CHAPTER 20. SAFELY SOCIAL: USER-CENTERED DESIGN AND DIFFERENCE FEMINISM

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Feminist concerns about decentralizing and redistributing power are rarely met in information design and environments. Social media conglomerates are gathering, compiling, and profiting from location information obtained from geolocation enabled smartphones. Participants exchange small amounts of privacy at a time for minimal return, sometimes unknowingly. Top down design decisions are especially problematic in the context of domestic violence where abusers can use geolocation technologies to target, control, and intimidate survivors through the monitoring of social media technologies. In this chapter, we describe the development of Safely Social. Safely Social is a contextually-designed smartphone application, currently in development by the authors, that seeks to ease location-based services' adverse effect on domestic violence survivors by disrupting abusers' power who can utilize location-based services as a means for tracking survivors' social and geospatial activity. We further discuss the theoretical and methodological implications of interventionist feminist projects like Safely Social.

Domestic violence impacts more than the two partners in a relationship; it engages multiple discourses: family life, support communities, social groups, and the legal system. We begin our chapter with a disturbing example of the multi-

DOI: https://doi.org/10.37514/PER-B.2018.0056.2.20

ple discourses and lives affected by domestic violence. In 2012, a man entered a Casselberry, Florida, hair salon where his ex-girlfriend, Alice¹, worked as a stylist. This man had a history of appearing at the salon unannounced and unwelcomed, and his family encouraged his ex-girlfriend to get a restraining order because they believed he was mentally unstable. His ex-girlfriend filed a temporary court-ordered separation injunction to remain more than 500 feet away from one another less than two weeks prior to her murder, and at that time she explained he had made threats to kill her.

The man proceeded to murder her, another stylist, another customer, and later the same day committed suicide. The murders took place just hours before the two were to appear before a judge to make the injunction permanent. A single instance of domestic violence impacts the family members of those involved, such as the family members who encouraged a restraining order, as well as the victims not directly tied to the conflict between the ex-girlfriend and her murderer. Social groups are also impacted as the co-worker and customer of the salon lost their lives too. The terrible tragedy we describe above has multiple causal factors, but for those interested in information design the most appalling is that several people's lives were impacted because of the assailant having easy access to information regarding his ex-girlfriend. This chapter discusses one approach for disrupting this flow of information through the use of a smartphone application that facilitates domestic violence survivors' ability to manage geolocation settings.

Feminist concerns about decentralizing and redistributing power are rarely met in design and environments. These top-down design decisions are especially problematic in context of domestic violence where abusers can use geolocation technologies to target, control, and intimidate survivors. When seeking assistance through community shelters, oftentimes survivors are asked to give up smartphones to further protect their privacy, but by doing so the abuser still retains power over the survivor. By making smartphones and social media places of danger, abusers continue to isolate and control survivors' social worlds.

Our project, *Safely Social*, is a contextually-designed smartphone application design project informed by feminist theories of listening, activity theory, and user-centered design to provide contextual understanding of domestic violence survivors' perspectives (see Anderson, 2012; Bowie, 2009; Kaptelinin & Nardi, 2006). Specifically, *Safely Social* seeks to ease location-based services' adverse effect on survivors by disrupting abusers' power gained by utilizing location-based services to track survivors. The feminist research process involved organizing and collaborating with a participatory design community comprised of repre-

¹ Alice, is a pseudonym as are all the names of individuals used in this piece.

sentatives from local domestic violence organizations, shelters, police, and the legal system. Drawing on user-design, the committee worked through three iterations of user interfaces in an effort to authenticate contextually relevant and user-centered features for survivors to maintain important social relationships without compromising safety. In other words, our community partners played significant roles in every step of the project as we built in multiple instances of feedback and assessment from the community partners, much like what Danielle Williams called for in this collection (Chapter 21).

This chapter documents the research process behind *Safely Social* as well as how feminist listening, activity theory, and user-centered design impacted our design considerations. While these three lenses are aimed at accounting for different voices and experiences, using all three of these theories together enabled us to keep in mind the needs and experiences of domestic violence survivors. We think that the development process of *Safely Social*, as well as the pre-production app itself, point to new kinds of feminist materialist interventions for the field. The theoretical and methodological design deliverable that emerged from a research project on domestic violence survivors' safety engages in feminist methodology by supporting a marginalized populations' control over their privacy in social media spaces as well as providing an example of applied feminist theory in information design contexts.

LISTENING FOR DIFFERENCE FEMINISM

Researchers cannot hope to implement effective change without knowing the subjectivities involved. As Patricia Sullivan and James Porter (1997) reminded us, "the rhetorical situatedness of participants," (p. 15) is especially important when working with marginalized populations like domestic violence survivors. In particular, the work of many feminist scholars like Malea Powell (2002), Krista Ratcliffe (2005), Terese Guinsatao Monberg (2008), and Jacqueline Jones Royster and Gesa E. Kirsch (2012) have focused on rhetorical listening as a research methodology itself. Rhetorical listening provides an avenue for hearing other narratives that tend to go untold or are told by those in power. In the context of feminist fieldwork, to attend to the needs of unheard groups, researchers must listen for the alternative discourse since it is the dominant discourse(s) at the root of marginalization and oppression. Monberg (2008) advocated an approach discussed by Jacqueline Jones Royster who "listens for the 'traces' that are visible in order to reveal the larger 'stream' of women in that tradition" (p. 87). In this way, researchers are able to give voice to marginalized and oppressed populations, thus providing opportunity to challenge essentialist perceptions. Furthermore, by listening and seeking the 'traces' and 'streams' Powell (2002),

Monberg (2008), and others speak of, researchers provide insight into "the rhetorical situatedness of participants" (Sullivan & Porter, 1997, p. 15). These positions take populations being studied in the field as subjects who are "actively negotiating, shaping, and building spaces, institutions, and histories of rhetoric" (Monberg, 2008, p. 91). In our work with Safely Social, this move towards rhetorical listening for other subjectivities became a key component for paying attention to the right kinds of activity streams of survivors. However, it is noteworthy that practicing rhetorical listening with marginalized populations, like domestic violence survivors, is not an easy feat. To simultaneously collect the traces and streams of survivors' lives without potentially causing harm by diverting survivors' attention from learning to live their lives without abusers, the research team practiced Royster and Kirsch's (2012) strategic contemplation and social circulation. Through strategic contemplation and social circulation, we used public stories and experiences told by advocates as a tool for mapping the overlapping and complex relationships involved in escaping an abuser, and then we contemplated and imagined the stories still untold and, ultimately, how we could make an effort to reach survivors with varying experiences. These stories and experiences are what Jess Tess, Trixie G. Smith, and Katie Manthey refer to (Chapter 19, this collection) as "coming out as other" and "personal moments of vulnerability," and sharing these moments were crucial for our project.

Turning to designing technologies and usability, subjectivities play an important role as researchers decentralize the dominant narratives in place to better serve marginalized populations. As advocate designers, two key theories that assist researchers in the field when conducting this work are activity theory (Kaptelinin & Nardi, 2006) and the universe of users (Bowie, 2009). Activity theory is focused on a more holistic picture or stream of an activity by documenting actions of multiple subjectivities involved in seeing a goal accomplished (Kaptelinin & Nardi, 2006). To fully understand a single activity, researchers need to be in the field observing and interacting with those involved with that activity. Likewise, collaboration, as Ames Hawkins and Joan Giroux discussed (Chapter 18, this collection), played a crucial role in our research and design process.

INFORMATION AND OPPRESSION

Applying feminist rhetorical listening to activity theory was helpful in understanding the issue of domestic violence survival as an activity. Drawing on social circulation (Royster & Kirsch, 2012), the design team worked with survivors, domestic violence organizations, police, and the legal system to develop our map of the complex actions involved with domestic violence. These persons, groups, and institutions work to achieve and maintain privacy in an effort to ensure safety, the desired outcome. Further, they employ artifacts such as cell phones and applications to control privacy and maintain safety. The division of labor involves controlling phone, social media, and geolocation settings from multiple subjectivities but rarely does that control lay at the feet of survivors. Our approach was shaped specifically on identifying different activity streams of participants. For example, drawing on Powell's (2002) encouragement of researchers to reimagine by identifying the differences, we were able to use activity theory to create a complex narrative by listening to the traces and streams from individuals who are survivors and those who advocate for survivors, as Monberg (2008) recommended. To that end, survivors' lives are completely reorganized when leaving a violent situation, leaving no time or energy for technology training to serve as an intervention in the safety and privacy concerns associated with geolocation technologies. Due to survivors' vast array of experiences and backgrounds, a user-design theory (Bowie, 2009) is needed to account for as many of those experiences and backgrounds as possible.

While activity theory was fruitful for a complex understanding of survivors' lives, using activity theory with social justice work poses challenges. Due to the nature of domestic violence, as researchers our access to survivors was limited and we elected to rely on information that would be openly given to the public in an effort to protect survivors' privacy. This meant relying heavily on domestic violence organizations and representatives to give voice to survivors. Protecting survivors is of the utmost priority for the organizations and institutions involved, and as researchers we can adopt reflexive practices so that a research project can overcome such obstacles (Sullivan & Porter, 1997). To this end, activity theory can remain a fruitful approach, but as Victor Kaptelinin and Bonnie Nardi (2006) emphasized, the theory may need to be reshaped to better fit particular projects like ours. In our case, this meant relying on secondary source material—those who give voice to the survivors' stories publicly—to provide key insight into the activity system.

The concept of the universe of users is grounded in the idea that there is no single user that is representative of the entire user population due to differences in gender, race, and socioeconomic status (Bowie, 2009). Focusing on the universal user results in other groups not being considered in the design and then being forced to interact with tools not designed with their use in mind. Jennifer Bowie's (2009) universe of users, though, enables researchers and designers to consider a whole network of potential users as a part of the design process so that various users with differing backgrounds are considered. With social justice projects, the universe of users approach facilitates feminist listening for developing a rhetorically-situated project. The more users who can be involved, the more voices can be accounted for to avoid essentializing the user population.

Our desire to create an inclusive view of activity, one that contained multiple perspectives and subjectivities traditionally marginalized, encouraged us to look beyond a universal user.

LISTENING IN THE FIELD

Our team engaged in the feminist and rhetorical listening principles and theories described in earlier sections, particularly Royster and Kirsch's (2012) strategic contemplation and social circulation resulting in Sullivan and Porter's (1997) notion of critical praxis. By employing qualitative research methods to observe, experience, and understand the work of domestic violence survivors and organizations, our team engaged the researched and their advocates as co-researchers and co-developers of knowledge and interventions. Employing activity theory, feminist listening, and ethnography, research findings were gathered, organized, visualized, and shared with a participatory design community by mapping inferred relationships and charting activity streams. Involving and meeting with a participatory design community provided a forum of strategic contemplation aimed at social circulation (Royster & Kirsch, 2012) through feedback, listening, and revision. Ultimately, design choices for the final iteration of the Safely Social app interface directly reflected research findings and input from the design community obtained through feminist and rhetorical listening, ethnography and discourse, mapping, participatory user experience design, and praxis.

The full thrust of research involved becoming immersed in the domestic violence survivor culture and activity streams to prepare for contextual and participatory design. Team members engaged in extensive ethnographic activities to better understand the context and framework in which domestic violence survivors work to control their privacy to ensure safety. At the time of our research, it happened to be domestic violence awareness month. Domestic violence organizations hosted many events in our local area seeking to raise awareness, support, and funds for the issue. The domestic violence events and activities we dwelled in ranged from university to community to nationally sponsored initiatives. Additionally, we dwelled at our county courthouse to observe how survivors navigate injunctions and separation logistics. Team members attended several of these events and activities, which provided worthwhile opportunities for feminist listening and inference, particularly what Royster and Kirsch (2012) define as critical imagination, to understand the discourse, language, activities, and stories of the people affected by domestic violence as well as chances to make connections with the local domestic violence organizations. Ultimately, this research, paired with analyzing the issue in terms of activity theory, allowed our team to map complexities and design new technology for this vulnerable population.

National initiatives discussions: Domestic violence is a broad issue that is approached from various angles and collectively is eased at the national, government, private, community, and grassroots levels. The National Domestic Violence Hotline offers phone-based advocates that are available to provide survivors assistance in planning a safe escape ultimately by connecting them to local resources. The United States government assists by providing funding for programs like the National Domestic Violence Hotline and other projects such as some of the apps we discovered in our research. Local non-profit organizations, such Harbor House in our area, lead critical efforts in the form of managing shelters, raising awareness, organizing fundraising efforts, relocation services, court advocates, and local hotlines connecting survivors to resources. Private donors and foundations also assist in funding both national and localized efforts, projects, and services. On a grassroots level, individuals are recruited as volunteers and fundraisers for service activities. Additionally, family members, friends, and other caregivers such as doctors and nurses are educated about the signs of domestic violence through events and projects of the local organizations and are encouraged to refer women in need to resources. Finally, community pillars and organizations such as university victim services departments, county governments, and police also serve to ease the issue of domestic violence in local communities through education and events that raise awareness, funding, and connections to resources.

University of Central Florida (UCF) Light Up the Night, an event honoring survivors of domestic violence and remembering those who did not survive, was especially helpful in our research process. Attending the UCF Light Up the Night event allowed the team to engage various positions and listen to different "streams" (Monberg, 2008) from survivors willing to speak publicly about their experiences. We sat and listened to many survivors share their experiences and perspectives, what Monberg (2008) described as oral histories. Accounts of domestic violence from many survivors of all ages and backgrounds were shared, yet the "traces" (Monberg, 2008) that emerged echoed each other.

One local domestic violence shelter, Harbor House of Central Florida, hosts a fundraising and awareness event each year called the Purple Door Luncheon. There, we learned about Harbor House's app, R3, which encourages families, friends, and doctors to recognize abuse and refer survivors to resources for help. By learning about this app, doctors, families, and friends were added to the landscape of activity in helping report abuse and obtaining help for the survivor. We also learned about other apps such as Circle of 6, which promotes dating safety. A different view of the issue is considered for dating populations, and this perspective was added to the mapping of activities. The keynote speaker, Martha, spoke of her daughter Lexi's murder by an ex-boyfriend just months before her college graduation. The ex-boyfriend had discovered Lexi's location and set out to harm her. We learned the term domestic violence is typically associated with marriage, but college-aged and young people also experience dating violence. This discovery prompted further discussions with UCF Victim Services and UCF Police that provided perspectives of young people, as well as information and apps for dating safety. We researched a variety of other pre-existing domestic violence related apps and determined the functionality of those apps. Then, we worked to critically imagine (Royster & Kirsch, 2012) and uncover gaps that our app could fill.

Listening to the range of speakers at the events and activities attended and mapping in terms of activity theory (Kaptelinin & Nardi, 2006), we began to understand the roles of collaborators and discourses involved in such a high impact issue like domestic violence. Using a feminist centered activity theory approach, we began to understand smartphones' and social media's role in eroding privacy and safety for survivors, specifically by paying attention and listening for various subjectivities and relationships to information. The interplay of various subjectivities (users, survivors, advocates, perpetrators, corporations, app designers, etc.) each have a different relationship to information. Smartphone, geolocation, and social media technology are not innately created for alternate subjectivities. As a tool or artifact in activity theory terms, it is a hindrance rather than an aid for survivors, leaving them open to potential control and violence. Additionally, considering Sullivan and Porter's (1997) reflexive and critical practices, we began to consider the "rhetorical situatedness" of the technology. The technologies are rhetorical in how their use is intended. We began to see how the intent of the technology doesn't work for survivors. Users not in healthy relationships jeopardize their safety if they participate in the mainstream fashion. Further, the smartphone is a tool that is detrimental during an escape and starting a new life because survivors don't have the domain knowledge to control geolocation settings. The smartphone is designed for a universal user, rather than a "universe of users," as Bowie (2009) advocated.

After observing and dwelling in the lives of actual survivors and listening to firsthand experiences as well as listening to their advocates, we were able to further map out the complex network of relations, activities, knowledge, and tools involved when survivors begin to engage the process of asking for help. Observing survivors navigating the system and administration of the courts was critical in understanding how they start a new life with relocation assistance, injunctions, preservation of new addresses and phone numbers, etc. all while allowing fathers to still have relationships with their children.

We followed up with the connections made at public events and activities, like Light Up the Night, Purple Door Luncheon, and injunction court, through telephone conversations and email messages with survivors and survivor advocates. Through these conversations, we collected additional data regarding the culture of survivors and organizations, their activity streams, and how the app could help most, again drawing on Royster and Kirsch's (2012) social circulation. We learned that survivors vacillate between staying and leaving; it takes eight attempts to leave. In fact, another telling story from a survivor, Becky, at Light Up the Night illustrated this well. Becky shared a detailed account of how escaping involved creating a new life: moving, changing phone numbers, email addresses, and creating new social media accounts. She described how any unguarded trace of her new life or location would be discovered by her ex and she had to try several times to ensure her privacy. Maintaining her privacy is a key concern and effort to this day.

Through our labored process of critical imagination and strategic contemplation (Royster & Kirsch, 2012), it became clear smartphone, geolocation, and social media technology is designed for people in healthy relationships, not for alternate subjectivities. In conversations with survivors and organizations, technologies were discussed as hindrances to remaining safe after leaving an abusive relationship. In fact, we learned from Harbor House that survivors are given old cell phones without geolocation when entering the shelters because they often don't know how to control the related settings. We added all of these complexities learned directly from survivors and their representatives to our visual mapping of the issue of domestic violence.



Figure 20.1. The team mapped the issue of domestic violence to visualize relationships.

We experienced difficulties in gaining direct access to the survivor population due to the sensitivity of the issue, however, we found solutions. In traditional application development, user stories are difficult to capture but are not, typically, loaded with threats of violence or emotional harm. In our context, data collection was a much trickier designer/research problem. The design team delicately approached the survivor stories by listening to personal accounts of domestic violence shared by survivors publicly at events, obtaining perspectives of representatives from domestic violence organizations, and observing survivors at injunction court. Written success stories from the organizations were also collected and reviewed. Paying attention and listening to various subjectivities as a design choice meant we needed a different kind of design community, one that respected differences in position and did not privilege one kind of context and did not position us as designers as understanding the entirety of the user/survivor perspective.

The team strived to establish a design community to accomplish a participatory and contextual design process adapted from Karen Holtzblatt and Hugh Beyer (1993). The resulting design team included representatives from several local domestic violence organizations, UCF Victim Services, an injunction court judge, two police officers, a courthouse representative, an app designer, representatives from a domestic violence foundation created by Alice's family and friends, and three doctoral students. Drawing on the need for inclusion and listening to subjectivities, this participatory design community was intentionally representative of the collaborators uncovered during our initial phases of research. The design community actively participated in the design process and collaborative knowledge creation by discussing and offering recommendations for revisions of subsequent iterations of the app as co-researchers and co-creators (Sullivan & Porter, 1997). People working directly in the cause and experiencing the concerns of domestic violence firsthand expressed areas of apprehension and needs that could be better addressed. The student team actively listened and noted patterns.

A paper prototype of a possible mobile app solution was presented to the design community as a starting point for Royster and Kirsch's (2012) concept of social circulation, offering a possible medium for disruption. We provided possibilities of simple design elements based on meeting needs uncovered by our research and prior discussions with community members. Representatives of the design community critiqued the prototype and suggested changes to better address the needs of the population. For example, the design team helped us see shortcomings in our design, like an unnecessary "contact 911" button. They demonstrated on a phone how it is faster to simply dial 911 from the phone's main screen than to enter an app to make the call. In an emergency situation, a survivor only has moments to call 911 before a potentially deadly incident escalates. Through employing feminist listening (Powell, 2002; Monberg, 2008) and user-centered design principles (Holtzblatt & Beyer, 1993) at this stage of the project, our team received very specific feedback about what the technology needed to do for survivors. At this point in the design process, the app was being designed for and by survivors and their advocates to better support Bowie's (2009) "universe of users" concept through incorporation of those users subjectivities.

A theme that emerged during prior conversations was that the greatest need for an app would be to help survivors control their privacy. The organizations expressed that survivors are in great need of an app that, with a push of a button, could indicate which applications are monitoring them and turn them off. According to the organizations, many survivors need maximum privacy to guard their safety. This greatly influenced design choices. *Safely Social* features an opportunity to restrict all applications' ability to access geolocation services on the device.

The initial stage of the design team's research involved online research of statistics, identifying cases linking geolocation to crime and polling via social media. Geolocation technology purposes are designed to positively connect people with location-based information. Conversely, companies and criminals are utilizing it for other reasons—to target specific markets for products or, alternatively, to monitor, track, and harm others. Even while some use this technology for harm, products continue to see geolocation technologies embedded within them—social networking sites and exercise and fitness technologies, for example.

Social media and online conglomerates receive monetary benefit by integrating geolocation services. As statistical data being sold to marketing and advertising agencies, participants become invisible and marginalized. Furthermore, it becomes difficult for users to maintain privacy due to constantly changing policies, and such technology marginalizes users experiencing domestic violence by not addressing their needs and considering that, sometimes, it is best to keep one's location private. Aside from the changing policies, conglomerates exert social pressure to engage in social media. If a person is not participating, one may begin feeling left out. Yet, participating in location sharing practices can expose survivors to further harm as abusers could gain access to this information made public.

We wish to pause here and state that we never would have reached this conclusion without careful feminist rhetorical listening, activity stream mapping, and our universe of users approach. Survivors experience isolation from the world of social media, doubling the amount of impact that abusers have on survivors by cutting them off from one of the ways people maintain social relationships. When survivors give up the entirety of their phone, many also give up the ease in which they maintain contact with their most important emotional support networks. Losing ease of access to these supportive networks, especially when the survivor needs that support the most, is especially hurtful. Like the abuser tactic of separating survivors from friends and family socially, removing social networks that phones provide unintentionally further isolates survivors. When geolocation technology is abused and used against survivors, it can result in violence as abusers can use that information to intimidate, manipulate, harass, degrade, and physically harm survivors. How then can survivors maintain connections to supportive networks while remaining safe? The *Safely Social* app provides a tool for social circulation disruption (Royster & Kirsch, 2012) that domestic violence survivors can use to safeguard location information and safety while they participate in social environments via their smartphone.



Figure 20.2. From Safely Social's home screen, survivors of domestic violence can control privacy to help maintain safety. A dynamic, clickable version of this image is available at http://invis.io/2BKEXP95

For survivors with a less immediate need, *Safely Social* offers abilities to help control geolocation services through push notifications as applications attempt to access location services, as well as live scans. The design community also expressed desire for the app to provide basic education to survivors about risk levels. In response, notifications will include educational aspects in the form of brief risk level assessments.

Another important, and perhaps the most interesting, thread focused on the fact that survivors are under constant monitoring by abusers. After presenting a

paper prototype, the design community said there was a need for the app to be hidden on the phone. Advocates described how abusers monitor every aspect of a survivor's life, including survivors' phones and computers. Another obstacle is that abusers and survivors usually share cell phone and app store accounts. In an effort to address monitoring concerns, the development team chose to design a "camouflage" or a "cloak" for the app. The cloak is simply a login screen that appears to be a game. Once logged in, the actual home screen appears. *Safely Social* also features a "stealth" mode. With a quick click, the app reverts back to the "cloak" screen. This allows the survivor to toggle between the "cloak" or game and the real functionalities of the app.



Figure 20.3. "Cloaking" feature of Safely Social. A dynamic, clickable version of this image is available at http://invis.io/2BKEXP95

Survivors at Light Up the Night, such as Becky, reported feeling isolated and unable to make the calls necessary to get help because of fear of a violent incident if caught obtaining help. In John's case, a male survivor story shared at Light Up the Night, the relationship was even more violent because the taboo of hurting a woman did not exist. In same sex relationships between two men like John's, violence is often heightened because a man is assumed to be able to defend himself. John shared his story illustrating how some men are victims of domestic violence as well but harder to see as a result of societal gender and heteronormative behaviors. The design team learned there is always the factor of dominance in relationships exhibiting domestic violence. The most important way dominance is established and maintained is through monitoring and isolation.

The advocacy groups contacted and community partners indicated *Safely Social* could serve as a powerful tool, what we ultimately imagined as a tool for social circulation (Royster & Kirsch, 2012), in helping survivors plan escape if it could call and text silently for help and not leave any trace of communication planning escape. The final iteration of *Safely Social* features integrated the ability to call and text resources without leaving traces of conversations in call or text logs. The ability to silently communicate or text resources such as the National Domestic Violence Hotline are a result of meeting with the design community.

Safely Social is a culmination of feminist and rhetorical listening, ethnography and discourse, mapping, and user design in practice and ultimately praxis (Sullivan & Porter, 1997). Safely Social's ultimate design choices are in direct response to research and feedback from the participatory design community that uncovered cultural and activity contexts in which the app must operate to be useful. Survivors of domestic violence can utilize this artifact for social circulation (Royster & Kirsch, 2012) controlling integration of geolocation services in social networking to manage privacy and maintain safety. Safely Social is an intervention that redistributes power to ease the social injustice presented by geolocation technology for this vulnerable population. Ultimately, Safely Social allowed for the specific design of an artifact centralizing tools for a more diverse universe of users, enhancing smartphone capabilities to accommodate multiple subjectivities and offering a more complete view of activity.

DISCUSSION AND CONCLUSIONS

We think that *Safely Social* as an interventionist feminist project provides two large deliverables for scholars and activists. First, we think that theoretical implications of the project are strong in terms of applied feminist theory. Those engaged in interventionist projects must always concern themselves with the material conditions that theorists write about. Projects like *Safely Social* engage critical practices in rich ways, which help to build out and test theories in material and lived existences of students, designers, and research participants. Rhetorical listening allows designers and researchers to engage their theories with

others in a tight loop of theorizing and reflection which makes for more robust theories. In other words, it is one thing to be in a classroom and talk of the violence of patriarchy and another to encounter it sitting across from somebody speaking of their experiences and having to design an intervention. We feel that for many, these have seemed separate activities but each, in close loops of reflection, build on one another making our critical theories more useful both in terms of explanatory power and material impact. Stories like those of Alice, Becky, and John that the research the team engaged in to dwell in the multiple discourses that constitute domestic violence (policy, familiar, gendered, legal, advocate) demand researchers ground their theories in the material conditions of people's lives. Such work grounds the stakes and contributions of feminism in real material designs. Simultaneously, when feminist theories like rhetorical listening are applied, activity theory and the development user-centered design become much more robust, capturing subjectivities that might otherwise be lost or not considered in typical design situations. Recognizing and paying attention to multiple rhetorical subjectivities supports a more accurate universe for a universe of users (Bowie, 2009) while grounding feminist theory as an important material perspective. As such, feminist theories become important ways to see and understand the problem of theoretically integrating the multiple discoursal formations that feminist theoretical research demands of us. Such moves guide theorists away from essentialism about theory and experience by encouraging us to encounter and listen to others in important and serious ways if only because participants, in our case survivors and their advocates, are able to correct essentialist views and discourses.

Second, we think that the methodological deliverables of applied feminist theory and application development have considerable implications for the field. As outlined and as the theme of this collection, feminism must engage in interventionist practices to have impacts on the lived experiences of people. User centered design, when done well, must engage these same feminist principles such as listening for subjectivities that are not accounted for in design work. Rhetorical theories of listening allow for more robust interventions because the experiences of users are better understood. Much interventionist work focuses on the work done by researchers to help, aid, and assist marginalized populations. However, what Safely Social points to is the idea that researchers can design with community partners in careful ways to design technological artifacts as a product of research methodologies. Design work with communities, and even with marginalized populations is nothing new. However, changing research methodologies to create real and lasting deliverables for the participants may be. While in our case the design of interventionist, helpful, feminist influenced technology was the goal, the methodologies involved in dwelling in research

sites, listening for subjectivities, and user testing may have useful implications away from application development itself and contribute to how we think about the impact of feminist research methods.

Additionally, such research helps theorists ground their own assumptions about lived experience and subjectivity while, at the same time, flattering power relationships between designers, technologies, and users. In the work we speak of here, materially designing and receiving feedback from advocates and survivors themselves allowed for stronger contextual design features. However, our designs to map and dwell in multiple discourses were only attempted after significant time in the field as well as several iterations and understanding of the problem was tested and shown to the user base. In cases where user populations are at risk, feminist theory allows designers new methodologies to understand user experience in radically different ways from industry standards. Alice, Becky, and John are not "typical" users. When violence is a real possibility of not being able to accomplish a task, getting design language correct has more at stake. While not generalizable, we think that the design process behind *Safely Social* points to complicated forms of digital development that could, in short, save people's lives.

Feminism has a long history of both materialist interventions, making a difference in people's lives. So does design. Smartphones and their applications influence and mediate elements of social lives including safety. Top down design decisions can be problematic in terms of unrecognized or marginalized populations. We think that *Safely Social* can, in part, push feminist theory into materialist and interventionist efforts to decentralize and redistribute power. *Safely Social*, both as an application and as an application design/research process proves that feminist theory can be used along with user-centered design and activity theory to make real impacts in women's lives by paying attention to differences of subjectivities' relationships to information and activity.

The feminist work of decentralization and redistribution of power circulates through design of information systems, devices, and interfaces. Not only the design of applications and information, as we have shown here, but also in the design of process. Like other interventionist projects in this collection, our hope is that *Safely Social* inspires others to engage in other projects of applied feminist theory in information design contexts.

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