphilly
New York City, US	@ihollaback

 Table 6: List of Twitter Accounts Studied

I decided to examine to what extent these tactics related to the number of new followers over time. The tactics include retweeting, mentioning, tweeting 3-5 times a day, and tweeting links (a description of these terms is in Table 7). In order to get a more structural view of these tactics, I decided to quantitatively evaluate them. Specifically, I wanted to test the hypothesis that the number of links, retweets, mentions, and tweets per day predicts an increase in followers.

5.2 Method

From the period of April to September 2011, I collected the number of new followers each day for 10 different Twitter accounts. Most of these accounts were part of the first class of Hollabacks launched in March. The account usernames are listed in Table 6.

Next, using twitteR (an R package) and the Twitter REST API, I gathered all tweets by each of these accounts during the same time period. The total number of tweets I collected was 3,111. From this data, I was able to calculate the number of tweets per day. I next searched for the number of retweets, mentions, and links (see Table 7 for a description of each of these twitter terms.) For mentions, I used the Twitter API that indicates when a tweet is a response to another user. For retweets

Type of Tweet	Example		
Tweets/Day	The total number of tweets per day		
Mentions/Day	The total number of mentions (public responses		
	to another user) per day, e.g. "@DanTresOmi		
	THANK YOU! And thanks so much for your sup-		
	port!"		
Links/Day	Total number of tweets per day that include a link,		
	e.g. "Ke\$ha: Hollaback Hero? Hollaback Hero!		
	http://bit.ly/ikkUrB"		
Retweets/Day	The total number of retweets per day or reposting		
	of another user's tweet (e.g. "Us too! RT @the-		
	linecampaign: our collaboration with @iHollaback		
	is important to us!")		

 Table 7: Twitter Term Definitions and Examples

and links, I searched for 'RT' and 'http' respectively (searches were not case sensitive and 'RT' had to have beginning and trailing whitespace.)

Because it is difficult to determine exactly if and when the tweet action causes a new follower, I aggregated the data by day, in the same way that the new followers were collected. I am making the assumption that the follower effect happens within the same day as the tweet action due to the fast-paced nature of Twitter, where tweets tend to get buried very quickly. I did adjust the data to incorporate a one day delay between tweets and the new followers, but this did not affect the results.

5.3 Results

Descriptive statistics are shown in Table 8. The median number of tweets per day about the number that is often recommended to non-profits (DIOSACommunications, 2011).

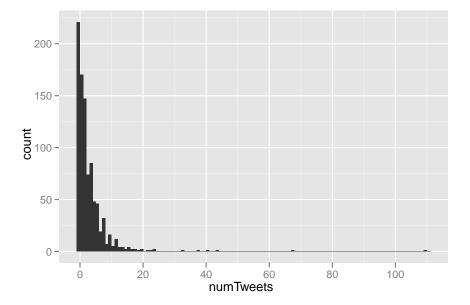
Histograms of each of the variables are shown in Figures 13 through 17. Each of the variables are clearly positively skewed. This means that the bulk of the values are to the left of the mean and none of the data are normally distributed.

I wanted to see if there was a relationship between the predictive variables (Tweets,

	Median	Mean	SD
Tweets/Day	2	3.41	6.00
Followers/Day	1	2.59	3.60
Mentions/Day	0	0.66	1.62
Links/Day	1	1.78	3.16
Retweets/Day	0	0.35	0.93

 Table 8: Descriptive Statistics of Twitter Data

Figure 13: Histogram of the Number of Tweets per Day



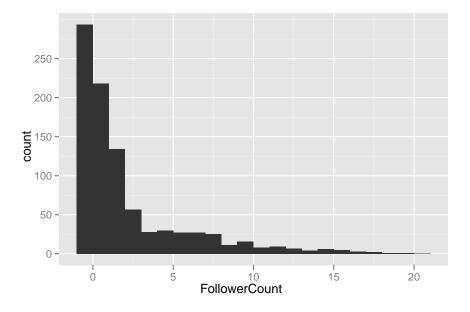
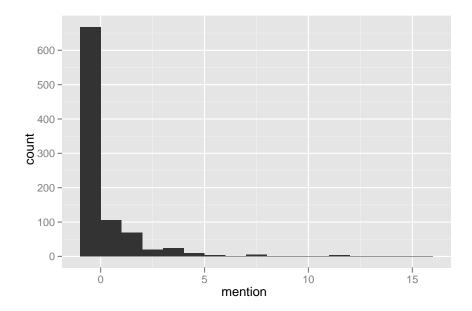


Figure 14: Histogram of the Number of New Followers per Day

Figure 15: Histogram of the Number of Mentions per Day



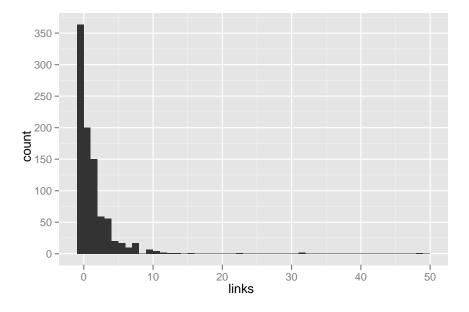


Figure 16: Histogram of the Number of Links per Day

Figure 17: Histogram of the Number of Retweets per Day

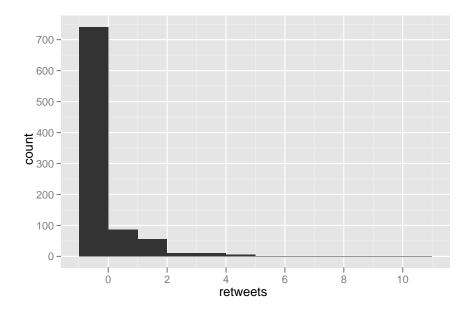


Table 9: Correlations, $^{**} = p < 0.001$

	Tweets	Links	Mentions	Retweets
Follower	0.0901**	-0.0904**	0.2729^{**}	0.0165

Table 10: Multiple Stepwise Regression for Followers, $^{***} = p < 0.0001$

Variable	В	SE(B)	t	р
(Intercept)	1.9636	0.13261	14.807	2e-16 ***
Mentions	0.73567	0.08065	9.122	2e-16 ***
Tweets	0.05095	0.02938	1.734	0.0832
Retweets	-0.1403	0.13041	-1.076	0.2823
Links	0.01125	0.05159	0.218	0.8274

Residual Standard Error: 3.355 on 908 degrees of freedom Multiple R-squared: 0.1373, Adjusted R-squared: 0.1335 F-statistic: 36.14 on 4 and 908 DF, p-value: < 2.2e-16

Retweets, Links, and Mentions) and the dependent variable (Followers). I used Spearman's correlation because the data is not normally distributed and has a positive skew. As shown in Table 9, there are significant correlations between Followers and Tweets, Links, and Mentions.

Next, I ran a multiple backwards-stepwise regression over the same variables as shown in Table 10. The only significant variable in this model is Mentions. The model explains 13% of the variance. I stepwise removed other variables and re-ran the regression, but did not find any improvements in R-squared or any other significance in any other variables.

5.4 Discussion

Hollaback leaders use a blended approach to social media in their activism. They embrace using Twitter or Facebook, but also remark upon the importance of offline actions. Some use social media to strengthen and build offline relationships in their community. From my analysis of 10 different Hollaback Twitter accounts, it is surprising that only the number of mentions significantly predicted an increase of followers. Hollaback Mexico's recommendation to initiate conversations with potential allies on Twitter was on target because mentioning other Twitter users predicted an increase in followers. But the common advice to tweet a certain number of times a day wasn't necessarily helpful to increase the amount of followers. Although there was a significant correlation of Tweets and Links to Followers, these variables did not predict an increase in Followers. My model also only accounts for 13% of the variance. Thus, there must be other factors that are contributing to the growth in the number of followers or the statistical model used is not appropriate. I discuss the potential for other factors in the following sections.

5.4.1 The Role of Traditional Media

One factor that the model does not account for is the dates of publication of articles. Some of the spikes in the follower counts could be explained by traditional media press releases. For example, there was a large spike in Hollaback Mexico City followers in April 2011 with 56 new followers in one day (see Figure 18). On that day, Hollaback Mexico City was featured on a prominent political blog, Animal Politico. There was another spike in June 2011 (53 new followers in one day) that can most likely be attributed to a radio show appearance on which the site leader talked about a large upcoming protest march. For Hollaback Ottawa, there was a spike on April 5th, 2011 when the site was launched and had a publication in the national Canadian news (see Figure 19) ("iHollaback Ottawa", 2011). Similarly, Hollaback Berlin had a spike in followers on April 6th, 2011 after they launched and also appeared in national news (see Figure 20.)

Outreach to traditional media is a tactic judiciously used by Hollaback. Before launching a new site, local site leaders are trained in press writing and required to

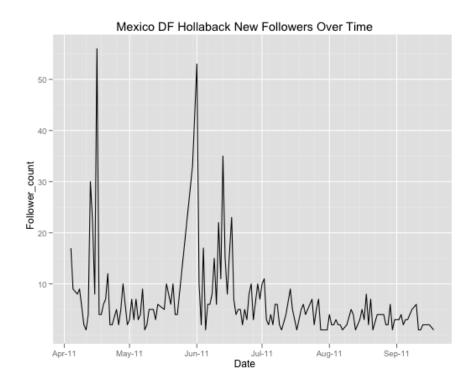


Figure 18: Number of New Followers for Mexico

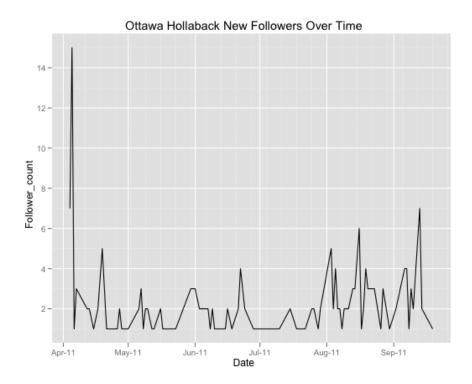


Figure 19: Number of New Followers for Ottawa

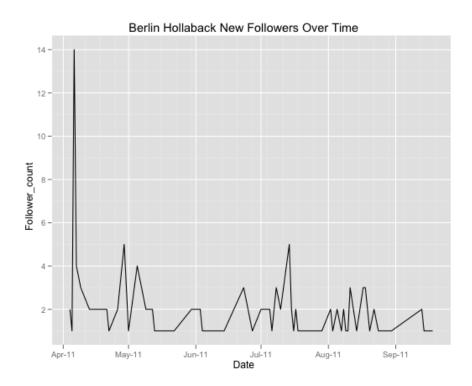


Figure 20: Number of New Followers/Day for Berlin

submit a release to local press contacts. Because the local sites are launched in waves, there is some buzz created by having 10 new branches launch on a single day with multiple local press reports. Traditional media, then, still appear to play a significant role in social media for Hollaback. However, there is little work that looks at the connection between social and traditional media in activism and social movements. One exception is research that qualitatively examined the use of social media to engage traditional media in Singapore protests (Skoric, Poor, Liao, & Tang, 2011). Hollaback provides another example of how engagement with traditional media is important to gain awareness on social media.

5.4.2 Offline Presence and Local Action

Local Hollaback sites may also gain new followers and prominence based on events they host offline. Sites regularly engage with people in their local communities by holding community forums, doing street art, and organizing protests. That is, Hollaback activism is about connecting the physicality of public space and community with the digital, and situating these local happenings within the context of a greater international phenomenon. One site leader stated that they also tries to follow many local organizations and have conversations with them on Twitter in order to build a feminist activist community in their city. In this way, Twitter is explicitly used to establish offline ties and local community. This statement reflects the finding that mentions and conversations within Twitter predict an increase in followers.

5.4.3 Connections to Other Social Network Sites

Another potential variable is the connection to other social network sites such as Facebook. Most Hollaback sites have active Facebook pages, and people may learn about the Twitter accounts via Facebook and vice versa. For example, Hollaback Mexico City regularly links to their Facebook account on Twitter. However, some Hollaback sites prefer one site to the other. For example, Hollaback Israel prefers to engage solely on Twitter because of the real name policy on Facebook. Using their real name might be potentially dangerous to them. In contrast, Buenos Aires Hollaback prefers to engage with people on Facebook because it is easier to have a conversation there and she states that people are more aggressive and hostile on Twitter. There is more work needed to look at the relationship and interaction between different social media such as blogs, Facebook, and Twitter.

5.5 Contribution

The goal of this study was to broadly examine, *What technological tactics are Hollaback activists using in social media?* Through interviews with site leaders and participant observation I have shown that Hollaback activists use different techniques with Facebook and Twitter. For some, Facebook is a more appropriate medium because they are already there, and they feel that they are able to have more in-depth conversations. For others, Facebook is not a viable option because of the real-name policy. Others felt that they got better information on Twitter. Site leaders stated that on Twitter they re-tweeted information, mentioned other people, tried to tweet a few times a day, and posted links. Using this qualitative information, I hypothesized that these particular tactics would lead to an increase of followers over time.

However, only one of the variables (Mentions) in the model that I examined predicted an increase of followers on Twitter. This finding illustrates that conversation and engagement with other Twitter users is important to increase the amount of followers and awareness. It is surprising that the numbers of tweets, retweets, and links did not predict an increase of followers, contradicting many Twitter "best practices" to retweet and tweet often. This finding suggests that other factors contribute to an increase in followers. Traditional media is often neglected when talking about the role of social media in activism. Traditional media plays a key role in disseminating information to people that otherwise would not engage on Twitter or are outside the realm of influence for these organizations. More work is needed to investigate the ecology of new and old media within social movements. Social media allows the people to contribute to and influence traditional media, but more work is needed to undersand how this is done.

CHAPTER 6

THE ROLE OF STORYTELLING ONLINE IN A SOCIAL MOVEMENT ORGANIZATION

Storytelling has long played a part in social change and movements. It is these narratives that most distinguish social movements from other forms of collective action. According to scholars of social movements, storytelling is how people learn, exercise agency, shape identity, and motivate action (Ganz, 2001). For Hollaback, storytelling through the sharing of harassment experiences is the central activity.

For this study, I wanted to understand why people share their stories of street harassment on Hollaback and what effect, if any, this has on their experience and future actions. Specifically, sought to answer the question: *What is the role of storytelling using technology in a social movement organization?* First, I wanted to understand the ways in which sharing stories online with an activist audience impacted the experience of contributors. Secondly, I wanted to understand if sharing a story has led contributors to other actions. Third, I wanted to understand how the stories have impacted the activities of activists.

Hollaback offers two ways to submit stories—through the web or the mobile app. Stories have overwhelmingly come from the web. Part of this is due to the way the original mobile app was designed, whereby people report their harassment and then have to follow up with their story through email. The response rate to these emails was very low. A new app was released in April 2012 that allows people to submit their story within the app. We expect this to increase response rates of the stories submitted via mobile phones.

6.1 Social Movement Framing

For this chapter, I use the concept of *frames* to analyze the impact of storytelling on Hollaback. This concept is used to study social movements and is derived from Goffman who defined a frame as a "schema of interpretation" that enables people to "to locate, perceive, identify, and label" experiences they have within the experiences of society (Goffman, 1974). Frames help us to interpret individual experiences and then to guide action. More specifically, collective action frames are "action-oriented sets of beliefs and meaning that inspire and legitimate the activities and campaigns" (Benford & Snow, 2000). Rather than a fixed set of beliefs, collective action frames are the outcome of a negotiated shared meaning. Frame alignment processes are the ways in which individuals and social movement organizations link or align their frames.

Benford and Snow identify frame alignment processes, or how individual frames become linked with collective understandings (Benford & Snow, 2000). Frame transformation is a process that produces a change in the individual level specifically "in cognitive orientation and emotional sensitivities." People shift from one way of seeing and understanding an issue and oneself to a different way. Frame bridging is when individuals who share similar grievances are given information that persuades them to bridge two seemingly disparate issues. Frame amplification is when an issue is highlighted to be a part of the social movement organization's frame, and how it is compatible with the underlying beliefs and values of potential supporters. Frame extension is when the social movement organization expands the boundaries of what is considered part of the frame. Bedford and Snow identify the specific actions or core framing tasks that social movement organizations use to try to invoke these different framing processes. Core framing tasks include diagnosing a problem, proposing a solution, and eliciting a call to action or providing a rational for action.

Participant	City	Age	Occupation
P1	New York City	29	Grad Student
P2	Baltimore	19	Student
P3	Richmond, VA	22	Student
P4	Baltimore	27	Grad Student
P5	Atlanta	33	Public Health
P6	Richmond, VA	20	Student
P7	LA	23	Server/Improv Actress
P8	LA	25	Student
P9	Houston	20	Student
P10	Boston	25	Executive Coordinator at Non-Profit
P11	New York City	29	Grad Student
P12	London, UK	30	Human Resources
P13	London, UK	36	Peacebuilding Advisor at Non-Profit

 Table 11: Participant Demographics

6.2 Methods

6.2.1 Data Collection

A research assistant and I interviewed people who submitted a story through the website. We selected participants by sampling from a variety of different Hollaback sites within the United States and the UK as well as selecting for a variety of different experiences such as verbal harassment, stalking, and assault. We emailed sampled contributors and asked if they would like to participate in a research interview about Hollaback. In the email, I disclosed my role the technical developer for Hollaback as well as my position as a graduate student doing research. Because of the potentially emotional nature of the topic, we offered to conduct the interview either through phone or instant message. Four of the 13 participants opted for instant messaging because they felt more comfortable over that medium. One participant stated that it was a very emotional topic for her and she felt more comfortable talking about it over instant messaging. We continued to interview until we ceased to encounter new themes. The list of participants who we interviewed are in table 11.

Assault	1
Groping	3
Potential Abduction	1
Stalking	2
Verbal	6

 Table 12: Participant Harassment Experiences

The interviews were semi-structured (Seidman, 2006) and we asked questions such as, "Tell me your experience with Hollaback."; "Why did you decide to post a story?"; "How did you feel after posting your story?"; and "Do you view sharing your story as a part of doing activism?"

6.2.2 Data Analysis

Using methods from Miles and Huberman, my research assistant Michaelanne Dye and I transcribed the interviews that were conducted over the phone (Miles & Huberman, 1984). Next, working independently, we inductively coded the interviews. We then met together and organized the codes into themes that were both emergent and informed by related literature on framing in social movements. Finally, we selected the themes relevant to the relationship between technology and activism. In the following section, I present those themes.

6.3 Findings

Participants had a range of experiences of harassment, but the most prominent was verbal harassment (shown in table 12). We did not interview anyone who had been harassed due to sexual orientation, race, or gender non-conformance.

6.3.1 Prior Structural Impediments

Participants felt a lack ways to deal with their street harassment experiences. There are several structural factors that impeded participants in coming to terms with the

experience or doing something about it.

For one, participants said that they were hesitant to talk about their experience with friends or family because they had often been called "too sensitive" or that they were "overreacting" when they had tried to bring it up before. P3 stated,

"I think that awareness is the best way to call attention to a problem, especially one like street harassment that's so easy to overlook (I'm often called 'sensitive' for getting upset about it) and I decided that I also wanted to share mine."

Others felt that their friends or family might criticize them for the way that they handled the harassment rather than share pride in their courage.

"The reaction I got every single time was just 'what if you had been hurt, what if they had come after you.' And then I felt like I had to say, if it had been dark and I was the only person there I wouldn't have done that. Then they say oh OK. I feel like that shouldn't be the initial reaction and on the Hollaback site it really is not." –P5

In sharing their experience with others, two participants were fearful that mentioning their experiences to their family may have limited their independence and freedom.

"Oh I've shared it with a lot of other people besides my family because I know that they already don't want me here by myself. And because I'm short and I look young for my age they're very overprotective. I have a very overprotective family; lots of older brothers. If they knew it wouldn't go over well. I'm not sure how they would react. Especially now since I want to eventually move off of campus it might not be wise to tell them." –P2

Three participants tried to elicit the help of the police and were unsuccessful and experienced further blame in doing so.

"When you get told by the cop that "you shouldn't have done this, you asked for it, and you shouldn't have called" it's hard not to question yourself. Like...maybe I am overreacting?" -P10

One participant felt that posting her story limited her ability to contact the police. In her case, she had verbally attacked her harasser back and she posted this on the Hollaback website. Although she only posted her first name, she felt that the police might find that evidence and hold it against her. She was frustrated and angry that in the eyes of the law she cannot defend herself.

Participants also felt that they have been taught a script from an early age that the best thing to do is to ignore it and walk away. Yet, this made them feel like they lost some power, making them unable to deal with harassment as it kept happening, sometimes on a daily basis.

"I've always been taught that if a guy yells at you, you should just ignore it and walk quickly away. But sharing my story reminded me of all the times I've been made to feel uncomfortable by some asshole who somehow expects me to react to what he's saying to me." –P3

6.3.2 Diagnosing a Problem and Frame Extension

By visiting the Hollaback website, participants were able to problematize their experiences, whereas before they thought the harassment as just a part of life. This is a core framing task used by social movement organizations to elicit a frame shift.

"I was reading everyone else's [stories] and came to the realization that this was actually a really big problem." –P3 "Before reading those stories, and posting, I accepted it as the norm to get harassed all the time."–P7

As a result of problematizing their experience, two participants were able to extend their frame. That is, Hollaback gave them a way to connect their experiences of street harassment with a greater frame of the right to be in public space and the position of women in society.

"Posting it did a weird thing to me though ... I used to be able to brush off a lot of the stuff I get on the street and at work, because I've been getting it consistently since I was in high school, but now I think it means something more to me to be able to just walk down the street and be left alone." –P7

"But it's not something that I really thought about as a serious problem. But now, I think it definitely portrays how people think about women. I think it's disgusting." –P9

Participants mentioned that sharing on the Hollaback website was good for reflection. This is particularly evidenced by participants that share stories from incidents that happened years ago.

6.3.3 Frame Transformation

Posting and reading stories on Hollaback changed the way that participants thought and felt about their experience, both cognitively and emotionally. That is, they experienced a frame transformation in their beliefs and feelings about the experience of being harassed.

6.3.3.1 Change of Emotions

In reading other people's stories of harassment on the site, participants felt that their own experience was validated and that they were not alone. "It felt reassuring to realize that so many other people are also fed up with getting harassed going about their daily business." –P3

"Yeah, I mean before I personally had felt that it was not OK but it was very validating to know that there was a whole group of people out there that felt the same way I did and that could articulate, better than I could, why it was not OK." –P10

One participant mentioned that by posting, she could in return be a marker on the map of harassment for someone else:

"Just like for me, it makes me feel better to know that there are other women going through the same thing and trying to put a thought to it. I know I can be a little star on the map for someone else so they know they are not alone either and part of the collective activism." –P8

They also felt that by posting their story, they were able to reclaim some power that was lost when they were harassed.

"Contributing to Hollaback was productive. That was a scary situation for me as a teenager and [posting] was a way to make something positive out of it. "–P9

"I felt empowered posting my story on the website whether or not anyone read it. Obviously, someone did. It made me feel a lot better knowing it was out there." –P6

"I felt better. I didn't do much but I felt I had done something. Made me feel that I was taking back some of the power."–P13

Further, reading other stories helped participants feel that being harassed was not their fault and helped shift the blame and burden of the experience. "I became more sure in my conviction that I was right to consider what happened was really, really wrong. Not to just accept it as part of life." -P5

However, for one participant posting the story made her feel that she was not regaining any power and that she was still acting like a victim.

"Well, because it didn't feel like it was from a position of power. It was good putting it out there, but it also felt like complaining and just leaving it there, instead of it leading to action." –P12

When she experienced the harassment, she was very angry and wanted to do something about it. She posted to Facebook about starting a site similar to *Microag*gressions site (Microaggressions.com), a place where people submit seemingly benign experiences of racism or other oppression. On her Facebook wall, one of her friends pointed out that Hollaback existed and encouraged her to post to the site. In this case, the participant wanted to do more than only posting a story. She had already connected the experience of being harassed with a lack of power in society.

But for four participants, the experience of writing out their stories or sharing art about it was therapeutic and cathartic.

"I think well after experiencing it, I don't know how to put it into words,

I felt like I had to articulate better the actual experience of what had happened." –P6

6.3.3.2 Shifting to the Collective

After sharing their story and reading others, participants shifted from believing the experience was "just them", to viewing it as part of a broader, collective phenomenon and as part of a community. Participants also wanted to understand how their individual experience related to a collective one and what they should do about it. "Sharing is like standing with the group of people who will understand what it feels like to be threatened and scared but who have not accepted what society tells us about it being "okay" and that we shouldn't complain." –P5

"It made me feel like I was a part of something. There was an excitement that came across in the other women's postings with what they were sharing. It was a camaraderie out of something that's pretty negative. But they're trying to change things and I felt that from reading the other stories." –P2

"I think [going to the site] was to see if other women had this shared experience. Like what the temperature was; how other people were dealing with it or feeling about it. Because it's just a constant, and I think I may have said this in my post, but it feels like constantly that I'm getting comments or whistles and it's even happened to me again since my post. I actually got groped again in a very public place. I was actually at a bar with my boyfriend you know so like it's just so ridiculous and I wanted to see how other people are reconciling this in their daily lives." –P1

6.3.4 Hollaback as a Networked Public

Because the stories are online and serves as a networked public (Benkler, 2006; Boyd, 2007), storytelling online impacted those who shared it. By networked public, I specifically refer to boyd's definition of "spaces and audiences that are bound together through technological networks" that include the properties of persistence, searchability, replicability, and invisible audiences (Boyd, 2007). Participants talked about how it felt good that their story was "out there" in a fixed medium.

"I felt like I got the complete story in a fixed medium and that maybe

other people would see it and it was kind of like alright, like checking a box. It was a good feeling."–P1

Others used the public nature of the site to thank those that had helped them and could not be thanked in the moment.

"On the off chance he had told the story to someone or found the website, that he would know that I was really grateful. I feel really bad for never getting the chance to thank him because he was so nice." -P6

Two participants submitted art pieces that expressed their experience, and felt that the website would have an audience that would appreciate and understand their art.

"I felt cool for posting my painting because I have never shown at a gallery or anything. It felt good to have an audience to appreciate what it was about." –P8

Some participants viewed the Hollaback website as a safer space than Facebook; they felt that Facebook was not a safe space for them to share their stories.

"If I had posted that story on Facebook, people could take what they wanted out of it. Like thinking I wanted attention. But by posting it on the Hollaback website, you know the context of the website is like these are people submitting their harassment stories. So I felt really good about it." –P6

"I did share it on Facebook and people who read it came up to me and said, "you need to be careful." I just think that's ridiculous. It's kinda close to victim blaming. I just think that women that we always have to be afraid of men and there's no other way to exist." -P10

However, one participant used Facebook to garner support, and then posted to Hollaback later as a way of giving back. "Facebook narrows down the people who are reading your posts. People who know you know and support you on a personal level, people who may or may not think about things the same as you. So I had friends and for the most part people who think along the same lines as I do, supporting that but more than just discussing it among my own friends and my own social network, Hollaback is more open to the public." –P11

Due to the public nature of Hollaback, one participant wanted to make sure she posted a story that would not call into question that she did anything wrong.

"I've been harassed countless times as I'm sure tons of people have, but i chose that particular story because it was so blatantly wrong. It was broad daylight and I was in a public place. I thought people should realize that street harassment happens everywhere, not just in dark alleys." –P3

6.3.5 Responding Back and Dealing

For some participants, posting a story also changed the way that they reacted to harassment later. One participant who was working as a server, started talking back and learning how to stand up for herself:

"[After posting the story] I've also started getting what you might call "sassy" at work to guys who try to hit on me. You have to read the table and be careful, because if you get too bitchy you might get a complaint to the manager about you being rude, but lately I've just been as bitchy as can be to people who think they can talk down to me. Or people who call me "sweetie" or ask me to sit at the table and eat with them. I have to keep an air of "it's all in good fun," but I'm definitely talking back more. It makes me feel like I can actually let them know I'm a human being. Plus after I sass them, they'll usually laugh, but they'll stop hitting on me. Back when I was just nice, it would continue until the check came." $-\mathrm{P7}$

One participant said that she started talking to more people about her experience including her dad.

"But I found myself forcing myself to bring it up and to tell people about it and to, even like, people I wouldn't normally tell this to, like my Dad. It's something weird to talk about but I wanted people to know this happened to me, it's not cool, and you should support me. Hollaback cultured my feeling that this should be shared." –P1

Another participant read other stories to prepare for how to respond back in the future.

"It almost prepares you if you're ever in a bad situation. You've already thought about it. It gives you a head start." -P9

One participant experimented with calling out someone who was harassing another person. She didn't feel as though she did it in the best way and is trying to negotiate with how best to respond to a harasser.

6.3.6 Unpacking Activism

For participants, activism and feminism were loaded terms. We asked if they felt if sharing their story on Hollaback was "doing activism." Some were hesitant about the label.

"Sort of. I'm not really much of an activist, but I do the atre, so I feel like story-sharing is a big part of helping the human condition." -P7

"I don't consider myself an activist in this area but I knew when I saw the site that it's an activist site and that posting to it would be contributing to that cause not just to document a story but to agitate for change. But I can see sharing stories in a non-activist's way still being important." -P5

"When I was thinking about this whole thing last year and stuff and writing down my stuff I was wondering if someone would call me a feminist and stuff because some people have negative connotations if I like start making art like this." -P2

However, others thought that sharing their story was definitely a part of doing activism.

"I think so. I think the first step towards change is acknowledging there's a problem and raising awareness. I feel very strongly about sharing my stories with people so that they know they're not alone. This is why I also share that I was sexually assaulted two years ago. I think some of the best activist work comes from letting others know they're not alone and that what is happening to them is not OK." –P3

"Yeah I do. That is part of the reason I like Hollaback, part of the activism for this issue at this point in time is making people aware of it. I think that is how it starts, once people realize its a problem then you can do something about it. Until people realize it's a problem it's hard to make anything happen." –P4

6.3.7 Method of Sharing

All of the participants we talked to submitted their story through the website. We chose not to interview people who used the mobile app because people who do submit through the mobile app do not typically follow-up with their story as described earlier.

Participants who shared via the website were either unaware that there was a mobile app or they commented on their lack of a smart phone. "Well I don't have a smartphone, I have a phone from the stone ages."–P10

"I don't have like a fancy phone."-P6

"I didn't know there was a phone app but I have a super old school phone

so I can't access internet on it anyway."-P3

The website provided a way for people to share stories who do not own smart phones. One participant stated that she would have appreciated a way to report her story via SMS. These findings point to the importance of how providing a variety of technological access is important for people to be able to share their story.

6.4 Discussion

Due to many structural impediments, Hollaback gave a space online for participants to talk about experiences in a way that they could not do offline. The very act of writing a story changed how participants felt and thought about their experience.

6.4.1 Crowd-Sourced Framing

As a result of reading and writing stories on Hollaback, participants went through a frame transformation process (Benford & Snow, 2000). The very act of writing their experience and reading other stories changed their cognitive orientation toward how they viewed their experience, problematizing the experience as street harassment and connecting it to a greater phenomenon and collective experience. In addition, design features such as the map of harassment and the archive of stories worked to also illustrate a collective phenomenon. Writing and reading also changed participants' emotional sensitivities. Participants shifted from blaming themselves to transferring blame to the problem of street harassment and getting angry about it. Some participants also experienced a frame extension where by they connected the experience of street harassment to a greater frame of the denial of participation in public space and the position of women in society in general.

Sharing stories online provides a different way of performing traditional core framing tasks. Because the stories are crowd-sourced and told by people around the world, participants themselves are also performing the core framing tasks along with the social movement organization. Traditionally, social movement organizations have had more access to the media and positions of power and have played a more active role in defining the problem, proposing solutions, and calling for action. On Hollaback, people read suggestions of ways to deal and respond back to harassment. Beyond raising awareness, crowd-sourced storytelling helps to fundamentally change the way that people think and respond to a phenomenon.

6.4.2 Concealed and Resistance Stories

Storytelling is a tactic historically used in many social movements, and in particular anti-racist movements. According to the theoretical framework for a critical examination of racism through storytelling, there are different types of stories that accomplish different things (L. Bell, 2010). *Stock stories* or stories that are told through dominant groups that rationalize the status quo and help to reveal and uncover biases. *Concealed stories* are stories told by non-dominant groups and counter stock stories by uncovering different ways of experiencing the world. *Resistance stories* are stories about how people have resisted and challenged stock stories and experiences. *Emerging/transforming stories* are constructed to "challenge the stock stories, build on and amplify concealed and resistance stories, and offer ways to interrupt the status quo to work for change" (L. Bell, 2010).

For the participants we talked to, we categorized their stories as concealed and resistance stories. That is, they told stories that they felt unable to tell other people due to structural impediments (concealed) and that recounted attempts to fight back (resistance). Typically, stock stories were also present about how they were sick of victim-blaming and knowing that how they were supposed to react (by ignoring it) was not working.

These stock stories are in part informed by a class analysis of harassment and public space. By not reacting to street harassment in Italy and San Francisco, for example, is a part of maintaing class and respectability. By denying that street harassment happens, women can maintain a certain amount of feminine respectability similar to upper classes, where men of "lower" social classes do not have any access to women of "higher" classes (Guano, 2007; Sewell, 2000).

Sharing these concealed stories has helped site leaders decide what to focus on in terms of their activism. For example, in Buenos Aires, a lot of stories were posted by teenage girls. The site leader, Inti Maria, decided to hold work shops in schools and to target youth. In France, there were many stories of sexual assault which led the site leader to gather and post resources on help lines and to learn more about how to respond to these intense cases. In New York City, there were a lot of stories of how bystanders failed to help out. In response, the mothership started a Bystander Campaign whereby people who *witness* street harassment are also called on to share their story and given ways and ideas to intervene. In this way, Hollaback is trying to to amplify the frame of street harassment to include everyone.

Some site leaders have told transformation stories about their own personal experiences. For example, one site leader in Winnipeg, Canada, told a story about how a man asked if he could compliment her. She gave him consent, and he told her that he really liked her hair. She felt comfortable about the interaction because she gave consent.

Note that this type of storytelling is different "digital storytelling", which is a particular kind of storytelling that uses video to share stories (Meadows, 2003). There are some disadvantages to this medium and technique. For one, it is impossible to be anonymous and second, many people do not have access to video editing software or technical skill. Third, there is not always a public forum to publish or participate in the telling of these stories. As we have seen in the responses from the Hollaback site leaders, there also may not be a social movement organization to respond to this data. Thus, the medium (the availability of text or images to remain anonymous) and a community are important in order to publish this information, as discussed in the next section.

6.4.3 Safe Space vs Networked Public

Hollaback works as both a networked public and as a safe space, but there is tension between these roles. The stories on Hollaback are open to anyone to read and to potentially comment on (though site leaders moderate comments.) Additionally, some stories of harassment from Hollaback have been replicated through traditional media.

But, for some participants, Hollaback was the only place that they could talk about their harassment experience—for them, there was no one else they could talk to, online or offline. However, Hollaback is an imperfect safe space. Participants were afraid of those invisible audiences who might be critical about the way they reacted to the situation. One participant was worried that sharing would impede upon their ability to contact the police or they were worried about their safety by posting the story.

Yet posting these stories was also an act of reclaiming power and doing activism, even if not always seen in these terms. Thus, there is a need for a safe space online where people who experience harassment and feel powerless to deal with it can work through their emotions and understandings of it without fearing criticized. Yet the networked public property of Hollaback is important for reclaiming power and doing an act of resistance in response to harassment. For some participants, sharing a story was also training for talking about their experiences offline, in public, to their friends and family.

6.4.4 Methodological Considerations

In the course of this study, there were additional findings related to method. At first, we offered to conduct interviews over the phone. However, one early participant asked if she could do the interview over instant messaging because she felt more comfortable with the medium for such an emotionally laden topic. After that, we decided to offer the option of phone or instant messaging to all participants. Out of 13 interviews, four were conducted over instant messaging. Thus, for more emotionally laden topics, it is important to offer different choices of medium when interviewing.

Similarly to my experiences interviewing intimate partner violence survivors (Dimond et al., 2011), often I found that I had to support and validate participants in their experience. That is, even though they often went off topic and spent more time talking about their experience of their harassment, it was important for me to not push the conversation toward how their experience related to technology. Because of the emotionally heavy topic, it was important to act as someone willing to simply listen and validate. This is different than research interview methods that recommend researchers to be neutral and to not show any emotion about what participants are saying. In this case, both my research assistant and I were also supporting the participants and helped them deal with traumatic experiences.

Participants also commented that part of their reason for agreeing to interview that they saw it as another way to give back, and to fight against street harassment. That through participating in the research, they were doing another form of activism or giving back. This fits within the action research paradigm which asserts that research is also part of activism.

6.5 Contribution

In this research, I have shown that storytelling online is powerful. Sharing stories on the Hollaback platform helps participants shift their cognitive and emotional orientation surrounding traumatic experiences. Telling stories online provides a different way of performing traditional core framing tasks because the stories are crowd-sourced and told by people around the world. In this way, people who experience harassment can help frame what the movement against street harassment is and what street harassment constitutes.

CHAPTER 7

ACTION AND FEMINIST RESEARCH IN HCI

"If you are here to help me, you are wasting your time. But if your liberation is bound up in mine, then let us work together" –Lilla Watson, Australian Aboriginal Activist and Artist

As HCI has moved into its "third wave" and engaged with contexts beyond the workplace, it has started to take on social and political issues. Examples of more socially and politically engaged research include HCI for development (Kam et al., 2010), civic engagement(Assogba, Ros, DiMicco, & McKeon, 2011b), and sustainable design (DiSalvo et al., 2010). Along with this, there has been debate about what is considered "good" or how research engagement can contribute to a betterment of human life. For example, Taylor stated in his 2011 CHI paper that he finds himself "struggling with what this better might be. How will we know it when we see it, and how will we know whose better it is?" (Taylor, 2011). In response to these issues, Bardzell put forth a set of methods and design values to grapple with these issues, called Feminist HCI (Bardzell & Bardzell, 2011; Bardzell, 2010).

In this chapter, I first use Bardzell's Feminist HCI framework to position Hollaback as an example of a Feminist HCI design by exploring its fulfillment of the six values that constitute such a feminist design. In doing so, I provide an example of a feminist design *in action* or "for real" (Yee, 2011). I then hone in on the value of participation to consider the role of the researcher. I expand upon the value of participation to consider action research as an approach that feminist HCI designers could use. I describe the opportunities and challenges for approaching work in this way, and consider different criteria for validity. First, I will look at how my work with Hollaback fits within the Feminist HCI framework.

7.1 Feminist HCI

In response to growing HCI research in social issues, Bardzell put forth a feminist HCI framework for generative design principles and specific methodologies inspired from feminist theory and social sciences. Taking roots in fields such as studies of technology and science (STS), architecture, and industrial design, as well as prior HCI papers that use feminist theory, Bardzell provides an HCI feminist framework with which to guide the design of feminist technologies. There are six qualities to a feminist design, and the constellation of these qualities makes a feminist technology (Bardzell, 2010). These qualities are pluralism, reflexivity, participation, advocacy, ecology, and self-disclosure. I define each of these qualities in turn when I frame my work within this theory.

Additionally, Bardzell and Bardzell contributed a Feminist HCI methodology in order to illuminate specific methods for carrying out such research (Bardzell & Bardzell, 2011). Some of these methods include a co-construction of the core research activities and goals, researcher self-disclosure, and researcher reflexivity. Some of these feminist methods share some of the same as in action research, such as a coconstruction of research questions. In Chapter 3, I have examined my role and values as a researcher in this project. Further, research questions in this dissertation were co-constructed with Hollaback leaders. I use my empirical data to look at Feminist HCI within the context of Hollaback. I then expand the value of "participation" and "advocacy" to incorporate action research.

7.1.1 Self-Disclosure

The quality of self-disclosure refers to the extent that the design of technology is transparent about the way it affects those who use it. The Hollaback site makes explicit that Hollaback is a social movement organization and that submitting stories is a form of participation. For example, the main graphic on the site states it is a "movement" to stop street harassment. The design has affordances for activist participation online through sharing stories and mapping them. The organization was founded based on the frustration of getting harassed, groped and stalked, and having no other option than to just walk on.

Sharing stories of harassment on a public forum helps to raise awareness of the scope of the problem. Geocoding the stories on a map further illustrates that the stories are part of data collection and awareness. The design aims to make visitors feel as though there is a collective movement against street harassment and that people who do experience it are not alone.

The design tries to communicate that the map is not about learning what places to avoid, but rather that harassment happens everywhere. This serves a different function than mapping systems such as Ushahidi, which was developed to report location-based incidents rather than to frame a particular problem (Okolloh, 2009).

The graphic design also tries to communicate that it is edgy and bold through the use of bold fonts and the Hollaback graphic. However the design also communicates that it is feminine, through the heavy use of pink. The graphic design borrows from a riot grrrl punk aesthetic (Rosenberg & Garofalo, 1998). Although I have contributed to the design of the website, the style guide and Hollaback graphic were the work of a marketing volunteer and graphic designers. Story contributors mentioned that the site felt like an activist movement (this is described in more detail in Chapter 6.)

However, communicating that stories are moderated and subject to the antidiscrimination statement is challenging. Tensions around this is are discussed in Chapter 4. The site also has the potential to reinforce stereotypes, which is in Section 7.1.5.

7.1.2 Pluralism

Pluralism is a quality that rejects a "one design fits all" approach wherein designs are claimed to represent everyone. For Hollaback, a pluralistic design was rooted in the history of the organization. After Hollaback New York started its blog in 2005, people in other cities created similar blogs under the Hollaback name. However, after a couple years, most of these blogs were no longer active. The mothership in New York wanted to create a way to unite these blogs while keeping them active and able to support one another. Hollaback leaders in New York recognized the need for local control and adaptation to cultural differences.

The Hollaback New York team and I designed a way to allow local control over the technology as well as their activist practices. Each locale or city, such as Buenos Aires (buenosaires.ihollaback.org), has control of its own site that includes a blog, persistent content, and a place to submit stories. The design of this site was extended from the Wordpress multisite platform. Content variation is necessary according to different regions. For example, in Israel, the site leaders did not want to allow users to post pictures, as slander laws are different and potentially harsher there than in other countries. As a result, the Hollaback wordpress template was designed to be able to accommodate this need.

In order to unify the graphic design, the Hollaback leaders in New York developed a style guide in order to give sites a consistent look while allowing for local modifications. For example, the leaders of the London site were able to make a graphic representing that particular city. The platform has also been extended to support a ten different languages. Finally, since the term "Hollaback" does not translate well to other languages, some of the site leaders from Spanish speaking countries met and agreed upon a translation (atrevete) that would capture the same spirit. In this way, the technology has been adapted to allow for local control of site content and style, while maintaining a consistent umbrella and brand. Currently, the phone app is not localized and just represents Hollaback in English, but plans are under way to expand this to include a text messaging platform and localization. Hollaback sites also have control of their own social media—each site has its own Facebook and Twitter account.

The storytelling model also supports pluralism. Because the stories are crowdsourced, people who contribute help define what street harassment is and what site leaders do. More on the way that storytelling supports the process of framing is described in Chapter 6.

The design of the Hollaback organization and technology has supported pluralism, and is working to further accommodate other localized needs, such as support for text messaging to accept stories.

7.1.3 Advocacy

The quality of advocacy means that feminist HCI research and design work to bring about political emancipation. Researchers and designers should also question their position and discuss what constitutes such emancipation. The Hollaback organization and design is principally about emancipation from harassment and violence on the streets directed towards women and LGBTQ people.

The approach of using emancipatory action research is also essential for my participation in the project. In order to do research with Hollaback, I do not position myself as a "friendly outsider", but as a participant with Hollaback and a researcher. The research that I choose to contribute back to the HCI community is also of interest to Hollaback. As part of the action research framework and feminist methodology, research questions are co-constructed with members of Hollaback.

There is also tension about what kind of advocacy Hollaback is supposed to support. When I interviewed people who contributed stories to Hollaback, there was a question of whether Hollaback should serve as a safe space to talk about dealing with harassment versus bringing attention to the issue. This tension between Hollaback as a networked public and a safe space is discussed in Chapter 6.

7.1.4 Ecology

The quality of ecology emphasizes the material effects that a designed artifact has on social life, and how the artifact can reflexively design those who use it. For Hollaback, the materiality of the designed system has social effects. Designing autonomous sites for each locale reinforces the organization's desire for decentralized governance. For example, the discourse used in Hollaback refers to the local organizations as a "site," a term that refers to both the website and geographic locale.

A site's ability to represent itself through social media, such as having its own Twitter and Facebook account, further emphasizes local control through technology. Individual site leaders take up different issues depending on locale. For example, Hollaback Baltimore got involved in the Occupy Movement in Baltimore and worked to establish safe spaces for women and LGBTQ people within it.

However, the technology also reinforces Western view and privileged-class participation in some areas of the world. For example, there is not currently a text message version of Hollaback, which limits participation to those who have computer access and/or smart phone access. Although people can submit stories via SMS-toemail services, they are not able to participate and see other stories that have been submitted.

As a site leader from India told me,

"The internet is still nearly unheard of for most working women or many many many aren't even familiar or comfortable."

Thus, in order to submit a story or participate as a site leader, one must have access to these technologies. Another consequence of the Western origin of both the technology and the organization are some political barriers. In Egypt and Lebanon, there are similar projects such as HarassMap, but joining the Hollaback umbrella may delegitimize their cause because of attitudes towards the West. Hollaback as an organization is aware of these issues, brought to its attention by leaders in Honduras, India, and Argentina, and is working to expand access and participation. In Chapter 6, I examine the material effects of sharing a story, and how it has influenced behavior and cognitive orientation towards harassment.

7.1.5 Embodiment

The quality of embodiment exapids embodied interaction design to consider gender commonalities and differences, gender identity, sexuality, pleasure and desire, and emotion. Hollaback uses blogging, phone apps, and mapping; to enable the sharing of every day experiences of different bodies. Storytelling is used to convey emotion and the lived experience of different women and LGBTQ people; they discuss their experiences of harassment, violence, and how to cope and continue life. Storytelling provides a way for people to tell concealed stories about how they navigate life, quite apart from the dominant narratives of how people live and experience the world.

Sharing and reading these stories has fundamentally changed the way that people think about their experience and reactions. Through frame transformation, the digital experience has had an important impact on emotional and material life (this is further discussed in Chapter 6).

However, an issue brought to the forefront by Hollaback site leaders is the problem of enforcing stereotypes and doing harm. There has been concern as to whether the ability to publicly shame individuals using technology, may perpetrate stereotypes. For example, when a photo of a man of color is posted, this may further perpetrate the stereotype that only African American or Latino men harass people on the street.

Due to this, Hollaback has an anti-oppression policy and educates all members thereon. The policy was developed in collaboration with all site leaders through the Listserv using a Google document. The policy states that no story may be posted that is ableist, transphobic, homophobic, racist, or containing other references that may perpetrate stereotypes. Hollaback thus uses technology in order to illustrate the life and oppression of specific gendered bodies, but also considers other oppressed bodies and works to resist stereotypes.

7.1.6 Participation

The quality of participation entails valuing participatory processes in design and evaluation of technical artifacts. In my work with Hollaback, I have used a different approach that combines participatory design (exemplified by the Feminist HCI framework) and emancipatory action research (described in the next section.)

I have worked as a design partner with the Hollaback leadership team, volunteers, and site leaders. Our team has graphic designers, marketing professionals, writers, programmers, and veterans in community organizing and media. A hierarchy governs who has the final say about design decisions and sites must comply with a style guide, but the guide is not very strict and has shifted according to need. For example, some logos were allowed to be changed to accommodate translations. Still, there remains tension between design freedom and accountability of the sites.

Design evaluation is also done by a group of volunteers including me. The action research approach helps to describe different processes of how to do this as a researcher. I build on the value of participation to examine the role of the researcher in the design and evaluation process by describing action research and how my work is positioned within that research approach. As stated in the methods section, action research or participatory action research is an "orientation of inquiry that seeks to create participative communities of inquiry" (Reason & Bradbury, 2008). Rather than separate the researcher and subjects of study, action research is a practice of participation that starts from working *with* others towards change, rather than changing others *out there*. Although there are many definitions of what exactly constitutes action research, there are four major themes: empowerment of participants, acquisition of knowledge, collaboration through participation, and social change (Masters, 1995). My work with Hollaback constitutes action research in the emancipatory branch. In contrast to the pragmatic, emancipatory or liberation action research has its roots in radical social movements such as Marxism, anarchism, feminism, anti-racism, environmentalism, and liberationist movements in Latin America (e.g. Paulo Freire (Freire, 2011).) In addition to co-constructed research and action, this approach also works towards ending intersecting layers of oppression such as racism, sexism, and classism, and to unravel dominant epistemologies and structures. That is, emancipatory action researchers take a political stance and become aligned with those with whom they are conducting research—they are no longer outsiders. They make their values explicit and do not claim any objectivity or distance from their participation.

7.2 Emancipatory Action Research and Feminist HCI

Emancipatory action research and Feminist HCI are complementary. Emancipatory action research builds on the Feminist HCI value of participation by providing researchers with an approach to doing research that challenges power structures, in both the research approach, activity, and partners. Feminist HCI provides a way to approach design accounting for the socio-technical relationship of social change and the body. Emancipatory action research helps expand the value of participation and advocacy in Feminist HCI by considering the role of the researcher as possibly that of an insider rather than a typical friendly-outsider. By building on the value of participation, this approaches Feminist HCI "for real", outside of academia (Yee, 2011). This is perhaps the key difference between Feminist HCI and emancipatory action research. Emancipatory action research explicitly tries to dissolve the power dynamic of the researcher/designer and their collaborators. That is, emancipatory action research emphasizes non-hierarchical and horizontal structures.

There are opportunities for approaching research in this way, but there are also challenges.

7.2.1 Opportunities

Emancipatory action research and Feminist HCI together challenge and shift the power dynamic of the role of the researcher and those who are being researched. Because design in HCI is explicitly interventionist, researchers in HCI have become more engaged with the social world through technological design interventions. However, there have been questions about how to construct interventions that contribute to a social "good."

Emancipatory action research and Feminist HCI encourage the researcher to come to terms with what constitutes social improvement through their involvement and research activities. Through methods such as researcher reflexivity, researchers write and reflect on the values they bring to their work and their position within the community. Rather than leading the intervention or research, they partner with other people working on the same issue, as equals. This is accomplished through a co-construction of research questions, where the researcher and the community decide together what research and design activities can help advance social change. As a result, the power hierarchy is flattened and provides opportunity for horizontal knowledge building and design.

The broader impact of this type of research is clearer than in traditional HCI research because it is focused on social change. The relevance and authenticity of the research to society is also clearer because there is a community of people who contribute to how the research is defined and carried out. The community legitimizes the research activity through collaborative effort. Legitimacy is important for technical systems. Often, technical systems are built with out a community of people,

and as a result, the technology is not useful. If produced through community partnership, there is more of a chance that a system will be relevant and therefore used. Researchers may have an expertise in doing research or building technology, but do not have expertise in the lived experiences of social issues. Researchers have to do work to mitigate power dynamics around research and technology expertise.

7.2.2 Challenges

There are challenges in doing emancipatory action research and Feminist HCI. First, these approaches are useful in the context of social change but may not be very relevant otherwise. Funding sources are also problematic in this type of research, as funding often comes from institutions reluctant to sponsor social change that may threaten or question their legitimacy.

7.2.2.1 Power and Technical Skill

There are potential power issues with respect to technical knowledge in working with a social movement organization. There are two sources of knowledge that have a potential for the enactment of power. The first is technical skill in programming and implementing digital technologies while the second, is the skill in evaluation and research methods that other researchers will take seriously. By power, I refer to Foucault's concept of power-knowledge where power is inseparable from knowledge and is an enacted practice (Foucault & Gordon, 1980). The potential power issues of the action researcher should be taken seriously in emancipatory action research.

I have programming skills that people within the Hollaback organization do not have, and therefore they rely on me to be the expert in this area. In trying to achieve more of a horizontal power structure here, one tactic I have used is working with a team of technical volunteers and co-designing with site leaders. We have worked with six different volunteers in the development and maintenance of the site. I have recruited them from Georgia Tech, from the Hollaback website, word of mouth, and other Listservs I am on. For example, I elicited help from the Systers email list for women in computing. In this way, I try to serve more as a volunteer coordinator able to fix something if no one else can. A challenge, however, with this approach is volunteer attrition, which is costly in time spent to coordinate volunteers, teach the system, and set up access. All of this work is not relevant to research communities and is part of the extra work involved in doing this kind of research.

Another way I tried to make the development process more transparent was to set up a bug tracking and feature request system. I choose to implement it as a spreadsheet that would be more accessible to non-programmers than a formal bug-tracking system. The spreadsheet was readable and writeable by all Hollaback members, but the priority of the issues and requests was set by the Hollaback leaders in New York. In this way, we created a balance between transparency and open discussion and the need for leadership in design and development. However, this was only maintained for about six months because of the amount of overhead involved. As development has progressed it has also been not as necessary because most of the major features have been implemented.

We have also encouraged site leaders to recruit technical volunteers if they need to add something custom to their site. This tactic requires a level of trust in granting access to many volunteers and potentially raises security issues. However, I have found success with this approach.

7.2.2.2 Research Relevance and Unrelated Work

Another challenge is the amount of work that is not novel nor related to research activities. For example, much of my time is spent answering technical support questions in setting up new Hollaback sites. I have tried to off load these questions to the Hollaback community Facebook page, but people seem to be hesitant to ask technical questions there at times. This is particularly common with newcomers who may be intimidated in expressing their lack of knowledge and technical skill. On the plus side, site leaders from the early launches tend to respond to more questions because they understand how busy the technical volunteers are.

7.2.2.3 Community Commitment

Another challenge in doing emancipatory action research is that the commitment of the researcher tends to be aligned more with the group than with the research community. As a result, the researcher may shy away from critical analysis that could harm the organization's legitimacy and hamper fundraising. A technique I have used in doing this work, as mentioned in the previous section, is to get the help of other researchers in analyzing the data. Another result of the researcher's commitment is that less work may be published and disseminated to the research community because more effort is put toward practical action and furthering the organization's goals.

7.2.2.4 Validity

One issue with doing this type of work is communicating results to a research community that may be operating under a more positivistic paradigm. An action research approach may be less convincing in such communities because of the position of the researcher as a participant. Herr and Anderson developed five validity criteria against which action research projects can be evaluated: the generation of new knowledge, achievement of action-oriented outcomes, education of researcher and participants, results that are relevant to local settings, and use of a sound and appropriate research methodology (Herr & Anderson, 2005). Here I review my research in the context of these criteria.

Generation of new knowledge. This work contributes to the generation of new knowledge in several ways. First, I developed an understanding of the impact of technology upon activists who participate in Hollaback and the tensions of the current organizational model. Second, I quantified the effectiveness of which social media

tactics do and do not work, and the reaffirmed importance of the popular press. Third, I showed that storytelling online is a powerful process for those who share stories as well as the Hollaback organization. These knowledge contributions serve both the Hollaback and HCI communities.

Achievement of action-oriented outcomes. Through my work with Hollaback we have launched over 50 different local sites in collaboration with over 100 new activists around the world. We have led the movement to frame and define street harassment and created ideas for ways forward. This dissertation does not examine the effect of Hollaback on the rates of street harassment, however Hollaback is partnering with researchers at Cornell to examine this question. Thus, the scope of this dissertation is to examine how the technology affects the organization and activists, rather than evaluating the effect on street harassment.

Education of researcher and participants. Through this work I have gained skills in qualitative and quantitative research and the implementation of a large technical system. I have also learned much about social movements and social change, and have thought critically of the role of the researcher in doing such work. Hollaback activists have also furthered their technical and organizing skills as the platform has enabled them to take charge of their own branch.

Results relevant to local settings. The results of this work have contributed directly to the Hollaback organization. For instance, the interviews with Hollaback site leaders illustrated that there was some discontent in terms of fundraising and grant applications. As such, the mothership has been looking into ways to support local branches. The study on social media tactics also offers useful findings about how tweet and take advantage of traditional media. Finally, the storytelling study illustrates the power of telling stories online and the need for a safe space.

Sound and appropriate research methodology. My methodology is informed by feminist social sciences. I use both qualitative and quantitative methods, along with several tactics to triangulate my findings. For example, in my study of the Hollaback organization, site leader interviews were conducted by a Hollaback volunteer and me in order to minimize bias. My advisor (Amy Bruckman) and research assistant (Michaelanne Dye) are not part of the Hollaback organization. They helped with interviews and analysis to help overcome my potential bias towards the organization. I emailed the chapters to Emily May and Veronica Pinto (the Hollaback leaders in New York), to make sure I represented them fairly. Similarly, I emailed the case study chapters to Inti Maria Tidball, Crystal Rogers, Lauren Alston, and Daphne Larose.

CHAPTER 8

CONCLUSION

The research presented in this dissertation serves two purposes. The first purpose is to understand how the Hollaback technology is working and identify areas for improvement. This aim serves a practical commitment to the Hollaback organization and furthers the cause against street harassment. The second purpose of this work is to contribute to the HCI research community by investigating the role of technology in social movements. This work is done empirically through the use of storytelling online, social media tactics, phone apps, and localized blogging platforms. In the following section, I revisit my research questions and examine how I have answered them. Then I discuss my contributions to the HCI research community.

8.1 Research Questions

I approached this research with commitments to both the Hollaback organization and the HCI community. As such, my overarching question for this work was "How is the Hollaback organization working, and how can it be improved?" The work communicated in this dissertation focuses on findings that are novel and relevant to the research community, while other, more practical findings were communicated to the Hollaback leaders directly. Thus, for this dissertation, my goal was to study in depth the role of technology in a social movement organization.

8.1.1 RQ 1: What is the relationship between the Hollaback organization and the technology?

For this question, I wanted to understand how technology functions in the Hollaback organization at the individual and group levels. I examined this question through methods inspired by ethnography and action research including researcher participation, observation, and semi- and unstructured interviews. I also designed technology for Hollaback—this was an authentic way of participating in the organization. I worked with many of the leaders of Hollaback to help them with technical support questions, and co-design the system. I used both inductive and deductive qualitative analysis to examine the role of technology within Hollaback.

I found evidence that technology can help remove some barriers to participation in activism. Digital tools can help conceptualize activism as something that can be done in leisure time, parallel to work. The Hollaback platform relegates some power to the local level, giving historically marginalized people a chance to shape and determine their actions. At the same time, local sites are given support and direction if needed. Technology can help expand participation in social change to include marginalized voices that may not have a say in non-profits or other activist spaces where issues such as street harassment may be minimized. While some have labeled online activism as "slacktivism", Hollaback shows that there need not be a dichotomy between offline and online actions. Indeed, the amount of work required to sustain a site has come as a surprise to some.

Another finding is the tension between helping to sustain a network of activists and controlling how those activists represent themselves. This tension is manifested in the design of the local sites where activists have limited freedom in the style and content of their sites. Prior to the incorporation of Hollaback, site leaders could choose the technology they used, apply for funding as they pleased, and not be bound to a commitment to maintain their site. However, this proved to be an insufficient model for the cause against street harassment because many activists did not have a community to support them or hold them accountable.

I also found evidence that technology has helped to create a community that would not otherwise exist. Especially from structural impediments found from people who posted stories, there is simply not a feminist community in some spaces that give people the community they need in order to do something. Further, technologies can help to mediate emotional support. However, there are few tools that are built explicitly to develop and foster emotional support. The Hollaback community has had to work hard to use existing tools to accommodate this community. In particular, emotional support and having a safe space is imperative for the Hollaback community.

8.1.2 RQ 2: What technological tactics do activists utilize in social media?

Due to the appropriation of technologies by activists, there is a question about how activists use social media in order to spread word about their cause, and how it affects on-the-ground efforts. Hollaback activists use a variety of social media such as Facebook, twitter, fundraising, and online petitions in order to advance their cause. For this question, I look at particular Twitter tactics, and how they impact the number of followers. I motivated my quantitative analysis by interviews with site leaders where I asked them about their particular tactics in using twitter. I found that they tried to tweet a few times a day, post links, mention other people, and re-tweet other people.

In gathering the number of new followers every day for six months on twitter, I analyzed how the twitter tactics were correlated with an increase in followers. Only one of the variables (mentions) in the model that I examined predicted an increase of followers on Twitter. This finding illustrates that conversation and engagement with other Twitter users is important to increase the amount of followers and awareness. What is surprising is that the number of tweets, re-tweets, or links did not predict an increase of followers which contradicts many Twitter best practice guides to retweet and tweet often. This finding suggests that other factors contribute to an increase of followers.

Traditional media is often neglected in discussions of the role of social media in

activism. Traditional media plays a key role in disseminating information to people that otherwise would not engage on Twitter or are outside the realm of influence for activist organizations. More work is needed to understand the ecology of new and old media within social movements. Social media allows activists to contribute and influence traditional media, but more work is needed to grasp how this is done.

8.1.3 RQ 3: What is the role of storytelling using technology in a social movement organization?

For this question, I looked at how storytelling affects individuals who share stories, how those stories affect the actions activists do, and how this interplay is mediated through technology. I interviewed story contributors around the US and UK using semi-structured interviews and qualitatively analyzed the data.

This data revealed that as a result of reading and writing stories on Hollaback, participants went through a frame transformation process. The very act of writing down their story and reading the stories of others changed their cognitive orientation toward their experience, problematizing it as street harassment and connecting it to a greater phenomenon and collective experience.

Telling and sharing stories online provides a new way of performing traditional core framing tasks. Because stories are crowd-sourced and told by people around the world, participants themselves are doing core framing tasks rather than the social movement organization. Traditionally, social movement organizations have had more access to the media and positions of power, and have played a more central role in defining problems, proposing solutions, and calling for action. On Hollaback, people read other's stories offering ways to cope with and respond back to the harassment.

Through this research, I showed that beyond raising awareness, storytelling online fundamentally shifts the way that people think about and react to their experiences of harassment. I also explored how the crowd-sourced collection of stories impacts the actions and focus of a social movement organization. However, I observed a tension between the web as a networked public and as a safe space in which to tell concealed stories.

8.1.4 RQ 4: What are the opportunities and challenges for doing action research in a social movement organization as a technology developer?

For this question, I wanted to examine my participation as a researcher under the action research paradigm. I first looked at my work in Hollaback through the lens of Feminist HCI. Next, I built on the value of participation to re-envision researcher participation using an emancipatory action research paradigm. I demonstrated that there are both opportunities and challenges in doing such work. Research conducted in this way may be more conducive for supporting social change since the researcher acts as a participant, allowing greater commitment to the issue in addition to the research. On the other hand, there are challenges in doing research this way. Action researchers in HCI have to contend with power imbalances created by deficits in technical and research knowledge. There are tactics for dealing with such power imbalances such as recruiting technical volunteers and making technical work visible. But these are not always sufficient as action researchers also have to undertake extra work that may not be relevant to the research program. Additionally, researchers must communicate results to the research community, which may not view the work as objective. However, this also can be mitigated by involving other researchers not involved in the organization to help minimize bias.

8.2 Contributions

In this section, I describe the contributions of my dissertation work including the power of storytelling, the Hollaback community, social media tactics, and the role of the researcher in social change.

8.2.1 The Role of Storytelling Online for Social Justice

Storytelling online is powerful. The process of writing and reading an experience that no one else would take seriously helped to transform the way that participants thought about and responded to an awful experience. I used the concept of "framing" from social movement theory to help explain this shift. In particular, telling stories to both a public online audience and a supportive space gave people support and a way to reclaim some of the power they lost when they were harassed.

These stories also influenced and helped shape the activities of activists. Traditionally, social movement organizations have not had access to the wide range of experiences that people have in their everyday life. Technology helps crowd-source the multiplicity of lived experiences to help shape the definition of the problem and strategies for addressing it.

8.2.2 The Hollaback Community and Local Sites

The rapid growth of the Hollaback activist community was surprising. The Hollaback leadership team and I did not anticipate how many people wanted to start sites in their own cities. The amount of time and effort required to launch and support these sites is substantial, and the amount of work sustaining and supporting people with no community organizing experience continues to be a challenge. There are opportunities here for technology designs to help support new activists that may not be able to get support offline.

The Hollaback technology helped to conceptualize the activity of activism as something that could be done in spare time, but running a site was more work than some site leaders originally anticipated. Yet, it is important for historically marginalized people (such as youth, women, LGBTQ people, and people of color) to be able to direct their own activist projects and to learn how to have a voice in their communities.

8.2.3 Social Media Tactics

The empirical investigation into how Hollaback activists leaders use social media helped to shed light on the effectiveness of such tactics. In particular, I found that communicating with other people on Twitter was the only significantly successful tactic out of those examined. But I gathered evidence that traditional media plays an important role in gaining new followers on social media. More research should consider the ecology of traditional and social media.

8.2.4 Positioning the Researcher in Social Justice Research and Action

My participation with Hollaback as both a member and a researcher has shed light on the role of an HCI researcher. Entering into the Hollaback space, I brought two main areas of expertise: technical skill and research proficiency. At times, my technical proficiency was most needed and research activities had to be put on hold, as in the case of supporting new activists on Hollaback. The practical needs of the organization at times supersede the research process.

However, research can help legitimize activities and experiences to people who might not otherwise have an interest. For example, when I submitted the paper on storytelling for publication, Emily May stated that she was ecstatic because she could show the paper to potential funders to illustrate how this work matters. Although the work certainly matters to those who participate, research can help legitimize activist activities to people in positions of power, which may be important for generating funds. Meanwhile, the co-construction of research activities with the members of the organization is important in order for the research results to help the organization.

Emancipatory action research can help position the role of the researcher in a way that helps a social movement organization or cause. However, there are tensions in publishing such work in research communities where more researcher-subject distance is expected. There are tactics to mitigate these tensions, such as eliciting the help of other researchers who are not members of the group to help with analysis and writing. Emancipatory action research provides a way for researchers to participate in social change while remaining accountable to both research and activist communities.

APPENDIX A

INTERVIEW GUIDE I

The following interview guide is what we used to interview people who have shared stories on Hollaback. Our interview will follows a semi-structured format in which we respond to what the participant says. This list of questions describes the areas to be discussed. Exact questions varied.

- 1. Tell me about your experience sharing your story on Hollaback.
- 2. How did you decide to share your story?
- 3. How did you hear about Hollaback?
- 4. How did you feel after submitting your story?
- 5. Did you submit your story via the site or phone app? How did you choose?
- 6. What are your thoughts about the phone app?
- 7. What do you think about using a photo with your submission?

APPENDIX B

INTERVIEW GUIDE II

The following interview guide was used for site leaders of Hollaback. Our interview will follows a semi-structured format in which we respond to what the participant says. This list of questions describes the areas to be discussed. Exact questions varied.

- 1. Tell me about how you heard about hollaback.
- 2. Tell me how you decided to start one.
- 3. What are your goals for starting a hollaback site?
- 4. Tell me about the site you run.
- 5. What has surprised you about your experiences so far?
- 6. Tell me about the positives of running a hollaback.
- 7. Tell me the negatives.
- 8. Who do you work with?
- 9. Tell me about your experiences with technology and hollaback.
- 10. Tell me about the email group.
- 11. Tell me about your experiences with twitter and facebook.
- 12. Tell me about the blog and submissions.

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Feminist HCI For Real: Designing Technology in Support of a Social Movement

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How are technologies are designed and used tactically by activists? As the HCI community starts to contend with social inequalities, there has been debate about how HCI researchers should address approach this type of research. However, there is little research examining practitioners such as social justice activists who confront social problems, and are using technology, such as mobile phones, blogging, and social media to do so. In this dissertation, I build on this knowledge within the context of a social movement organization working to stop street harassment (harassment towards women and minorities in public) called Hollaback (ihollaback.org). I position myself as an action researcher doing research and building technologies such as mobile apps and a blogging platform to collect stories of harassment and to support activists. The organization has collected over 3000 stories and represents 50 different locales in 17 countries. Through a series of studies, I examined how technology impacts the organization, activists, and those who contribute stories of harassment. I found evidence that the storytelling platform helps participants fundamentally shift their cognitive and emotional orientation towards their experience and informs what activists do on the ground. My results suggest that doing activism using technology can help remove some barriers to participation but can also lower expectations for the amount of work required. I also looked at how different social media tactics can increase the number of followers and how traditional media plays a role in these tactics. My work contributes theoretically to the HCI community by building on social movement theory, feminist HCI, and action research methodology. My investigation also sheds light empirically on how technology plays a role in a social movement organization, and how it impacts those who participate.