A Method to the Madness: Applying an Intersectional Analysis of Structural Oppression and Power in HCI and Design

SHEENA ERETE, University of Maryland, College Park
YOLANDA RANKIN, Florida State University
JAKITA THOMAS, Auburn University

With increased focus on historically excluded populations, there have been recent calls for HCI research methods to more adequately acknowledge and address the historical context of racism, sexism, gendered racism, epistemic violence, classism, and so on. In this article, we utilize Black feminist epistemologies to serve as critical frameworks for understanding the historical context that reveals the interconnected systems of power that mutually influence one another to create unequal outcomes or social inequalities for different populations. Leveraging Black feminist thought (BFT) and intersectionality as critical social theories of design praxis, we introduce intersectional analysis of power—a method that enables HCI researchers, designers, and practitioners to identify and situate saturated sites of violence in a historical context and to transform the ways in which they engage with populations that have been historically oppressed. Engaging in self-reflection as researchers, we apply an intersectional analysis of power to co-design technologies with community street outreach workers who address violence in their predominantly Black communities. We: (1) identify the saturated site of violence; (2) identify the intersecting systems of power and who holds power (past and present); (3) describe the "conceptual glue" that binds these intersecting systems together and the assumption(s) that those who hold power are employing to guide their interactions; (4) examine the ways in which Black people are subjugated, surveilled, and/or expected to assimilate to "normative" ways of being and behaving; and (5) identify acts of resistance. This article contributes an alternative to traditional HCI and design methods that falsely perpetuate a lens of neutrality and colorblindness that centers on whiteness, innovation, and capitalism and ignores the history of State-sanctioned violence and structural oppression.

CCS Concepts: • **Human-centered computing → HCI theory, concepts and models;**

Additional Key Words and Phrases: Power, structural oppression, Black feminism, critical HCI methods

ACM Reference format:
Sheena Erete, Yolanda Rankin, and Jakita Thomas. 2023. A Method to the Madness: Applying an Intersectional Analysis of Structural Oppression and Power in HCI and Design. *ACM Trans. Comput.-Hum. Interact.* 30, 2, Article 24 (April 2023), 45 pages.
https://doi.org/10.1145/3507695

This work was supported by the National Science Foundation (Grant #1665501 and #1952144), the Illinois Justice Criminal Information Authority (ICJIA), the Pritzker Pucker Family Foundation, Robert R. McCormick Foundation, and the Polk Bros. Foundation.

Authors' addresses: S. Erete, University of Maryland, College Park, MD 20742; email: serete@umd.edu; Y. Rankin (corresponding author), Florida State University, Tallahassee, FL 32306; email: yrankin@gmail.com; J. Thomas, Auburn University, Auburn, AL 36849; email: jnt0020@auburn.edu.

1073-0516/2023/04-ART24
https://doi.org/10.1145/3507695

1 INTRODUCTION

> *Even within the women's movement, we have had to fight, and still do, for that very visibility which also renders us most vulnerable, our Blackness. For to survive in the mouth of this dragon we call America, we have had to learn this first and most vital lesson—that we were never meant to survive. Not as human beings...Black or not.* [100, p. 42]

For centuries, Black women have been at the forefront of pursuing social justice for Black people, women, and other historically excluded populations [28, 33, 39] with dismal recognition or support for their endeavors from others. Black women's intersectional experiences of race, gender, and class combined with their unique history of being enslaved in the United States have positioned them as "outsiders-within" a hostile society that devalues them as being subhuman [28]. Despite constantly contending with systematic oppression in the form of racism, sexism, and heteropatriarchy, Black women engage in acts of resistance against social inequalities that sometimes give way to more inclusive and equitable living conditions that benefit those who have suffered oppression, violence, and the accompanying trauma at the hands of those who are empowered and privileged [28, 29]. For example, we see evidence of Black women's activism in the **Black Lives Matter** (**BLM**) Movement, petitioning for the human rights of all Black people regardless of race, gender, class, sexual orientation, and so on, or the results of Black women's tireless efforts in getting out the vote in the 2020 presidential election, contributing to the election of Joseph R. Biden as the 46th president of the United States [19]. One thing remains clear: Black women, refusing to be relegated to the outer fringes of society, remain a force to be reckoned with.

Turning our attention to more scholarly pursuits, Black women, along with other historically excluded populations, have invoked protests and the need for social change within academia, specifically the **Human-Computer Interaction** (**HCI**)/**Computer Human-Interaction** (**CHI**) communities and the field of computing, more broadly [21, 69, 70, 121]. With an increase in HCI scholarship that focuses on historically excluded populations, recent calls advocate for HCI methods that more adequately acknowledge and address the historical context of racism [109, 146, 147], sexism [7, 9, 49, 77], gendered racism [119, 122], epistemic violence [53], classism [79, 80], ableism [76, 104], and other forms of oppression [46, 95]. Created with a false lens of neutrality and colorblindness, most HCI and design methods render the harm caused by systems of oppression as invisible, ignoring the history of policies and practices that catalyze and perpetuate cumulative and continued discrimination [32, 78]. Black women, for example, have and continue to face gendered racism both in society and in the fields of HCI and computing as they contend with being erased from the annals of computing history, subjugated to repeated acts of misrecognition, and whose research, when they choose to work within their own communities, is perceived as service rather than scholarship [53, 119, 121, 129, 143]. With the exception of recent work [2, 32, 44, 68, 98], HCI methods tend to center on whiteness, innovation, and capitalism, while ignoring the history of State-sanctioned violence and structural oppression, contributing to Black women's invisibility in HCI [53, 118]. Despite calls to use critical approaches such as *feminist HCI* [7, 8, 10, 108] and *intersectional feminism* [57, 90] to understand the historical harms of gender, race, and class [26, 56, 156], there has not been a concerted effort to dissect systems of power or to include epistemologies that center Black women, rendering feminist HCI and intersectional feminism devoid of Black women's voices and lived experiences. Given the absence of Black women's perspectives, both feminist HCI and intersectional feminism run the risk of reifying white women and white supremacy while being ill-equipped to resist the anti-Black racism that Black women experience [53, 119]. Ways of understanding the intersecting systems that have managed, wielded, and maintained power and oppression have yet to be integrated into HCI methods.

In this article, we utilize Black feminist epistemologies, or Black women's ways of knowing, to serve as critical frameworks for understanding the historical context that reveals the interconnected systems of power that mutually influence one another to create unequal outcomes or social inequalities for different populations. More specifically, we apply **Black feminist thought** (**BFT**) and intersectionality as two critical social theories for engaging in community-based research that intentionally centers on the histories and lived experiences of Black people. BFT positions Black women as experts or intellectuals of their lived experiences, contributing to a collective standpoint that chronicles the historical legacy of Black women in the United States [13, 28–30, 36, 100]. Intersectionality, defined as "a way of understanding and analyzing the complexity in the world, in people, and in human experiences," [30] becomes necessary when seeking to understand how systems of oppression (gendered racism, classism, gender discrimination, etc.) converge to produce interconnected power relations or saturated sites of violence [29]. Such saturated sites of violence inflict harm and trauma on Black people and their communities [103, 120, 143].

Building upon prior work which introduced autoethnography as a legitimate method for capturing firsthand personal experiences of past events [53], the primary contribution of this article is a new methodology—an intersectional analysis of power—for enabling HCI researchers and practitioners to identify and situate saturated sites of violence in a historical context. Leveraging Black feminist epistemologies as critical frameworks for design, we conduct an intersectional analysis of the power of a case study—a project where the first author (and her research team) co-designed a mobile application with community street outreach workers to support their efforts in addressing violence in their predominantly Black communities [43, 51]. Based on an autoethnography of the first author's lived experience as the lead researcher and designer of the project, we examine the role that history plays in maintaining power and oppression throughout the design process of the mobile application. We describe the five-step intersectional analysis of power technique where we: (1) examine history to identify the saturated sites of violence; (2) identify the intersecting systems of power and who holds power (past and present); (3) describe the *conceptual glue* that binds these intersecting systems together to reveal the narratives that those who hold power employ to guide and justify their actions; (4) examine the ways in which Black people are subjugated, surveilled, and/or expected to assimilate to "normative" ways of being and behaving; and (5) identify *acts of resistance*, specifically how marginalized people exercise their agency to resist oppression.

This article makes several significant contributions. First, by critically examining the history and the intersecting systems of power using an intersectional lens, we provide insight into how intersectionality can be applied to the field of HCI as a method for both reflection and action to improve the process of technology design. As such, this article applies the theory of intersectionality as a mechanism for critical analysis using a real-world example, providing much-needed vocabulary, tools, and a step-by-step process that defines the emerging discipline of intersectional computing [52, 90, 102, 119, 122, 127]. Second, leveraging an autoethnographic approach, we use storytelling as a method to center Black women's experiences and knowledge as valid and valuable to HCI and design, decentering whiteness and rejecting epistemic violence caused by ignoring Black voices. Our use of storytelling as a method of countering testimonial silencing expands critical design studies that celebrate and encourage the voices of those with non-dominant identities in HCI and beyond to share their lived experiences [41, 53, 76, 109, 134, 155]. Expanding feminist HCI research to include Black feminist epistemologies as legitimate critical frameworks for design [7, 8, 14, 14, 26, 91], we theorize on epistemological violence vis-a-vis the testimonial authority of Black women (autoethnography). Lastly, using a historical perspective to scrutinize the entire co-design process of a mobile application, this article both identifies and demonstrates how past and present harm negatively impact Black people and their communities.

Subsequently, we identify anti-racist design practices that resist the structural oppression of Black people and other minoritized populations, contributing to the burgeoning body of critical HCI research [2, 32, 47, 68, 78, 79, 98, 141, 155].

2 BLACK FEMINIST EPISTEMOLOGIES

Before we began our deep dive into Black feminist epistemologies, we align our work with the growing research within the CHI and HCI communities that critically examines how we as researchers work with marginalized populations [6, 68, 81, 92, 96, 151]. We are greatly encouraged by the more recent (though scarce) HCI literature that explores the significance of race and the negative impacts of systemic racism in both how we design and use technology [109, 118, 146, 147]. However, unlike many of our respected scholars in the field of HCI, we are Black women who live at the intersections of race and gender. As Black feminists, we are also members of historically excluded populations, the same populations that represent the communities that our research seeks to serve and uplift. Addressing the gap in the HCI literature about activist/social justice research, we intentionally choose Black feminist epistemologies that leverage our social, political, and ideological position as Black feminists. As such, we approach our work within Black communities and with Black people from a personal sense of love, respect, and accountability, which is secondary to pursuing a research agenda or accomplishing research goals [53]. Our aim is to do research that does not inflict more harm and violence on our communities or ourselves [54, 68, 96, 114, 151, 155].

Black feminist epistemologies center on the lived experiences of Black women as a legitimate body of knowledge that reveals how Black women contend with and resist gendered racism and sexism. Black feminist epistemologies have emerged from diverse Black women's lived experiences that extend beyond cis Black women [65]. We approach Black women's ways of knowing as an integration of two perspectives—BFT [28] and intersectionality [29, 30]. We outline the historical implications of applying the lens of BFT and intersectionality to identify and dissect converging systems of power that have a long history of oppression and inflicting trauma and violence on Black people. We conclude this section with the components of an intersectional analysis of power.

2.1 Black Feminist Thought and the Matrix of Domination

Patricia Hill Collins first introduced BFT as a critical social theory that positioned Black women as knowledge agents or experts of their own experiences, navigating a world that devalued them as being inhuman while elevating whiteness as the normative for humanity and white women as the definitive standard of femininity [28]. Rooted in the lived experiences and theorizing of Black women [65], which is in direct contrast to the feminist movement in the United States during the late 1960s and early 1970s, BFT exposed gendered racism, a specific type of racism in which white women were privileged and empowered because of their racial identity while Black women (and other women of color) were subjugated to differential treatment because of their intersecting identities of race *and* gender [27, 28]. BFT is situated in the rich history of U.S. Black women who were enslaved and suffered abominable offenses such as the sexual manipulation of Black women's bodies (i.e., rape), the denigration of their physical attributes (i.e., Black natural hair as nappy or unkempt), and false narratives of Black women's innate submissiveness and promiscuity [11, 12, 29, 100]. U.S. Black women were eventually emancipated from slavery only to be subjugated to new but overt forms of racism and discrimination in the guise of the Jim Crow laws and the reign of terror of white supremacy (e.g., the Ku Klux Klan lynching Black people) in the reconstructed "new south" [28, 29, 59, 107]. Despite these inhumane living conditions across several generations, Black women persevered, managing to eke out an existence by taking advantage of their outsider-within perspective to develop life skills, coping strategies and a political agenda that testified to the fortitude of Black women's commitment to the sustenance of Black families,

their communities and themselves. In essence, BFT is a celebration of Black women's collective standpoint, which provides an alternative narrative about the legacy of Black women in the United States and their place in society [28, 67]. Positioned as intellectuals rather than objects of study, the diverse population of Black women demonstrates that a collective Black women's standpoint does not constitute homogeneity of lived experiences, but instead exemplifies the differences in socioeconomic status, sexual orientation, physical abilities, and other attributes are crucial in understanding how Black women create a space for belonging in a world that still questions their humanity and value to society [28]. To apply BFT as a critical lens is to invoke the historical legacy of Black women in the United States and the world.

Power relations underpin the lived experiences of Black women, calling into question who has power, on what basis is the power granted to some while denied to others and why. Using Max Weber's definition, power is defined as "the chance that an individual in a social relationship can achieve his or her own will even against the resistance of others" [154]. This definition implies that having power can either expand an individual's or a group's sense of self-agency regardless of how others try to control that individual or group or reveal the lack of self-agency that serves as a mechanism for prohibiting the progress of an individual or particular population. Power operates within the context of unspoken rules as to which social groups are subjugated to preferential treatment at the expense of non-dominant social groups.

From our lived experiences as Black women, power becomes problematic when social relations are constructed in such a way that those who are members of dominant social groups (i.e., white people, cis men, heterosexuals, and non-disabled) enforce the domination of Black women, a less dominant social group, to promote the authority and interests of those who are empowered [154]. In his book *Economy and Society: An Outline of Interpretive Sociology* [154], Max Weber argues that such domination does not require forced obedience or voluntary compliance of those who are oppressed. However, the historical legacy of racism, gender discrimination, and classism in the U.S. bears witness to legislation (i.e., Jim Crow laws) and policies (e.g., adultification bias of Black girls in classrooms) attributed to a complicit government responsible for the enforced obedience and voluntary compliance of U.S. Black women for centuries [27, 39, 59, 100]. When dominance occurs over a substantial amount of time, it creates social structures of oppression, which manifest in various forms of differential treatment and discrimination inflicted on less dominant social groups [28]. For example, the history of slavery in the United States and its ramifications attest to the continued domination of Black women (and girls) regardless of their political affiliations, economic status, sexual orientation, or gender [27]. These discriminatory forms of domination are realized as the subordination of Black women (and other women of color) to white women (gendered racism), the sexual oppression of Black lesbians because of their love for other women (heteropatriarchy), working class Black women who are dismissed an inconsequential (classism), and an intolerance of those Black women who are neurodiverse (ableism). Perceived to be an inferior population, Black women are repeatedly subjugated to differential treatment that denies their humanity. These dominating structures force Black women to comply in order to survive in a world that upholds such domination and simultaneously perpetuates social inequality. Collins refers to this as the *matrix of domination*:

> Whether viewed through the lens of a single system of power, or through that of intersecting oppression, any particular matrix of domination is organized via four interrelated domains of power, namely, the structural, disciplinary, hegemonic [now called cultural] and interpersonal domains. Each serves a particular purpose. The structural domain organizes oppression, whereas the disciplinary domain manages it. The [cultural] domain justifies oppression while the interpersonal domain influences everyday lived experience and the individual consciousness that ensues. [28, p. 276]

BFT deconstructs the matrix of domination to reveal how power operates to induce the structural oppression of Black women. The matrix of domination makes visible how intersecting systems of oppression operate and how the historical implications of these systems have produced present-day social inequities. The intersecting systems of oppression consist of four interrelated domains of power: structural, disciplinary, hegemonic, otherwise known as cultural, and interpersonal [28]. Collins describes the structural domain of power as the organization of power in a society, one that resists change and arguably responds to large-scale social movements (Civil War, women's suffrage, the Civil Rights movement, etc.) [28]. In comparison, the disciplinary domain of power manages oppression. Bureaucratic organizations control and organize human behavior through routinization, rationalization, and surveillance [154]. By virtue of organizational control, racism and sexism hide under the guise of efficiency, rationality, and equal treatment. For example, Black women scholars criticize the Association of Computing Machinery's peer review process of article submissions as being one that privileges white scholars who hide behind anonymity to denigrate Black scholars' research or hold Black scholars to a higher standard while giving white scholars the benefit of the doubt (i.e., shepherding articles) [21, 69]. The disciplinary domain of power draws attention to how certain kinds of knowledge are systematically excluded in the name of science and objectivity [28]. Interactions in the context of everyday life fall under the interpersonal domain of power [28]. Our lived experiences reflect the personal relationships that we maintain and the different interactions we have with people and technology on a daily basis. The interpersonal domain of power involves self-reflection in terms of how a person sees herself as well as how others perceive her. The hegemonic or cultural domain of power formulates synergy that upholds the structural, disciplinary, and interpersonal domains of power because it legitimizes oppression [28]. The hegemonic domain links the structural, disciplinary, and interpersonal domains. Our value system, use of language, our ideas, what moves us, and the ideas we entertain embody our culture, our communities, and our family histories [28]. Black culture is depicted in books, movies, magazines, digital media, the news, and social media [28, 85]. However, history shows that these depictions often convey stereotypical, negative messages that portray Black people as being animals, criminals, unintelligent, and undesirables in society [4, 20, 133]. Using the principle of self-definition, BFT refutes the hegemonic domain of power. In the words of Collins, "Racist and sexist ideologies, if they are disbelieved, lose their impact" [28, p. 284]. Unlike the structural and disciplinary domains of power, the hegemonic and interpersonal domains are subject to individual agency and change. Bringing all four domains together creates a more dynamic system, one in which BFT becomes an ideology for resisting domination and a weapon for social justice.

2.2 Intersectionality as an Impetus for Community Work

More recently, intersectionality has garnered new attention in the field of HCI. For example, Schlesinger et al. [127] advocate for the field to appreciate the complexity of the identity of users by using the intersecting lens of race, gender, and class. Utilizing intersectionality as a critical framework, scholars acknowledge conflicts that emerge (i.e., the tension between exploitation and allyship) when working with marginalized populations [97] and the need to ethically address these issues as conscientious researchers. However, within the field of HCI, we have witnessed scholars' tendency to acknowledge Kimberle Crenshaw as the sole founder of intersectionality [84, 127, 156], misrepresenting its origins while erasing the rich historical legacy and contributions of Black women to its inception [119, 122]. Contrary to its ability to inform critical praxis to call out existing inequities in society, intersectionality, in the context of HCI research, has been misappropriated as a watered-down social theory that attends to race and gender (and other social constructs) as being additive measures of identity for women of color with no appreciation for how intersectionality draws attention to mutually influencing systems of power that inflict structural

oppression on Black women and other historically excluded groups [22, 29, 30, 144]. Even less HCI research emphasizes how intersectionality can be used as a tool for social justice [53, 119, 120]. Encouraged by recent publications that have identified the need to address racism in the field of HCI [53, 109, 117, 146, 147], we invoke the power of intersectionality to demonstrate the complexity of race, gender, and class as intertwined social constructs that wield substantial power and influence in the lived experiences of Black women and the viability of the communities that they serve.

Dating back to the early 19th century when coalitions of Black women, Chicanas, Native American women, Afro-Brazilian women, and other women of color resisted gendered racism [30], intersectionality has been applied as a critical framework for studying indigenous populations in North America, Europe, and the Global South (countries located in Asia, Africa, Latin America, and the Caribbean) [30]. Collins and Bilge [30] define intersectionality as "a way of understanding and analyzing the complexity in the world, in people, and in human experiences...conditions of social and political life and the self can seldom be understood as shaped by one factor. They are generally shaped by many factors in diverse and mutually influencing ways" [30, pg. 2]. Intersectionality makes salient the human condition and all its complexity, in particular how different aspects of who we are (race, gender, class, physical ability, sexual orientation, etc.) contribute to our sense of self (Who am I?) and how people relate to us (How do others see me?). One of its guiding premises, intersectionality exposes the inner workings of power relations that create social inequalities for historically excluded populations [29]. These intersecting power relations are indicative of the matrix of domination that constructs, manifests, and enforces distinctive forms of systemic oppression, each with its own power grid and power dynamics [28, 29].

As cis gender Black women whose intersectional identities expose us to racism, gendered racism, and other forms of discrimination on a daily basis, applying intersectionality (and BFT) as a critical framework in the work that we do represents a natural affinity for resisting oppression. In the context of community activism, an intersectional approach is more than appropriate for empowering the voices of marginalized or historically excluded populations who are often relegated to the outer fringes of society because of systemic oppression (i.e., white supremacy, heteropatriarchy, xenophobia) prevalent in the United States [29, 30, 34, 35]. Vital to its praxis, intersectionality serves the purpose of resisting systems of oppression where "social justice, equality, freedom, and human rights are central rather than peripheral to their critical projects," [29, p. 290]. Within an intersectional viewpoint, historically oppressed communities are transformed into *agents or communities of knowledge*, the experts of "their own lives and those of the people who had subordinated them." [29]. As such, an intersectional analysis of power becomes necessary for identifying overlapping systems of power that mutually influence one another to induce oppression of Black communities.

Intersectionality supports Black women's political activism as an act of resistance and an exemplar of community work. Black women's leadership in community work contributes to an oppositional Black culture that protects Black people from attacks of white supremacy, fights for the physical survival and well-being of Black children, upholds Black families and organizations, and seeks to transform social institutions (schools, government agencies, civic organizations, etc.) into places that reject anti-Black racism [29, 85]. In addition, Black women's community work also involves developing strategies to oppose state-sanctioned murders of Black people at the hands of police. Similar to Ida B. Wells–Barnett's anti-lynching campaign, which centered on the experiences of Black men, generations of Black women have deep empathy and anger for the unjustified murders of Black men who were fathers, grandfathers, brothers, sons, and uncles and the negative impact of their loss on the Black families and communities who remain under attack [29]. Black feminists, those who are mothers (biologically or relationally) as well as those who are not, are

committed to fighting for quality education and job training opportunities so that Black youth can mature into healthy, productive, and economically viable young adults. "In a world that devalues Black lives, to defend the lives of Black youth and aim to give those lives hope is an act of radical resistance," [29, p. 168]. As such, Black women's community work represents "reproductive labor" or "motherwork" that invests in the posterity of Black families, children, and Black civil organizations [29].

Black women's expertise in recognizing and resisting intersecting forms of domination have well-equipped them to become leaders within the Black community. The BLM movement, a contemporary expression of motherwork fueled by Black feminism, grew into an international movement whose mission is to advocate for the lives and liberty of all Black people [123, 142]. Black women activists often sacrificed their intersectional interests for the greater good of Black communities, choosing to present a united front to the public [28, 29]. Looking back in time to the Civil Rights movement, Black women discreetly questioned Black organizations' demand for solidarity politics when the male-dominated leadership failed to publicly or privately advocate for the specific needs and interests of Black women [3, 73]. No stranger to compromise, Black women made tough decisions to stand in unity with Black men, not because they blindly followed their leadership, but because they recognized the opportunity to work together as a strategic response to the social problems affecting Black communities, knowing that they could still resist Black men's domination and gendered racist behavior. Black feminists carved their own paths of resistance, which enabled them to resist heteropatriarchy both within and external to their communities [75]. In essence, intersectionality not only provides a critical lens that examines the complexity, influence, and impact of race, gender, and class on Black women's lived experiences, but it also illuminates how these lived experiences transform Black women from being victims into socially conscious political activists committed to the survival of Black communities.

2.3 An Intersectional Analysis of Power

Within the field of HCI, there is a tendency to assume a "here and now" perspective that ignores the historical implications of past events and their consequences for historically excluded populations. However, our lived experiences are largely influenced by what we know about the past [31]. Past events play a significant role in understanding structural oppression, which is predicated on a sustained pattern of dominance that reinforces complex, integrated systems of power over time. Because "intersecting power relations shape individual and group experiences," [29, p. 49], these experiences are shaped within a historical context that has implications for the human condition. Despite the differences that exist among the heterogeneous population of Black people, they share a collective memory based on the shared history of oppression, including slavery, Jim Crow laws, lynching, voter suppression, and police brutality (just to name a few) in the United States [85]. Black people have a cultivated awareness of the past as an integral part of the present. Converging systems of power along the lines of race, gender and class have produced these systems of oppression, creating social inequalities such as segregated housing [124, 148], inadequate healthcare [58, 139], and insufficient educational resources [93, 110] that negatively impact predominantly Black neighborhoods. By ignoring history, those who have power and privilege tell a different story, one that erases years of social injustice that have shaped the lived experiences of Black people. We see this tendency in the refusal to acknowledge or discuss the consequences of slavery on Black Americans in the United States as a past event that is not relevant to what is happening in the world today, especially since slavery was more than 400 years ago [42, 87].

Intersectionality as a critical praxis requires an appreciation of the historical context in two ways. First, intersectionality requires repeated reflection at the individual level and throughout the course of conducting a resistant knowledge project. Resistant knowledge projects are those

that call out the abuse of power that creates structural oppression and challenges the status quo of how things are done in a particular context by engaging those who have been previously oppressed or excluded in acts of resistance. For example, Rankin and Irish [118] create an opportunity for Black women college students to control the design process of a language learning mobile game as an act of resistance to the invisibility of Black women in the gaming subculture. Using playtesting of the mobile game prototype as a probe, Rankin and Irish discover that Black women prefer more nuanced, intersectional game characters that accurately reflect the diversity of native Spanish speakers, including Black people from Africa and the Central American region who are proud of their racial identity, their nationality and their Spanish heritage [118]. Second, intersectionality reveals what Patricia Hill Collins refers to as saturated sites of interconnected systems of power that converge in epistemic violence and reveal the inner workings of power within and across oppressive systems [29]. Collins states, "treating violence as a saturated site of power relations wherein the workings of power within and across capitalism, colonialism racism, and heteropatriarchy are especially visible provides an entry point into theorizing intersecting systems of power" [29, p. 238]. In order to explore and illuminate both the conceptual and physical spaces and manifestations of violence for Black women in computing, we establish the novel term "saturated sites of violence." These sites "bundle together practices, social institutions, representations, and patterns of everyday social interaction that appear and reappear across seemingly separate systems of oppression" [29, p. 238]. Often, the workings of power at these sites are hidden and implicit, and those experiencing the violence may lack the language to describe what is happening. Instead, they may describe the outward manifestation of the site through describing a scenario they experienced, and/or they may describe how the scenario made them feel. As such, we can use the testimonies of Black women in Computing as a way to access these sites to peel back the layers and better understand how power is working within and across these intersecting systems.

Therefore, when seeking to uncover and access saturated sites of violence, one should question not only what viewpoints are included, but also which viewpoints are excluded, what ways of knowing are centered and which are left out, as well as why and whether excluded voices and epistemologies should be included. For example, if one wishes to examine the experiences of Black girls in Computing, and Black girls' direct (not proxy) viewpoint(s) are not included in the design and enactment of the work, one should examine why those viewpoints have been excluded, who or what their exclusion serves, and what challenges to one's own assumptions about that group and/or about how research is conducted inclusion of Black girls' viewpoint(s) would present.

Together these practices, social institutions, and patterns of everyday social interaction are indicative of past and present-day society in which white Americans still reap the benefits of systematic oppression such as higher economic stability, access to quality K-12 education and better healthcare options when compared to Black Americans.

"Solving social problems within a given local, regional, national, or global context requires intersectional analyses," [29, p. 48]. Additionally, Collins argues that an intersectional analysis must account for and address power relations that generate multiple and co-forming expressions of social inequality, (e.g., economic inequality, racial inequality, gender inequality, sexuality inequality) "as simultaneously particular in their organization and effects, yet universal in their material reality" [29, p. 62]. Acknowledging the lack of consensus among scholars as to what constitutes an intersectional method [72], we push the field of HCI forward by proposing a method for conducting an intersectional analysis of power to effectively dissect power relations that generate social inequalities. Our approach involves a non-linear five-step process:

(1) Identify the saturated site(s) of violence;
(2) Identify intersecting systems of power and who holds power;

(3) Describe the conceptual glue that binds together intersecting systems of power;
(4) Examine the ways in which less dominant groups are subjugated, surveilled, and/or expected to assimilate;
(5) Identify acts of resistance.

This process leverages and applies Black feminist epistemologies to describe specifically how power plays out in particular contexts as Black girls and women navigate computing spaces. Collins' scholarship on identifying sites of violence, understanding intersecting oppression and their unique configurations across time and context, as well as her identification of the domains of power are all leveraged across these five steps of the intersectional analysis of power. Intersectionality is used, not only to name the particular intersecting oppression at play within each narrative, but also to interpret the outcomes produced by these unique configurations. White supremacist culture characteristics are leveraged to not only inform the assumptions at work in each of these narratives (i.e., conceptual glue), but also to make more salient how power, through, white supremacy and the centering and normalization of whiteness, create challenges and barriers for Black women in a number of contexts. We put together these ideas from these separate bodies of work to provide a theoretical, analytical, and interpretive framework to describe on a more fine-grained level, how power moves, and how that movement in the soup of white supremacy that always exists in the United States, impacts the experiences of Black girls and women in widely varying computing contexts and spaces.

2.3.1 Identify the Saturated Site(s) of Violence. The goal of this step is to identify the saturated site of violence, the type of oppression, and any resulting trauma. Saturated sites of violence benefit dominant social groups who exercise power using different forms of violence to inflict harm and trauma on historically excluded populations. For example, within the field of HCI, Black scholars testify to epistemic violence which serves the purpose of determining whose knowledge is acceptable, culminating in the casual dismissal of Black scholars who choose to conduct community-based research within their communities as service rather than recognized research [53, 119].

2.3.2 Identify the Intersecting Systems of Power and Who Holds Power. The goal of this step is to understand the complex intricacies of how power moves within and across oppressive systems, making visible who held power in the past, who currently holds power, and the assumptions or preconceived notions that influence their interactions with less dominant social groups [29]. The intersectional analysis of power also used Okun's [111] white supremacy characteristics to further inform and illuminate the particular configuration of intersecting oppressions, what Collins refers to as a matrix of domination, across multiple contexts described in the narratives. As an example, the **Association of Computing Machinery** (**ACM**), a complex governing body created by computing professionals, consists of several **special interest groups** (**SIGs**) that serve the specific needs of its constituents. With more than forty chapters that span six continents, the ACM Computer Human-Interaction or ACM SIGCHI, an example of a SIG, is run by volunteers who have a shared interest in developing novel technologies and understanding how technology impacts people and society [130]. As Black women who are members of the ACM SIGCHI community, we notice that no Black people have been elected to leadership roles on the CHI executive committee with the exception of the recent election in 2021 in which a Black woman scholar serves as the Vice President of Communications. On the surface, one might assume that Black people are not interested in serving in a leadership capacity which explains the lack of Black representation. Without additional information, these assumptions appear to be valid. However, using an intersectional lens to understand how structural power operates, we begin to get a different perspective.

In November 2018, a diverse coalition of CHI volunteers, designated as the ACM SIGCHI Innovators for Diversity and Inclusion, created and administered an IRB-approved survey to gauge diversity and inclusion initiatives as well as marginalization of certain populations among the SIGCHI membership. After receiving more than 100 responses, the ACM SIGCHI leadership blocked the survey, citing conflict of with ACM's interest, and replaced the initial survey with a "new" SIGCHI diversity and inclusion survey [62]." Rather than inviting the diverse coalition which included three Black people to lead the "new" ACM SIGCHI diversity and inclusion survey, the ACM SIGCHI Innovators for Diversity and Inclusion was dismantled, and their efforts erased and co-opted. In this example, members of marginalized groups despite their qualifications are rarely given the opportunity to lead even though these opportunities are crucial to their success in the academy. As noted by [62], "Institutional racism does not have to be intentional or malicious to disadvantage minority groups. It merely has to occur in a way that harms those who are in the minority who have less power."

2.3.3 Describe the Conceptual Glue that Binds Together Intersecting Systems of Power. For this step, an intersectional analysis examines the "conceptual glue" that joins intersecting systems of power to form a tightly woven and well organized domain of power [29]. The "conceptual glue" includes the assumptions (and perhaps beliefs) that both individuals, organizations, and societies hold about why the world works the way that it does and why the outcomes that result happen the way that they do. To understand how conceptual glue operates, one has to return to an examination of Collins' domains of power. With the structural and the disciplinary domains of power as the backdrop, the hegemonic (cultural) domain of power establishes and justifies dominant narratives that seek to explain why things are the way they are. These dominant narratives are the stories we tell, often without questioning where those stories came from or even if they are accurate stories, about why things are the way they are. For example, one dominant narrative that justifies the lack of Black representation within the ACM is that Black people are not interested in leadership positions within the ACM, because if they were, they would run for office. If one assumes that story to be true, many nuanced factors that may contribute to that outcome are missed. One such factor that may be missed is how leadership positions are communicated, namely, within the publications of the ACM (Interactions, Communications, etc.). While, on the surface, this appears to be a way to widely communicate opportunities available for leadership, these publications are not included in one's membership. Instead, they are provided at an additional cost. If a member is unable to afford the additional cost of those publications, she is unable to learn about leadership opportunities, and therefore, she will not run. Even if she did become aware of an opportunity, another such factor is that one has to serve in leadership positions at the SIG level before attempting to run for a leadership position at the ACM level, and this often happens by someone within the SIG inviting a person to serve. This means one must have a strategic plan for serving in leadership positions at the SIG level for a period of time, but first, one must have the relationships and social capital necessary to receive an invitation from the SIG leadership to join their inner circle. If, however, one does not have knowledge of the opportunities that exist because they don't have access to the publications where those opportunities are communicated nor does one have an invitation to serve at the SIG level and also lacks social capital, relationships, and a strategic plan to play the long game, one can have all of the interest in leadership possible, but still may find herself without a leadership position. However, the narrative assumption that members of her community are not interested in leadership within the organization is actually a false assumption when one questions whether the assumption, or conceptual glue, actually holds true by examining the system within which the assumption is situated and when one examines power (through relationships, social capital, access, etc.) within that system.

2.3.4 Examine the Ways in Which Less Dominant Groups are Subjugated, Surveilled and/or Expected to Assimilate. The goal of this step is to analyze how structural oppression operates through practices that subjugate, assimilate, and surveil non-dominant groups. Using the example of facial recognition systems to promote security and limited access, research shows that this technology has been used to surveil Black people, portraying them as thugs and criminals who must be monitored for everyone else's safety and well-being [15]. In addition, facial recognition systems do a poor job of accurately identifying Black faces, drawing attention to biased algorithms that were not designed to accommodate Black people [23]. Furthermore, more accurate detection of faces of color do not necessarily serve the best interests or needs of Black people [44].

2.3.5 Identify Acts of Resistance. For this step, an intersectional analysis of power "sheds light on resistant knowledge projects of anti-violence initiatives" [29]. This coincides with the BFT principle of Black feminist practice of engaging in acts of resistance as a way for improving the lived experiences of Black women and others who have been traumatized by violent power structures [28]. One example of an anti-violence initiative is how Black families and communities create safe spaces to inoculate them from racism and threats from the dominant culture, where the primary focus is on the joys and tribulations of family life and community as essential moments of their lived experiences [85]. The Black family structure with its extended networks and collective memory of contending with and resisting racial oppression represents an act of resistance, laying the foundation for an oppositional culture that has learned how to survive centuries of trauma, violence and damage due to structural oppression in its various forms.

3 POSITIONALITY

Following the methodology of *standpoint theory* [67], we describe our own positionality as three Black American, able-bodied, cis-gender women with collectively over four decades of experience working in corporate and academic research. Though the origins of our socioeconomic status ranged from working to middle class, we are currently considered upper-middle class due to our education and economic attainment. Our educational background and work is situated in the field of computing, specifically HCI, design, computing education, and learning sciences. Much of our work has focused on understanding the ways in which technology and computing impacts the lives of Black people, especially Black women and girls, and how to transform technologies, practices, and polices to create a more equitable and just world for those who have historically been ignored. Though we note our own experiences with systems of oppression due to our race, gender, and sometimes class [30], particularly as minoritized members of a field with few that share our identities, we also recognize our privilege as cis-gender, upper-middle class, non-disabled members of academic institutions that have historically caused harm to Black communities. We acknowledge that our positions and identities not only impact our lived experiences as researchers but also the types of research questions that we pursue and our interpretations of the research work, including the importance of understanding systems of power [28, 68]. Furthermore, in reflecting on our identities, we recognize the potential harm that our position may cause, including not reflecting the diverse experiences of Black women (e.g., trans, queer, disabled, and neurodiverse) as well as Black women outside of the West. We believe that people with those identities are best positioned to use their testimonial authority and expertise to provide insights about their lived experiences in computing, not us given our stated positionality. As such, we hope that an additional contribution of this work will be that scholars from those communities will adapt and apply this method in ways that make more salient the unique configurations of the matrices of domination and intersecting oppressions that are contended with while navigating computing spaces. Our hope is that we can continue to expand our understanding of the Black women's standpoint in computing.

In this article, we define race as a socially and politically constructed division of humans in which society assigns characteristics to whole groups of people in order to advance the idea of the superiority of whiteness [37]. We use the term "Black" to refer to the people and culture of those from the African diaspora—including those of Black African descent who live and/or are from Africa, the Caribbean, North and South America, Europe, and Asia—as we recognize that anti-Black racism and oppression impact all from African descent despite national origin [30]. Yet, though this article is an autoethnography that leverages the testimonial authority of Black women, we acknowledge that Black women and/or Black people are not a monolith and therefore, we speak from our cis-normative experiences and not for all Black people, who have diverse perspectives and experiences.

4 METHODS

We leverage autoethnography [17, 63] as a method for describing our experience by conducting an intersectional analysis of power, domination, and oppression. Autoethnography allows us the validity and space to describe and reflect on "one's own experiences" as knowledge, truth, and an illustration of data through *testimonial authority* [29]. Testimonial authority is the ability and right of those who have been traditionally ignored, disbelieved, and/or dismissed to share their lived experiences as the epistemic agency [29]. "Testimonial authority within a given interpretive community rests on the ability of a person both to speak and to be heard...But it also rests on interactions among listeners who decide the degree to which the testimony put forward fits within the epistemological rules of the community" [29, p. 132]. Autoethnography as a methodology creates counternarratives, which resist disparaging narratives about Black people and communities. Autoethnographic methods and testimonial authority validate research experiences that use intersectional analysis of power as a point of reflection on the study design, methods, implementation, and dissemination. Specifically, the principal investigator (first author) describes her experience and approach to leading a research study with street outreach workers who focus on addressing violence in their communities. We view autoethnography as an appropriate method that aligns with the principles and tenants of BFT and intersectionality as it allows us to (1) engage in self reflection and reflexivity of the current and historical practices that perpetuate systemic oppression, as well as our own privilege as scholars who work within these systems that tend to silence and ignore the epistemic voices of those outside of the traditional academic field (known as testimonial quieting) [48], and (2) describe methods of resistance and activism to combat and counter institutional and systemic oppression [28]. Autoethnography and intersectionality is a method that takes into account the voice of the researcher despite her own minoritized position in the field of HCI, computing, and society.

To conduct this autoethnography, the first author began by writing about her experience as the lead researcher on the academic team, reflecting on the interactions and decisions made in the study in hindsight (e.g., what went well and what did not). Having extensive experience conducting community-based research over the paper decade, the first author selected this particular experience, because it was a recent example of a body of work that occurred over an extended period of time (years) and that included the full design experience from inception to implementation to deployment. She then engaged her two co-authors in dialogue to share and reflect on her history and experiences, focusing on the themes that emerged in her writing. During the conversation, they asked questions about the themes, asking her to expand on her experiences and rationale for certain decisions. Using a combination of storytelling and written documentation to elicit detailed self-reflection, the first author verbalized her experiences, audio-recorded them, and answered any questions posed by the co-authors. The audio recordings were then transcribed and broken up into five main themes to reflect how she used an intersectional analysis of power as a method

to engage in acts of resistance throughout the study. The transcribed narratives (in Section 5) have been lightly edited for clarity and to maintain anonymity.

4.1 Context of the Case Study

In this section, we provide context for the case study in which we apply the intersectional analysis of power and oppression framework. We provide high-level details of the community-based research project given that this article emphasizes the intersectional analysis of the power of the case study. Additional details about the study and its outcomes are available in previously published work [removed for anonymity].

Over the course of two years, I (first author) worked with Street Peace, a pseudonym of several global street outreach organizations, to build a mobile application (app) that supports community-based violence prevention efforts of street outreach workers. Street outreach work is a community-based approach to lowering rates of interpersonal violence that is preventative rather than punitive (e.g., criminal justice system and law enforcement). Street outreach workers are community residents that have been formerly involved in gangs and who are hired and trained to mediate conflicts in their neighborhoods that could lead to violence. Street outreach workers rely on their relationships and credibility to peacefully intervene in potentially violent situations. Most have case loads similar to social workers, where they stay in touch with those involved in the mediations, including providing resources to address underlying factors that catalyze violence (e.g., lack of employment, mental health challenges, and trauma) [24, 25, 74].

The study was initiated by one of the administrators of Street Peace, who had more than 15 years of experience in violence prevention work, including being a former street outreach worker before moving into the leadership of the organization. Leveraging aspects of participatory design, the academic team, and Street Peace worked together to co-design, develop, and implement the mobile app. The app was created for internal use by street outreach workers in six neighborhoods across the city[1] and had features that supported training, mediation, community building, and communication during emergencies. To understand the impact of the app, we collected data from 36 interviews (pre/post interviews of 18 participants), 56 pre/post surveys, and log data from 48 users. Interviewees were selected from the six different neighborhoods (three from each) based on the time they had been involved in street outreach work and their experience with technology. Though 56 agreed to use the app and installed it on their phones, 48 actively used the app. Three members of the academic team analyzed the data and presented it back to the street outreach workers to get their feedback.

5 APPLYING AN INTERSECTIONAL ANALYSIS OF POWER IN HCI

In this section, we describe the five themes that emerged from our autoethnography: (1) project framing, partnerships, and funding, (2) methods, (3) interpretation and data analysis, (4) implementation, and (5) dissemination and outcomes. Leveraging intersectional analysis of power as a method to critically examine the experiences shared, we explore the ways in which systems of power work in academic research. Each subsection begins with the researcher's reflection and follows with an intersectional analysis of power, where we dive into the histories of oppression and dominations. To enact the power analysis, we engage in the five-step process which consists of (1) identifying the saturated site of violence; (2) identifying the intersecting systems of power and who holds power (past and present); (3) describing the "conceptual glue" that binds these intersecting systems together and the assumption(s) that those who hold power are employing to

[1] At the time of the study, the organization was in seven of the most violent neighborhoods. We excluded one neighborhood because the street outreach workers had iPhones and our app was built for Android.

guide their interactions; (4) examining the ways in which Black people are subjugated, surveilled and/or expected to assimilate to "normative" ways of being and behaving; and (5) identifying acts of resistance. We note that the researcher's reflections are examples of acts of resistance rather given that she has approached the co-design process as an activist academic [96] that enacts BFT which focuses on care for communities [28, 96]. We end this section with a final reflection from the researcher, where she describes the oppositional culture and extended care experienced during her interactions with the community as well as some contextualization of those experiences in terms of the intersectional analysis of power.

5.1 Project Framing, Partnerships, and Funding

Approach and problem framing is one of the first things we think about as researchers and designers. To begin and how we started with this project was the organization leaders of a street outreach worker organization came to me and said, "Let's work together. Let's collaborate. Here's some of the issues that we're seeing. Our job is to think about violence prevention in a way that's effective and that's community-led and community-based. And that has positive outcomes for Black and Latinx people." They initially approached me, because I had experience working with this particular community and engaging in technology design to support community-led approaches to public safety. But even before we started this project, what started this line of work was my own experience of being Black and having negative experiences with the police despite my educational background. One thing that most Black people know and understand is that there is no respectability that exempts you from having negative experiences and interactions with the police, because there is a presumption of guilt as soon as they see you, long before they ever find out "who you are." These interactions lead to fear and distrust of the police, so when these organizations and I began talking about what's happening in their communities and why their work is so important, I automatically understood exactly what they meant. I don't just understand it, I feel it because I've experienced being completely and utterly powerless at the hands of the police without having done anything wrong. The concerns are built into my bones cemented by conversations and warnings from my parents, grandparents, and great-grandparents as a young child. Despite not growing up in a major city, I had the same understanding about how the police work and Black criminality in a way that goes beyond reading the literature about the systems that keep violence and crime high in certain areas and the unfair treatment of policing Black bodies in ways that does not help but is detrimental to Black people. I feel and experience that fear on a daily basis.

So beyond the literature and even my own personal experiences, it is imperative to experience this work firsthand—even prior to understanding the research question. So that meant talking to street outreach workers in their communities, where they gave us tours of the neighborhood. We spent time at their workplaces, with the teams. We talked to them informally before the research began about their experience of engaging in violence prevention work and why they decided to do this type of work in the first place. This is where we really rely on the rich history of storytelling and allowing people to have a voice and to be the experts, not statistics or other types of data that allow us to make assumptions about their lives. Instead, we engaged in storytelling without a research agenda to place their humanity at the center of the interaction and project framing. We spent about six months building these relationships, establishing trust, talking and engaging with the problem, and reimagining Black futures where all of our kids were safe from community and police violence. So during this process, I constantly reflected on who I was, not being from the neighborhoods in which I worked, it was essential that I center their lived experiences, understand and acknowledge the assets and strengths of the community, and shift the power such that their stories, which needed to be heard, led the direction of the project. We didn't even begin to craft the project without that time. When we began to spend time thinking about the project, we did not take a deficit approach—instead, we focused on the community's assets, including human assets that are typically disregarded such as those who have been formerly incarcerated. Those

are the things that helped us shape the project as an opportunity to amplify existing community assets embedded in current community-led violence prevention efforts. For the students who worked with me, that was a shift from the traditional problem framing that designers engage in.

One of the main things that we thought about was partnerships and how we're going to create sustainable and equitable partnerships. The first thing we thought about was who the partners would be, how we will work together, and how we were going to fund the project. These concerns stemmed from the history of who has been involved in the conversation when there are discussions about public safety, alternatives to traditional policing, and violence prevention. Of course, there tends to be other major research institutions who tend to partner with the police in their research. Of course, now many people are exploring alternative public safety methods but as a Black person, it didn't take headlines of police murders like George Floyd for me to inherently know and recognize problems with relying solely on law enforcement to improve safety. Despite increases in the number of police, crime rates typically go up in certain neighborhoods. Also, I knew about lots of reported an unreported acts of violence and harm caused by the police. I recalled interviews of mothers whose children were harassed by the police—one mother telling me about the time the police took her son and dropped him off in another neighborhood on his way home from the grocery store as punishment for mouthing off, knowing that putting a young 14-year old Black boy in an unfamiliar neighborhood in certain gang territory could be a death sentence. I recalled my own fear for my life as I've been harassed by the police and my brother was constantly pulled over to ask why he was in our neighborhood despite his car being registered to the area. Thus, the partnership and who was at the table were important.

As with most projects, one of the main concerns is funding. Our community partners were also concerned with funding being a non-profit and having limited resources. We worked together to create a one-page document that described the details of the project and its potential impact. It was important that we create that together so that they could source for funding in addition to me as an academic researcher. Traditionally, the funding mechanisms come through the university but we intentionally decided to have some of our grants come to the university, where I was the PI and the non-profit was the subawardee and other grants went directly to the organization where I was the subawardee. That worked out really well, because that meant that the project was very much so intertwined; there was no official "leader," and there was nothing hanging over anyone's head, because each organization had a role as far as leading the funding. The major challenge with funding was what you can and what you cannot pay for with the funding and what the organizations, including the philanthropic organizations and funders deemed as evidence of effectiveness and satisfactory progress. For some philanthropic organizations, there was a push for quantitative results (for example, less homicides than the year before), which is not a realistic way of measuring success for this project, because many factors impact violence and an app alone will not stop homicides. This approach also ignores other results that are less quantifiable such as the communities of care that emerged, the relationships built, and the confidence gained. So the funding mechanisms did not align with the results of the work that we needed to do and how we needed to work in partnership. Much of academic funding is tied to the dissemination of our work in academic venues, which does not align with the organizations' needs. We still had to do these things because the reality is, the funders had the power and in order for us to get the work done, we had to succumb to their will and values. We did engage in acts of resistance in how we structured our funding partnership, and we attempted to raise money outside of traditional funding agencies, but that was minimal in comparison to what we needed.

5.1.1 Identify Saturated Sites of Violence. This quote describes several sites of violence. First, the traditional approaches to framing research projects and partnerships are sites of violence. The project framing in this case showcases the notions of Black criminality and deficit narratives that are prominently shared about Black people and their communities, and the role that white

supremacy and racism play in creating those narratives as well as concentrated poverty, disinvestment, and high crime rates in Black communities. Other saturated sites of violences are the negative interpersonal interactions with those in power (i.e., law enforcement), which leads to distrust of the police and others who have intentionally and/or unintentionally caused harm. Such negative interactions do not shield Black people and communities from engaging in research partnerships with academics that center the police as partners, not allow community members to have voice in the partnerships, the structure of the partnership (i.e., decision-making processes), and how power moves between partners (e.g., more resourced partners typically have more leverage and hence, more power). Similar to problem framing, violence can occur within the partnership experience as well as outside of (i.e., for those who are not asked to be a voice in partnerships).

Furthermore, mechanisms of funding research are a site of violence, ranging from who can apply for funding (i.e., people and organizations), what information is needed, the resources and relationships that certain organizations have to appeal to funders, the ways in which funding is distributed, and the information needed to receive funding. Funding agencies have complete power and tend to decide on what the outcomes are that need to be demonstrated for a project's success, not the community. Furthermore, there are some funding agencies who will not consider small community organizations as being qualified to receive funding, putting the community organization (that many times engages in the "on-the-ground" work) vulnerable to larger, more resourced institutions and organizations that have the ability to collect the funding and distribute it as they see fit.

5.1.2 Identify the Intersecting Systems of Power and Who Holds Power. The intersecting systems of power at play are racism, sexism, classism, and ability (fitness). The power is held by researchers and funders who have traditionally created rules regarding who are deemed "respectable, good citizens" that are worthy of being listened to, believed, and trusted. Those in power—typically with identities such as white, male, highly educated and well-resourced, and from western societies—maintained and determined who is able to be partners and the partnership structure. These groups have tended to hold power and decisions (whether consciously or unconsciously) regarding the notion of "citizenship," which has negatively impacted how Black people are treated over the course of history throughout the diaspora. Given the history of the U.S., Black people who are not members of the academy or power institution have traditionally been excluded from being a part of framing and partnership decision-making.

Funding agencies, whether they be government (federal, state, local) or philanthropic foundations and institutions, typically hold the power in terms of who has access to funding resources for research and practice. The intersecting systems of power are still racism, sexism, classism, ability, economics, and nation given that those whose identities are non-dominant have historically not been allowed to apply for and/or receive funding. There are some funding agencies who focus on direct service, again an example of the funding agency determining that the community organization may conduct service, but not knowledge or scholarship that is beneficial to academic institutions. In addition, researchers hold power as well in determining the funding structure of the project. As an example, researchers from **predominantly white institutions** (**PWIs**) who "collaborate" with researchers from **Historically Black Colleges and Universities** (**HBCUs**) or other **Minority-Serving Institution** (**MSIs**) can be problematic when the funding mainly goes through the PWIs rather than through the HBCUs and MSIs [82]. By not allowing researchers from HBCUs and MSIs to have agency and control of the funding, the power to tokenize them in order to access their Black and brown students.

5.1.3 Describe the Conceptual Glue that Binds Together Intersecting Systems of Power. Recall that the conceptual glue is made up of the assumptions that undergird and support the particular

"arrangement of intersecting systems of oppression," or what Collins calls the "matrix of domination" [29]. Collins also asserts that "just what and how these systems come together is historically and socially specific" [29]. Furthermore, Weber asserts that "when dominance continues for a considerable period of time, it becomes a structured phenomenon, and the forms of dominance become the social structures of society" [154]. As such, the conceptual glue is the result of the crystallization of the matrix of domination over time to the extent that assumptions become "baked in" to the way we engage with systems and these assumptions are used as the (oftimes) unspoken foundational analogs and logics by which narratives to explain structured phenomenon are constructed.

Several assumptions undergird the particular configuration of intersecting oppression that this researcher had to contend with when framing the project, establishing partnerships, and securing funding for the research. First, researchers spending long periods of time understanding communities, establishing trust, building rapport, and considering the historical, social, and cultural contexts of communities, especially when those communities are ones that researchers do not belong to, is not common [68, 114]. The lack of initial engagement with communities such that researchers build coalitions with communities is a form of "paternalism" [111], in which "those with power think," or assume, "that they are capable of making decisions for and in the interests of those without power" (Ibid). This white supremacy characteristic occurs when those with power assume that it is not "important or necessary to understand the viewpoint or experience of those for whom they are making decisions" instead of understanding the experiences of those in the community, building coalition and relationship with that community (and not just a representative of the community), and allowing that expertise and those insights to be the assets that they are that can inform the development of a research agenda. Although the researcher was a member of the larger Black community, she was not a member of that Black neighborhood. As such, hearing the stories of members from the community helped her to establish connection and trust, and it allowed her to center and elevate their lived experiences in their neighborhood and look at the potential problem engaged in coalition building with the community that afforded them being able to shape the direction of the project together and in alignment with each other. That coalition building permeated not only the research agenda, but which partners were brought to bear to engage with (and which were not), as well as how funding was pursued.

Second, valuing particular ways in which information gets shared (e.g., memos, papers, and project summaries) over other ways in which information gets shared (e.g., storytelling) assumes that the written word is more valuable. This "worship of the written word" is a white supremacy characteristic that assumes that ways of sharing information and knowledge outside of a memo or written document is less valuable [28, 111]. It also assumes that "those with strong documentation and writing skills are more highly valued, even in organizations where ability to relate to others is key to the mission" [111].

Third, resources (e.g., money, space, and team capacity) are often connected to power as those who have resources often leverage those resources to achieve their own will "even against the resistance of others" [154]. This is called "power hoarding," a white supremacist characteristic that assumes there is "little, if any, value around sharing power" in the form of resources [111]. Often communities are not included in the budgets of grants, outside of participant support, which often takes the form of a stipend, honorarium, or payment that is rendered for the time and/or labor of participants. As a result, they do not have a "say so," or a role in decision-making around how funds are utilized. The researcher describes the challenges she experiences not only in acquiring funding, but also in distributing funding equitably, assuring that community partners had real access to resources and agency to make decisions about those resources, and attending to appropriate measures of success both of the research as well as the growth and sustainability of the coalition between her team and the community. The assumption that funding organizations, and thus the

academy and researchers make that "all of the resources of an organization are directed toward producing measurable goals" and placing more value on "things that can be measured" rather than "things that cannot" is an example of the white supremacy characteristic of "quantity over quality" (Ibid).

Fourth, the researcher describes the community organization(s) with which she partners as having little access to funding and very limited time to pursue substantive funding. Funding models often embed a "sense of urgency" within their processes which assumes that a great deal of labor should be expended no matter the amount of funding (large or small). This "sense of urgency" is a white supremacist characteristic that often results in small community organizations promising "too much work for too little money and by funders who expect too much for too little" as well as unrealistic timelines for the work that is going to be done [111].

5.1.4 Examine the Ways in Which Less Dominant Groups are Subjugated, Surveilled, and/or Expected to Assimilate. In this case, Black people are subjugated to sites of violence through their experience with the prison industrial complex—which refers to the systems, institutions, and organizations that profit from the rapid expansion of the imprisonment of Black bodies to produce goods and services. The U.S. criminal justice system has been shown to unfairly target Black people, giving longer, inequitable sentences for the same offense as compared to white people [1]. Situated in capitalism, "private business prison labor is like a pot of gold. No strikes. No union organizing. No health benefits, unemployment insurance, or workers' compensation to pay. No language barriers, as in foreign countries. New leviathan prisons are being built on thousands of eerie acres of factories inside the walls. Prisoners do data entry for Chevron, make telephone reservations for TWA, raise hogs, shovel manure, and make circuit boards, limousines, waterbeds, and lingerie for Victoria's Secret, all at a fraction of the cost of "free labor" [61]. Interaction with the criminal justice system does not impact one person, it tears apart families and communities for generations [1, 40]. Recent acknowledgements of the unfairness built into the criminal justice system [16, 40, 60] has discouraged incarceration in private prisons but more long-term, at-home surveillance using technologies created by private companies without regulation of who owns the data gathered by these technologies, nor how it will be distributed, protected, or destroyed [89]. Furthermore, Black people are subjected to practices that allow law enforcement to police communities in which they are not members, executing harassment, abuse, and excessive force at higher rates leading to distrust [128]. Black communities are subjected to disinvestment and limited access to city resources, resulting in lack of quality housing, education, and health options, higher crime rates, and physical environments and local infrastructure in disrepair.

Traditional research partnerships where academic collaborators are in control of the money and resources subgates Black communities and people to the will of the researcher. The subjugation is even more evident in cases where the community partners do not have sufficient resources (e.g., many community-based, non-profit organizations face funding challenges) and view research partnerships as a way to supplement the needs of the organization. Such arrangement places the community partners in positions of being subjects to be surveilled, examined and disregarded after the necessary information is collected. There have been recent acknowledgments of problematic approaches and partnerships in HCI research [68, 113, 114]. Pal describes groups that have pushed against the notion of unfair partnerships: "The accessibility community has rallied around the 'nothing about us without us' cry, the net impact of which has been a significant presence of people with disabilities in the intellectual output about disability" [113]. Pal goes on to warn that "if we are unable to move toward a more inclusive engagement...it may be time to consider Good4CHI as an apt alternative to describe the directionality of our work's impact" [113], suggesting a reckoning with the fact that the field of HCI benefits much more from partnerships with non-dominant groups than vice versa.

In terms of funding, many community organizations that serve Black communities are restricted regarding the avenues of funding in which they are qualified to apply (this is a problem that many nonprofit organizations face). The limitation on where a community organization can seek funding means that community-led efforts result in short term grants that require a significant amount of administrative work. Many of those grants are for direct service and do not cover the cost of the administration needed to create the final reports, white papers, and so on required by funding agencies. Surveillance is manytimes built into the scheduled check-ins with the funding agencies (e.g., quarterly, annual) reports that require that the community demonstrate significant changes that most of the time exceeds what can be done with the amount of funding provided.

5.1.5 Identify Acts of Resistance. The researcher engages in acts of resistance by elevating and trusting other modalities of knowledge sharing, where storytelling over simply engaging with statistics was valued. Storytelling allowed the researcher to build relationships and trust with the community partners and street outreach workers prior to the beginning of data collection. The research did not come in with a research agenda, where she was seeking partners to participate in her work (a form of exploitation), but instead she allowed the research approach and framing to develop during her dialogue with community partners. Her approach supports a more asset-based engagement method to working with communities that have traditionally been bombarded with deficit narratives about problems within their communities, ignoring the local solutions and resources that exist. This allows for interactions that are relational rather than transactional. Lastly, the researcher reflected on her personal knowledge and experiences to also guide the conversation—reflecting on the similarities and differences between her experiences and those being shared with her—ultimately connecting more deeply with the community because of her lived experiences. Another act of resistance is the community-led approach to violence prevention in itself as an attempt to counter violence and trauma that results due to traditional policing, where (typically white) law enforcement typically overpolices Black communities.

The researchers' approach to consider ways in which the partnerships can be sustainable and equitable from the beginning is an example of an act of resistance. Furthermore, the community had a voice in who engaged in the partnership, the community-led design process, and the structure of the partnership. The researcher leveraged her own experiences as well as her interactions with community residents (e.g., the mother) to decide whether the traditional voices in positions of power would be involved and engaged in the work. Ultimately, the community partners decided against engaging the police in the research—another act of resistance. The researcher's collaborative approach to selecting and structuring the partnership ensured that the needs of both the community partners and the researcher would be satisfied in the partnership.

The researcher's approach to funding—including co-writing the one-page project description, ensuring that the community partners were co-PIs, and distributing funding and responsibilities — were all acts of resistance. By elevating the community partners to lead PIs on some of the funding allowed them to have true voice and for the researcher to be accountable to them rather than the typically arrangement, where the community partner is a subawardee or receives participant funds and the researcher has the final say. Furthermore, this approach not only helps with accountability, but also helps with overhead costs, where the academic institution benefits from the absorbent amounts of indirect cost (e.g., most U.S. institutions take more than 50% of federal grants for overhead costs). This method of truly distributing funding in an equitable way allows the community partners from being exploited since power and money/resources many times coincides.

5.2 Methods

We thought quite a bit about the methods that we used. For example, we decided to use interviews because of the importance of giving people voice through storytelling, which was something that came up in our initial engagement with street outreach workers. The decision to do both interviews, surveys, and collect data from the app itself was something that the entire team agreed upon with the community partners having an equal voice in the methods. For example, they wanted to use surveys so we could hear from those who we couldn't interview (it was not possible for us to interview all street outreach workers in Chicago that used the app). In addition to methods they wanted, our partners made it clear which methods were off the table. For example, observations weren't possible because street outreach workers had a reputation to maintain and bringing researchers down the street with them was not a part of that. Now the funny thing is that I've since had article reviewers who have criticized us for not doing observations, which sounds ludicrous but it is true. Essentially, the reviewers didn't trust the interview data and/or experiences of the workers. What does it say about the establishment in which I publish when there is a distrust of the knowledge from my interviewees because it can't be valid if the researchers didn't see it. Of course, it does not make sense for us to say that we're going to go and observe someone while they're doing violence prevention work, which is actually a very dangerous job. However, it does say something about the review process, who is believed and whose knowledge is accepted as truth in our field.

5.2.1 Identify Saturated Sites of Violence. In this case, the sites of violence are the research and design methods that are not designed to be intersectional, but instead retrofitted [68]. Within these methods, there is an underlying push for innovation that may or may not be appropriate as well as the notion of objectivity. The research methods and instruments were not created or co-designed with the intended population (Black people) at the forefront; therefore, such methods are unlikely to honor their intersectional identities in terms of who is collecting the data, how the data is being collected, who owns the data, how the data is analyzed, and what data is collected (e.g., asking for gender demographics when not needed or not including non-binary and transgender options) [135].

5.2.2 Identify the Intersecting Systems of Power and Who Holds Power. Traditional research methods were created within systems of power such as racism, sexism classism, ability, and nation. Researchers, and more specifically the academy, hold the power in this scenario, because our fields of study determine the methods that are deemed valid and that yield "reliable truth." Traditional methods were not created to address intersectional identities and power, but instead were created to focus on a notion of objectivity that does not exist [29, 67, 111]. Traditional methods tend to ignore biases that are built into the methodological approaches and instruments that we use. Within computing, specifically, the focus is often on removing complexity in order to standardize, abstract, scale, and generalize. Without reflexivity, researchers may use methods that generate results that could harm the communities of focus, and the academy has the ability to promote the usage of such methods through the acceptance or rejection of the dissemination of the work.

5.2.3 Describe the Conceptual Glue that Binds Together Intersecting Systems of Power. Several assumptions undergird what this researcher had to contend with when selecting and applying methods. First, as described in previous sub-sections, these choices around what methods to employ and how to apply them are often made solely by the research team in the absence of the community or participants from that community. Examples include the valuing of statistical significance and quantitative research that distills, abstracts, and generalizes, through p values and patterns, over more qualitative measures, such as interviews, that center and elevate the voices of community members and participants. This assumption of "quantity over quality" reinforces

that "things that can be measured are more highly valued than things that cannot" [111]. Further, the assumption of "progress is bigger, more" assumes that progress is defined by "an organization which expands (adds staff, adds projects) or develops the ability to serve more people (regardless of how well they are serving them) (Ibid). We argue that methods and the fields seemingly laser focus on large n, generalizability, and abstraction in research knowledge projects assumes that the more generalizeable or scalable the findings (which come out of the application of the methods), the more widely applicable those findings are, even if they don't serve the communities or participants in question. Collins [29] asserts that "there are no inherently "intersectional" methodologies or methods. But there are ways in which intersectionality's core premises, especially its premise of relationality" (the idea that race, gender, class, nation, and so on work in relation to each other and are maintained through these relational process) "can influence methodological choices within intersectional scholarship" (p. 152). This presents an opportunity to co-develop new methodologies.

Second, exclusion of methods that should be not included because of their potential to inflict physical, emotional, or psychological harm to participants and researchers, alike, is often not considered by researchers, nor is it often informed by expertise that communities bring to the research. This is "power hoarding", a white supremacist characteristic in which those with power assume they "have the best interests of the organization" or of communities [111]. Not giving communities the opportunity to reject particular methods not only silences them, but can also open everyone up to danger as described in the excerpt where the street workers would not allow observations due to the danger posed to the workers themselves and the research team.

Third, the criticism of reviewers for not including methods that, on the surface and without cultural competency and expertise, would seem appropriate is quite commonplace. The lack of trust afforded the street workers because the research team wasn't there to "observe" (read surveil) them to verify their qualitative accounts is another example of not only "power hoarding" but also "knighting/blessing" [111, 145]. "Power hoarding" assumes that sharing power has no value and "power is seen as limited, only so much to go around" (Ibid). Okun further states that "those with power don't see themselves as hoarding power or as feeling threatened" (Ibid). "Knighting/blessing" is a new white supremacy characteristic that emerged out of the interviews of Black women in various computing contexts talking about their intersectional experiences [145]. "Knighting/blessing" assumes that a those with power must "bless", or endorse, the capability and knowledge of those without power (perhaps multiple times) before it is acknowledged, accepted, or believed [145].

5.2.4 Examine the Ways in Which Less Dominant Groups are Subjugated, Surveilled, and/or Expected to Assimilate. Black communities and Black people are subjugated to methods that were not created by them and/or even for them in researchers' pursuit of objectivity, innovation, or simply seeking truth. Many times, such methods do not consider the participants' culture, nor the information that they feel comfortable sharing, and so on. [68]. Adherence to requests by reviewers to use certain methods in order to publish their work is an example of how scholars assimilate. In the case above, the reviewers requested methods that would actually put people in jeopardy due to the context, which is an example of how academic publishing (reviewers) seek truth in certain ways because if the researchers did not "see it" (i.e., surveil Black participants) then the accounts of the people in the community can not be trusted). The need to surviel participants to obtain a "ground truth" is a white supremacy characteristics that is "blessing" or "knighting" certain knowledge as trustworthy and other methods—particularly those methods that originate from native and indigiesious cultures (e.g., storytelling)—are disregarded or distrusted [28].

5.2.5 Identify Acts of Resistance. One of the main acts of resistance include leveraging qualitative measures that elevates the experiences and voices of the community as experts, research partners, and intellectuals, which is a call to action in BFT. Another act of resistance was the focus

of giving community partners agency in the section of the methods to be used, countering paternalistic approaches to research that places the researcher in the position as the expert regarding which methods are valid or objective. By engaging the community in deciding on the methods, the researcher was able to avoid using methods that do not make sense based on community needs and a deep relationship with community partners (e.g., observations do not make sense).

5.3 Interpretation and Data Analysis

As far as interpretation of the data, we did much of the data analysis and presented it back to the community partners. However, I think one of the things that I made a mistake on was not having the community partners conduct the data analysis and the synthesis, the process of pulling out the themes. I would have liked the street outreach workers to have been trained and to engage in data analysis with us. I think that there's always a place for us to learn so as I reflect, you know, it would have been more interesting to come up with interpretations and analysis methods that the street outreach workers were a part of. Since then, I always incorporate funds to pay for a community analysis group – where community members and participants are deeply embedded in the data analysis, whether it be coding data, giving feedback on the code books, monitoring our interpretations, and helping to synthesis the analysis and what story the data is telling—even if they agree or disagree with the story. And so, while we actually went back to them on this particular project, a lot of that was synthesizing themes, not raw codes, and so on. Instead, we said, "These are the big things that we're seeing. What do you think?" While that's a nice start, that's the bare minimum—I could have made it so that they were more part of the process. The street outreach workers had a limited amount of time and our funding did not cover us to pay them for time to do data analysis. That is an example of the power that funders have in deciding whose knowledge is valued and important. Because the community partner was a non-profit organization, they didn't have unlimited time and had to be careful about how their own funding was spent. As a researcher, I also had power to require or request or demand that I have funding to support our partners engaging in analysis, and I don't think I did a good job of doing that in a deep way.

5.3.1 Identify Saturated Sites of Violence. In this case, the sites of violence are the spaces in which conclusions are drawn and narratives are formed and codified, particularly about people whose identities are non-dominant in the field and in society (which may be the same or different). The logics asserted based on the analysis and interpretation of data are many times violent and reinforce deficit narratives and cultural (hegemonic) stereotypes.

5.3.2 Identify the Intersecting Systems of Power and Who Holds Power. Researchers hold the power in how they chose to interpret data and disseminate it in academic and non-academic spaces. Their credentials, which many times consists of terminal degrees (e.g., doctor of philosophy) means that society may trust their interpretations as truth rather than critically examining the narratives of certain researchers, particularly those from dominant identities [28, 38, 137]. In addition, the academy, specifically the publication process, holds power regarding whose narratives are shared within the field. As an example, while working on a project to teach Black high school boys computer science in preparation for taking the **advanced placement** (**AP**) exam, DiSalvo and Bruckman [45] use terms like "claim" when describing the young men's reasons (e.g., they would miss school or would have to take public transportation to a place that is not their regular school) for not taking the AP CS exam. Language like "claim" and "they are not always consciously aware of their own motivations" is an example of how HCI researchers have the power to inject their personal biases into their interpretations because of the assumption that young Black high school boys could not possibly know or explain the rationale behind their decision-making. The ability to present such biased interpretations as truth to a wide community of other academics is an example of researchers' power that often goes unquestioned.

In contrast, in our case study, we engage SOWs who represent members of the community in a dialogue to better understand the motivations behind their actions and the decisions they make. We include their actual words as testimonies of their lived experiences and review the outcomes of this research with SOWs and other community stakeholders to verify and correct as needed before publishing the results in academic venues. Referring to the example of DiSalvo and Bruckman [45], paternalism is at play with researchers stating they hope to help the Black high school boys to "develop greater self-awareness and the ability to articulate their conscious and subconscious motivations," because again, the researchers assume that the Black participants must be told what their actual truths are. Rather than employing the testimonial authority of these Black male students, DiSalvo and Bruckman [45] are able "to speak with authority" about the Black men's values, another example of researchers providing narratives about Black people without reflecting on the limitations of their interpretations as outsiders [68]. The intersecting systems of power of racism, sexism, classism and ability (fitness) nation (and likely others) are at play. Turning a critical eye to our case study, we dare not *speak with authority* since we recognize that our privilege and power create power differentials in the form of class distinctions that position us as outsiders in the very communities we hope to serve and collaborate with. Consequently, we engage in constant self-reflexivity to identify our biases and look for opportunities to redistribute power to our community partners whenever possible.

5.3.3 Describe the Conceptual Glue that Binds Together Intersecting Systems of Power. Several assumptions undergird what this researcher had to contend with when conducting the data analysis and interpreting the results from that analysis. First, within the field of HCI and computing more broadly, reporting findings and interpretations back to the communities from which data was collected is not common practice [68, 114]. Instead, the results are analyzed and interpreted for the purposes of the report to the funder or for scholarly journal articles, conference papers, and so on. The assumptions here are that it may not be "important or necessary to understand the viewpoint or experience of those for whom they are making decisions" (or interpretations) and that "those with power think they are capable of making decisions" (or interpretations) "for an in the interest of those without power" [111]. This "paternalism" results in interpretations of data analysis that may not align with the ways in which communities know and perceive themselves. It also denies communities the opportunity to critique, question, or refute interpretations that may end up in presentations, research articles, and other scholarly work that misrepresents who they are, their values, their practices, and their ways of knowing and communicating. It can also result in the propagation of problematic ideas outside of the community that may be cited by other Scholars or used to create logics and narratives that are untrue and, through their propagation and application, that do harm to the communities about which the ideas are made.

Second, the lack of engagement and involvement of communities, particularly, in the analysis of data is also commonplace. This training would require additional time and resources which researchers and communities may not appear to have. Researchers are trained to collect and analyze data, and others can be trained as well. "Either/or thinking" is a white supremacist characteristic that often "increases sense of urgency, as people feel they have to make decisions to do either this or that, with no time or encouragement to consider alternatives, particularly those which may require more time or resources" [111]. As such, the researcher and the research team are the only people who analyze the data, and the researcher describes the "sense of urgency" she and the community partners experience given the perceived resources they have.

This particular excerpt also illustrates why we, as researchers, must be reflective and reflexive. As Ibrahim Kendi [87] asserts, everyone (including Black researchers) are susceptible to racist ideas. Because these particular configurations, or matrices, of domination in the form of these intersecting systems of oppression have existed in this country for over 400 years, the matrices

have crystallized and the conceptual glue that hardened into place as a result is accepted as an underlying truth, not even questioned but automatically accepted as the way things are because they have been that way for so many generations. These configurations, then, are considered, "normal" and become a part of the fabric of our daily lives [28, 154]. In this context, the researcher is reflective in being thoughtful about the interpretation of the analysis (e.g., communicating themes back to the community to see if they accurately reflect the expertise that community partners have of their community). Her autoethnography is also reflexive because she also turns the focus back on herself, holding herself accountable (for example, for not going further to train the community members to also participate in the analysis of the data as well) and questioning her own ideas (e.g., why she didn't push for support to train community partners to conduct data analysis when she could have). This reflective and reflexive work must be enacted and ongoing at every step of the research process from putting the team together to identifying research questions through analysis, interpretation, and dissemination [29]. For example, as the researcher engages in self-reflexivity, she realizes that there were other alternatives that could have been considered, and in future projects, she makes it a point exercise some of those alternatives (e.g., including budget in proposals for training community partners to engage in data analysis as well as interpretation and dissemination).

5.3.4 Examine the Ways in Which Less Dominant Groups are Subjugated, Surveilled, and/or Expected to Assimilate. Historically marginalized groups are subjugated as "other" and compared to normative whiteness in research, which is especially apparent in the interpretation and data analysis phase where sensemaking and narratives of the findings are being crafted. Furthermore, the interpretations of the results are then used to develop the rationale for why certain things are the way they are (ignoring the history of race and/or racism in many cases). For example, the image of Welfare Queens were mainly Black women who did not work hard enough to take care of their children adequately—all false narratives since white women benefited from public welfare more than Black women [131]. During the COVID-19 pandemic, there is an erasure of the negative stereotype of needing assistance given that white women who were the heads of their households were of great need [18]. Similarly, the crack epidemic in the 1980s, which hit Black communities, were especially hard hit and were given little relief as the narrative was that Black people were inherently bad as compared to white communities that were hit in 2010s by the opioid epidemic [86]. This demonstrates how Black people and communities are subjected to false narratives of the data by researchers and then policies are created that align with those incorrect interpretations of the researchers' findings and results.

5.3.5 Identify Acts of Resistance. As an act of resistance, the researcher presented results from the data analysis back to the community to allow them to engage in the interpretation process. The goal was to ensure that the findings accurately and appropriately represented them. Another form of resistance is her reflection that she should have made a greater effort to allow the community to engage in data analysis in a deeper way. This form of reflection (though in hindsight) is something that can be done in the future including requesting funding such that working on data analysis is mutually beneficial, sustainable, and equitable, thus providing the community with the skills to conduct such future analyses on their own and does not take away any resources for many of them that work for a non-profit. Reflection as a praxis to inform and transform collaboration moving forward is also an act of resisting the tendency to believe the researcher is right.

5.4 Implementation

Another thing that we thought about was the implementation of both the technology and the study itself. We designed the mobile app in-house with our design team, which consisted of both

undergraduate and graduate design students as well as street outreach workers. We used design methods that allowed us to gather feedback at each stage of the process from prototyping to wireframing to the final interactive high fidelity prototype. This consisted of weekly meetings with administrators [former street outreach workers that now have admin positions and who initiated the project] and we're getting feedback from the larger group of street outreach workers at strategic points in the process. During the in-person meetings, we provided food, always cautious to patronize local Black and brown restaurants to cater the events. Also, always with the intention of having leftovers for people to take home to their families (including providing to-go containers). While this seems like a small gesture, the reality is that I understand what disinvestment looks like in Black communities and with what little power I have, I will always attempt to support investment into the communities in which I work. And my efforts never went unnoticed to the point where street outreach workers would give suggestions on other local Black-owned restaurants we could patronize.

The app needed to be production ready, because it was going to be distributed to street outreach workers across the city and be connected to our community partners systems to provide real time data. So there was definitely pressure to make sure it worked beyond "research project" standards, where a lot of times we'll get things to work, but it's not necessarily fully production ready in terms of software engineering and security standards. In addition, we felt pressure due to the timeline set by our funding agencies, who wanted to see results by a certain time period. So we paid a software development company in Silicon Valley to build the app that we designed. So we solicited traditional bids like you do on any software project. Though most costs in the proposals that we received were within budget, we really wanted to work with a firm that understood the gravity and significance of the project, one that understood what we should do and what we shouldn't do and why it's so important. We ended up selecting a firm that was owned by a Black woman, because they were not only the best bid, but they were also the only firm that demonstrated that they understood the consequences of this project to both the street outreach workers and the Black community. Essentially, that history was built into the owner just like it's built into me despite our different lived experiences and educational backgrounds. It was very clear that we were concerned with what traditional policing was doing to Black communities so our conversation about the technology was different as we understood the urgency. So yes, the technical capacity of the company was amazing and was an excellent fit, but it was such a bonus to be able to support a software development firm owned by a Black woman that understood the problem space. It was an act of resistance to have weekly meetings where the entire team—street outreach workers, the software development firm, my team—to be working on this project that had the potential to amplify current community-led approaches to violence prevention in Black communities. Also, the community partners were fully integrated into the development process, where they knew details about and participated in the decisions about cost, timeline, the bid process, contracts, and so on. They were a true partner in every single way that they wanted to be.

5.4.1 Identify Saturated Sites of Violence. In this case, the site of violence is how researchers conduct and enact research. Specifically, the focus here is not on what researchers say they are going to do but what they actually do, including the small, yet significant decisions that are made throughout the implementation of the project. Many of these smaller decisions may not be outlined during initial conversations regarding expectations and agreements between researchers and community partners.

5.4.2 Identify the Intersecting Systems of Power and Who Holds Power. The power in deciding how the research is implemented mainly lies with the researcher. Given that most researchers are trained at institutions that practice methods that were not created for the target population, the intersecting systems at play are racism, sexism, classism, ability (fitness) and nation. Researchers typically have control over whether or not to patronize Black-owned businesses and/or to work

with organizations that are culturally aware of the population. The fact that many researchers do not consider the importance of decisions during implementation (e.g., who caters the food for the workshop) demonstrates the invisibility of issues like systemic disinvestment, which are grounded in histories of oppression and neglect.

5.4.3 Describe the Conceptual Glue that Binds Together Intersecting Systems of Power. Several assumptions undergird what this researcher has to contend with when navigating and interfacing with the particular "arrangement of intersecting systems of oppression" described in the previous subsection. First, is the assumption that technology, and the design of tools and technologies, are objective, neutral endeavors. Flowing from that is the assumption that, because of this "objectivity" tools and technologies cannot be harmful or inflict harm in and of themselves. The notion of objectivity is a white supremacist characteristic rooted in "the belief that there is such a thing as being objective or "neutral"" [111]. Objectivity requires people to think linearly and those who think in other ways and have other ways of knowing are ignored or invalidated and accused of displaying "thinking that does not appear "logical"". Objectivity is also rooted in the "belief that emotions are inherently destructive, irrational, and should not play a role in decision-making or group process" (Ibid). This researcher desired not only technical proficiency, but also cultural competency and emotional intelligence. The researcher and the community leaders desired a designer/developer who understood the gravity and significance of the project and its potential implications. She could feel those implications as they were "built into her."

Second is the assumption that design and development processes are better left to the researchers who are experts and are assumed to have more training and expertise. This may be assumed because they are bringing the research project and its accompanying resources into the community, a community which may appear to be under resourced and lacking access. This focus on "individualism" involves people believing "they are responsible for solving problems alone" and that "accountability, if any, goes up and down, not sideways to peers or to those the organization is set up to serve" [111]. Cooperation (for example, with community partners in the design and development of tools and technologies) is often not valued, and where it is valued, "little time or resources are devoted to developing skills in how to cooperate" (Ibid). As a result, to the community, the design and development processes feel like a black box with no transparency, accountability, and no room for input, feedback, guidance on decision making, or rejection of an idea or design/integration/implementation decision. Instead, the research team values that it, alone, can get things done on its own without that supervision, feedback, guidance, or accountability from the community.

Third, not attending to the everyday pushes and pulls that members of the community contend with everyday exemplifies "right to comfort." This white supremacy characteristic is rooted in "the belief" that [only] those with power have a right to emotional and psychological" and we would argue, material, "comfort". This assumption asserts that who do not hold power do not have a right to that comfort (e.g., not providing transportation or compensation for transportation), when requiring participants to come to your research location, not providing food or stipends for participants). Instead, they are providing comfort to those with power and are helping to push those with power's agenda forward with little thought given the agendas the community may have or need toward their own comfort. The researcher putting resources back into community Black- and Brown-owned business while also providing emotional and psychological comfort by ensuring that participants and community members had access to food and also had food to take home, if needed, are examples of how the "right to comfort" and the power that comes with it can be extended to the communities that researchers serve.

Fourth, the pressure that the researcher and her team feel due to the timelines set up by the funding agencies, who want to see time-boxed results is literally a "sense of urgency" [111]. This

white supremacist characteristic "makes it difficult to take time to be inclusive, encourage democratic and/or thoughtful decision-making, to think long-term, to consider consequences". Further, a "sense of urgency" is often "reinformed by funding proposals which promise too much work for too little money and by funders who expect to much for too little." This can also extend into too little time to do the work that it takes to be inclusive and engage communities in true decision-making about the design, implementation and integration of tools and technologies as well as the interpretations of data analysis as well as the conduct of the research itself including the cost, timeline, bid process, contracts, and so on.

5.4.4 Examine the Ways in Which Less Dominant Groups are Subjugated, Surveilled, and/or Expected to Assimilate. Researchers enter into communities to extract and collect data, often engaging in surveillance of communities and then exiting abruptly with no true relationships built or data shared. Though data is extracted, traditionally there is no conscious effort to direct as many resources as possible into the community, subjecting the community to being surveilled without investment in their local assets.

5.4.5 Identify Acts of Resistance. From the very beginning of the implementation, the researcher engaged in acts of resistance, not complying with traditional methods of engagement. First, she intentionally included the community in decision-making about the process to engage a community in implementation including the solicitation of bids, hiring potential firms, costs, timeline, and so on. The attempt for complete transparency differs from the ways in which researchers typically engage and give agency to communities. Having a community-led and community-driven design and development process that goes beyond traditional participatory design or participatory activist research approaches is an act of resistance. In addition, she attempted to counter disinvestment in Black communities by supporting Black-owned businesses during local workshops and in the software development process. Lastly, by assessing cultural competence in addition to technical proficiency, she attempted to push against the narrative that technology should be created for communities, not by or with Black people as well as that Black women do not have the technical capabilities to build technology.

5.5 Dissemination and Outcomes

Part of dissemination is thinking about ownership of technology—who owns the technology and tools that we co-created—so at the beginning of the partnership I agreed to relinquish intellectual property of the app to my community partners so they could use it outside of the research. This was very unusual, as was told to me by my institution's General Counsel and by other organizations and other researchers. But it was really important for me to do this because yes, I would use this for research; however, I was not going to start a business and make a profit from our co-designed tool that was based on my expertise and the knowledge and information shared by street outreach workers. So it was easy for me to work with General Counsel to relinquish the intellectual property of the app so that they can use this app to receive funding for their organization. There were many actors in that process that needed to sign off including leaders in my university like the provost and dean. It was really intimidating as a junior academic to convince these people in positions of power regarding my career that this was the right thing to do with the IP, when I was being advised against it. But I did it anyway, because my word to my community partners was important, especially given that institutions of higher education have caused so much harm in Black communities.

Also, when thinking about dissemination, we created written documents that were about one page (half of a page on both sides) regarding what we did, what we found, what it means, and so on to the street outreach workers, because there was this notion that researchers come in, study us, and then leave. And they don't actually share what they did and it is never beneficial to the community. We

had conversations early on where people felt like "We're always being studied and being researched but we never see anything." And so it was really important for us to create something physical and tangible that they could see beyond the app itself to say, "Hey, here's what we found and here's how you helped us, etc." So it was really important for us to disseminate the outcomes via written documents and presentations, which was preferred by the organization. Most people do not want to read academic articles. The other thing we did was spend quite a bit of time writing up white papers and other reports for philanthropic organizations and the violence prevention community at large. But we were careful to make sure that credit and authorship were given to our community partners as well. Even in our academic publications, our community partner leads are coauthors. It was really important for us to do that and their feedback on the academic articles has been invaluable. As researchers, a lot of times we publish our work without community partners—though there are exceptions to that—but it was important to have joint credit and ownership because I understood the history of the harms that institutions like my own have caused. And I couldn't bear being a part of causing additional harm.

Lastly, I think about: what powers do I have and how can I leverage them to be beneficial and supportive beyond the research project. One way was when I had my partners ask me, "Can I actually put this on my resume?" I not only said yes, but I also explained how they can frame what they did and the language and terms that they could use to formally describe their role in the project. For me to help them translate their roles as it relates to the field of design was empowering. I've also written letters for the organizations and people within the organizations to count this experience as credit towards their funding effort and their college graduation. I have made available space on my campus for them to hold meetings since we have a prime location in the city, making those spaces free for things related and unrelated to the project. While these efforts take additional time, it's an opportunity for me to leverage the power that I have.

5.5.1 Identify Saturated Sites of Violence. In this case, one site of violence is the academic institutions that operate in a "publish or perish" culture that renders certain people's knowledge and scholarship as invaluable if it is not disseminated in forms and venues that align with their expectations [111]. The same institutions hold power in the form of intellectual property and the ability to maintain or relinquish the intellectual property at their will. Furthermore, funding agencies, who have certain methods in which they require the outcomes to be demonstrated (e.g., quantitative) and disseminated (e.g., white paper, journal articles, or conference proceedings), are also sites of violence. Lastly, the nature of conducting academic research in Black communities becomes a site of violence, because historically, conducting such research has rendered Black people as subjects that are to be studied, without considering what is important for the community long-term. Researchers have historically relied on the notion that any outcomes that arise from the research are automatically a benefit to the community [68, 155]; however, those sentiments of what is beneficial is determined by the researcher, not the community.

5.5.2 Identify the Intersecting Systems of Power and Who Holds Power. The intersecting systems of power at play are racism, sexism, classism, ability (fitness), economy, and nation. Researchers, and more specifically the academy, hold the power in the scenario described above because the academy and the field of computing determine the rules of engagement and these rules do not consider the ramifications, consequences, or outcomes that the research will have on those who are not in power outside of academia. The history of abuse and dismissal of Black people by researchers and academic institutions [153] are both illustrated in this quote. However, the notion that Blackness, Black culture, and Black bodies are a phenomenon that is worthy of examination in the academy, but not worthy of the time, energy, and effort required to share the results with participants in a meaningful way is embedded in the history of how Black people have been mistreated in research for centuries [88]. History shows that research "has has always targeted

disadvantaged, marginalised, institutionalised, stigmatised and vulnerable populations – prisoners, the condemned, orphans, the mentally ill, students, the poor, women, the disabled, children, peoples of colour, indigenous peoples and the enslaved" [88]. Though mistreatment of those who are marginalized or devalued is not relegated to only Black people [126], the exploitation of Black people in the context of the U.S. has been prevalent and ongoing since the arrival of kidnapped Africans to what is now the U.S. in 1619 [66]. Black women slaves were medically researched—painfully being surgically experimented on with no anesthesia—to create the foundation of the field of obstetrics and gynecology without acknowledgement or apology [153]. Research of Black bodies has consisted of physical torture, beginning with the unmedicated surgeries of slaves who did not have a choice to consent to research [88] to studies such as the Tuskegee experiment, where Black men in Alabama were not treated for syphilis to see the long-term effects and suffering on their bodies [153]. Black Americans are still subjected to research harm as exemplified by the discovery in 2021 that two Ivy League U.S. institutions were using the bones of Black children killed by the police to teach students forensic anthropology and to showcase them along with the skulls of other Black people at the university museums [115, 125]. The families of the deceased had no knowledge of, nor did they consent to showcasing their loved ones' remains. This history along with current experiences of research exploitation that is covered by IRB consent likely contributes to the Black participants' hesitation to work with researchers and designers and illustrate the violence and harm that research has caused.

In addition to researchers, their institutions, and the academy holding power with notions of objectivity when such things do not actually exist, the review process holds power and is complicit in maintaining white supremacy values. The review process is typically touted as an objective meritocratic process, when, in fact, it is often fraught with lies (e.g., people misrepresenting their self-reported expertise), white supremacy characteristics (e.g., perfectionism, defensiveness, and objectivity) [99, 111], deficit positioning, devaluing of non-normative voices, citation violence, and so on, which impacts not only how the scholarship is viewed and valued, but also whether that research is even considered scholarship [90]. There are long-term ramifications for scholars who will often have their work viewed as only service instead of true scholarship [136]. It has long been the case that for Black scholars whose work centers Black people, their scholarship has been devalued while white scholars who engage in similar work are viewed as transformational. The injustice regarding the review process and epistemic violence is present in HCI as Kumar and colleagues have pointed out the issues with publications and citations [90] as well as others who have pointed out issues with "othering" non-western ways of being in HCI and design [140]. As a work around, scholars have discussed having a separate line of inquiry that fits the more rigid notions of scholarship and then exerting extra labor above and beyond to do the research that is only considered service so that they can advance in their careers even if it harms them personally, emotionally, and mentally [101, 136].

5.5.3 Describe the Conceptual Glue that Binds Together Intersecting Systems of Power. Several assumptions are present as this researcher contends with the systems in which she must manage the co-creation of knowledge, tools, and technologies in this partnership with community leaders. First, in a capitalist economic and political system, a "country's trade and industry are controlled by private owners for profit, rather than by the state" [138]. In the above excerpt, the private owners are, ultimately, the university for which the researcher works. Even though the researcher and the community leaders provide the labor and expertise that creates the knowledge, tools, and technologies, it is the university who owns it.

Second, the written word, in the form of research articles, journals articles, and so on is thought to be elevated over other ways of knowing and disseminating information (such as presentations,

storytelling, etc.). This "worship of the written word" is a characteristic of white supremacy in that "those with strong documentation and writing skills are more highly valued, even in organizations where ability to relate to others is key to the mission" [111].

Third, a lack of sharing and transparency of outcomes based on community data, knowledge, and expertise suggests that an underlying assumption is that communities either do not need to know how their data, knowledge, and expertise is being interpreted and shared outside of their communities and/or they are unable to understand the interpretations or judge whether those interpretations actually represent their ways of knowing. This white supremacy characteristic of paternalism assumes that decision-making should only be clear to those with power and "those with power think they are capable of making decisions for and in the interests of those without power" [111]. Furthermore, while those who do not have power may not be privy to or clear about how interpretations about their knowledge, expertise, and epistemologies are being made, they are "completely family with the impact of those decisions on them" and their communities [111]. The community members assert that researchers in the past have come into the community (whether invited or not), extracted from the community, and exited from the community, in that order.

Fourth, there is an underlying assumption by the university that the way property rights have always been handled is the "only one right way" to handle issues of IP, whether that way has resulted in extractive practices in the community and a lack of credit and resources back into the community. This white supremacist characteristic operates from the assumption (and belief) that "there is one right way to do things and once people are introduced to the right way, they will see the light and adopt it". When people do not adapt, assimilate, or change to align with the "only one right way", "then something is wrong with them" (i.e., those not adapting, assimilating, or changing), "not with us" (i.e., those who "know" the right way).

Finally, there is an assumption that the "sense of urgency" about the next article or journal deadline (driven by academy's focus on publish or perish for tenure and promotion) means that it becomes "difficult to take time to be inclusive, encourage democratic and or thoughtful decision-making, to think long-term, or to consider the consequences" of interpretations and dissemination of those interpretations. We cannot forget that Science, the most well-respected journal in the world, in its long history, published "scientific" articles on phrenology that were grounded in Eugenics and asserted "empirical" evidence that Black people were biologically inferior and thus, mentally inferior as well. The lack of transparency that often occurs as researchers enter, extract, and exit to interpret without presenting those interpretations back to the community to determine whether they are truly representative and/or factual, inflict harm on communities when they are taken up, for example, by policy makers who cite that literature as the foundation for policy decisions that impact the lives of those communities.

5.5.4 Examine the Ways in Which Less Dominant Groups are Subjugated, Surveilled, and/or Expected to Assimilate. Researchers from marginalized groups who engaged in research with and about Black people are subjugated as outsiders who are conducting service work instead of scholarship and many times have difficulty getting their work published in "highly-selective" venues, journals, and conferences. Even when getting their work published, there are issues with lack of citations, recognition, co-oping and erasure, despite efforts of citation justice which aims at addressing this [90]. Those same researchers are surveilled by being evaluated for the lack of publications and/or citations of the system of oppression, which then impacts their careers if they do not assimilate to more "mainstream" research, many times being subjugated to additional labor to engage in meaningful work to support their communities outside of their academic research. Those who decide to push against the normative narratives are sometimes impacted by the lack of advancement in their careers (e.g., the number of Black women who are full professors are

abysmal). Others are not offered tenure or promotion despite evidence of transformative scholarship (e.g., Nikole Hannah-Jones was not offered tenure likely because of the politics and subject of her scholarship) [50].

In addition to researchers, Black communities and Black people are subjugated to the intersecting systems of power when deciding whether or not to participate in research. Many times, organizations in Black communities face pressure from outside forces (e.g., funding agencies) to participate in research studies without required engagement from the researchers to provide meaningful outcomes or results to the Black participant.

5.5.5 Identify Acts of Resistance. The researcher in this case engaged in several acts of resistance including relinquishing the IP back to the community partner so that they can leverage it in ways that best benefit them despite resistance from institutional powers. Furthermore, she created scholarship outside of scholarly articles to make the results more accessible to and for the community. For the academic scholarship, she intentionally shared authorship with the community to elevate their voices in sharing their lived experience, signalling to the academia that the expertise lies within the community and that they should have a "seat at the table" in their knowledge sharing. The act of co-authoring also affords Black participants the ability to have a voice and say in what is shared from the research, what is highlighted as important, and the narrative and framing of the context that counters historically negative narratives about Black people. Therefore, the researcher was acting as a bridge, rather than a gatekeeper, between the academic research world and the community, allowing Black participants the option to engage as much and/or as little as they'd like in the academy. Given that power also lies in the ability to use the language of the field to convey mastery, particularly as street outreach workers desired to showcase their skills, experience, and expertise on their resumes, the researcher also spent time helping participants to articulate their role on the project, which allows them to take action on their desired futures. Lastly, she attempted to use her power to support the community by providing access to the physical structure of the institution (e.g., free meeting space).

5.6 Oppositional Culture and Extended Kinship

Positionality and power go multiple ways. When I talk about the history and the present being embedded in me, I don't see just participants, right? I see them as my cousins, my uncles, my aunts, my brothers, and my sisters. They look like my family and when they're telling me their stories and histories, we become even more of a family. And it goes both ways because the thing about being Black is that a lot of times people place the burden to represent the whole race on your shoulders. Many Black people feel that pressure which is the reason why when something happens involving a Black person that is negative, non-Black people say "See, look, that's how they are." Or at least that's the feeling many of us have and it's a heavy burden to bear because people do it unconsciously so it's this very real thing that is invisible. But in the same light, I've had so many community partners say, "We're so proud of you, sister, for what you're doing. We're so proud that you're a professor." Or "Wow I've never seen somebody that looks like you that's a professor," which speaks to the rarity of being a Black woman in the academy, especially in computing and design. These conversations, while not about the research, are vital, because I not only care about the success of my partners but also they care about me and they want me to succeed. In other words, they are an inspiration to me and I care deeply about amplifying the success of their street outreach work, and they feel a sense of concern for my success. It actually puts more pressure on me to make them proud so it's a reciprocal relationship that we have.

This reflection shares the complexity of both the burden and motivation to engage with community organizations in meaningful ways. Many Black people share the experience of being viewed as a monolithic people, where we have shared fates and where our behaviors impact the experiences

of each other. This is a burden that white people do not have—where the actions of one are not tied to representing them all. The invisible layer of normalcy in whiteness means that one person does not have the pressure of representing an entire race, nor does society attribute the past experiences of one person as equal to the future behavior and attitude of all peoples with the same racial identity. Therefore, the site of violence is the lack of ability to be an individual, which is tied to the hegemonic or cultural matrix of how domination occurs. The history of stereotyping Black people based on the behavior of one has been present since the creation of race as a social construct [87]. The ability for a white person to be an individual due to the invisibility of whiteness, while Black people are left to face the unspoken rule that the individual represents the whole, almost entirely in negative situations, are examples of how power is held by whiteness in deciding who is good and who is bad. The discussions between the researcher and the community partner are indicative of their acknowledgment of their role as actors in society, where no matter how "good" they are, their race will never be viewed as positive actors in society. The dominant narrative that links Blackness with negativity is the conceptual glue that binds the systems of power. Negative stereotypes are then perpetuated by the academy and research by constantly reinforcing the state of Black people as negative (e.g., studies and data that constantly taut that Black people are worst off than white people in terms of economics, education, and health). The quote highlights the pressure that is felt as a result, which is an example of how Black people are relegated to overcoming the impossible task of representing their entire race. As an act of resistance, the community partners find it important to support the researcher with words of affirmation (e.g., sharing their pride in the success attained) and participate in hopes of helping the researcher with her personal success. At the same, the researcher is deeply invested in amplifying the voices of the community in hopes that they will be even more successful in their violence prevention efforts. Taking what was meant to be detrimental, they used the pressure as motivation.

6 DISCUSSION

We emphasize four key takeaways from this research. First, our approach interweaves intersectionality as a critical framework throughout this research endeavor. Second, intersectionality requires us to not only acknowledge histories of oppression, but to address the historical perspective of how power relations were constructed, are presently being maintained, and their ramifications on subordinated populations. Third, because we are researcher-activists who live in two very different worlds (members of the Black community and the academic community) that are often in juxtaposition to one another, it is imperative that we center ***and*** celebrate Black people, Black culture, and Blackness—decentering whiteness as an act of resistance in our research. Fourth, doing an intersectional analysis of power is very messy work, a daunting task for even the most seasoned researcher, as this work requires intense reflexivity and an understanding that even after doing all this work, racial inequality and other social injustices will not be eradicated. We delve deeper into each of the four takeaways below.

6.1 Integrating Intersectionality

By embedding intersectional analysis from beginning to end, we developed a novel research framework that enabled us to identify the inner workings of power in a co-design study with a street violence prevention organization in one Black community. Starting with intersectionality and interweaving it throughout the life cycle of this research project, this approach requires intense reflexivity [29]. As Black women, we are constantly reminded of our mortality because racism has declared war on Black people, portraying us as being inferior, subhuman and therefore, their lives deemed worthless. One more dead Black person at the hands of police is not perceived as a loss to society or a crime against humanity. We see ourselves in the lives that have been stolen by

the police, such as George Floyd [106], Breonna Taylor [112], Daunte Wright [94], Andre Maurice Hill [157], Miriam Carey [149], and countless other Black men, women, and trans folks. Given the current political climate, some Black people are hopeful that we are having uncomfortable yet honest conversations about race, racism, racial inequality, and policing in Black U.S. communities. In the field of HCI, this case study helps to create a safe space to engage the community in conversations about research practices and methods that fail to address issues of power and perpetuate exclusionary gatekeeping regarding what counts as legitimate research. Next, we demonstrate how intersectionality is interwoven throughout this case study.

Because the first author identifies as a Black feminist, her research is informed by the history of Black people's enslavement and comes from a place of love and respect for her people as well as a resounding commitment to uplift Black families and the community. As the research lead and activist, the first author serves in the role of an *othermother*, prioritizing the community's goals over the research goals for the project [28]. From the beginning, the first author applied intersectionality as the critical lens through which to plan her approach to engaging with street outreach workers in this particular Black community. Given her lived experiences with oppressive power structures as a Black woman in the U.S., intersectionality enabled her to apply her first-hand understanding of past and current police violence against Black people to this research. Before defining the research design, she thinks critically about the power structures in place that disadvantage Black Americans when interacting with police and the criminal legal system, such as often being perceived as criminals rather than human beings. She realizes that this research cannot be conducted using typical HCI research methods or practices and decides in the planning phase to use her power as a middle class Black woman scholar to stand with and advocate for this Black community in the city of Chicago that the State has oppressed through methods including surveillance, the school-to-prison pipeline, and police brutality. Contrary to the traditional paradigm where the researcher enters a project with a set research agenda, she affirmed her social justice commitment to build coalitions with the street outreach workers and share power by making space for them to direct the study's focus to the issues they saw as most critical for their work. In doing so, she prioritized the lived expertise and goals of Black people who are often ignored, erased, or pillaged for their knowledge, resources, and bodies over that of the researchers. Furthermore, she challenged traditional structures of academia by insisting that the street outreach organization own the intellectual property rights to the mobile application she co-designed with them, choosing to relinquish, to some degree, her power as an activist researcher [96]. Thus, this co-design study offers an example of an intrinsically intersectional research engagement, where the lead researcher served as an othermother to this Black community of street outreach workers, acting in solidarity with them to counter oppression and State violence.

6.2 Attending Historical Implications of Power

It is essential to take a historical perspective when analyzing and countering converging power relations that enforce structural oppression. For many Black Americans, historic racist narratives prey upon their Blackness as a de facto indictment of criminality and immorality and portray their bodies and culture as expendable commodities in a capitalistic economy [37, 87, 134]. Such narratives have been created and perpetuated by policies that subordinate Black Americans through discriminatory practices in education, housing, healthcare, and the legal system [36, 37, 134]. Neither participatory design, action research, nor community-based research paradigms specifically identify or interrogate how converging systems of power contribute to the current conditions of Black people in the U.S. or any other population. Recognizing the shortcomings of these methodologies, we evoke autoethnography and other methodologies that create space for firsthand accounts of people's lived experiences (e.g., Black feminist anthropology methods [71, 83, 105]) to amplify

the voices of those who have been ignored, silenced, or erased. Methodologies that embrace firsthand accounts as valid data make it difficult to dismiss people's testimonies as being hearsay or inconsequential amidst the backdrop of a continued legacy of oppression [29]. As Black feminists, we agree with Leal et al. [96] that activist academics should seek to understand the situated experiences of those who live in the margins of society. However, to accomplish this goal, one must deal with the historical implications of structural oppression and its impact on the current lived experiences of those who have been silenced, ignored, or erased from society.

An intersectional analysis of power enables activist academics to unpack how integrated power domains (systems of power) are configured and interact with one another at various sites of violence to empower and privilege dominant social groups while inflicting violence, trauma, and harm on non-dominant groups. This is not to suggest that an intersectional power analysis must be done outside of the aforementioned HCI research paradigms. Rather, intersectionality can work in conjunction with existing HCI research paradigms (e.g., conducting an intersectional power analysis using a participatory action research framework). We emphatically argue that failure to identify and analyze the existing power structures and their history of inflicting violence and trauma on Black people is equivalent to conducting irresponsible and unethical research, and thus, perpetuates the pattern of academia inflicting violence, trauma, and harm on subordinated groups [68, 122]. Pierre et al. [114] define this phenomenon as an epistemic burden, "*the collective issues of knowledge extraction and uneven power dynamics that place a burden on communities for participating in this type of research*" [114]. Case in point, oftentimes our colleagues will ask how they might be inflicting harm through participatory research when they have intentionally recruited a diverse population of participants, including those who are members of historically excluded populations. From their vantage point, they have adequately attended to issues of inclusion and diversity. However, harm is still caused if no attention is given to understanding how the history of structural oppression has impacted participants' lived experiences, especially those who are members of minoritized communities, or to how the study's design replicates oppressive societal power relationships (e.g., the researcher controls the study with no input or feedback from participants as to how the research study should be designed to benefit them). Thus, we argue that to not acknowledge or address the historical implications of what it means for historically excluded populations to participate in a research study is to inflict additional harm and trauma.

To inflict additional harm is inexcusable and unacceptable, even when researchers have the best intentions [55], so why does the field of HCI not hold researchers who work within marginalized communities accountable for their actions? In the context of doing community-based research, an intersectional power analysis requires scholars to apply the matrix of domination for the purpose of identifying structural oppression, the ensuing power structures at work, who has power, and the conceptual glue that holds everything together. The answer lies in the integration of the hegemonic, disciplinary, interpersonal, and structural domains of power within academia. From a hegemonic perspective, the currency within academia is the number of published journal articles, conference proceedings, and so on that establish one as a thought leader in doing community-based research. Within the discipline of HCI, publications and presentations at CHI or other respectable HCI venues (e.g., CSCW, UIST, Ubicomp, and DIS) validate one's legitimacy as a recognized thought leader [64]. Consequently, scholars, who work with historically excluded populations and have managed to publish substantially at top-tier HCI venues become privileged. In the context of interpersonal relationships, some of these same thought leaders have the attitude that doing the preliminary work of getting to know the community intimately, understanding the history, establishing trust, and letting community issues motivate the research rather than the other way around (researcher-driven) is optional and detracts from time that could be better spent meeting publication deadlines and advancing the researcher's career. However, we posit that this

preliminary work is necessary, because it enables researchers to build effective partnerships and coalitions with minoritized communities as they work together to engender social change [32, 44, 46]. Power is having the ability to choose to act or not act. An intersectional analysis of power exposes not only the inner workings of power but also helps the researcher to redistribute power to community members, a step in the right direction towards addressing systemic oppression and healing the trauma and violence that they have endured.

6.3 Centering and Celebrating Blackness

One may ask if it is necessary to become activist-academics when working within Black communities or choosing to engage Black family members as research participants. The answer lies in why one is doing this work. Oftentimes, scholars will decide to work with Black people and other historically excluded groups because they want to save them (e.g., *white savior complex*) [55]. This begs the question of what are they saving Black people from? Themselves? As Black feminists who love our people, our communities, and do this work as a labor of love, we affirm that Black people are enough, that they possess knowledge, expertise, intelligence, and life skills that can be used to resist oppression but cannot dismantle converging systems of power, because Black people did not create structural oppression [13, 29, 100]. Because we are activist-academics [96] who live in two very different worlds (members of the Black community and the academic community) that are often in juxtaposition to one another, it is imperative that we center ***and*** celebrate Black people, Black culture, and Blackness and decenter whiteness as an act of resistance in our research.

We emphasize celebrating Blackness as some of our colleagues have indeed centered Black people but have done so in disparaging ways that characterize Black people and Black culture as being deficient while upholding whiteness as the norm [134, 150]. For example, Rader et al. [116] conduct a study of African American elementary children between the ages of 8 and 10 years old to gauge the influence of an interlocutor's use of mainstream English and school-ratified science talk on African American children's ability to codeswitch—using **mainstream English** (**MAE**) and **school-ratified science talk** (**SRST**) in the classroom setting rather than **African American Vernacular English** (**AAVE**) that is typically spoken at home or when talking to peers. The authors state, "our goal is to scaffold both MAE and SRST so that children who are perceived to be underachieving in the sciences, and in school in general, can utilize the virtual peer to model the appropriate behaviors" [116]. In this particular article, codeswitching is presented as a valuable academic skill that permits African American elementary children to be successful in the traditional classroom setting. Though this study centers on African American children, it uses a long-standing deficit narrative [150] to justify designing a virtual peer to teach African American children how "to model the appropriate behaviors," which codes MAE as the norm and AAVE as inferior language [5, 15, 117]. Why do African American children need to learn how to speak MAE in the classroom when white children are not expected to learn AAVE? Such expectations uphold whiteness and denounce Blackness, an example of anti-Black racism.

As Black feminists, it is painful to read such nefarious claims about Black people, especially vulnerable, defenseless Black children, in ACM-sponsored publications, conference proceedings, and journal articles—claims that are touted as legitimate research but in reality camouflage racial bias. We take a deliberate stance against this anti-Black behavior as it positions white scholars as having authoritative knowledge about Black people, a population to which they do not belong nor do they share the same collective memory, or are they privy to the inner sanctum of what Black people (or anybody for that matter) really think, feel, believe, desire or envision. Racism in HCI becomes apparent in researchers' methods and practices for how they engage and work with Black communities and how their biases influence their analysis and oftentimes negative interpretation of Black people's motivations, values, and ambitions. In contrast, as Black feminist activists who do

community-based research, we invest in and learn from our community and the people we serve (i.e., *othermothering*) [28, 96] so that members of the Black community benefit as much from these interactions as we do. We posit that research efforts with/within the Black community should resemble a symbiotic relationship, a coalition, that is mutually beneficial to both parties rather than a one-sided, researcher-driven paradigm. For example, current design methods tend to replicate capitalist oppression. Instead, we look for ways to increase economic opportunities both for participants and their communities more broadly, provide additional education and training for free, and share our resources with the Black community so that they benefit from this research exchange. The loftiness of our goal to resist class oppression in our research points to the time that it takes to establish symbiotic collaborative relationships that function through hard earned trust and a distributed power structure. Furthermore, we oppose the notion of a researcher-driven paradigm as it inflicts harm on the community, and instead advocate for community-driven research initiatives which place members of the Black community in positions of power. This means that when conflict arises between our research agenda and the goals that will ultimately benefit the Black community, we choose the community's goals, a controversial approach to doing community-based research but one that aligns with the tenets of intersectionality [29]. We recognize that for some researchers this activist approach to conducting research with Black communities comes with too high a price. From a non-academic viewpoint, we as Black women do not get to "try on activism" as we are daily accosted and fighting for our lives.

6.4 Intersectionality is Very Complex

Applying intersectionality as a critical praxis for community-based research is a very messy affair and no small feat because it attempts to untangle the matrix of domination that creates structural oppression. We wish we could say that doing this work equates to deriving cut-and-dry solutions to eradicate social inequities in our community and society as a whole, but this could not be further from the truth. Rather, unpacking converging systems of power in a given research context, understanding who holds power within the study itself, and intentionally shaping the research so that one does not inflict harm requires constant self-reflection and reflexivity. Constantly interrogating power relations throughout the research process, examining research goals and motives, and identifying individual power, privilege, and biases is all part of conducting an intersectional analysis of power; this process is intense, time-consuming, repetitive, and emotionally draining. As Black feminists, we are too familiar with the phenomenon of weathering [152], which describes the emotional, psychological and physical toll that racism and oppression take on Black people (especially women) and contribute to higher mortality rates. Leal et al. [96] describe how some researcher-activists come to care for the very communities in which they are doing research. We applaud this transformation and want more researchers to embrace this same approach. We recognize that not everyone is going to want to do this work and open intersectionality's proverbial Pandora's box of complexity. We cannot say this enough—an intersectional analysis of power is hard and complex, especially since dissecting the matrix of domination reveals one's complicity in upholding structural oppression, which explains why a paucity of HCI research talks at length about structural oppression in the context of community-based research. Despite our best intentions, even our position as Black feminist activists does not preclude us from being complicit within these systems of oppression. Collins warns us that "despite ideological commitments to equality, inclusivity, and belonging, interpretative communities have hardwired practices that, whether intentional or not, replicate existing social hierarchies," [29, p. 132]. As intellectuals in the academy who do collaborative community-based work, we run the risk of unknowingly becoming part of the machine that manufactures systemic oppression, especially if we do not engage in reflexivity that is tied to dialogic interactions with the members of the Black communities we collaborate with. As Kendi

is quick to remind us [87], even Black people can internalize anti-Blackness and inflict harm on members of our very own communities.

Given the complexities of identity and power and the challenges associated with this work, we pose four concrete suggestions for researchers to incorporate intersectionality into their work. First, we encourage researchers to take up the intersectional practice of writing positionality statements in their publications that describe community-focused research. These statements require researchers to think critically about how their power and privilege play out in their study and in interactions with their collaborating communities. Second, treat Black researchers', collaborators', and participants' lived expertise and stories as legitimate knowledge that is (at least) just as valuable and legitimate as academic knowledge. The very act of "testifying on one's own behalf...or believing the testimony of others" is itself an act of resisting oppression [29, p. 166]. Third, intentionally incorporate acts of resistance that redistribute power into collaborative research studies. Acts of resistance, as modeled in the case study, are strategies to challenge and reconfigure power relations so that minoritized community partners are better positioned to benefit from engaging in community-based research. Finally, it is critical to analyze power in collaborative research, especially when that research includes groups subordinated within the matrix of domination. We offer the our framework as a way for researchers to formally incorporate power into their analysis. Even if researchers do not follow this specific framework, we urge them to at minimum consider and discuss historical and current power structures in their publications. We believe these four recommendations offer a path for researchers to take on the important, difficult, and complex work associated with pursuing an intersectional activist researcher agenda. However, engaging in acts of resistance within research studies alone does not exempt the HCI community and the field of computing more broadly from the responsibility to dismantle the oppressive power structures that constitute the matrix of domination.

7 CONCLUSION

> *The most general statement of our politics at the present time would be that we are actively committed to struggling against racial, sexual, heterosexual, and class oppression, and see as our particular task the development of integrated analysis and practice based upon the fact that the major systems of oppression are interlocking. The synthesis of these oppressions creates the conditions of our lives. As Black women we see Black feminism as the logical political movements to combat the manifold and simultaneous oppressions...* [27, p.15].

Examining history suggests that oppression is embedded into the fabric of society and hence, into the field of HCI. Those whose identities are non-dominant are subjected to interlocking systems of power that perpetuate and maintain inequity. An intersectional analysis of power provides a lens through which we can begin to examine and address underlying issues that are embedded in design processes and the HCI more broadly (e.g., racism, sexism, classism, and ableism). Leveraging Black feminist epistemologies, we describe our experience exposing the interconnected systems that mutually influence one another in order to maintain power and how those systems are embedded in design praxis. Critical frameworks—such as an intersectional analysis of power—are needed to explore methods and approaches in HCI and design that contain white supremacist values and principles [111, 132]. In much of the analysis in this article, we engage with both interpersonal and structural issues of power that marginalize Black people; however, future work can continue to critically examine additional ways in which power operates and oppresses (e.g., class, capitalism, and imperialism) people. As demonstrated throughout this article, conducting an intersectional analysis of power can be complex, messy, repetitive, difficult, and unwieldy; however, we argue

that it is a necessary step to interrogate the histories and systems of power that are present in our approach to design. Despite our best intentions to engage our users, participants, and community partners equitably in design, without critical reflection, it is probable that we will unknowingly apply methods and approaches that perpetuate structural oppression. Yet by conducting an intersectional analysis of power throughout our research and design process, we have the ability to resist and counter oppression.

ACKNOWLEDGMENTS

We would like to thank our community partners, Jalon Arthur and Angalia Bianca. We also want to thank Jessa Dickinson, Alejandra Gonzelez, and Maddie Shiparski along with many other research assistants from the Technology for Social Good Research and Design Lab.

REFERENCES

[1] Michelle Alexander. 2012. *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. The New Press.
[2] Adriana Alvarado Garcia, Juan F. Maestre, Manuhuia Barcham, Marilyn Iriarte, Marisol Wong-Villacres, Oscar A. Lemus, Palak Dudani, Pedro Reynolds-Cuéllar, Ruotong Wang, and Teresa Cerratto Pargman. 2021. *Decolonial Pathways: Our Manifesto for a Decolonizing Agenda in HCI Research and Design*. Association for Computing Machinery. DOI: https://doi.org/10.1145/3411763.3450365
[3] Kristin Anderson-Bricker. 1999. *Triple Jeopardy: Black Women and the Growth of Feminist Consciousness in SNCC, 1964-1975*. New York University Press.
[4] Moya Bailey and Trudy. 2018. On misogynoir: Citation, erasure, and plagiarism. *Feminist Media Studies* 18, 4 (2018), 762–768. DOI: https://doi.org/10.1080/14680777.2018.1447395
[5] April Baker-Bell. 2020. *Linguistic Justice: Black Language, Literacy, Identity, and Pedagogy*. Taylor and Francis, New York, NY.
[6] Madeline Balaam, Rob Comber, Rachel E. Clarke, Charles Windlin, Anna Ståhl, Kristina Höök, and Geraldine Fitzpatrick. 2019. *Emotion Work in Experience-Centered Design*. Association for Computing Machinery. DOI: https://doi.org/10.1145/3290605.3300832
[7] Shaowen Bardzell. 2010. Feminist HCI: Taking stock and outlining an agenda for design. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 1301–1310. DOI: https://doi.org/10.1145/1753326.1753521
[8] Shaowen Bardzell. 2018. Utopias of participation: Feminism, design, and the futures. *ACM Transactions on Computer-Human Interaction* 25, 1 (2018), 24 pages. DOI: https://doi.org/10.1145/3127359
[9] Shaowen Bardzell and Jeffrey Bardzell. 2011. Towards a feminist HCI methodology: Social science, feminism, and HCI. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 675–684. DOI: https://doi.org/10.1145/1978942.1979041
[10] Shaowen Bardzell, Elizabeth Churchill, Jeffrey Bardzell, Jodi Forlizzi, Rebecca Grinter, and Deborah Tatar. 2011. Feminism and interaction design. In *Proceedings of the CHI'11 Extended Abstracts on Human Factors in Computing Systems*. Association for Computing Machinery, 1–4. DOI: https://doi.org/10.1145/1979742.1979587
[11] Simone De Beauvoir. 1949. . Editions Gallimard.
[12] Bell hooks. 1984. *Feminist Theory: From Margin to Center*. South End Press, Boston.
[13] Bell hooks. 1989. *Talking Back: Thinking Feminist, Thinking Black*. South End Press, Boston.
[14] Rosanna Bellini, Angelika Strohmayer, Ebtisam Alabdulqader, Alex A. Ahmed, Katta Spiel, Shaowen Bardzell, and Madeline Balaam. 2018. Feminist HCI: Taking stock, moving forward, and engaging community. In *Proceedings of the Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 1–4. DOI: https://doi.org/10.1145/3170427.3185370
[15] Ruha Benjamin. 2019. Polity Press.
[16] Dan Berger, Mariame Kaba, and David Stein. 2017. What abolitionists do. *Jacobin, August* 24 (2017), 2017.
[17] Kakali Bhattacharya. 2016. The vulnerable academic: Personal narratives and strategic de/colonizing of academic structures. *Qualitative Inquiry* 22, 5 (2016), 309–321. DOI: https://doi.org/10.1177/1077800415615619
[18] John Blake. 2021. Biden just dethroned the Welfare Queen. (2021). Retrieved from https://www.cnn.com/2021/05/16/politics/biden-welfare-queen-blake/index.html.
[19] Megan Botel. 2020. "How Black women worked to secure Joe Biden's election as presiden". (2020). Retrieved from https://www.usatoday.com/story/opinion/2020/12/02/how-black-women-organized-voters-secure-joe-bidens-victory-column/6475054002/.
[20] André Brock. 2020. *Distributed Blackness: African American Cybercultures*. New York University Press, New York, NY.

[21] Quincy Brown. 2020. "On Being Black In Computing During These Days". (2020). Retrieved from https://medium.com/@quincykbrown/on-being-black-in-computing-during-these-days-54e049d56987.
[22] Quincy Brown, Neha Kumar, Jakita Thomas, Alexandra To, and Yolanda Rankin. 2021. Discovering intersectionality part I: Researcher interrupted. *Interactions* 28, 3 (2021), 73–77. DOI: https://doi.org/10.1145/3457869
[23] J. Buolamwini and T. Gebru. 2018. Gender shades: Intersectional accuracy disparities in commercial gender classification. In *Proceedings of the Machine Learning Research*. 1–15.
[24] Marcus Burrell, Ann Marie White, Leah Frerichs, Melanie Funchess, Catherine Cerulli, Lauren DiGiovanni, and Kristen Hassmiller Lich. 2020. Depicting "the system": How structural racism and disenfranchisement in the United States can cause dynamics in community violence among males in urban Black communities. *Social Science and Medicine* (2020), 113469.
[25] Jeffrey A. Butts, Caterina Gouvis Roman, Lindsay Bostwick, and Jeremy R. Porter. 2015. Cure violence: A public health model to reduce gun violence. *Annual Review of Public Health* 36, 1 (2015), 39–53. DOI: https://doi.org/10.1146/annurev-publhealth-031914-122509
[26] Shruthi Sai Chivukula and Colin M. Gray. 2020. Bardzell's "feminist HCI" legacy: Analyzing citational patterns. In *Proceedings of the Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 1–8. DOI: https://doi.org/10.1145/3334480.3382936
[27] The Combahee River Collective. 1977. The Combahee River Collective Statement: Black Feminist Organizing in the Seventies and Eighties. (1977).
[28] Patricia Hill Collins. 2000. *Black Feminist Thought*. Routledge, New York NY.
[29] Patricia Hill Collins. 2019. *Intersectionality as Critical Social Theory*. Duke University Press, Durham, NC.
[30] Patricia Hill Collins and Sirma Bilge. 2016. *Intersectionality*. Polity Press, Cambridge, UK.
[31] Paul Connerton. 1989. *How Societies Remember*. Cambridge University Press, Cambridge, MA.
[32] Sasha Costanza-Chock. 2020. *Design Justice: Community-led Practices to Build the Worlds We Need*. The MIT Press.
[33] Tressie McMillan Cottom. 2018. *Thick: And Other Essays*. The New Press.
[34] Kimberle Crenshaw. 1989. Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist policies. *University of Chicago Legal Forum 1989* 1 (1989), 139–167.
[35] Kimberle Crenshaw. 1993. Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics. (1993), 383–95 pages.
[36] Kimberle W. Crenshaw. 1995. Mapping the margins: Intersectionality, identity politics, and violence against women of color. In *Proceedings of the Critical Race Theory*. Kimberle W. Crenshaw, Neil Gotanda, Gary Peller, and Kendall Thomas (Eds.), The New Press, New York, 357–383.
[37] Kimberley W. Crenshaw, Neil Gotanda, Gary Peller, and Kendall Thomas. 1995. *Critical Race Theory*. The New Press.
[38] Beverly-Jean Daniel. 2019. Teaching while black: Racial dynamics, evaluations, and the role of White females in the Canadian academy in carrying the racism torch. *Race Ethnicity and Education* 22, 1 (2019), 21–37. DOI: https://doi.org/10.1080/13613324.2018.1468745
[39] Angela Y. Davis. 1981. *Women, Race and Class*. Random House, Incorporated.
[40] Angela Y. Davis. 2011. *Are Prisons Obsolete?* Seven Stories Press.
[41] Luz del Alba Acevedo. 2001. *Telling to Live: Latina Feminist Testimonios*. Duke University Press.
[42] Robin DiAngelo. 2018. *White Fragility: Why It's So Hard for White People to Talk about Racism*. Beacon Press, Boston, MA.
[43] Jessa Dickinson, Jalon Arthur, Maddie Shiparski, Angalia Bianca, Alejandra Gonzalez, and Sheena Erete. 2021. Amplifying community-led violence prevention as a counter to structural oppression. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW1 (2021), 28 pages. DOI: https://doi.org/10.1145/3449279
[44] Catherine D'Ignazio and Lauren F. Klein. 2020. *Data Feminism*. MIT Press.
[45] Betsy Disalvo and Amy Bruckman. 2011. From interests to values. *Communications of the ACM* 54 (2011), 27–29. DOI: https://doi.org/10.1145/1978542.1978552
[46] Lynn Dombrowski. 2017. Socially just design and engendering social change. *Interactions* 24, 4 (2017), 63–65.
[47] Lynn Dombrowski, Ellie Harmon, and Sarah Fox. 2016. Social justice-oriented interaction design: Outlining key design strategies and commitments. In *Proceedings of the 2016 ACM Conference on Designing Interactive Systems*. Association for Computing Machinery, 656–671. DOI: https://doi.org/10.1145/2901790.2901861
[48] Kristie Dotson. 2011. Tracking epistemic violence, tracking practices of silencing. *Hypatia* 26, 2 (2011), 236–257. DOI: https://doi.org/10.1111/j.1527-2001.2011.01177.x
[49] Catherine D'Ignazio, Alexis Hope, Becky Michelson, Robyn Churchill, and Ethan Zuckerman. 2016. A feminist HCI approach to designing postpartum technologies: "When i first saw a breast pump i was wondering if it was a joke". In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 2612–2622. DOI: https://doi.org/10.1145/2858036.2858460

[50] Lindsay Ellis. 2021. Behind Nikole Hannah-Jones's tenure case. (2021). Retrieved from https://www.chronicle.com/article/behind-nikole-hannah-joness-tenure-case-a-decade-of-political-interference-in-college-leadership.
[51] Sheena Erete, Jessa Dickinson, Alejandra C. Gonzalez, and Yolanda A. Rankin. 2022. Unpacking the complexities of community-led violence prevention work. In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 15 pages. DOI: https://doi.org/10.1145/3491102.3502122
[52] Sheena Erete, Aarti Israni, and Tawanna Dillahunt. 2018. An intersectional approach to designing in the margins. *Interactions* 25, 3 (2018), 66–69.
[53] Sheena Erete, Yolanda A. Rankin, and Jakita O. Thomas. 2021. I can't breathe: Reflections from black women in CSCW and HCI. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW3 (2021), 23 pages. DOI: https://doi.org/10.1145/3432933
[54] Sheena Erete, Karla Thomas, Denise Nacu, Jessa Dickinson, Naomi Thompson, and Nichole Pinkard. 2021. Applying a transformative justice approach to encourage the participation of black and latina girls in computing. *ACM Transactions on Computing Education* 21, 4, Article 27 (2021), 24 pages. DOI: https://doi.org/10.1145/3451345
[55] Thomas Fisher. 2016. Challenging the white-savior industrial complex. *The Plan Journal* 1, 2 (2016), 139–151. DOI: https://doi.org/doi:10.15274/tpj.2016.01.02.01
[56] Sarah Fox, Amanda Menking, Stephanie Steinhardt, Anna Lauren Hoffmann, and Shaowen Bardzell. 2017. Imagining intersectional futures: Feminist approaches in CSCW. In *Proceedings of the Companion of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*. Association for Computing Machinery, 387–393. DOI: https://doi.org/10.1145/3022198.3022665
[57] Patricia Garcia, Tonia Sutherland, Marika Cifor, Anita Say Chan, Lauren Klein, Catherine D'Ignazio, and Niloufar Salehi. 2020. *No: Critical Refusal as Feminist Data Practice*. Association for Computing Machinery. DOI: https://doi.org/10.1145/3406865.3419014
[58] Arline T. Geronimus, Margaret Hicken, Danya Keene, and John Bound. 2006. "Weathering" and age patterns of allostatic load scores among blacks and whites in the united states. *American Journal of Public Health* 96, 5 (2006), 826–833. DOI: https://doi.org/10.2105/AJPH.2004.060749
[59] Paula Giddings. 1984. *When and Where I Enter: The Impact of Black Women on Race and Sex in America*. William Morrow, New York.
[60] Ruth Wilson Gilmore and James Kilgore. 2019. The Case for Abolition. (2019). Retrieved from https://www.themarshallproject.org/2019/06/19/the-case-for-abolition.
[61] Eve Goldberg. 2009. *The Prison-industrial Complex and the Global Economy*. ReadHowYouWant. com.
[62] Siobahn Day Grady, Pamela Wisniewski, Ron Metoyer, Pamela Gibbs, Karla Badillo-Urquiola, Salma Elsayed-Ali, and Eiad Yafi. 2020. Addressing Institutional Racism Within Initiatives for SIGCHI'S Diversity and Inclusion. *ACM Interactions Blog* 11 (2020). Retrieved from https://interactions.acm.org/blog/view/addressing-institutional-racism-within-initiatives-for-sigchis-diversity-an.
[63] Rachel Alicia Griffin. 2012. I am an angry black woman: Black feminist autoethnography, voice, and resistance. *Women's Studies in Communication* 35, 2 (2012), 138–157. DOI: https://doi.org/10.1080/07491409.2012.724524
[64] Jonathan Grudin. 2005. Why CHI fragmented. In *Proceedings of the CHI'05 Extended Abstracts on Human Factors in Computing Systems*. Association for Computing Machinery, 1083–1084. DOI: https://doi.org/10.1145/1056808.1056822
[65] Bevery Guy-Sheftall. 2011. *Words of Fire: An Anthology of African-American Feminist Thought*. New Press.
[66] Nikole Hannah-Jones. 2019. Our democracy's founding ideals were false when they were written. Black Americans have fought to make them true. *New York Times Magazine* (2019).
[67] Sandra G. Harding. 2004. The Feminist Standpoint Theory Reader. (2004).
[68] Christina Harrington, Sheena Erete, and Anne Marie Piper. 2019. Deconstructing community-based collaborative design: Towards more equitable participatory design engagements. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 25 pages. DOI: https://doi.org/10.1145/3359318
[69] Christina Harrington, Yolanda Rankin, Jasmine Jones, Robin Brewer, Sheena Erete, Tawanna Dillahunt, and Quincy Brown. 2020. A CALL TO ACTION FOR THE ACM. *ACM Interactions* (2020). Retrieved from http://interactions.acm.org/blog/view/a-call-to-action-for-the-acm.
[70] Christina N. Harrington. 2020. The forgotten margins: What is community-based participatory health design telling us? *Interactions* 27, 3 (2020), 24–29. DOI: https://doi.org/10.1145/3386381
[71] Faye Venetia Harrison. 2008. *Outsider Within: Reworking Anthropology in the Global Age*. University of Illinois Press.
[72] Chayla Haynes, Nicole M. Joseph, Lori D. Patton, Saran Stewart, and Evette L. Allen. 2020. Toward an understanding of intersectionality methodology: A 30-year literature synthesis of black women's experiences in higher education. *Review of Educational Research* 90, 6 (2020), 751–787. DOI: https://doi.org/10.3102/0034654320946822
[73] Evelyn Brooks Higginbotham. 1993. *Righteous Discontent: The Women's Movement in the Black Baptist Church 1880-1920*. Harvard University Press, Cambridge, MA.

[74] Hope M. Hill and Serge Madhere. 1996. Exposure to community violence and African American children: A multidimensional model of risks and resources. *Journal of Community Psychology* 24, 1 (1996), 26–43.
[75] Darlene Clark Hine, Elsa Barkley Brown, and Rosalyn Terborg-Penn. 1993. *Black Women in America: An Historical Encyclopedia.* Carlson, New York.
[76] Megan Hofmann, Devva Kasnitz, Jennifer Mankoff, and Cynthia L. Bennett. 2020. Living disability theory: Reflections on access, research, and design. In *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility*. 1–13.
[77] Alexis Hope, Catherine D'Ignazio, Josephine Hoy, Rebecca Michelson, Jennifer Roberts, Kate Krontiris, and Ethan Zuckerman. 2019. Hackathons as participatory design: Iterating feminist utopias. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 14 pages. DOI: https://doi.org/10.1145/3290605.3300291
[78] Lilly Irani. 2018. "Design thinking": Defending Silicon Valley at the apex of global labor hierarchies. *Catalyst: Feminism, Theory, Technoscience* 4, 1 (2018).
[79] Lilly Irani, Janet Vertesi, Paul Dourish, Kavita Philip, and Rebecca E. Grinter. 2010. Postcolonial computing: A lens on design and development. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 1311–1320. DOI: https://doi.org/10.1145/1753326.1753522
[80] Lilly C. Irani and M. Six Silberman. 2016. Stories we tell about labor: Turkopticon and the trouble with "design". In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 4573–4586. DOI: https://doi.org/10.1145/2858036.2858592
[81] Azra Ismail and Neha Kumar. 2019. *Empowerment on the Margins: The Online Experiences of Community Health Workers*. Association for Computing Machinery. DOI: https://doi.org/10.1145/3290605.3300329
[82] Yousef Jalali, Shernita Lee, and Justin Grimes. 2021. The HBCU/MSI research summit: Building relationships and exploring the process of inter-institutional partnership between a PWI and HBCUs and MSIs. (2021).
[83] Alyssa AL. James, Brendane A. Tynes, and The Luminary. 2021. Taking Account(s): Witnessing as an Act of Care Workshop. (2021). Retrieved from https://www.eventbrite.com/e/taking-accounts-witnessing-as-an-act-of-care-workshop-tickets-183763821537?utm_source=eventbrite&utm_medium=email&utm_campaign=event_reminder&utm_term=eventname.
[84] Marie Jarrell, Reza Ghaiumy Anaraky, Bart Knijnenburg, and Erin Ash. 2021. *Using Intersectional Representation and Embodied Identification in Standard Video Game Play to Reduce Societal Biases*. Association for Computing Machinery. DOI: https://doi.org/10.1145/3411764.3445161
[85] Yanick St. Jean and Joe R. Feagin. 1998. *Double Burden: Black Women and Everyday Racism*. M. E. Sharpe, Inc.
[86] Ibram X. Kendi. 2016. *Stamped from the Beginning: The Definitive History of Racist Ideas in America*. National Books.
[87] Ibram X. Kendi. 2019. *How to be an Antiracist*. One World, Random House, New York.
[88] Stephen Kenny. 2015. How black slaves were sold as specimens to white doctors. *The Miami Times* 92, 46 (2015).
[89] James Kilgore. 2012. Progress or more of the same? Electronic monitoring and parole in the age of mass incarceration. *Critical Criminology* 21 (2012). DOI: https://doi.org/10.1007/s10612-012-9165-0
[90] Neha Kumar and Naveena Karusala. 2019. Intersectional computing. *Interactions* 26, 2 (2019), 50–54. DOI: https://doi.org/10.1145/3305360
[91] Neha Kumar, Naveena Karusala, Azra Ismail, Marisol Wong-Villacres, and Aditya Vishwanath. 2019. Engaging feminist solidarity for comparative research, design, and practice. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 24 pages. DOI: https://doi.org/10.1145/3359269
[92] Neha Kumar, Naveena Karusala, Azra Ismail, Marisol Wong-Villacres, and Aditya Vishwanath. 2019. Engaging feminist solidarity for comparative research, design, and practice. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 24 pages. DOI: https://doi.org/10.1145/3359269
[93] Gloria Ladson-Billings and William F. Tate. 1995. Towards a critical race theory of education. *Teachers College Record* 97, 1 (1995), 47–67.
[94] Denise Lavoie. 2014. Daunte Wright: Doting dad, ballplayer, slain by police. (2014). Retrieved from https://apnews.com/article/daunte-wright-shooting-minnesota-f70fb7fc4c205740507b7ec53d7315f0.
[95] Amanda Lazar, Ben Jelen, Alisha Pradhan, and Katie A. Siek. 2021. Adopting diffractive reading to advance HCI research: A case study on technology for aging. *ACM Transactions on Computer-Human Interaction* 28, 5 (2021), 29 pages. DOI: https://doi.org/10.1145/3462326
[96] Debora de Castro Leal, Angelika Strohmayer, and Max Krüger. 2021. On activism and academia: Reflecting together and sharing experiences among critical friends. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 18 pages. DOI: https://doi.org/10.1145/3411764.3445263
[97] Calvin A. Liang, Sean A. Munson, and Julie A. Kientz. 2021. Embracing four tensions in human-computer interaction research with marginalized people. *ACM Transactions on Computer-Human Interaction* 28, 2 (2021), 47 pages. DOI: https://doi.org/10.1145/3443686

[98] Cindy Lin and Silvia Margot Lindtner. 2021. Techniques of use: Confronting value systems of productivity, progress, and usefulness in computing and design. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 16 pages. DOI: https://doi.org/10.1145/3411764.3445237

[99] Michael L. Littman. 2021. Collusion rings threaten the integrity of computer science research. *Communications of the ACM* 64, 6 (2021), 43–44.

[100] Audre Lorde. 1984. *Sister Outsider : Essays and Speeches*. Crossing Press, Trumansburg, NY.

[101] Maria Cecilia Lucero. 2002. *African American Women Scientists and Engineers: A Phenomenological Study of Early-career Faculty Experiences*. University of Michigan.

[102] Stephanie Lunn, Leila Zahedi, Monique Ross, and Matthew Ohland. 2021. Exploration of intersectionality and computer science demographics: Understanding the historical context of shifts in participation. *ACM Transactions on Computing Education* 21, 2 (2021), 30 pages. DOI: https://doi.org/10.1145/3445985

[103] Lindsey Malcom and Shirley Malcom. 2011. The double bind: The next generation. *Harvard Educational Review* 81, 2 (2011), 162–172.

[104] Jennifer Mankoff, Gillian R. Hayes, and Devva Kasnitz. 2010. Disability studies as a source of critical inquiry for the field of assistive technology. In *Proceedings of the 12th International ACM SIGACCESS Conference on Computers and Accessibility*. Association for Computing Machinery, 3–10. DOI: https://doi.org/10.1145/1878803.1878807

[105] Irma McClaurin. 2001. *Black Feminist Anthropology: Theory, Politics, Praxis, and Poetics*. Rutgers University Press.

[106] Esme Murphy. 2020. 'I Can't Breathe!': Video Of Fatal Arrest Shows Minneapolis Officer Kneeling On George Floyd's Neck For Several Minutes. (2020). Retrieved from https://minnesota.cbslocal.com/2020/05/26/george-floyd-man-dies-after-being-arrested-by-minneapolis-police-fbi-called-to-investigate/.

[107] Pauli Murray. 1970. The Liberation of Black Women. (1970), 87–102 pages.

[108] Manasee Narvilkar, Josiah Mangiameli, Adriana Alvarado Garcia, Azra Ismail, Daniel Schiff, Danielle Schechter, Jordan Chen, Karthik Bhat, Marisol Wong-Villacres, Anusha Vasudeva, Aparna Ramesh, Michaelanne Dye, Naveena Karusala, Pragati Singh, Savanthi Murthy, Shubhangi Gupta, Udaya Lakshmi, and Neha Kumar. 2019. Bringing shades of feminism to human-centered computing. In *Proceedings of the Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 1–12. DOI: https://doi.org/10.1145/3290607.3310419

[109] Ihudiya Finda Ogbonnaya-Ogburu, Angela D. R. Smith, Alexandra To, and Kentaro Toyama. 2020. Critical race theory for HCI. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 1–16. DOI: https://doi.org/10.1145/3313831.3376392

[110] Charles J. Ogletree. 2004. *All Deliberate Speed: Reflections on the First Half Century of Brown v. Board of Education*. WW Norton and Company.

[111] Tema Okun. 1999. White supremacy culture. *Dismantling Racism: A Workbook for Social Change Groups, Durham, NC: Change Work*. Retrieved from http://www.dismantlingracism.org/Dismantling_Racism/liNKs_files/whitesupcul09.pdf.

[112] R. A. Oppel and D. B. Taylor. 2020. Here's What You Need To Know About Breonna Taylor's Death. (2020). Retrieved from https://www.nytimes.com/article/breonna-taylor-police.html.

[113] Joyojeet Pal. 2017. CHI4Good or Good4CHI. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems*. 709–721.

[114] Jennifer Pierre, Roderic Crooks, Morgan Currie, Britt Paris, and Irene Pasquetto. 2021. Getting ourselves together: Data-centered participatory design research and epistemic burden. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery 11 pages. DOI: https://doi.org/10.1145/3411764.3445103

[115] Ed Pilkington. 2021. Bones of black children killed in police bombing used in Ivy League anthropology course. *The Guardian (London)* (2021).

[116] Emilee Rader, Margaret Echelbarger, and Justine Cassell. 2011. Brick by brick: Iterating interventions to bridge the achievement gap with virtual peers. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 2971–2974. DOI: https://doi.org/10.1145/1978942.1979382

[117] Yolanda Rankin and Kallayah Henderson. 2021. Centering black youth: Resisting racism in tech design. *Journal of the ACM Human-Computer Interaction* CSCW (2021).

[118] Yolanda Rankin and India Irish. 2020. A seat at the table: Black feminist thought as a critical framework for inclusive game design. In *Proceedings of the ACM on Human-Computer Interaction*.

[119] Yolanda A. Rankin and Jakita O. Thomas. 2019. Straighten up and fly right: Rethinking intersectionality in HCI research. *Interactions* 26, 6 (2019), 64–68. DOI: https://doi.org/10.1145/3363033

[120] Yolanda A. Rankin and Jakita O. Thomas. 2020. The intersectional experiences of black women in computing. In *Proceedings of the 51st ACM Technical Symposium on Computer Science Education*. Association for Computing Machinery, 199–205. DOI: https://doi.org/10.1145/3328778.3366873

[121] Yolanda A. Rankin, Jakita O. Thomas, and Sheena Erete. 2021. Real talk: Saturated sites of violence in CS education. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education*. Association for Computing Machinery, 802–808. DOI: https://doi.org/10.1145/3408877.3432432

[122] Yolanda A. Rankin, Jakita O. Thomas, and Nicole M. Joseph. 2020. Intersectionality in HCI: Lost in translation. *Interactions* 27, 5 (2020), 68–71. DOI: https://doi.org/10.1145/3416498

[123] Barbara Ransby. 2018. *Making All Black Lives Matter: Reimagining Freedom in the 21st Century*. University of California Press, Oakland, CA.

[124] Richard Rothstein. 2017. *The Color of Law: A Forgotten History of How our Government Segregated America*. Liveright Publishing.

[125] Stephan Salisbury. 2021. Penn Museum apologizes for its "unethical" collection of human skulls and says it will repatriate remains of Black Philadelphians and others. *Knight-Ridder/Tribune Business News* (2021).

[126] T. L. Savit. 1982. The use of blacks for medical experimentation and demonstration in the old south. *The Journal of Southern History* 48, 3 (1982), 331–348.

[127] Ari W. Schlesinger, Keith Edwards, and Rebecca E. Grinter. 2017. Intersectional HCI: Engaging identity through gender, race, and class. *In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. 5412–5427. DOI: https://doi.org/10.1145/3025453.3025766

[128] Rashad Shabazz. 2015. *Spatializing Blackness Architectures of Confinement and Black Masculinity in Chicago*. University of Illinois Press.

[129] Margot Lee Shetterly. 2016. *Hidden Figures: The American Dream and the Untold Story of the Black Women Mathematicians Who Helped Win the Space Race*. HarperCollins, New York, NY.

[130] ACM SIGCHI. 2021. SIGCHI. (2021). Retrieved from https://www.sigchi.org/.

[131] Ryan Sit. 2018. Trump Thinks Only Black People Are on Welfare, But Really, White Americans Receive Most Benefits. (2018). Retrieved from https://www.newsweek.com/donald-trump-welfare-black-white-780252.

[132] Linda Tuhiwai Smith. 2013. *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books Ltd.

[133] Francesca Sobande. 2021. Spectacularized and branded digital (re)presentations of black people and blackness. *Television and New Media* 22, 2 (2021), 131–146. DOI: https://doi.org/10.1177/1527476420983745

[134] Daniel G. Solorzano and Tara J. Yosso. 2002. Critical race methodology: Counter-storytelling as an analytical framework for education research. *Qualitative Inquiry* 8, 23 (2002), 23–44. Retrieved from https://www.researchgate.net/publication/249735081_Critical_Race_Methodology_Counter-Storytelling_as_an_Analytical_Framework_for_Education_Research.

[135] Katta Spiel, Oliver Haimson, and Danielle Lottridge. 2019. How to do better with gender on surveys: A guide for HCI researchers. *Interactions (New York, N.Y.)* 26, 4 (2019), 62–65.

[136] Christine A. Stanley. 2006. Coloring the academic landscape: Faculty of color breaking the silence in predominantly white colleges and universities. *American Educational Research Journal* 43, 4 (2006), 701–736. DOI: https://doi.org/10.3102/00028312043004701

[137] Christine A. Stanley. 2007. When counter narratives meet master narratives in the journal editorial-review process. *Educational Researcher* 36, 1 (2007), 14–24. DOI: https://doi.org/10.3102/0013189X06298008

[138] Angus Stevenson. 2010. *Oxford Dictionary of English*. Oxford University Press.

[139] Shannon Sullivan. 2013. Inheriting racist disparities in health: Epigenetics and the transgenerational effects of white racism. *Critical Philosophy of Race* 1, 2 (2013), 190–218. Retrieved from http://www.jstor.org/stable/10.5325/critphilrace.1.2.0190.

[140] Alex Taylor. 2011. Out there. 685–694. DOI: https://doi.org/10.1145/1978942.1979042

[141] Alex S. Taylor. 2011. Out there. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. 685–694.

[142] Keeanga-Yamahtta Taylor. 2016. *From #BlackLivesMatter to Black Liberation*. Haymarket Books, Chicago.

[143] Jakita O. Thomas, Nicole Joseph, Arian Williams, Chanrtel Crum, and Jamika Burge. 2018. Speaking truth to power: Exploring the intersectional experiences of black women in computing. In *Proceedings of the 2018 Research on Equity and Sustained Participation in Engineering, Computing, and Technology, RESPECT 2018*. DOI: https://doi.org/10.1109/RESPECT.2018.8491718

[144] Jakita O. Thomas, Neha Kumar, Alexandra To, Quincy Brown, and Yolanda A. Rankin. 2021. Discovering intersectionality: Part 2: Reclaiming our time. *Interactions* 28, 4 (2021), 72–75. DOI: https://doi.org/10.1145/3468783

[145] Jakita O. Thomas, Yolanda Rankin, and Nicole Joseph. in preparation. Knighting and blessing: Understanding the role of white supremacy culture in the intersectional experiences of black women in computing. (in preparation).

[146] Alexandra To, Hillary Carey, Geoff Kaufman, and Jessica Hammer. 2021. Reducing uncertainty and offering comfort: Designing technology for coping with interpersonal racism. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 17 pages. DOI: https://doi.org/10.1145/3411764.3445590

[147] Alexandra To, Wenxia Sweeney, Jessica Hammer, and Geoff Kaufman. 2020. "They just don't get it": Towards social technologies for coping with interpersonal racism. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW1 (2020), 29 pages. DOI: https://doi.org/10.1145/3392828

[148] Jessica Trounstine. 2018. *Segregation by Design: Local Politics and Inequality in American Cities*. Cambridge University Press.

[149] Eric Tucker. 2013. Mother: Woman killed in DC chase was depressed. (2013). Retrieved from https://www.statesboroherald.com/nation/mother-woman-killed-in-dc-chase-was-depressed/.

[150] Richard R. Valencia. 2012. *The Evolution of Deficit Thinking: Educational Thought and Practice*. Routledge.

[151] Vasillis Vlachokyriakos, Clara Crivellaro, Pete Wright, and Patrick Olivier. 2018. Infrastructuring the solidarity economy: Unpacking strategies and tactics in designing social innovation. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, 1–12. DOI: https://doi.org/10.1145/3173574.3174055

[152] Jan Warren-Findlow. 2006. Weathering: Stress and heart disease in African American women living in Chicago. *Qualitative Health Research* 16, 2 (2006), 221–237. DOI: https://doi.org/10.1177/1049732305278651

[153] Harriet A. Washington. 2006. *Medical Apartheid: The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present* (1st ed.). Doubleday, New York.

[154] Max Weber. 1968. *Economy and Society: An Outline of Interpretive Sociology*. Bedminster Press, New York.

[155] Marisol Wong-Villacres, Adriana Alvarado Garcia, Karla Badillo-Urquiola, Mayra Donaji Barrera Machuca, Marianela Ciolfi Felice, Laura S. Gaytán-Lugo, Oscar A. Lemus, Pedro Reynolds-Cuéllar, and Monica Perusquía-Hernández. 2021. Lessons from latin America: Embracing horizontality to reconstruct HCI as a pluriverse. *Interactions* 28, 2 (2021), 56–63. DOI: https://doi.org/10.1145/3447794

[156] Marisol Wong-Villacres, Arkadeep Kumar, Aditya Vishwanath, Naveena Karusala, Betsy DiSalvo, and Neha Kumar. 2018. Designing for intersections. *In Proceedings of the 2018 Designing Interactive Systems Conference*. 45–58.

[157] Holly Yan, Melissa Alonso, Madeline Holcombe, and Amir Vera. 2021. Andre Hill's family is relieved that the ex-officer who killed him is indicted. But they're not satisfied yet. (2021). Retrieved from https://www.cnn.com/2021/02/04/us/andre-hill-killing-police-court-appearance/index.html.

Received 7 June 2021; revised 23 November 2021; accepted 17 December 2021