

Embracing Four Tensions in Human-Computer Interaction Research with Marginalized People

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ABSTRACT

Human-Computer Interaction has a long history of working with marginalized people. We sought to understand how HCI researchers navigate work that engages with marginalized people and considerations researchers might work through to expand benefits and mitigate potential harms. 24 HCI researchers, located primarily in the United States, participated in an interview, survey, or both. Through a reflexive thematic analysis, we identified four tensions—exploitation, membership, disclosure, and allyship. We explore the complexity involved in each, demonstrating that an equitable endpoint may not be possible, but this work is still worth pursuing when researchers make certain considerations. We emphasize that researchers who work with marginalized people should account for each tension in their research approaches to move forward. Finally, we propose an allyship-oriented approach to research that draws inspiration from discourse occurring in tangential fields and activist spaces and pushes the field into a new paradigm of research with marginalized people.

CCS CONCEPTS

•Human-centered computing~Human computer interaction (HCI)~HCI design and evaluation methods

KEYWORDS

Marginalized people, exploitation, membership, disclosure, allyship, tensions

1 INTRODUCTION

The world is going through a sociotechnical reckoning. The injustices that are embedded in the frameworks of our society and how they disproportionately harm groups of people who society has long pushed to the margins are finally becoming centered in Human-Computer Interaction (HCI). In 2019, Ruha Benjamin introduced “the New Jim Code” which describes how new technologies can perpetuate the very social inequities they promise to solve, demonstrating that computing, design, and academic spaces are not exempt from this critical conversation [10]. Indeed, there are numerous examples of these extensions of oppression and control into computing, and several scholars have shown how racism, sexism, ableism, homophobia, transphobia, and countless other systems of oppression are and have been integrated into our technical systems and cultures (e.g., [75, 90, 101, 123, 159]). Google Photos algorithmically labelling images of Black people as “ape” and “gorilla” [75] provides just one example, though there are many more instances of technology supporting policing, discrimination, and violence. As a result, the debate whether artifacts do in fact have politics or whether technology is neutral should be closed for good [174].

Within the field of HCI, scholars are coming to an agreement that deeper engagement with marginalized people should be a serious priority for researchers [7, 24, 77, 78, 121]. As a result, HCI scholarship has increasingly shifted its efforts to working with these groups. HCI researchers have centered groups of people who have faced (and constantly face) racism (e.g., [71, 80, 82, 124, 159]), ageism (e.g., [20, 30]), sexism (e.g., [72, 143]), ableism (e.g., [11, 23]), classism (e.g., [39, 46, 146, 150]), and colonialism (e.g., [27, 51]). Further, matters of ethics and inclusion in research also affect fellow researchers, as there are people in the HCI research community that both experience marginalization

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and are surrounded by research that involves marginalized people [56, 179]. Given the complexity of interweaving personal identity and science, there is still much work to be done. While some scholars have carved out research agendas like Social Justice HCI, Feminist HCI, and Intersectional Computing [7, 49, 157], many researchers working with marginalized people or collaborators who experience marginalization themselves may be left wondering if and how to proceed and face difficulties in actively reflecting on their role in such research.

At a high level, marginalization refers to how a person experiences the world around them based on their identity and how others perceive them. For those who experience marginalization, there are different contexts in which they are marginalized and/or privileged, and their experiences can change over the course of a day, a year, or a lifetime¹. Marginalization can range from everyday microaggressions to matters of life and death to the development of systems that keep entire groups of people down. Understanding how marginalization works also requires identifying the structural powers that do the actual marginalizing [163]. The oppression that marginalized people face is not a natural or individual occurrence but, rather, an active operation through various, intertwining processes. For those who do research with marginalized people, Sara Ahmed points out that treating these groups as “Other” without awareness of the powers that have done the actual suppressing is ethically irresponsible [4].

In talking about marginalization, we wish to be intentional with our language. Terms often associated with marginalized people like underserved, underrepresented, or minorities all denote themes of being forgotten and left out by larger society [95, 165]. Others have described marginalized people as vulnerable; however, there are issues with framing groups of people as weak, in need of help, and burdensome [166, 170]. In considering these phrases, we align ourselves with previous criticisms of these terms and view marginalization as a failing of society, rather than a failing of any individual person. Further, when talking about researchers who experience marginalization throughout this paper, we interchangeably use “researchers who experience marginalization” and “marginalized researchers” to discuss one part of a person’s identity without framing it as their entire experience. This specific nuance speaks to a broader tension in this paper of focusing on marginalization without simplifying a person’s identity down to the oppression they face.

An intersectional approach to research means that social justice efforts cannot operate as either/or decisions in who gets centered. In our alignment with an intersectional research paradigm, we approached our research question with the following understanding of Hancock’s “categories of difference:” that we should address more than one category, single categories should not be compared and prioritized without the consideration of others, and both individual and institutional factors influence these groups [74]. Looking across these categories of difference and marginalization, we set out to answer the primary research question of: How do HCI researchers engage in and reflect on research with marginalized people? As research progressed, we also identified three interaction-based research questions to examine individual and institutional influences:

How do HCI researchers see their research affecting participants, and how do they reflect on and adjust their practices as a result?

How do HCI researchers engage in and reflect on research with marginalized people as it affects researchers?

How do the norms of the field of HCI affect marginalized people as researchers and, further, those researchers’ interactions with participants?

As attention to research with marginalized groups grows, we pursued this work to learn how we might avoid interest convergence in HCI, defined by Ogbonnaya-Ogburu and colleagues as a selfishly-motivated, surface-level form of inclusion that ultimately benefits those in power [125]. More specifically, we sought to understand what current HCI researchers do to carry out research with marginalized people, rather than for and only for researchers and institutions. We draw upon the stories, lessons, and concerns from 24 HCI researchers through survey responses and interviews so that the HCI community might build collective knowledge, learn from their reflections, and recognize whether and how to best move forward. Notably, participants in this study were predominantly based in the United States, despite our efforts to recruit more broadly.

We offer a critical, reflective resource for HCI researchers who wish to better their own practices: researchers who engage with marginalized people in their work and researchers who do not want to exclude marginalized people in their work. Our research outlines four tensions which our audience must embrace: *exploitation*, *membership*, *disclosure*, and *allyship*. These tensions are interlinked and look across marginalization as a whole. Positioning these as tensions, we highlight that a complete resolution may not be possible in this form of work, and yet there is value in continuing forward. As Haraway demonstrated, it is critical to think through issues even where there can be no clear path to a resolution [76]. These tensions relate to Rittel and Webber’s “wicked problems” in the ways that they are circular social issues, are technical approaches constrained by legal and social policies, and lack a definitive end [135]. Our hope is that everyone can benefit from reflecting upon these four tensions, even those already taking steps to avoid

¹ We thank Dr. Alexandra To for helping us craft this understanding of marginalization.

unethical practices. For example, researchers using participatory or human-centered design methods does not mean they have guaranteed equity [81].

Our motivation in this paper is not to say who can do what research but, rather, to highlight that if researchers choose to engage with marginalized people in their work, there are several key questions around each tension that require reflection and discussion. In addition, we describe researcher- and field-level influences on research involving marginalized people and reflect on how HCI needs to evaluate how it structurally disfavours marginalized participants and researchers alike.

In this paper, we make the following contributions:

1. We provide an empirical account of the lived experiences of researchers in HCI. Most of the participants of this study self-identified as having one or more marginalized identities, so we also prioritize and center their experiences in conversations about research with marginalized people in HCI.
2. We lay out four tension areas that we urge researchers to consider, discuss, and personalize based on their own specific work, describing the complexity involved in each and what steps researchers can take to embrace each one.
3. Drawing upon the lived experiences of these HCI researchers and literature from activists, we put forth an allyship-oriented approach to navigating these tensions in research with marginalized people, providing a call-to-action for the HCI community.
4. We leave room for and encourage further exploration into this topic, as this work is not meant to be—nor can it be—an instruction manual to research with marginalized people.

2 HCI and Marginalized People

Our work builds upon HCI research's historical involvement with marginalized people, one that has more recently engaged in deeper ethical discussions about how to best conduct research. We present an overview of such discourse and describe several concepts close to the heart of this work—intersectionality, reflexivity and positionality, membership, equity and justice, and impact.

HCI has seen a growing body of work both in building tools, services, and knowledge for the perceived benefit of marginalized people and in the meta-discourse of doing this kind of research. A review of over thirty years of HCI research showed how HCI scholars have historically neglected users who might have multiple marginalized identities, but recent years have seen an upward trend towards greater awareness [144]. As many scholars have demonstrated, design and HCI are inherently political, and both have the ability to rework social power imbalances [31, 102]. As a result, HCI researchers have made many efforts using their skills and expertise to promote social justice efforts. The agenda of HCI research involving marginalized people is extensive, including building tools that attempt to help people (e.g., Le Dantec et al.'s system that better connected staff and residents at a shelter for homeless mothers [40]) and exposing the potential dangers of technology (e.g., in ways that facial recognition systems can bring harm to transgender and non-binary people [101, 143]). Others have contributed commentary on the ways in which scholars do HCI research. As Baumer & Silberman wrote, “when we do build things, we should engage in a critical, reflective dialog about how and why these things are built” [9, p.2274]. Waycott et al. identified challenges such as protecting the privacy of participants and considering how technology might have adverse consequences for those we design for [170]. Researchers have also developed frameworks in thinking about when not to turn to technology [9], social justice-oriented commitments for researchers [49], and how we conceptualize and design for “vulnerable” populations [165].

2.1 Three Conceptualizations of Systems of Power

To first situate marginalization more broadly, we provide a brief overview of three conceptualizations of systems of power. Each show how a greater system of oppression is made up of numerous, interlocking, hegemonic components (e.g., racism, homophobia, transphobia). They further demonstrate that an individual's power is uniquely made up of their different identities and experiences that afford them privilege and/or discrimination and differ from context to context.

Coloniality of Power

Introduced by decolonial scholar Anibal Quijano, the coloniality of power is the basis for social classifications and social discriminations in modern Western society [132]. While initially used to describe European colonialism in Latin America, the concept has been applied to colonialism more globally. Scholars like Catherine Walsh have explored social classifications based on differences of race, sex, gender, and who is considered human versus non-human, among others [113, 116]. As Mignolo points out, this classification system can be understood as a matrix, as each category interweave social determinants of an individual's place in society and how they are treated [116]. Like modern systems

of oppression, the coloniality of power is not a natural occurrence, but a human-made system of control and domination based on socially constructed categories. It is also the basis for white supremacist social cultures and norms of today.

Axes of Oppression

In reflecting on their experience as an educator, Morgan created a grid to visually represent a person's intersecting axes of privilege, domination, and oppression. In this grid, Morgan labels "domination" on the horizontal axis, "privilege" above, and "oppression/resistance" below [47, p.107]. According to Morgan, each person (specifically, each North American person) is positioned along specific axes that cross two quadrants, which include young to old, heterosexual to LGBTQ+, white to Black Minority Ethnic people, Anglophones to English as additional language, and more. Morgan writes that "this point is simultaneously a locus of our agency, power, disempowerment, oppression, and resistance" and highlights the necessity for "both awareness and honesty with respect to our own positioning on the various axes of this grid" [47, p.106].

Matrix of Domination

Black feminist scholar Patricia Hill Collins introduced the matrix of domination to describe how systems of race, class, and gender have worked together to shape the lived experiences of Black women, while also noting that there are additional dimensions for others [19]. At the same time, individuals can face oppression and/or receive benefits depending on their position in the matrix. Collins also identified three levels "as sites of domination and as potential sites of resistance": the personal, community, and institutional levels [19, p. 557]. In *Design Justice: Community-Led Practices to Build the Worlds we Need*, Costanza-Chock contextualizes each level in design and different opportunities for domination and/or resistance within design justice [32]. The personal level in design justice, which refers to individual experiences that can be both freeing and controlling, might manifest in how design decisions affect different people. The community level refers to identifying groups of people who have shared experiences, and one instance is how platform design can support some communities while putting down others. As an example, Costanza-Chock cites Gillespie as she brings up Facebook's inaction to take down "white nationalist" posts, thereby assisting white nationalist groups at the expense of targets of the hate group [32, 68]. Costanza-Chock also identifies design institutions for Hill's third, institutional level, including funding agencies like the National Science Foundation or the Department of Defense, academic institutions that teach designers, and companies like Google, Apple, or Microsoft.

These three frameworks—coloniality of power, the axes of oppression, and the matrix of domination—help to characterize how an individual's position of oppressor and oppressed can reproduce a larger system of domination. Hill suggests two ways to resist domination: through individuals identifying how they reproduced domination themselves based on their position on the matrix and by rejecting beliefs that further oppression [19].

2.2 Marginalization in the Context of HCI

As part of the "third wave" of HCI, many researchers have explored how HCI can learn from feminist values [36, 61], drawing from a key characteristic of resisting oppressive power structures through individual and collective action [158]. Many have taken up calls to include those marginalized by these systems and explored how such expanded involvement can actually improve HCI knowledge. As Bardzell & Bardzell wrote, "turning to the experiences of the marginal is not only ethical, in the sense that it empowers a comparatively powerless population to participate in processes of social control, but it is also *good science*, because it introduces the potential for empirically derived insights harder to acquire by other means" [7, p.678].

Further, the growing area of action research directly interfaces with the political by working to rebalance power dynamics [173]. In particular, Hayes outlined how action research and HCI are related, emphasizing research with people, not for or about or focused on, transferability rather than generalizability of findings, and that researchers avoid abruptly leaving study sites without helping participants become self-sustaining [84]. Action research, however, is still an imperfect solution. Williamson & Prosser have raised that the goals of action research (e.g., creating a space for open disclosures) sometimes compete with common ethical research practices, because they do not maintain confidentiality and anonymity, make informed consent difficult, and/or do not protect participants from harm [173].

Over the years, HCI researchers have strived to understand what to design, whether to design, why (and why not) we design, and who we are designing for. Discourse around work that involves marginalized people is rich and healthy in the ways it has benefitted from a constant cycle of self-reflection and critique as a collective field. Below we outline several common themes across research involving marginalized people: intersectionality, reflexivity and positionality, membership, equity and justice, and impact. With the final three, we borrow lessons from within HCI and from fields adjacent to HCI that have engaged in meta-critiques of their own work that provide ample inspiration for the greater HCI community to follow. While we review a range of fields—Disability Studies, Community-Based Participatory Research (CBPR) and Participatory Design (PD), and Information and Communication Technologies for Development (ICTD)—we depict only slivers of a much greater body of knowledge.

2.3 Intersectionality

Kimberlé Crenshaw has been historically recognized as the first to document intersectionality, highlighting how people face additional dimensions of structural oppression specific to the multiplicity of their marginalized identities [34]. Crenshaw described how a system with a singular focus on race or gender erases those who have identities that intersect between the two—Black women specifically—and excludes their experiences of oppression in common pursuits of justice [33].

In HCI, intersectionality has become an increasingly popular, analytical tool for better understanding complex identities [133]. In particular, Schlesinger et al.'s introduction of Intersectional HCI calls for the HCI community to collectively better attend to the array of identities both participants and authors may hold [144]. Since its publication, several scholars have both extended and critiqued HCI's relationship with and use of intersectionality as an analytical lens. Wong-Villacres et al. recommended extending the scope of intersectionality to go beyond individual user identities and instead focus on "interacting processes" to better understand how an individual's identities are socially manifested [175, p.48]. Further, Rankin and Thomas call for "a cultural shift within the HCI community, one that goes beyond intersectionality as a buzzword to instead embrace equity, inclusion, and social justice as the new standard" [133, p.64]. Collins and Bilge challenge researchers to use intersectionality as a way of understanding intersectional-minded awareness and practice, rather than getting entirely stopped by identity politics [89]. They write that HCI's cooption of intersectionality is not only ahistorical in the ways it ignores how conversations around intersectionality have long been about, for, and by Black and Brown women, but also continues to ignore and discredit the role that Black women have played in research. Finally, Erete et al. offered another approach to intersectional HCI research: adapting research methods to better meet the needs of underserved communities and calling for better attending to contextual differences, self-reflection, and embracing dissent in the research process [55]. Keeping these points in mind, we scoped this study through an intersectional lens: examining HCI researcher's relationships with many forms of marginalization, without prioritizing any one specific axis of oppression.

2.4 Reflexivity and Positionality

One popular belief in Western Feminism is Standpoint Theory, which acknowledges that an individual's experiences and background make up a unique perspective on the world [63, 78]. Because of this, a researcher's identity influences how they interact with participants [23, 78], and so it is an important consideration in work that involves marginalized people, especially in the ways we share findings. In research, reflexivity and positionality work to oppose a dominant claim in science of objectivity by acknowledging and, at times, identifying potential researcher bias. Reflexivity calls upon researchers to self-reflect and understand their own possible biases, their role in power relations, and how these factors might manifest in their work [120]. Positionality is only slightly different in that it addresses how a researcher's perspective compares to others' perspectives [63]. In practice, positionality has led researchers to openly discuss how their own positions based on their race, class, gender, and other social/power categories may influence their work [53, 91]. In HCI, many scholars have called for improved reflexivity practices, specifically researchers evaluating the ways in which their identities influence their work [49, 114, 144]. Taylor stressed the importance of researchers first reflecting on their own positions and how they might influence the solutions they are pushing forth before analyzing participants and what is "out there" [156].

Positionality, or perceived positionality, can also affect how readers receive researchers and their work, and some scholars have pointed out that knowledge from marginalized people is unfairly judged. Fricker's epistemic injustice, specifically testimonial injustice, occurs when people question or diminish knowledge because of the identity or identities of the person it came from [64]. Berenstain built on this by defining epistemic exploitation as putting the responsibility to educate the majority on the marginalized people themselves, a process that places an emotional burden on them, is often taken for granted, and goes uncompensated [14]. These perspectives are crucial in calling out the double standard for knowledge production by marginalized people—the responsibility to do so is theirs to bear while simultaneously undervalued.

Additionally, it is important to distinguish what previous scholars have meant when suggesting author reflexivity. For some, reflexivity refers to self-disclosure of the authors' identities and/or epistemological backgrounds to create more transparency in the presentation of the work [7, 55, 144]. Others use reflexivity as a passive tool for authors to critically reflect [119, 129]. While both practices have their place, the first is especially important to contest under the pretense of epistemic injustice and exploitation. We drew upon this understanding of reflexive and positionality practices to shape our interview and survey protocols, with the intent of examining if, how, and what authors choose to disclose about themselves.

2.5 Understanding Membership through Disability Studies

Membership in a group typically entails that those within the group have shared or similar experiences or goals [83, 154]. In Disability Studies, researchers have long sought to understand the social divisions around the social construction of disability and its political impacts [180]. Discourse around insider-outsider tensions is one particularly relevant example: scholars have debated who gets to claim membership as a disabled person, who does not, and, further, who gets to study disability. These debates are complicated by the fact that not all disabilities are obvious, referred to as “invisible,” or that some might be considered “not disabled enough” [25, 111, 141]. One example that demonstrates the various, contested facets of disability is chronic illness; the disability community has had a tepid relationship being associated with medicalized illnesses while many people are disabled by their chronic illnesses [171]. Additionally, disability as a cultural phenomenon has allowed those who are not disabled yet marginalized in other ways to identify with and derive empowerment from the movement [142]. Because of these nuances, Disability Studies provides a lens into the contestability of membership and highlights the difficulty in universally labeling who is a member and who is not. In this work, we examined the complexity of membership, as we saw different examples of how researchers shared and did not share membership with those they work with.

2.6 Understanding Equity and Justice through Community-Based Practice Research (CBPR) and Participatory Design (PD)

A large body of work already exists that focuses on social equity and justice to address social imbalances. CBPR and PD prioritize giving opportunities to those in research who may not have initially had access to them. Both fields work to shift the research paradigm from studying people to learning from and with them. By doing so, this shift serves as a way to provide equity and justice in relationships of research.

CBPR is collaborative in nature and prioritizes social change [117]. The field has a long history of its researchers avoiding exploiting different groups of marginalized people through equal partnerships, critical discussions of power, and engagements with policy [28, 97, 98, 168]. CBPR has embraced and contributed to many social justice-oriented topics and has played a strong role in health research, specifically addressing disparities in healthcare [98, 160, 168] and involving the voices of marginalized people who often are not represented in research [26, 106, 108]. CBPR researchers have also discussed the ethics of their practices, raising several issues. Minkler outlines examples, including insider-outsider tensions (i.e., differences, often identity-based, between the researcher and participant) and challenges from translating findings into actions for change [117]. Last, member checking is a common practice in CBPR, and it involves sharing findings and analyses back to participants [70]. These efforts, among many others, grapple with the uneven distribution of benefits in research and attempt to rebalance this exchange.

Participatory design (PD) can be understood separately from CBPR, but we choose to frame them together to highlight their similar efforts to restore equity and justice in research practice. This has been especially clear in research that involves adolescents [130]. Using PD with children and adolescents can embolden youth with a sense of belonging and empowerment, but despite its best efforts, even PD is imperfect [139]. As Erete et al. described, “we find that traditional research design methods [...] even those participatory in nature, at times do not match the needs of our participants, leading to questions regarding the effectiveness of these methods among certain populations. Many of these methods do not account for the challenges faced by communities that have systematically experienced discrimination due to unfair policies and social practices” [55, p.66]. Furthermore, attempts to rebalance power are complicated; for one, we may not know if our attempts are working and, second, concepts of power are nuanced and difficult to ever fully account for [66]. However, in PD and CBPR, power is ultimately shared and situated through negotiation between researcher and participant [16]. From these two areas of work, we integrated values of care into our methods and our relationships with participants in this research. We also drew from collective lessons and criticisms to understand how to address equity and justice in research with the understanding that these efforts will never be perfect.

2.7 Understanding Impact through Information and Communication Technology for Development (ICTD)

ICTD’s ethos underscores the importance of providing services and resources to developing areas, and more generally, those often left out of research [42, 145]. This work is often interventional in nature, with careful consideration around the impact of such research through a focus on sustainability and equitable access [88, 162, 176]. Researchers in this field have raised questions around technological determinism and active consideration of how technologies may not always be the most appropriate solutions [87, 177, 178]. Researchers in HCI4D, a subfield of ICTD, have also wrestled with what it means to work “for development,” a concept entirely entangled with questions of impact [42].

Understanding the researcher’s roles in these communities and how their inventions fit in socially, practically, and sustainably are imperatives for these researchers to think through. As one example, researchers have identified ways that technology can reinforce patriarchal social systems [154, 161]. Through a deep awareness of how to have actual impact, Sultana et al. recommended designing within the patriarchal system, despite wanting to subvert it [154]. They go on by saying, “To be clear, we certainly might want to directly fight against the patriarchy. [...] However, if we want to work within this community, we have to work within the situation as it is. It is not helpful or realistic to expect to change a deeply patriarchal society or for us as powerful outsiders to insist of some of its most subjugated members that they should want a different life. Instead we have to work within this system if we want to have a chance at creating some meaningful change” [154, p.9]. Through this illustration, we can see how ICTD research has wrestled with recognizing its direct effects on their participants and how to sustainably have an impact. This understanding informed our own wariness of technological solutions and helped us to contextualize concerns researchers in this study shared about their own work and work by others.

2.8 Allyship

We initially approached this work with allyship, a common framework for countering marginalization, in mind. While many definitions exist, some scholars have defined allyship as defending and working toward the betterment of an oppressed group [22, 99]. Across the literature, there are four common components to allyship: 1) the ally is a part of a dominant group working to help an oppressed one [59], 2) the ally has a privileged power as a result of belonging to the majority [21], 3) the ally challenges those within their own group(s) [155], and 4) the ally participates in “political solidarity” in which they use their majority power to challenge authorities [152]. Some have criticized allyship and conceptions of being an ally for ignoring that people can hold multiple identities at once [118], reinforcing the social hierarchy by prioritizing the act of allyship over the groups they are trying to help [137], supporting a “hero-victim narrative” in which the ally acts as though they are saviors, and actually being “pseudo-allies” with ulterior motives (i.e., elevating their own social status [58] or expecting praise [136]). Large concerns of allyship center around saviorism and tokenization, in which people use others for their marginalized experiences (e.g., asking someone to collaborate solely because they speak a certain language and the project needs translation services) [107, 138]. Russel identified different motivators for allies; they can be selfless, such as pursuing social justice, or self-serving, such as acting as an ally only to absolve their own guilt [137].

Across these concepts of intersectionality, reflexivity and positionality, membership, equity and justice, impact, and allyship, there are shared values of prioritizing the well-being of researchers and participants while also striking a careful balance between the two; however, doing so may only be possible in the most idealized sense. Researchers may find difficulty in navigating these various theories in practice. What does it mean to embody such beliefs in one’s approach to research? In order to examine our research questions, we set out to document and analyze the lived experiences of current HCI researchers and how they manage such entangled and sometimes competing concerns.

3 METHODS

3.1 Recruitment

We recruited researchers who considered themselves to be HCI researchers and who currently or have previously worked with marginalized people to participate in a survey and/or interview. We openly defined marginalized people as anyone who is oppressed by a system of power.

Our recruitment plan, using word-of-mouth and snowball sampling, was based on that of previous research examining experiences of HCI researchers [147]. We began recruitment using social media, taking advantage of the vast networks from our own Twitter accounts. According to Twitter’s analytics, our recruitment tweet reached 12,269 users, 222 people interacted with the tweet, and was retweeted 28 times. At the CHI 2019 conference in Glasgow, we approached researchers whose work we saw as meeting the above definition, and we distributed recruitment flyers at related CHI workshops and sessions (e.g., the Queer(ing) HCI: Moving Forward in Theory and Practice Special Interest Group [149]). In our recruitment interactions, we also asked people to forward our study to researchers whose perspectives might help speak to HCI research with marginalized people. With this recruitment approach, we sought to include perspectives from researchers who self-identified—or were identified by others in the HCI community—as conducting research that engages with marginalized people. Recruitment lasted three months, from April to June 2019.

Based on participants who chose to disclose their identity in the survey or participate in the interviews, we know that researchers who responded to our calls represented primarily Western, and especially United States-based, perspectives. Despite our efforts to recruit broadly by reaching out to non-US based researchers directly, the majority of the participants in this study are US-based, and beyond that, based in the Global North. Most likely due to our own

biases, focus of our professional networks, and language used in the recruiting call, we might have missed recruiting researchers based outside of the Global North. The language in our recruitment calls may also have contributed to this bias; for instance, there are cultural differences in how people understand the term “marginalized people.” It is also important to note that our sample of participants, and thus our resulting themes, may not be broadly representative of the HCI community’s views and values. Further, *any* recruitment of academic researchers is susceptible to “privilege hazard,” defined by D’Ignazio and Klein as “the phenomenon that makes those who occupy the most privileged positions among us—those with good educations, respected credentials, and professional accolades—so poorly equipped to recognize instances of oppression in the world. [...] The privilege hazard occurs at the level of the individual—in the interpersonal domain of the matrix of domination—but it is much more harmful in aggregate because it reaches the hegemonic, disciplinary and structural domains as well” [37, p. 29]. The small aggregation of ours and participants’ experiences presented in this work risks reifying what is or is not oppression in ways that miss key instances of oppression, particularly when those instances have caused people to leave the field or not have the time or the security to volunteer for a study such as ours.

Because surveys allowed for anonymity and interviews provided more depth, we gave participants the option to take an online survey, participate in an interview, or both. Our university’s Institutional Review Board determined this study to be exempt. Participants reviewed consent materials before the survey and interviews, and we provided interview participants with a \$25 USD gift card as an appreciation for their time.

We estimated that the survey would take 15 minutes to complete. The survey asked participants to reflect on a previous, specific project of theirs and around publication practices such as providing a reflexive or position statement and any potential criticism or praise that resulted from the work. Further, the first author conducted semi-structured interviews either in-person or virtually. We also asked participants to reflect on a previous, specific project of theirs that worked with marginalized people, discussed allyship in research and more broadly, and had conversations around the research ethics involved in their work. Please see Appendices A and B for the full survey and interview protocols.

We used Dey’s concept of theoretical sufficiency [44] and Fusch and Ness’s rich and thick metrics [65] to determine when to stop data collection. As we moved forward in our analysis, the research team agreed that our data were both extensive and contained rich, complex discourse, and we decided that we had built enough understanding to construct a theoretical contribution. However, we recognize the possibility of further theme development beyond this stopping point as a limitation [17].

To try to minimize power dynamics with interview participants, the first author, a first year PhD student at the time, conducted all interviews alone; however, we still could not completely detach ourselves from the influences of power especially with the more senior researchers connected to the study. We took additional steps to make it easier for people to participate without judgement from the senior researchers on our team or the greater community. First, we made it difficult to link surveys with specific people by allowing for anonymity and not linking survey responses to potentially identifiable information about demographics, information about membership, or groups studied. We also integrated member checking into our analysis process to validate our understanding of participant responses with participants, documented in Section 3.3.

3.2 Participants

A total of 24 participants participated in this study: 10 only took the survey, 5 only did an interview, and 9 participated in both. Interviews ranged from 55 to 92 minutes (mean: 65 minutes), after which they were fully transcribed. Of our interview participants, 1 self-reported that they had been in their field 1-2 years, 11 for 3-6 years, 6 for 7-10 years, and 6 for 10+ years. Table 1 shows a further breakdown of our survey and interview participants, presented in aggregate to preserve anonymity.

Table 1. Self-reported demographic follow-up table (20 responses)

Do you consider yourself as someone with one or more marginalized identities?	14 yes; 3 no; 2 prefer not to say
Represented fields	HCI (n=17), CSCW (n=14), STS (n=4), Education, Public Health, Disability Studies, ICTD, Communications, Psychology, and Design Studies
	*only list n when >= 3

Primary methods	Qualitative (n=10), Quantitative (n=3), Ethnography (n=4), Design Research (n=3), Mixed Methods, Implementation Science, Policy Research, Political Economy, Critical Theory, Infrastructure Studies, Contextual Inquiry, Participatory Design, Computational *only list n when >= 3
Keywords	Assistive technology, games, disability, marginalized communities, queer, social computing, CSCW, marginality, wellbeing, ethics, social media, health, software, collaborative teams, community formation, usability, privacy, implementation science, disparity reduction, rural, participatory design, innovation, work studies, social innovation, marginalized communities, accessibility, design, disability studies, children, play, inclusion, neurodiversity, child-computer interaction, HCI, ICTD, Global South, voice, inclusion, political economy, accessibility, social computing, economic development

3.3 Analysis

Through Braun and Clarke’s reflexive thematic analysis approach, we used a mix of inductive and critical realist frameworks to guide our analysis [18]. Using such frameworks allowed the research team to derive meaning from the data and to reflect on the data from both localized and broader perspectives, valuing lived experiences and situating them in their socially constructed contexts. Additionally, reflexive thematic analysis calls for researchers to reflect upon their own assumptions. In this work, we initially set out to understand the relationship between HCI research and allyship, as we saw this as a valuable framework to analyze such a topic. We were surprised to find that allyship is just one dimension in thinking through research that involves marginalized people, and our generated themes reflect a wider array of considerations.

To familiarize ourselves with the data, the three authors reviewed survey responses and transcripts of interviews. Next, the three authors applied a modified open coding approach to analyze the data. Authors reviewed half of the interview transcripts and survey responses, identifying quotes relevant to our research questions, grouping them, and describing groupings with short phrases. We conducted this grouping and coding activity concurrently, contesting and discussing each other’s interpretations of the data. Following this, the first author coded all interview and survey data while consulting with the rest of the research team, building upon our initial groupings to construct themes. We then organized the themes according to our research questions about the kinds of interactions and people involved in research (researcher, participant, HCI as a whole, see Table 2), and we present the themes accordingly. While we present themes from both survey and interview results, we illustrate them with quotes from the interviews, as the interviews were richer and more illustrative than the survey responses.

Finally, we reached out to interview participants to member-check themes and data presented. We first presented participants with their quotes and our analysis to validate our interpretation of their data. Participants were given the option to omit entire quotes or any specific details that they felt were more revealing than they were comfortable, but they could not otherwise edit the content of quotes [110]. We made changes to quotes and built upon or clarified analyses with their direction, and all but one interview participants completed the member check. We reached out to participants a second time for more demographic information to provide Table 1. Last, to recognize the work behind the perspectives that participants shared with us, we gave participants the option of being identified with their quotes and examples. After data collection ended, 5 participants were interested in identification in the publication. After a final round of member checking with these participants, 3 still wished to be identified. Similar to previous meta-HCI studies [147], the close-knit nature of our community presents a challenge in protecting anonymity. To address this, we do not present personally identifiable demographic information.

3.4 Author Positionality

In this section, we lay out the research team’s values, epistemologies, and backgrounds so that readers can approach our findings and analysis with more clarity.

The views of the first author, CAL, are highly represented throughout this work—in developing the surveys and interviews, in conducting the interviews, and in analyzing and reporting on the data. They have sought to move away

from their positivist training and now follow an interpretivist form of inquiry that builds knowledge, rather than one that sets out to prove it [127]. They value the co-construction of knowledge with participants and emphasize the importance of sharing lived experiences as a conduit of knowledge. This is shown through our research questions that are meant to explain a current variety of approaches to work with marginalized people in HCI (summative) and inform the future of such research (formative) [52]. They have seen how some HCI researchers have built systems for marginalized people without considering ways to truly partner with them in the research. They have also had first-hand experience with discrimination and harm based on their identities. From this, the first author values the knowledge of marginalized people and sees working with marginalized people as a requirement. Simultaneously, the first author holds different, interweaving identities, some marginalized and others that have granted him more privilege than others. It is through this unique combination of identities and understanding as both the oppressed and the oppressor that they have pursued and carried out this work.

SM was trained in systems engineering and information, and has designed and evaluated many systems, especially those either designed or appropriated to support health and wellbeing with a focus on personal data tracking. Critics, including SM and collaborators, have pointed out the tendency of these technologies to better support people who have more resources and to perpetuate norms, leading to both intervention-generated inequalities and further marginalizing people. While these have been concerns of SM’s work, he has also made mistakes that contribute to inequities or further marginalization (cf., critique of Epstein et al. [54] in Keyes et al. [103]), and had a goal for this project of learning, with and from others in the field, how to do better.

JK comes from a computer science and human-computer interaction background and has experience in designing and evaluating a wide range of technologies using a human-centered design approach, including those intended for use by people with disabilities and from marginalized backgrounds. She has first-hand experience in seeing how different levels of engagement with different populations can impact the appropriateness of design ideas and potential for exploitation of marginalized people in human-centered design research. She has also worked on projects where she has been both a member and non-member of the intended population and, like SM, had a similar goal with this work of learning to do better and be more intentional and equitable in how marginalized people are centered in HCI research.

Much of this work is motivated by the research team’s commitments to social justice and frustration with how marginalized voices have been and continue to be treated both in HCI research and in the world beyond. Further, the research team comes from a department that values the human-centered process in research and the thoughtful engagement of sociotechnical systems. They are positioned in an academic institution that is well-known in the HCI community, which influences their networks and potential responses to our work. They also recognize that it is a privilege to be able to reflect and focus on healing instead of survival, even just for a moment.

4 FINDINGS

Responses from our surveys and interviews introduced tensions for different relationships in research: *researcher to participant* and *researcher to researcher*. When discussing the latter, participants also surfaced how HCI as a field played a larger role in influencing these dynamics, identifying a third, higher-level relationship in research, *HCI to researchers to participant*. For each, we describe resulting harms and, when applicable, considerations that participants make to address them; however, we did not find a one-to-one relationship between the two. Please see Table 2 for a full breakdown of our themes. Additionally, we refer to participants of this study as HCI Researchers (HCIR) to better differentiate them from participants who took part in the HCI researchers’ studies.

Table 2. Constructed themes grouped by interactional relationships

	Resulting Harms	Mitigating Harms
Researcher to Participant	Participant costs of doing research Encountering “empty” allyship	Acknowledging limitations as a researcher Shared membership with participants Taking steps to reduce exploitation through personal work, compensation, maintaining relationships, member checking, and study accommodations

Researcher to Researcher	<p>Tokenization and asking invisible labor of researchers with marginalized identities</p> <p>Tensions of reflexivity and positionality among researchers</p> <p>Effects of membership on marginalized researchers and how their work is perceived</p>	<p>Critical reflections when asking for labor</p> <p>Balancing harms and benefits of reflexivity and positionality statements</p>
HCI to Researcher to Participant	<p>Technological solutionism and expectations</p> <p>Impacts on marginalized researchers in HCI</p>	

4.1 Researcher to Participant

To address the first research question—how HCI researchers engage in and reflect on research with marginalized people as it affects participants (from researchers’ perspectives) —we examine responses that illustrate harms that can result from this interaction and considerations to account for them.

4.1.1 Resulting harms of the researcher to participant relationship.

The HCI researchers who participated in our study emphasized two ways their work affects participants of marginalized backgrounds: the unequal give and take when people participate in research and how allyship can extend towards participant identities and experiences.

4.1.1.1 *Participant costs of doing research*

The 24 HCI researchers characterized their work to extract data from participants in their studies as exploitative, because their work requires learning about marginalized people’s experiences and perspective. The guilt of giving little back to participants was a shared sentiment among the researchers in our study. HCI researchers experience considerable professional benefit from this work but feel they are returning fewer benefits to the participants in their studies. HCIR20 recognized the unbalanced giving and taking of doing research with marginalized people: *“there is so much you’re learning from them, which you are putting out, but the knowledge which you have inherited, the papers you’re writing, the awards and fellowships you are receiving. There are a lot of things which you are taking from them, including their time, including their resources. And we are giving very little to them.”* While it is important to acknowledge what researchers are taking from participants of their studies, it is possible that participants do not perceive this to the extent a researcher might fear. To answer such questions, researchers might develop ways to check in with the people with whom they are working about whether and what they are getting from participation. Through this, researchers might better understand how participants are experiencing their engagement in the research: sometimes this might lead researchers to change their practices, and at other times, it might reduce their guilt.

In the United States and many other regions, a human subjects review process is nominally charged with examining benefits relative to risks. However, the ways an institutional review board conceives of risks and benefits may not align with participant experiences and is mostly prospective: other than reporting of adverse events, there is no during study or post-study assessment of how participants experienced the risks and benefits. Participants in our study noted deficiencies with this process. In thinking about risks, HCIR15² called for the *“need to think more about this violence as it’s defined by social justice groups.”* As they pointed out, harm from a study can be more than what we traditionally conceptualize as risky (i.e., physical harm), and so there is a need to reframe the definition of risk to account for microaggressions and actions that further marginalize others. HCIR16 discussed how unbalanced costs and benefits contribute to the marginalization of the people with whom we work: *“too many times, folks do the research, they leave,*

² Cynthia L. Bennett’s research sits at the intersection of Human-Computer Interaction, accessibility, and Disability Studies. Her work spans from the critique and development of HCI theory and methods to designing emergent accessible interactions with technology.

they don't say anything and never come back. And then these marginalized folks have been used, further marginalized by folks writing about marginalization.”

4.1.1.2 Encountering “empty” allyship

The HCI researchers in our study emphasized the need to go beyond performative allyship to more meaningful forms of allyship. They offered definitions of this more meaningful allyship, as some emphasized that allyship should involve leveraging one’s privilege to “*further the cause together*” (HCIR2). HCIR6 discussed how allyship cannot be self-serving, while HCIR8 explained that allyship is not something you can “*step in and out of*.” HCIR14 additionally talked about the importance of taking risks in allyship, emphasizing that there needs to be something at stake for actions to be effective.

The HCI researchers in our study also noted that current allyship practices in the HCI community often falls short of these ideals. Some questioned whom allyship actually serves. HCIR5³ described that “*it’s become a word that anybody can attach themselves to*.” HCIR8 talked about his stance on “empty” allyship: “*I think people distrust that term [ally] now because the people who purposely adopt the term ally then don’t do the work. [...] when it comes down to it, even when it comes down to a conflict that they’re having with someone in their personal lives, they actually don’t step up and defend that community in any way*.” HCIR15 underscored an important distinction in defining allyship: “*I think the biggest thing is process, not product; ongoing versus achievement. It’s hard because when we do things like allyship trainings or buttons, the good that it does should also be held with the [harmful] message that it sends, that it’s an achievable task*.” Additionally, HCIR16 raised a concern that gets at the heart of empty allyship: “*allyship is another way of centering folks who aren’t impacted, to make them feel included when they’re already included*.” These accounts of the potential failings of allyship efforts highlight both dangers of such actions and opportunities for improvement.

4.1.2 Mitigating harms of the researcher to participant relationship.

The 24 HCI researchers shared how they work to avoid and mitigate harms that participants experience as a result of involvement in research. This includes personal work as a researcher as well as care in research design and execution.

4.1.2.1 Acknowledging limitations as a researcher

Many of the 24 HCI researchers described the limits on what they can accomplish with a sense of guilt and frustration. HCIR20 explained that “*you are going to make mistakes. And the question is that you don’t make massive blunders, but you make whatever the mistakes you’re making can easily be corrected*.” As many of 24 HCI researchers emphasized, researchers should not let this acknowledgement of their limitations stop them from doing vital work. HCIR14 described the importance of knowing that they might make mistakes: “*I couldn’t let this fear and worry and guilt stop me because this is what’s important to me. think too in a lot of these conversations is, and when we’re ready, we have to do it. We just have to do it and put ourselves out there and try it and be willing to recognize that you’re wrong and ask if you’re wrong*.” HCIR16 also talked about the importance of embracing the associated discomfort as a way of managing the guilt, concern, and frustration that might result from noting these limitations: “*if you’re feeling uncomfortable in this sort of instance, don’t hide that. Don’t try to solve that. You’re not going to solve that discomfort, because that discomfort is structural*.” HCIR16 encourages us to ask what and how structural forces cause researchers to feel badly and to then accept those feelings as part of the research process.

What about the way HCI research is done makes some mistakes acceptable and others not? Do we agree with that evaluation? Harm can result when individuals and the field accept that some avoidable harms are unavoidable. Harm can also result when the guilt about the imperfection of any research process prevents someone from doing good work or causes them to carry so much guilt that it affects their own wellbeing. How do researchers know—as HCIR14 describes—when they are “*ready*” and “*just have to do it*” and when they are not? Having better ways to reason about how to assess one’s own limitations and whether and how they should proceed with research could lead to research that does less harm—to both participants and to researchers who otherwise carry guilt or shame about their work.

4.1.2.2 Shared membership with participants

A common theme throughout our data centered around how membership—having shared identity or identities with participants—affected how the HCI researchers in our study thought about their work.

Several participants discussed their non-membership, in which they did not feel that they shared identities with the people they chose to study. For some, non-membership was a source of questioning of whether they were the right person to do the work and/or whether their analyses accurately captured the voices of those they worked with. Others expressed that non-membership should not limit involvement in work that involves marginalized people. To this end,

³ Jean Hardy is an ethnographer who uses community-based participatory research methods, including participatory design, to better understand the technological needs and futures of rural LGBTQ communities.

HCIR8 explained that there are several things researchers with no shared identity can do, including being open to learning from others: *“I don't really believe that you have to be a part of a group to do valuable and beneficial and not harmful research on that group. It's just an amount of A, trying to educate yourself beforehand and to really learn about those things and challenge your own assumptions about it and then B, to accept criticism if it doesn't go well.”* HCIR2 discussed how they grappled with taking up space within the research community as a non-member: *“if there aren't white allies doing the work and trying to do it with an equitable framework and it is just everybody only focuses on their own groups, then that can really continue to perpetuate ignoring populations, and I would rather be doing the work and trying to do it better than not do it at all.”* HCIR2 lays out what might happen if allied researchers only work with groups with which they feel membership, explaining how HCI research might continue to ignore specific marginalized groups. They also present a question worth considering: is it better to conduct HCI research with marginalized people, with potential for harm or positive impact, or to not do it at all? One way of thinking through this concern is to compare the potential for harm from carrying out the research or not doing it. At the same time, this sense of “white allies” needing to do the research—or no one else will—should also remind the HCI community of the urgent need to dismantle barriers to participation in our community that result from a long legacy of racism, sexism, ableism, and many more forms of oppression.

Some of the 24 HCI researchers also had shared identity with the participants they worked with, and they talked about how they experienced this as both an advantage and a limitation. HCIR5 explained how shared identity had benefited them: *“My position as an LGBT person and somebody who has lived in rural communities allows me to identify with the people that I'm doing my research with and build bonds with them. That makes the research that allows for more depth more quickly.”* They also recognized how this shared identity still did not mean they could speak for or relate to the experiences of everyone with that identity. As HCIR5 summarized, *“I am thinking a lot about what other people's experiences of similar identities and geographies are to me and how they're different from mine. [...] I'm drawing from my own experiences, but then I'm also constructing my subject position in a way that understands that my experiences aren't everybody's experiences.”* HCIR16 reiterated this: *“maybe someone in the exact same sort of constellation of identities has a complete different experience. Both could be marginalizing, but both might see and experience marginalization in different ways and the ways in which possible solutions emerge could be different.”* They underscored that researchers who have membership with their participants should still be *“frank with the limitations of [their] perspective.”* When researchers consider their identities through an intersectional lens in this way, they may better understand, mitigate, and communicate the limits of their research approach and claims.

4.1.2.3 *Taking steps to reduce exploitation through personal work, compensation, maintaining relationships, member checking, and study accommodations*

As noted earlier, the HCI researchers in our study described grappling with what they experienced as an uneven exchange between researcher and participant. They also described the steps they take to make that exchange more balanced and less exploitative.

One of the most common recommendations they made for scholars working with marginalized people was to learn and draw upon previous research, especially when it can be done in place of asking marginalized people. This can lessen what researchers ask of marginalized people in educating others—an often invisible and unrewarded form of labor—and also elevate scholars who are already doing this important work. Others talked about the value in doing “personal work” (HCIR9) in preparation as in working through personal biases. Additionally, HCI researchers have worked to lessen the burden of what scholars ask of participants and rebalance what participants receive in return. HCIR8 asked himself, *“what is the work that they've already done? What are they constantly asked to do anyway that then doing an interview with me is just going to make this more painful?”* HCIR14 shared how it is the researcher's responsibility to protect their participants, such as by anticipating how their work might have unintended consequences: *“where could this go wrong? I can't let myself get overwhelmed by that, I realized, because it is my responsibility and I have to do the participants justice by making sure that I think about the possible ways this research could be misappropriated or misquoted. I have to put in that time and I will and I do. But then there's also some things that are out of my reach and I just did not think about that possibility.”* Here, HCIR14 emphasizes how listening to their doubts pushes them to do the research as well as they can, while also needing to accept that the research may not ever be perfect so they can move ahead. This does not resolve, however, when to move forward or not.

The HCI researchers we heard from pointed to several, specific ways they reduce exploitation: expanding definitions of compensation, maintaining relationships with participants after a study, teaming up with community partners, member-checking data, and making participants feel comfortable in studies, described in further detail below.

Many of the 24 HCI researchers talked about the importance of compensating participants fairly. Recognizing the experiences of their participants—expensive health conditions or greater difficulty finding employment, for instance—

researchers strongly prioritized payment. HCIR15 considered how appropriate payment is crucial, yet under-practiced, and valued giving back beyond or in addition to the monetary, traditional approach to compensation. For instance, HCIR14 suggested providing a job reference after long-term study engagement.

Some HCI researchers in our study talked about how they approach their relationships with study participants, past and present. HCIR7⁴ pushed for researchers to “*be transparent and be open about your intentions and maintain contact*” and added, “*don't disappear on them.*” P6 expressed: “*I'm not just going to like suck all this out of you and disappear.*” Many researchers shared this concern about abrupt exits after studies and how that would affect participants. Transferring research systems to community partners, for ongoing support and development, was one technique participants suggest for better managing the end of studies.

Many of the 24 HCI researchers discussed their experiences working with community partners more broadly. HCIR5 explained that “if you want to generate novel insights, you really need to be either embedded in those communities or you need to be very intentionally partnering with people in those communities.” HCIR16 recommended that researchers not “invent the needs of the community, [...] but go to the people who are doing the work and ask, ‘what can I do?’” Partnership also enhances work, as HCIR5 stated that they “believe personally and ethically that the best kind of research that is done with marginalized people involves those people explicitly in some form or fashion.”

Member checking helps assure both readers and authors that they are accurately interpreting their participants’ experiences. HCIR9 described that they “*hear about whether they [the participants] think we've got it right or not.*” HCIR18 also brought up that member checking helps participants feel comfortable with the work that researchers are putting out. HCIR5 acknowledged that member checking requires additional organizational labor (e.g., keeping track of people and their contact information) and labor for participants but also stated “*it usually makes my research stronger because then when I start talking about the themes of the research and how I interpreted what people were saying, they are like, wow I didn't think of it that way. And all of a sudden, we can have an additional conversation about the findings and I can gather even more insight from them. So I actually treat member checking as secondary data collection.*”

The 24 HCI researchers discussed how they thought about making participants comfortable in their studies. They mentioned several examples of this including letting participants choose the location of where to meet, avoiding language that participants expressed discomfort over, and allowing participants to take breaks on their own time. Several participants mentioned that they thought about ways participating in the study might burden participants, so they sought to accommodate them by providing food, transportation to and from the study, and accommodating accessibility needs. As HCIR15 stated, “*space is just so political, and hard to get right.*”

As the HCI researchers in this study laid out what they have done to address exploitation in their research, they also discussed that doing so can be difficult and take extra work to have a meaningful impact while doing as little harm as possible. However, they underscored the importance of making this effort.

4.2 Researcher to Researcher

HCI researchers in this study with marginalized backgrounds experienced strained relationships with other researchers, and some described ways they navigate these tensions, while also noting ways other researchers could reduce them.

4.2.1 Harms resulting from the researcher to researcher relationship.

4.2.1.1 *Tokenization and asking for invisible labor of researchers with marginalized identities*

For the HCI researchers in our study with marginalized identities, an invitation or request to participate in a research project engaging people with shared identities could be simultaneously welcome and a cause for concern. Were they being asked to participate for their expertise as scholars, who also bring added perspectives from of their identity? Or tokenized, regarded as a necessary box to check to be able to do the research?

HCIR8 reflected on how difficult it can be to discern colleagues’ true motives for including him in a project, noted, “*at some level though, you kind of want to be tokenized, which is weird.*” This was a shared sentiment among other marginalized HCI researchers in this study: being tokenized by other researchers can be disrespectful and exploitative, but it is also sometimes a starting point to meaningful engagement and better research. For an HCI researcher with a marginalized identity, declining to participate in such a study may leave them wondering if the other researchers will make mistakes and cause harms that could have been avoided if they had contributed. Consequently, many join out of a

⁴ Kate Ringland is a critical disability scholar who studies how games and play support sociality.

sense of responsibility: “so often I feel like if I don’t do this, somebody is going to mess it up” (HCIR15). In this way, many people with marginalized identities in the HCI community take on additional—and often unrecognized—labor to further equity and justice in specific projects.

Other researchers from our study shared their experience being on the other side of a request as they sought to involve collaborators who had shared experiences with their study participants. HCIR13 explained their reasons for doing so: they “really tried to not just involve community members in the research process, but also engage with other researchers who are also sharing this identity.” HCIR8 laid out the tension of wanting to check his work was not going to be harmful and not wanting to ask for too much invisible labor, while also rightly pointing out that there are institutional reasons involved:

I like to get input on the kinds of questions I'm asking or the approach I'm taking with other people in the research community who might either identify with the group that I'm conducting research with, but also might just work also heavily with that group. But I think there are limitations. On one hand there are limitations where I don't want to bombard specific researchers who are already a minority in our community with more labor, for having to answer questions about their own identity all the time. And then on the other hand, there's the fact that I might not have connections with those people in our community or there might not be those people. For example, I don't think I know anyone who's a trans black woman in HCI. And that just speaks to the fact that our community is not as diverse as it could be. Then on top of that, if there was one person, I wouldn't want to be that person who's just reaching out to ask for effort. So I think there are kind of barriers to that approach. But, ideally I would want to make sure that I'm not acting as if I'm the expert on someone else's identity.

4.2.1.2 Tensions of reflexivity and positionality among researchers

The HCIR researchers in our study contested the appropriateness of asking for reflexive statements, finding value but also potential harms in them. Focusing on the potential benefits, HCIR15 described that they “would love reflexive statements if they do the work that needs to be done, which is saying we, by having these connections, were suited to work in this space.” They want on to say that reflexive statements also help researchers with “being really clear about the lenses [they are] using.”

Despite these benefits, many of the 24 HCI researchers pushed back against suggestions that reflexive statements should be a norm. Some expressed that requests for these statements can be akin to asking researchers to disclose their identity to the research community, and that this can disproportionately and negatively affect researchers who experience marginalization. HCIR8 shared his own approach to disclosure and reflexivity:

There's a level of danger to constantly self-disclosing. This is actually something that I purposely generally choose not to do in my research. I will self-disclose to my participants when I'm recruiting them and talking to them. But I will not do so in papers because I just have a level of paranoia that might be tied to all of the background research that I read, the literature reviews I've done about how, for example, documenting identity in classification systems can lead to really bad things if you live in a country where your government suddenly changes and directly attacks those people. So I think that self-disclosure as an expectation is something that we shouldn't be doing and I would encourage other marginalized researchers to push back a little bit if they feel like they should. They're forced to do that because it can be dangerous. And it could lead to professional harm, because there are people in our community who have biases and maybe we just don't know about them.

HCI researchers in this study cited reasons for not wanting to disclose their identities in their work, such as HCIR13 saying “I didn’t want to out myself in print forever.” HCIR8 explained that the current dialogue “is limited in perspective and embraces this universality of experiences, that disclosing that you are a woman or disclosing that you are white is much different than disclosing that you are a trans person or a trans woman or disclosing that you are black. The types of retaliation you might face for doing that are much different.” HCIR13 explained how the current ways in which the HCI community asks for reflexivity “assume that the person is not a member of the group” and how this is “really dangerous, especially when the implications of disclosing can be much more severe for marginalized people than for others.” As HCIR15 put it, “it should be my choice” whether to disclose or not, and HCI should be conscious of the power dynamics involved in asking for reflexivity. They explained that a culture of reflexivity can also do more harm to researchers with marginalized identities, as the pressure to disclose one’s identity or identities may take away from their agency. They also noted that, while getting work published or progressing in one’s career is usually not contingent upon including reflexive statements, researchers should be aware of the ways that setting this expectation could end up outing marginalized people.

4.2.1.3 *Effects of membership on marginalized researchers and how their work is perceived*

There were different perspectives on how membership can both add to and take away from the research process and how other researchers perceive the published work. For instance, HCI researchers we heard from discussed how their shared identity benefited their work (e.g., providing a source of confidence in carrying out the work). While membership can provide many benefits to work that involves marginalized people, some of the 24 HCI researchers pointed out the ways that membership does not and cannot solve everything. HCIR5 pointed out, *"I will also say that I don't think that having an LGBTQ person on your research team [...] I don't think that's a fail-safe. So that doesn't mean that you are guaranteed your research isn't going to be [messed] up. You could still do [messed] up research [with queer people] as a queer person."* HCIR15 talked about how their identity gave them more authority in the research community, but only so long as they worked in areas related to their identity:

Unfortunately, people with disabilities doing disability things is a little bit more palatable than people with disabilities doing not disability things. I also knew that I have a platform where I get to say things because I'm disabled and so I have chosen to use that. But in other ways, I'm also putting forward a very white and cis and straight and also academic part of that. I know that that is wrong and it's harmful to the people who are producing knowledge that I could not live without but has become integral to my existence.

HCIR15 also noted that this added authority is not always a positive: *"I do need to question just because someone is disabled, doesn't mean that they're doing good work, right? [...] So people are going to read that some researchers are disabled in my paper and you're probably not going to question the work in the same way. And I don't think that that's fair. I think that maybe I'd appreciate if they didn't question statements like 'people with disabilities are disadvantaged,' but I think that it's very, very important that people do question the work."* HCIR15's stance captures the careful balance of giving authority based on membership.

HCIR5 echoed this tension around perceptions of who can (or should) do research with marginalized people. *"You don't want people doing the research that are going to do it in a way that's disrespectful or don't understand [what is] actually happening. But at the same time, pigeon-holing all [marginalized] people into doing [marginalized] research is also not the answer. So in that way, it gets a lot more complicated because if somebody showed up to a conference [and were not a part of the marginalized people they were presenting on], I might question their expertise on the issue. So that's one thing that I'm struggling with. I don't necessarily know how we don't place the burden on the people that are already burdened."* Here, HCIR5 identified a tension of gatekeeping based who does what research based on membership or identity. If anyone can work with marginalized people, then they may be more likely to do the work poorly. If only marginalized people can do research within their own groups, then they must carry the burden of pushing knowledge contributions themselves.

HCIR15 also emphasized overall cultural issues of academia. HCIR15's research builds from scholars who are queer, trans, disabled, Black, indigenous, and/or people of color, whose contributions are too often under-recognized and exploited. Unfortunately, discrimination and hostility from other academics have pushed many of these researchers out of their fields despite their production of crucial knowledge.

4.2.2 **Mitigating harms from the researcher to researcher relationship.**

Despite the challenge of navigating harms created by other researchers, the HCI researchers in this study suggested some techniques for reducing them.

4.2.2.1 *Critical reflections when asking for labor*

HCIR14 offered a set of questions for researchers who wish to seek out collaborators because of their experiences as a marginalized person: 1) why am I asking *this* specific person? 2) what am I asking them to do? 3a) am I asking them because it is the easiest option? 3b) could I ask someone else or look it up? 4) is what I am asking them to do appropriate, and further, appropriate for myself or them? 5) how am I going to compensate them? Is the request reciprocal? HCIR14 noted that it is important for faculty, primary investigators, or the person with the most power to actively consider these questions. They emphasized that the responsibility to account for these questions should not fall solely on junior researchers.

4.2.2.2 *Balancing harms and benefits of reflexivity and positionality statements*

HCI researchers in this study discussed how self-disclosure can either bolster their work or detract from it. HCIR8 outlines the tension:

There's a level of encouraging self-disclosure because it can actually encourage further trust in the research. So you say from my perspective, I am, for example, maybe I'm a queer woman, so [...] I bring these new perspectives to this research that are really beneficial. But then there's also the problem where not everyone reading that paper actually thinks that's a benefit [...] there is that potential again of people who are just biased and then they immediately think this paper is garbage because they think the researchers are too close to the problem, which historically super positivist research has always been like that.

Neither authors nor reviewers can always anticipate the outcomes of disclosure; they can be positive and/or negative, beneficial and/or detrimental. HCIR15 added to this idea by describing how they sometimes reacted to disclosure: *"when I read papers and on the rare occasion, someone discloses that they are a part of this group, I do tend to take it more seriously."*

Requiring reflexivity and positionality may also contribute to gatekeeping of research that involves marginalized people. HCIR20 explained that with an expectation to disclose one's identity, *"there are preconceived notions about who could do certain kinds of research."* HCIR16 talked about how *"there's also then a pressure of 'do we have to all out ourselves at the beginning of every paper in order to justify writing about something?'"* HCIR19 echoed this by saying that they *"don't think someone who does research in [...] anything that deals with anything marginalization-related has to feel like they have to disclose that about themselves for their work to be legitimate, to be perceived as legitimate."* HCIR13, however, points out that perhaps this gatekeeping device might be beneficial especially for researchers with non-membership: *"I do like to see that people who are not part of the population they are studying are reflective and thinking about their position."* HCIR13 went on to note, though that using membership as a guideline for when to ask about reflexivity also requires making too many assumptions: *"It's really hard and I think about this a lot, the ingroup versus outgroup, what is and is not okay to ask. Because if it's someone who is cisgender, I do feel like we have the right to ask them why [they study trans populations]. But then you can never assume that someone's cisgender, you just can't."*

Across these experiences and reactions, the researchers in this study noted the potential of positionality and reflexivity statements to support both researchers and their audience in understanding the perspectives, strengths, and limitations of the work. At the same time, careless requests for such statements or using them in absolutist ways that control who can and cannot do the work can cause some of the very same harms that those who request them are hoping to mitigate. We return to constructive approaches reflexivity and positionality in the discussion.

4.3 How expectations from the field of HCI affect researchers

The HCI researchers in our study described a cascade of influence: norms and incentives in the HCI field affect how researchers treat both themselves and other researchers, and this then influences how those researchers interact with participants in their research.

4.3.1 Technological solutionism and expectations.

HCI research, in its pursuit of novelty and innovation, can sometimes miss how the solutions that we put forth might actually affect the people we are hoping to help. HCIR9 discussed how *"a lot of HCI things that I see don't necessarily get into broad availability. They're more kind of investigative, so some things might not be quite as important or come up as often because things are earlier in the development cycle, but I think we need to systematically think about it."*

Also in this drive to push forward, the HCI field can create a falsely positive narrative around research: that it is a clean, straightforward process when it is actually a messy one. HCIR20 explained that *"as a field, we are also motivated or could talk about positive things, not as much as the negative things or the negative experiences. And there is a lot of value in doing so as well."* Involved with this is the pressure to produce work and do so quickly. HCIR20 went on to explain: *"we are also in one way or the other are incentivized to write quickly, do work quickly talk about positives"* and that this makes it more difficult to *"find the right literature, find the right best practices, to find the negative experiences"* which are *"really important for a new person who's coming and joining in the field and trying to change the world."*

Additionally, HCI researchers we heard from described how other researchers should be mindful of what solutions we push forth. As HCIR16 explained we as researchers *"shouldn't be the people driving the solution, it's about how it is that we drive conversations around possible solutions."* HCIR20 called for researchers to not get overly optimistic with the power of a technological solution. While they can have great impact, it is rare for these solutions to lead to revolutionary change. They went on to recommend that researchers *"recognize that this is just incredibly complex space where technology is a very, very small piece and where exactly it's going to fit and how well it's going to work."* Finally, HCIR20 talked about how researchers should think about how technology fits in systematically:

There is a lot of enthusiasm about technology and when new people who are coming into the research with a technology background or wanting to use technology for societal work, that gets [...] really enthusiastic about how technology can change the world. [...] Only with experience, you really feel that technology is not going to be the main player.

In other words, HCI researchers should not overestimate their work's impact and must remember that technology is just one component for systemic change. For all HCI researchers, understanding and communicating the limits of technological interventions is a crucial part of doing the research. For those who want to be allies, that understanding is also crucial for knowing when technology is or is not the appropriate solution.

4.3.2 Impacts on marginalized researchers in HCI.

The 24 HCI researchers talked about improving the publication review process by not asking for author disclosure. As they suggested, reviewers should recognize that their power, especially over junior researchers who are increasingly pressured to publish, can have great consequences. HCIR13 reflected on an experience in which they felt pressured to choose between disclosing parts of their identity and publicly outing themselves:

At the time I really needed to publish, really wanted to publish. I feel when you're very junior, there's this pressure to get things published. And so if the reviewers at that point had told me, yes, you need to do this [including a reflexive statement], I would have done it and I would have regretted that. So it's really kind of dangerous because I think there's a lot of reviewers nowadays who are pushing people to include these [reflexive] statements.

Further, HCIR8 outlined a burden that other researchers place on researchers who experience marginalization:

I feel like there's an expectation of justification put on research with marginalized communities that's not put on more general populations. What I mean by that is being constantly asked to define, for example, what transgender is in your introductions [...]. I get wanting to inform the reader, but at some level, when we're talking about people who exist in the world, there should be an expectation that researchers can inform themselves about that without the researcher to constantly redefine the same terms over and over again because not enough people actually research this community. Then on the other hand, there's constantly justifying why you chose to research with this community, which I feel in some ways re-marginalizes that community.

These different accounts of experiences around disclosure highlight what is potentially at stake for researchers. For researchers who experience marginalization, there are additional, unfair pressures to continually out, define, and defend themselves to the HCI community. Here, we see opportunities for the field to develop guidelines for HCI authors about how to describe their positionality and for reviewers about how and when to ask for reflexivity. Recent efforts like the community-sourced guide for CHI 2021 reviewing are important steps toward this for the field [5].

5 Embracing Tensions

For the two interactions, *researcher to participant* and *researcher to researcher*, our findings reveal potential harms and how the 24 HCI researchers we heard from have addressed them. The *HCI to researcher to participant* relationship additionally uncovers the structural influences of HCI's norms and expectations and how they influence such harms. In the following section, we discuss four tensions salient across these interactions—exploitation, membership, disclosure, and allyship.

These four tensions are complex; even if researchers take all the precautions they can, follow any prescribed best practices, and make an honest effort to not make any mistakes, they still may not be able to resolve each tension. Resolution, however, is not the point, and to borrow an expression from HCIR5, there are no “fail-safes” in this line of work. As HCI researchers, we must come to terms with the possible harms that are tied to doing research, especially with marginalized people, and ready ourselves so that we are still able to make progress, minimize the potential for those harms, and have plans in place if they do occur.

It is also likely that researchers will experience each tension and how the tensions relate to one another in different ways. Drawing from Morgan's axes of oppression introduced in [Section 2.1](#), a person can be placed somewhere along each axis, reflecting how much privilege and/or oppression they experience from that axis category [47]. So, researchers who face similar oppression along the same axis as their participants will have to confront a different set of questions and challenges compared to a researcher who has privilege on the same study-specific axis. This understanding of axis-specific marginalization compared to the people with whom a researcher works is key to avoiding a binary categorization in which a researcher is considered marginalized or not marginalized. In the following sections, we outline how each tension has competing, yet entangled priorities and then discuss what can and should be done about them.

5.1 The Tension of Exploitation

Participants in our study talked about exploitation on two broader levels: extracting experiences from participants and tokenizing the identities of fellow researchers. These forms of exploitation are complex to work through as both place unfair burdens on participants and researchers but are seemingly unavoidable in the current research paradigm. The HCI researchers in this study reflected upon how researchers treat participants, as many felt that they offer little back to participants compared to what they receive. They also flagged a tension at the researcher level, where it is unethical to involve researchers solely for their marginalized experiences, while some marginalized researchers spoke of being left with no other choice but to be tokenized to ensure that work is done with care.

Previous scholars have also emphasized the need for more equitable engagement with participants. In 2010, Irani et al. laid out “postcolonial computing” that rethinks practices of engagement in computing research [96]. In this framework, the authors articulate an alternate research paradigm that acknowledges the power dynamics involved in research and views researchers and participants as equal partners in the knowledge-building process. Our findings extend Irani et al.’s call for a paradigm shift of exploitative research practices by identifying specific actions that researchers should consider. While these actions are certainly not enough to completely shift toward an equal give and take, they may provide short-term reprieve from an inherently exploitative process.

Participants in our study made several recommendations to better support those who participate in HCI research, which we summarize and discuss further below. First, working with community partners may prevent researchers from furthering their own agendas ahead of those of their participants. These partnerships work to balance the interests of researchers and participants alike. Next, getting involved in research should not come at a cost to the participant, and so researchers need to make appropriate accommodations such as access needs, transportation to and from the study site, and proper compensation. Researchers should also expand their definition of compensation and what they are actually giving back to their participants. Previous literature points out that is not as simple as paying participants as much money as possible; doing so might incentivize participants to take significant risks for more compensation [172]. However, another study has shown that low-income individuals will ask for more payment if they feel that their compensation is unfair [169]. Considering these points, we suggest that researchers pay more when participants ask for more compensation and search for ways in addition to monetary compensation that could benefit participants (e.g., learning how to design and create prototypes, recommendation letters, making connections to others they would not have met otherwise). Research can provide better ways to give back to participants more directly in the short-term in addition to longer-term benefits. Finally, researchers need to think about both the effects of their presence at a site and the short and long-term effects of leaving that research site once the study is complete, which directly aligns with principles in action research [84]. Taking time at the recruitment stage and the beginning of the study to explain what will happen when the study ends may reduce or prevent future discomfort (e.g., Will researchers take any interventions with them as they exit? Will they try to transition them to community partners if desired?). Last, individual-level reflection may also clarify whose priorities are being promoted, the researchers’ or the participants’. In addition to the researchers of this study’s call to do so, scholars of decolonial studies and indigenous studies provide further guidance for self-reflexivity [148]. In *Decolonizing Methodologies*, Smith poses the following questions to researchers to self-reflect: “Whose research is it? Who owns it? Whose interests does it serve? Who will benefit from it? Who has designed its questions and framed its scope? Who will carry it out? Who will write it up? How will its results be disseminated?” [148, p. 10]. Research teams might think through and discuss their responses to these questions at the beginning, throughout, and end of a study.

In addition to considering how we compensate and engage with participants, we must also continue to evolve how HCI as an interventional field evaluates ethics and risk. With recent criticisms of the Institutional Review Board in the US and a push for situational ethics [92, 122], we see how current structures filter too broadly. As a result, risks that are not physically damaging but harmful nonetheless are inadequately recognized and poorly addressed. For example, a now retracted article examined young vascular surgeons’ public social media profiles for “unprofessional” content and unfairly focused their critique on women surgeons for how they dressed in their photos [79, 167]. Despite its sexist focus with problematic methods, the study was approved by an institutional review board. Further, our findings in **Section 4.1.1.1** point out how current HCI researchers are reflecting on the shortcomings of standard risk evaluations. They also highlight suggestions for amending our understanding of risk to account for possibilities of increasing marginalization. Therefore, research ethics evaluations at local levels and collective attitudes in HCI must have stronger protections of marginalized people. One noteworthy example in HCI is the “Feminist Data Manifest-No,” a document that rejects dangerous data practices and makes commitments to a non-exploitative paradigm of data usage [60]. The authors of the Manifest-no initially crafted the list through an institution-hosted workshop, and so we call for expanded organizational support to host, fund, and celebrate local labor pushing for stronger institutional ethics.

As we heard from current HCI researchers, participants are not the only group at risk of exploitation in research: researchers may also exploit other researchers. In recognizing that researchers with marginalized identities should not

be responsible for protecting their own communities from harm, our findings and other work provide guidance on how to reduce this form of exploitation. In *Crippling Emotional Labor: A Field Guide*, Amy Gaeta, a PhD candidate in English focusing on feminist disability approaches to STS, makes recommendations for researchers of marginalized identities: “We must analyze when we are being valued as a person or valued as resource and recognize it’s not always either/or” [35]. From there, Gaeta makes suggestions for researchers who experience marginalization on how to handle possible exploitation, such as distinguishing emotional labor from emotional support, setting boundaries, and not feeling guilty for saying no. For those who want to ask for emotional labor of others, Gaeta recommends asking early and being transparent about not wanting to exploit their help. Part of mitigating the exploitation of researchers involves removing as much burden as possible from a request. In line with HCIR14’s recommended questions for reducing exploitation in [Section 4.2.2.1](#), researchers should ultimately distinguish between what the requester can learn on their own—e.g., through searching for past conversations or resources online or reading literature—and what information must come from the requestee.

It is also important to note that technological innovation does not always have to lead to exploitation; there is opportunity for novelty in HCI while not taking advantage of other researchers and participants. Participant responses in [Section 4.2.3.1](#) provide some guidance for how to do this, by openly talking about the messiness of research and understanding the limits of what technology can accomplish. This second piece of advice is particularly crucial for those seeking both novelty and impact. Advances in technology can and have had great benefits for users who experience marginalization, but there is real danger in believing that these achievements will “fix” the problem. So, we hope that HCI researchers continue to push technological boundaries while also understanding the limits of their real impact.

While researchers can and should find ways to make their practices less exploitative, efforts to resist exploitation in HCI research must also happen at a structural level. It is unfair to place sole responsibility onto individual researchers to change behaviors that have been conditioned by the norms of the field. As shown in [Section 4.2.3](#), this influence places much burden on marginalized researchers especially and can govern how researchers interact with participants. While efforts such as the SIGCHI Social Impact Award incentivize research that values equity and not just technology innovation, there are problems when our governing institutions stop at these rewards without looking at the deeper impact. Researchers are led to believe that only individuals at the height of their careers can achieve this status, and further, only one to two people in the expansive field of HCI receive such awards each year. As a result, recognition for equity and justice driven research is scarce, further isolating those already making efforts to transform the field. We should celebrate and continue to recognize individuals who are doing good work, but we are just not doing nearly enough to ensure that more people can do this work and be rewarded for it throughout their careers.

There are various dimensions to the tension of exploitation, not only in terms of who is exploited but also regarding what can be done to address such unfair burdening. The experiences of the HCI researchers in our study illustrate how this plays out in HCI, including the work these researchers do to mitigate that exploitation. Even as they do this work, pursuits of impact through novelty can work against aspirations of equity and justice. This can result in short-term harms to participant or researcher well-being. Further, when HCI research claims a technical solution based on a shallow understanding of a complex societal problem, our research community risks misappropriating resources to ourselves and away from the very community and grassroots organizations that are most able to address them. To mitigate this, our field must learn to be more honest about the limitations of our understanding and solutions. We can learn to be better partners to the communities involved in our research from current members of our community who are modeling this kind of work (e.g., [57, 67, 93]).

Finally, one common approach to preventing researchers from exploiting participants with marginalized identities is gatekeeping or preventing researchers from working with participants with different identities. In the next section, we explore the difficulty and complexity in doing so and how it contributes to further marginalization.

5.2 The Tension of Membership

The debate over what a person’s identity allows and/or prohibits them from doing has been long discussed in non-HCI spaces by scholars of color. Our membership related findings link to “A Black Feminist Statement” created by the Combahee River Collective, a group of Black Feminists that comes from a history of survival and liberation of Black women, centers the rights and oppression that Black women face specifically, and is dedicated to fighting injustices that are responsible for the oppression of marginalized people [29]. In their statement, they write about how membership grants a uniquely powerful perspective on how that individual is systematically oppressed: “We believe that the most profound and potentially most radical politics come directly out of our own identity, as opposed to working to end somebody else’s oppression” [29, p. 212]. While holding this as true, we add that this does not inherently mean that non-members of a marginalized group cannot help with their fight against injustice. It is through this lens that we understand and explore the tension of membership: supporting those on more oppressed points along

specific axes of oppression without overstepping our bounds. Specifically, we extend membership conversations in HCI by discussing 1) the limits of what marginalized researchers can make claims about and opportunities for reflection, 2) why HCI researchers should not prevent researchers from working with marginalized group solely based on a person's identity, 3) what is needed for researchers who do not experience marginalization in that given context to engage in such work, and 4) structural recommendations for HCI to move beyond identity politics without erasing marginalized experiences.

In our findings, the HCI researchers we heard from identified different levels of membership in their own work: some felt they shared identities and experiences while others did not. They indicated the difficulty of varying levels of membership in two ways. First, participants said that membership is helpful to research by providing insight only possible through shared experience, but it is also not a guarantee that that work will be done with care. Second, they pointed out that non-membership should not be the sole reason that researchers cannot work with marginalized groups, but it should come with extra reflection over the researchers' possible impact and the space they take up as guests.

As a majority of the HCI researchers we heard from in this study self-identified as having one or more marginalized identities, many of our results raise recommendations for researchers who experience marginalization. Commonalities between researcher and participant can be helpful as HCI researchers in our study experienced many benefits of shared membership with participants such as helping them establish trust and rapport. However, those researchers, others engaged in the research, and their audience must also be aware of their limits. For example, in [Section 4.1.2.2](#), some HCI researchers discussed how they could never fully connect with the varied makeup of their participants' identities, and so they avoided claiming that they could completely and accurately represent the experiences of participants in their studies. Membership also does not guarantee that a researcher cannot make harmful decisions. HCIR15 pointed out in [Section 4.2.1.3](#) that they were concerned that readers would be less willing to criticize their work because of the membership make-up of their research team. In addition, members of marginalized groups can do and have done harm to their own communities. The concept of homonormativity provides one example of this form of harm and inter-community gatekeeping. In short, homonormativity manifests as valuing, conforming to, aspiring to, and politicizing the ideals of a heteronormative way of living and thinking [\[50, 73\]](#). As a result, homonormativity has created a commonly accepted monolith of what it means to act as and look like an LGBTQ+ person, and those who fit the mold discriminate against any deviations from the norm.

Similar to some HCI researchers in this study, readers with marginalized identities might face discomfort over how much to use their identity as an asset in their work versus how much to question what it allows them. We emphasize here that these recommendations to reflect on individual limits are not meant to diminish their lived experiences in any way, but rather to ask these researchers to identify personal boundaries given their positionalities to protect other marginalized people. To better understand the unique experience of researching with communities with shared marginalized identity, we draw from Villenas' discussion of her own position as a researcher working with a community that she shares membership:

"Here is my own dilemma: as a Chicana graduate student in a White institution and an educational ethnographer of Latino communities, I am both, as well as in between the two. I am the colonized in relation to the greater society, to the institution of higher learning, and to the dominant majority culture in the research setting. I am the colonizer because I am the educated, 'marginalized' researcher, recruited and sanctioned by privileged dominant institutions to write for and about Latino communities. I am a walking contradiction with a foot in both worlds — in the dominant privileged institutions *and* in the marginalized communities. Yet, I possess my own agency and will to promote my own and the collective agendas of particular Latino communities." [\[164, p. 714\]](#)

Villenas' "foot in both worlds" will likely resonate with other marginalized researchers, and she provides further guidance for those who might feel uneasy. In her reflections over this position, she discusses how researchers can further act as colonizers. She warns against two possible ways that researchers can be colonizers: first, leveraging a researcher's authority and position to make definitive claims about participants without their input, and second, when researchers fail to reflect on their own privileges in the process. Villenas provides her own approach to reflecting upon her position:

"I needed first to ask myself, How am I, as a Chicana researcher, damaged by my own marginality? Furthermore, how am I complicit in the manipulation of my identities such that I participate in my own colonization and marginalization and, by extension, that of my own people — those with whom I feel a cultural and collective connectedness and commitment? For these reasons, researchers must examine how their subjectivities and perceptions are negotiated and changed, not only in relation to the disenfranchised community as research participants, but also through interactions with the majority culture." [\[164, p. 721-722\]](#)

In this way, researchers who work with people they share experiences of marginalization with must balance their own simultaneous positions as colonizers and colonized. Villenas leaves the reader with this: there is power and strength in the middle, in the both/and where these identities as colonizers and colonized are intertwined, or, as Fine describes it, working the “Self-Other hyphen” [62]. Villenas’ conclusion might resonate with readers who experience marginalization:

“My answer to the ethnographer-as-colonizer dilemma is that I will not stop at being the public translator and facilitator for my communities, but that I am my own voice, an activist seeking liberation from my own historical oppression in relation to my communities” [164, p. 730]. Villenas’ account provides an example of how one researcher has unpacked their identities, and we push marginalized researchers in HCI to take it as inspiration to critically explore their own identities.

HCI researchers in this study also described the roles that various kinds of gatekeeping have in research with marginalized people, specifically focusing on the gatekeeping that researchers do to other researchers. Based on the experiences of participants in this study, we argue that membership should not be used as a gatekeeping device. Determining who can do what research stifles the production of knowledge that marginalized people already lack and deserve. Limiting research with marginalized people to only those who have some form of membership is ultimately harmful. Doing so would only make HCI’s focus on Western, Educated, Industrialized, Rich, and Democratic (WEIRD) participants even worse, given that our community is also not yet as diverse as we hope to be [151]. Additionally, leaving the responsibility to do work with marginalized groups on researchers who experience marginalization is not only a form of epistemic exploitation, but it may ultimately pigeon-hole marginalized researchers into focusing solely on marginalization if no one else will do the work. We must be particularly attentive to this second piece because a continual cycle of asking marginalized researchers to carry the weight of entire research agendas while simultaneously undervaluing that work would inevitably increase inequities in academia, including burnout and low levels of retention among marginalized academics, even further [2, 38, 112].

Recommendations for HCI

Ultimately, we take issue with assumptions that members of a marginalized group can do no harm, while non-members only do harm. Neither can necessarily hold true. Rather than using a researcher’s identity as *the* metric for the appropriateness and validity of their work, readers and reviewers should evaluate what considerations the researcher made throughout their research process *in addition to* remaining attentive to the author’s positionality in the study context. Did the researcher note if and how they made ethical considerations? What steps did they take to ensure they protected participants from both high-level and smaller-scale harms? Membership can provide expertise that supports researchers in making appropriate choices, but it is not the only way to make those choices, and the entire research community benefits when publications document the choices made.

As we heard from participants in this study, researchers who experience marginalization are often asked to do more, such as educating readers about “what transgender is” from [Section 4.2.3.2](#). So, we find it important to call out the relationship of membership and invisible, uncompensated labor. While we call for researchers to share the ethical considerations they took in their work, this must also not become a justification for requiring marginalized researchers to do more work to teach other HCI researchers how to make such choices. Ignoring work that is often asked or required of researchers who experience marginalization and not others would only further contribute to epistemic exploitation in HCI, a practice already present and documented today [69]. As it stands, our current structures make it so that the work required to build more inclusive, equitable research environments and dismantle systemic barriers to research fall unevenly on marginalized researchers. Even more condemning, these efforts to improve our field for everyone are taken for granted and ignored. Too many Black scholars have documented the discrimination and isolation that Black researchers, and especially Black women, in computing face for such behavior to continue [15, 134]. Because of this, our recommendations for the HCI community must occur in tandem with changes that better recognize marginalized scholars for their work and/or decrease the burden of labor of what we currently ask of them.

Part of the process to lessen or share additional labor must involve action from HCI researchers with privilege, and there are many opportunities to reflect upon their levels of membership and take action. Thus, we position this work alongside previous literature calling for better, more intentionally intersectional HCI research, specifically the Intersectional Computing framework introduced by Thomas et al. [134, 157]. Serious work needs to get done, ranging from individual-level attention to the inequalities that people unlike them are facing today and the larger structures responsible for such injustices to an understanding of micro-level interactions with those around them. This means more than just an awareness but a deep, probably uncomfortable journey toward learning about what their membership has granted them and their relationships with systemic racism, capitalism, patriarchal society, ableism, homophobia, transphobia, and many more.

There are clear and practical ways for HCI as a research community to make more space for thoughtful documentation of research processes. To support full discussion of the ethics considerations in research, organizers of

publication venues might consider expanding or eliminating page limits or not counting sections of papers that discuss ethical or inclusion aspects toward page limits. This would allow for more detailed discussions of the processes and care that were taken to protect marginalized participants, without sacrificing space for results or research contributions. The Interaction Design & Children conference (IDC) already requires a “Selection and Participation of Children” section⁵ that does not count toward its page limits; this could be a model that venues wishing to retain page limits could follow. Such feasible changes would go a long way in prioritizing work that engages in thoughtful reflection. In addition, authors will not be placed in the difficult position of choosing between documenting their ethical considerations and other crucial parts of their work.

The tension of membership contests beliefs about researchers who share identities and experiences with participants they work with. Researchers with shared marginalized identities deserve to have some authority over their collective experiences with participants, as membership can support expertise in making choices; additionally, they must also recognize the limits of what they can claim to understand. However, recognizing the benefits and limits of membership should not automatically lead to rejecting, ignoring, or taking marginalized voices for granted. Even if membership cannot be constructed as a monolithic, all-encompassing experience for all, there is opportunity to learn from the collective wisdom of people with shared experiences [133]. Further, such uses of a researcher’s identity to diminish the knowledge they contribute is testimonial injustice [64]. As some HCI scholars have documented, such an experience is in fact violence against fellow researchers and reflects a shameful history of practices in our field [179]. Considering all of this, there needs to be a careful balance between respecting researcher experiences and following their lead without question, assuming that anyone is exempt from doing harm to marginalized people.

In presenting this tension, we emphasize the need for researchers to further interrogate identities and the roles they play in research. For researchers, the partial membership they may have with research participants can be an important consideration—but far from the only one—in whether and how to proceed. We recommend that HCI researchers understand membership as a spectrum of shared experiences, while also avoiding conceptions that full membership is even attainable when considering intersectionality. As part of this process, researchers must work to understand their own identities and how they have shaped their experiences and approaches to research — something we ourselves have struggled with in revisions of this paper.

5.3 The Tension of Disclosure

Experiences of the HCI researchers in this study indicate confusion around when it is appropriate to ask authors to be reflexive and what authors should include in positionality statements. While we asked participants to talk about their experiences with reflexive or positionality statements, many spoke about requests for identity disclosure. These experiences indicate that while there is a theoretical difference between reflexivity and positionality, this distinction does not reliably carry over to current practices.

The tensions of membership and disclosure are closely related. Reflexivity and positionality statements can help people understand the strengths and limitations of the work, which clarifies the author’s position, but they can also open up researchers to discrimination or harm. Basing judgements and decisions on an author’s membership might help communicate researcher motives for doing work with marginalized people, but it would also require researchers to disclose their identities publicly. If the HCI community chooses to govern who can or cannot do certain kinds of research, asking for this information without continuing to marginalize researchers presents a major dilemma that requires a deeper engagement.

In the past, HCI researchers have made calls for expanded reflexivity and self-disclosure practices. For instance, Bardzell & Bardzell describe reflexivity as a key component of their Feminist HCI and define it as an “ongoing self-questioning about whether the research is delivering on its ambitions to be feminist, improve human quality of life, and undermine rather than reinforce oppressive social structures, etc” [7, p. 683]. Schlesinger et al. provide more guidance, calling for statements not necessarily rooted in author identities and “would help the community better interpret a publication, like a privilege, ethics, or values disclosure” [144, p. 5421]. The tension of reflexivity and positionality builds upon previous calls by providing more granular reflection tools for researchers and reviewers through Table 3. Here, we further explore the nuances of disclosure requests, emphasizing that reviewers who may ask for information about the authors should be explicit about what they are looking for and why.

In Sections 4.2.1.2, 4.2.2.2, and 4.2.3.2, we highlight different dimensions that must be considered in calls for reflexivity and positionality. First, disclosing certain identities or experiences can have a range of social consequences,

⁵ From the IDC 2020’s submission page on why they require such a section, “Designing with and for children comes with challenges and responsibilities. The IDC community is keen to include children voices as well as to protect their rights and promote the ethical inclusion of their perspectives in research. Papers must include a section “Selection and Participation of Children” in which the authors of the paper should describe how children were selected (if there were no children simply write - no children participated in this work), what consent processes were followed (i.e. did they consent and if so what they were told), how they were treated, how data sharing was communicated, and especially any additional ethical considerations.”

and positionality practices within HCI cannot ignore these repercussions. Next, setting an expectation for positionality statements might end up outing people who are not comfortable being outed, under threat of barriers to publication, career advancement, or conflict in their lives outside of work. Third, the HCI research community may consider positionality statements that describe author identities collectively rather than individually, though this of course creates challenges in solo-authored papers. Further, to reiterate a point discussed in the tension of membership: the community should take care not to rely on positionality statements and membership as a shortcut for validating (or invalidating) work with marginalized people.

Additionally, our results point out benefits and disadvantages to identity disclosure. Some participants in this study discussed how disclosing their identities helped to establish greater trust of the researcher and in the research process, benefitting marginalized people who participate in research. Disclosing one's identity to participants, though, is a personal choice and fellow research team members, collaborators, and reviewers should not pressure others to out themselves. For authors, choosing whether to include a positionality statement is difficult, as they cannot fully anticipate how audiences might respond to them. Further, because disclosure of a marginalized identity can open researchers to unconscious biases or more overt discrimination, pressuring marginalized researchers to include a positionality statement comes with potentially severe repercussions. These benefits and potential costs of disclosure cause researchers to face a tension in choosing whether to and how to discuss the ways their identities have influenced their work. As seen in [Section 4.2.2.2](#), participants of our study have experienced expectations of disclosure under the pretense of being reflexive, to out themselves for their work to seem legitimate. Asking researchers to choose between disclosing—increasing the chance of publication but also increasing the chances of judgement or backlash—or not disclosing—decreasing the chances of publication but reducing the risk of backlash—can further abuse the already marginalized. As our results point out, researchers experience discrimination not so much for the inclusion of a reflexive statement but more for the content.

However, we cannot assume that a lack of reflexivity or positionality protects authors from these biases. As seen in the experiences of participants in our study, a lack of a reflexive statement can lead to reviewers and other researchers making assumptions about researchers' identity and membership (or lack of membership), often to frustrating effect. We encourage reviewers and others not to make any such assumptions; doing so may force a researcher to out their identities just to defend their work.

Highlighting this tension of disclosure does not mean that authors cannot include positionality statements that disclose their identities; rather, we push back against a culture of reflexivity statements as a norm. The decision to disclose should be up to the individual researcher, and not a consequence of an expectation or request from a reviewer or research team. However, some of the HCI researchers in our study have experienced these outside pressures to disclose, and they report that such requests are increasing in prevalence. As a result, we hope that individual researchers who might want to disclose their identities and reviewers who might want such information consider the questions in [Table 3](#), influenced by themes in this work.

Table 3. Reflective questions for authors and reviewers considering disclosure

Researchers Considering Disclosure	Reviewers Requesting Disclosure
<ul style="list-style-type: none"> Why do you wish to disclose? <ul style="list-style-type: none"> Is it only to satisfy someone's curiosity? Is it to promote social justice or act as a role-model for other researchers? Is it to help share what you see as the strengths and limitations of your work? Is it to provide legitimacy to your work? Are there mechanisms in place that would allow you to reverse your decision? Have you considered disclosing to reviewers only rather than permanent disclosure in print? How might your disclosure influence how readers perceive your work? What are the potential outcomes of disclosing your identity? 	<ul style="list-style-type: none"> Why are you asking for disclosure? How might it influence your perceptions of the work? For what reasons? What assumptions are you making about the authors' identities? How might the authors be harmed through such a request? Is there other information that could address these needs? (e.g., can you instead look to the authors' ethical considerations to provide what you are looking for?) How might this knowledge affect how you perceive their contributions?

Individuals should be able to decide whether or not they want to disclose their own identities, but it is hard to disentangle whether they are doing it for themselves, to please a reviewer, or because they have seen similar statements elsewhere. In HCI, there is little work that explores the nuance of reflexivity and positionality or documents the real-

world consequences that many researchers who experience marginalization face when they disclose their identities. We hope that these guiding questions can help both researchers thinking about disclosure through a positionality statement and reviewers considering asking for one reflect on the nature and potential impacts of such a decision.

5.4 The Tension of Allyship

Across our interviews, survey responses, and our own hopes of supporting marginalized people in research, we see parallels with the goals of allyship. Allyship efforts in and out of academic contexts leverage power for social progress, and we can use allyship as a way to understand how we as HCI researchers can do better and what barriers to avoid. In the following section, we outline key components of allyship, and we propose an allyship-oriented approach to research with marginalized people, one that is explicitly in opposition to systems of oppression and asks individual researchers to engage in a constant cycle of critical self-reflection.

Especially in HCI, research has the power to help groups of people by building and designing systems, tools, and knowledge. However, sometimes what we as a field create ends up—regardless of our intentions—furthering marginalization, harming those that we try to help, and/or prioritizing researcher agendas ahead of the priorities of marginalized people. In research and beyond, allyship provides one framework for working with marginalized people. Scholarship on allyship has explored the nuance involved in being an ally, revealing that this form of work cannot be done haphazardly [104, 109, 131]. In the following section, we draw upon criticisms of allyship from previous scholarship and the 24 HCI researchers in this study from to demonstrate the tension of allyship: not all research that claims to be allyship is allyship and, simultaneously, all research should be allyship. The tension of allyship encompasses many of the concerns in each of the previous tensions; addressing issues of exploitation, membership, and disclosure are all involved in confronting the tension as a whole.

There are actions that researchers can take to address the potential “empty” allyship in research the HCI researchers in this study were wary of. In addition to the suggestions we discuss in the sections above, researchers should avoid pushing potentially beneficial, but potentially unsustainable, technologies onto people without the researcher’s ongoing support or a plan to develop sustainable practices around their use. To address this, researchers should consider the long-term effects of their presence and mediate any harms that might occur from their departure. For example, researchers could communicate when and how they will leave at the beginning of a study to set clear expectations for participants. In this way, researchers might consider integrating reflections on their impact into their research processes.

Further, we draw from the work of Boaventura de Sousa Santos, who has written extensively about embracing and working with alternative ways of knowing, specifically epistemologies that are not centered around the Global North. While de Sousa Santos challenges a singular, Western way of knowing, he explains that these ideas should not be dismissed altogether [140]. Instead, Santos calls for the “expansion of the present,” an approach that embraces other forms of knowledge *in addition to* how the majority deems what is knowledge and what is not. Drawing from these ideas, our vision of equitable allyship does not mean the absolute rejection of researchers with privilege, but instead the expansion of what it means to include marginalized people in research. We believe that as a community, we should not exclude others from doing certain kinds of research and solely use membership as a metric for good or bad work. Not using the power of allies to elevate marginalized people would be a waste in the pursuit of justice. Rather, the entire HCI community should strive to better involve and fairly interact with marginalized people in research, both as participants and researchers.

Our results resonate with discourse in other fields, demonstrating overlaps with HCI and opportunities to further learn from them. Challenging the notion of universalism is deeply rooted in Disability Studies [94] and Feminism [63], and similarly, we found that matters of allyship and marginalization require an acknowledgment that there are no blanket solutions (or even possible solutions, for that matter). As researchers, however, we cannot let these barriers become restrictions. Also, consistent with CBPR, PD, and ICTD views on equity, justice, and impact, HCI researchers can strive to build systems and knowledge that are acts of allyship; however, we must be certain that what we push on people has been well thought through and done with the knowledge that these are what they want. Researchers should also be wary of overclaiming their power or impact on their participants; just because they might be building knowledge or tools intended for their benefit does not guarantee that their contributions are warranted or socially progressive.

Our work further builds upon a growing effort to think critically about how researchers engage with marginalized people. To highlight one example, Antle identified five questions for researchers to ask when working with vulnerable populations: 1) “How can we feel relatively certain that we are providing benefits to the population we are working with?”; 2) “Given the requirements of many university ethics boards, how can we work with children who may most need help but are least able to give assent?”; 3) “How do we find a balance between conducting rigorous research and ensuring that our research does not harm the children we work with?”; 4) “How do we manage children’s expectations and attachment with the research team in ways that will minimize any emotional damage to the children?”; 5) “What

will we leave behind when the research ends?” [6, p.75-77]. While Antle’s questions are specific to child-computer interaction, they also illuminate transferable and relevant questions around understanding impact, accounting for ethics under existing structures, and reevaluating harm and justice as a part of our research processes.

Finally, an understanding of allyship and working with marginalized people would be incomplete without acknowledging the labor and knowledge from many activists, a movement already present in HCI (e.g., [10, 12, 46, 121, 128]). There are numerous opportunities and lessons to learn from. For one, definitions of allyship that come from some of the most oppressed voices in society can be the most revealing and must be centered in these conversations. To address why this might be the case, we again turn to the Combahee River Collective’s *A Black Feminist Statement* as they stated “We might use our position at the bottom, however, to make a clear leap into revolutionary action. If Black women were free, it would mean that everyone else would have to be free since our freedom would necessitate the destruction of all the systems of oppression” [29, p. 215]. Roxane Gay, a writer, activist, and social commentator, built upon this point to describe the potential empty promise of allyship with Black people [126]:

“Black people do not need allies. We need people to stand up and take on the problems borne of oppression as their own, without remove or distance. We need people to do this even if they cannot fully understand what it’s like to be oppressed for their race or ethnicity, gender, sexuality, ability, class, religion, or other marker of identity. We need people to use common sense to figure out how to participate in social justice.

Don’t tell us about your racist uncle or grandfather or sister or cousin. Don’t try to unburden yourself of guilt that isn’t yours to carry. Actively listen when marginalized people tell you about their oppression—don’t offer your pity (which only helps you) and don’t apologize. Listen and do your best to understand what it feels like to live with oppression as a constant. Speak up when you hear people making racist jokes. Speak up when you see injustice in action. Inform yourself about your local law enforcement and how they treat people of color. Vote. Take a stand instead of waiting for absolution from people of color. We don’t have that kind of time. We’re fighting for our lives.”

Gay’s writing highlights crucial ideas and criticisms of allyship, such as ensuring that the focus is on the experiences of marginalized people and investing in issues that might not be our own. The piece is clear in its call for action as opposed to passive, tacit support, and it also displays an exhaustion with empty allyship as Gay lists off the many ways that allies can try and have tried to refocus attention onto themselves. In addition to these learnings, several organizations outside of academic circles have put forth allyship-oriented guides that provide opportunities to learn from. While we provide short summaries, we urge readers to seek these resources directly:

Design Justice Network Principles: Design Justice Network centers marginalized voices in the design process and puts forth ten principles. Among others, they call for designers to “prioritize design’s impact on the community over the intentions of the designer,” “view change as emergent from an accountable, accessible, and collaborative process, rather than as a point at the end of a process”, and “look for what is already working at the community level [... and] honor and uplift traditional, indigenous, and local knowledge and practices” before pursuing novelty [43].

Accomplices not Allies: Indigenous Action Media criticizes the model of allyship for the ways that some people are more caught up with being identified as an ally than the deep, meaningful, and ongoing engagement that is needed. In response, they turn to accomplices instead and recommend that accomplices do research before reaching out to communities of marginalized people, not do work to absolve oneself from guilt or shame, be ready to be held accountable for one’s actions, and not to pursue accomplices as an identity [1].

#TalkAboutTrayvon: A toolkit for white people on the fifth anniversary of Trayvon’s Death: Black Lives Matter created this toolkit that calls for white allies to speak out against racism on their platforms (social media, personal, etc.), engage with other white or non-oppressed people, and take action (e.g., give money, educate themselves, and actively advocate for the rights and equal treatment of others) [115].

Ethical Guidelines for Research Involving Transgender People & Communities: The Canadian Professional Association for Transgender Health (CPATH) created procedures for researchers to take when doing trans-specific research. In particular, they advocate for researchers to actively consider possible impact (both positive and negative) of their work, account for concerns over privacy and revisiting trauma, involve trans people in all phases of the research process, and help trans people become sustainable in becoming researchers [86].

Looking across our results, critical discussions of allyship, and recommendations put out by activist groups, there are commonalities that contribute to an allyship-oriented approach to HCI research, summarized in Table 4. Our work both echoes recommendations from current literature and activist guides and translates them into lessons for HCI as a field. Specifically, we make two additions to understanding research as allyship. First, we provide examples of actions and considerations researchers can take to balance equity and justice with impact, discussed through the tension of exploitation. Next, we call for an approach to research that avoids unproductive conversations about identity politics. As Collins and Bilge wrote on intersectionality, bringing up matters of identity cannot mean an immediate end to

conversation, but instead act as a traversal point for further inquiry [89]. Situating these ideas into this work, this manifests as gatekeeping research agendas and requiring identity disclosures, shown through the tensions of reflexivity and positionality and membership. Moving past identity politics does not mean a complete denial of the historically rooted oppressions that some people face; rather, this approach challenges over-simplifying groupings by membership status while still understanding how different experiences shape and reshape us. As mentioned before, this is a both/and approach rather than an either/or one. For researchers who have privilege in any number of axes of oppression, this means considering identity-based experiences as an important point, but not the sole factor for deciding whether and how to proceed with research. These researchers also have the responsibility of pushing through difficult conversations especially when it comes to identity.

Table 4. Summarizing across our results, previous literature, and activist guides

Allyship in...		
Our Results	Previous Allyship Literature	Activist Guides
<ul style="list-style-type: none"> • Works towards equity and justice in addressing exploitation of both participants and researchers • Moves past identity politics both in terms of gatekeeping who can do what research and asking for identity disclosure 	<ul style="list-style-type: none"> • Redistributes power from those with it to those without [22, 99] • Avoids tokenizing marginalized people [138] • The majority challenges the status quo [152, 155] • Centers the agendas of marginalized people [58, 137] 	<ul style="list-style-type: none"> • Understands and prioritizes impacts on marginalized people [43] • Embraces the ongoing process and lack of endpoint [43] • Avoids pursuing novelty for novelty sake [43] • Fills real gaps, not ones created by researchers for researchers [43] • Rejects ally as an identity [1] • Prioritizes taking direct, meaningful action [1] • Leverages privilege and power [115] • Accounts for and anticipates potential harms beyond traditional conceptions of harm [115] • Works with actual target communities [8] • Considers sustainability of research within the communities [8]

While we have described various recommendations for individual-level change, allyship cannot rest solely on each researcher. The HCI community requires a larger-scale transformation to be sustainable. Allyship requires a comprehensive effort to dismantle systems of oppression, structurally and collectively.

To provide an example of the dangers in having a singular focus on one issue or one axis of oppression, we return to the concept of homonormativity from Section 5.2, where we demonstrated how homonormativity influences individual LGBTQ+ behavior and thinking. Homonormativity shapes institutions as well. For example, after the United States Supreme Court decision enacted marriage equality, policymakers and administrators made changes that helped homonormative individuals at the expense of those who do not fit into a normative ideal [41]. Daum writes: “the focus on sexual orientation operationalized as a single axis characteristic (heterosexual or homosexual)... led many policymakers and administrators to homogenize LGBTQ individuals thereby rendering poor, queer, and trans people of color illegible in the marriage equality context. In addition, once marriage was legalized, most policymakers and administrators moved to treat LGBTQ individuals the same as heterosexuals and gender-conforming individuals without recognizing that promoting homonormativity marginalizes LGBTQ individuals who are unable or unwilling to conform to these expectations. *Thus, while opening the institution of marriage may advance equality, it also facilitates the ongoing marginalization and illegibility of uniquely vulnerable intersectional individuals within LGBTQ communities*” (emphasis added [41, p. 118]). There was nothing wrong with fighting for marriage equality; the issue arose when marriage equality became the sole focal point and made sweeping characterizations about how LGBTQ people achieve equality based on a single, normative understanding. We highlight this example to act as a cautionary tale of what can happen when well-intentioned allies, or even members of a community, focus on one group or issue without considering the expansiveness within identity.

Simultaneously, the HCI community cannot ignore specific injustices either. It is essential that we interrogate systemic racism, for example, especially with HCI’s insufficient history failing to recognize the value of contributions about race or ethnicity [144]. As Ogbonnaya-Ogburu et al. point out, “As we become concerned with new dimensions

of diversity and inclusion, we cannot dilute efforts to address race. All too often, panels and committees pass as “diverse” because they contain non-males. Race is overlooked as a category of diversity” [125, p. 265]. In light of this, we raise perhaps the most important limitation of our work: where we look across marginalization in the macro, we overlook specific instances of injustice. While we maintain that each of the tensions that we have identified affects researchers who experience marginalization in some way, we cannot make definitive claims about to what extent. Our failure to probe further in our surveys and interviews about how the specific nuances of individual identity and experience change how a researcher experiences each tension differently serves as a major oversight that we hope researchers consider when reading our work. From this, our final challenge to the HCI community, both as a group of individual researchers and a group of institutions with great power, is to avoid treating the tensions laid out in this paper as monolithic experiences and to think about how the effects of each are specific to your own identity, research project, career, institution, epistemologies, values, and more. For instance, while everyone is culpable of exploiting researchers, are some researchers more susceptible to tokenization if their identities are more readily visible (e.g., BIPOC, women)? How are our practices informed by our own racisms? How might people with identities whose public disclosure would put them at risk of physical and emotional abuse react to a request for expanded positionality? And further, what can we do about this? What can you, as an individual HCI researcher, do in response?

While concepts of reflexivity, membership, and exploitation are significant considerations for research in their own right, they also all contribute to an overall commitment and approach to doing research with marginalized people. Thinking in this way is both just and imperative, especially if HCI researchers continue to choose to engage with marginalized people in their work. We hope that researchers who do make this choice consider how their work might or might not act as allyship and, on a larger scale, contribute to social justice. Many of these ideas are not new, in fact many have been longed discussed and often by authors of color. However, little work has situated these conversations with the context of HCI, where we design, develop, and/or influence systems that have the power to hurt and/or heal.

5.5 Limitations & Future Work

The suggestions we highlight for improving the experiences for participants come from the perspectives of HCI researchers of both marginalized and privileged identities. Our results offer insights into the steps researchers take to engage more equitably and justly with participants, how researchers affect other researchers, and how they are affected by the field. However, that focus also decenters the experiences of marginalized participants in HCI research. Our reliance on researcher experiences likely biases our recommendations in ways we do not know, and suggestions directly from participants in HCI research might highlight other strategies. Future work should focus on marginalized participants’ experiences with HCI research and HCI researchers, prioritizing engagement with participants directly. One opportunity to explore this is through a concern raised by some researchers in this study about giving little back to participants. While this paper describes some researchers’ perspectives, we wondered whether participants would agree and, further, whether researcher beliefs about what participants want from studies align with what participants actually seek to get from their participation. Further work should examine what participants in HCI research perceive they are getting out of the research process (e.g., [105]). Researchers might add questions to interview or survey protocols asking what participants took away or learned from participation or their reasons for taking part in the study.

We also acknowledge that, like most HCI work, the United States and Global North are contextual points of focus throughout this paper. Because some survey responses were anonymous, we cannot make definitive claims about the researchers who participated in our study; however, we did not make strong enough efforts to recruit and engage with participants outside of the contexts we were familiar with and non-WEIRD participants. We invite future work to explore HCI research with marginalized in locations outside of the Global North and how cultural differences might lead to a similar or even different set of tensions.

Additionally, this work addresses engagement with marginalized people at a macro-level and does not address the specifics of how different contexts of marginalization call for different considerations. While we reject a universalizing, blanket approach to HCI research involving marginalized people, we hope researchers can draw on this work as a starting point for understanding the nuances of their specific research settings. More recent work that blends research with activism has examined much-needed, more precise areas of HCI research such as how HCI handles race and systemic racism [125], a critique of ableism in HCI [179], trans competent interaction design [3], and guidelines for gender inclusivity [85]. In addition, our discussion of the four tensions is by no means conclusive; there is much room for further understanding and development of better practices. For example, our work did not directly examine invisible versus visible identities.

Finally, as we reflect upon the journey this paper has taken us on, we wish to share the messiness involved in our process. With hindsight, we have seen how overly ambitious our goals for this project were. To take on the topic of marginalization as a whole requires extensive engagement with all facets of oppression, and we were not prepared enough for this at the beginning of the study. Because of this, our results are in no way definitive or exhaustive; the

work fighting for marginalized people in HCI is far from over. Research, as we have demonstrated, is an ongoing process, one that participants, researchers, and the HCI field should collectively engage in together.

6 CONCLUSION

Researchers interested in working with marginalized people may be dismayed by the tensions of exploitation, membership, disclosure, and allyship. As a reader, you may wish that this paper could tell you exactly what steps to take to ensure ethical research. However, the overarching theme across the study participants' experiences is that there is no one, perfect way to do this kind of research, and so we refrain from suggesting that there is or even could be such a set of steps. Rather than prescribing a checklist for doing research the "right" way, we hope that you will consider the situational needs of the project, potential participants, and others affected by the work, including the research team.

As our findings detail, there are several possible actions that researchers can take, from consulting with community partners to recognizing personal limitations to unburdening other researchers, but not all of these considerations will be relevant for every research setting nor will completing every one guarantee a project is ethically sound. As we think about ethics, we must also accept the nuance of ethics in research. It is hard to navigate a purely ethical path; mistakes are inevitable but doing nothing can be equally or even more harmful.

So, where do we go from here? We hope to highlight what makes engaging with marginalized people in research difficult, but also that it is important to not let these complexities prevent good research from being done. While we cannot solve the exploitative nature of research, we point out that the power that comes with being a researcher can be used for the promotion of others. However, when researchers overestimate the benefits of their work and underestimate the risks, this will inevitably lead to exploitation.

As we position these topics as tensions, one might ask that given all the potential for harm, why do research at all? It is important to highlight here that researchers are often motivated by the desire to help others or to give back to the world in some way. While we cannot ignore the real evils of how marginalized people have historically been included in research, researchers can and have had meaningful, direct impacts on society, attempting to counterbalance researcher's inherent potential for harm. For example, increased research attention toward people historically left out of scholarship has led to improvement in various dimensions of many peoples' lives. Bennett and Keyes pointed out that while assistive technology has not always been thoughtful of people with disabilities, they have also improved quality of life for many [12]. Several research projects such as Kane et al.'s Slide Rule [100], Dimond et al.'s work on collective storytelling for a social movement [48], and Dillahunt et al.'s efforts to help renters negotiate energy bills with their landlords [45] have contributed to forward movement for different groups of marginalized people.

Reflecting on approaches to research is not an easy task. Doing so requires great awareness and, at times, willingness to admit that you have made a mistake, but we hope that readers continue to question their work to decide whether they are moving forward in the best, most equitable way possible. We hope that the future of HCI research that engages with marginalized people is one that builds and values relationships with communities, addresses inequities in how the field treats marginalized researchers, and positions itself as a space for progress rather than stagnation.

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REFERENCES

- <bib id="bib1"><number>[1]</number>Accomplices not allies: Abolishing the ally industrial complex: 2014. Retrieved from <http://www.indigenouaction.org/accomplices-not-allies-abolishing-the-ally-industrial-complex/>.</bib>
- <bib id="bib2"><number>[2]</number>Aguirre, A. 2000. Women and minority faculty in the academic workplace: Recruitment, Retention, and Academic Culture. *Higher Education Report*. (2000). <https://files.eric.ed.gov/fulltext/ED447752.pdf>.</bib>
- <bib id="bib3"><number>[3]</number>Ahmed, A.A. 2018. Trans competent interaction design: A qualitative study on voice, identity, and technology. *Interacting with Computers*. (2018). DOI:<https://doi.org/10.1093/iwc/iwx018>.</bib>
- <bib id="bib4"><number>[4]</number>Ahmed, S. 2012. On being included: Racism and diversity in institutional life. *Sociological Research Online*. Duke University Press Books.</bib>
- <bib id="bib5"><number>[5]</number>Kumar, N and Bardzell, S. 2020. An Unofficial Guide to Seven Stages of Reviewing for CHI. Retrieved from <https://nehakumar.medium.com/an-unofficial-guide-to-seven-stages-of-reviewing-for-chi-7938880fc895>.</bib>
- <bib id="bib6"><number>[6]</number>Antle, A.N. 2017. The ethics of doing research with vulnerable populations. *Interactions*. (2017). DOI:<https://doi.org/10.1145/3137107>.</bib>
- <bib id="bib7"><number>[7]</number>Bardzell, S. and Bardzell, J. 2011. Towards a feminist HCI methodology: Social science, feminism, and HCI. *Conference on Human Factors in Computing Systems - Proceedings* (2011). 675–684. DOI:<https://doi-org/10.1145/1978942.1979041></bib>

< bib id="bib8">< number>[8]< /number> Bauer, G., Devor, A., heinz, m., Marshall, Z., Pullen Sansfaçon, A., Pyne, J. 2019. *CPATH Ethical Guidelines for Research Involving Transgender People & Communities*. Retrieved from <https://cpath.ca/wp-content/uploads/2019/08/CPATH-Ethical-Guidelines-EN.pdf>.< /bib>

< bib id="bib9">< number>[9]< /number> Baumer, E.P.S. and Silberman, M.S. 2011. When the implication is not to design (technology). *Conference on Human Factors in Computing Systems - Proceedings* (2011). Article 25, 1–9. DOI:<https://doi-org/10.1145/3419249.3420172>< /bib>

< bib id="bib10">< number>[10]< /number> Benjamin, R. 2020. Race After Technology: Abolitionist Tools for the New Jim Code. *Social Forces*. (2020). Polity. DOI:<https://doi.org/10.1093/sf/soz162>.< /bib>

< bib id="bib11">< number>[11]< /number> Bennett, C.L., Brady, E. and Branham, S.M. 2018. Interdependence as a frame for assistive technology research and design. *ASSETS 2018 - Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility* (2018). 161–173. DOI:<https://doi-org/10.1145/3234695.3236348>< /bib>

< bib id="bib12">< number>[12]< /number> Bennett, C.L. and Keyes, O. 2019. What is the Point of Fairness? Disability, AI and The Complexity of Justice. *SIGACCESS Access. Comput.*, 125, Article 5 (October 2019), 1 pages. DOI:<https://doi-org/10.1145/3386296.3386301>< /bib>

< bib id="bib13">< number>[13]< /number> Bennett, C.L. and Rosner, D.K. 2019. The promise of empathy: Design, disability, and knowing the “other.” *Conference on Human Factors in Computing Systems - Proceedings* (2019). Paper 298, 1–13. DOI:<https://doi-org/10.1145/3290605.3300528>< /bib>

< bib id="bib14">< number>[14]< /number> Berenstein, N. 2016. Epistemic Exploitation. *Ergo, an Open Access Journal of Philosophy*. (2016). DOI:<https://doi.org/10.3998/ergo.12405314.0003.022>.< /bib>

< bib id="bib15">< number>[15]< /number> Black in Computing and Our Allies for Equity and Fairness: 2020. Retrieved from <https://blackincomputing.org/>.< /bib>

< bib id="bib16">< number>[16]< /number> Bratteteig, T. and Wagner, I. 2012. Disentangling power and decision-making in participatory design. *ACM International Conference Proceeding Series* (2012), 41–50. DOI:<https://doi-org/10.1145/2347635.2347642>< /bib>

< bib id="bib17">< number>[17]< /number> Braun, V. and Clarke, V. 2019. To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health*. <https://doi.org/10.1080/2159676X.2019.1704846>< /bib>

< bib id="bib18">< number>[18]< /number> Braun, V. and Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*. (2006). 77–101. DOI:<https://doi.org/10.1191/1478088706qp0630a>.< /bib>

< bib id="bib19">< number>[19]< /number> Collins, P.H. 2002. Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment. Routledge. DOI:<https://doi.org/10.2307/2074808>, 557< /bib>

< bib id="bib20">< number>[20]< /number> Brewer, R.N. 2017. *Understanding and Developing Interactive Voice Response Systems to Support Online Engagement of Older Adults*. Ph.D. Dissertation. Northwestern University, Evanston, IL. Proquest Number: 10603427.< /bib>

< bib id="bib21">< number>[21]< /number> Broido, E.M. 2000. The development of social justice allies during college: A phenomenological investigation. *Journal of College Student Development*. (2000). Retrieved from <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.470.1439&rep=rep1&type=pdf>.< /bib>

< bib id="bib22">< number>[22]< /number> Brooks, A.K. and Edwards, K. 2009. Allies in the workplace: Including LGBT in HRD. *Advances in Developing Human Resources*. (2009). DOI:<https://doi.org/10.1177/1523422308328500>.< /bib>

< bib id="bib23">< number>[23]< /number> Brulé, E. and Spiel, K. 2019. Negotiating gender and disability identities in participatory design. *ACM International Conference Proceeding Series* (2019), 218–227. DOI:<https://doi-org/10.1145/3328320.3328369>< /bib>

< bib id="bib24">< number>[24]< /number> Cahill, C. 2007. Including excluded perspectives in participatory action research. *Design Studies*. (2007). DOI:<https://doi.org/10.1016/j.destud.2007.02.006>< /bib>

< bib id="bib25">< number>[25]< /number> Caldwell, K. 2010. We exist: Intersectional in/visibility in bisexuality & disability. *Disability Studies Quarterly*. 30, 3/4 (2010). DOI: 10.18061/dsq.v30i3/4.1273< /bib>

< bib id="bib26">< number>[26]< /number> Castleden, H., Garvin, T. and First Nation, H. 2008. Modifying Photovoice for community-based participatory Indigenous research. *Social Science and Medicine*. (2008). DOI:<https://doi.org/10.1016/j.socscimed.2007.11.030>.< /bib>

< bib id="bib27">< number>[27]< /number> Charlotte Smith, R., Winschiers-Theophilus, H., Paula Kambunga, A. and Krishnamurthy, S. 2020. Decolonizing participatory design: Memory making in Namibia. *ACM International Conference Proceeding Series* (2020). 96–106. DOI:<https://doi-org/10.1145/3385010.3385021>< /bib>

< bib id="bib28">< number>[28]< /number> Cochran, P.A.L., Marshall, C.A., Garcia-Downing, C., Kendall, E., Cook, D., McCubbin, L. and Gover, R.M.S. 2008. Indigenous ways of knowing: Implications for participatory research and community. *American Journal of Public Health*. DOI: 10.2105/AJPH.2006.093641< /bib>

< bib id="bib29">< number>[29]< /number> Combahee River Collective. 1977. Combahee River Collective: A Black Feminist Statement. *Let Nobody Turn Us Around: Voices of Resistance, Reform and Renewal; An African American Anthology*. Retrieved from <https://www.blackpast.org/african-american-history/combahee-river-collective-statement-1977/>.< /bib>

< bib id="bib30">< number>[30]< /number> Comejo, R., Brewer, R., Edasis, C. and Piper, A.M. 2016. Vulnerability, sharing, and privacy: Analyzing art therapy for older adults with dementia. *Proceedings of the ACM Conference on Computer Supported Cooperative Work, CSCW* (2016). 1572–1583. DOI:<https://doi-org/10.1145/2818048.2819960>< /bib>

< bib id="bib31">< number>[31]< /number> Costanza-Chock, S. Design Justice: Towards an Intersectional Feminist Framework for Design Theory and Practice (June 3, 2018). Proceedings of the Design Research Society 2018, Available at SSRN: <https://ssrn.com/abstract=3189696>< /bib>

< bib id="bib32">< number>[32]< /number> Costanza-Chock, S. 2020. Introduction: #TravelingWhileTrans, Design Justice, and Escape from the Matrix of Domination. In Costanza-Chock, S. 2020. *Design Justice*. MIT Press.< /bib>

< bib id="bib33">< number>[33]< /number> Crenshaw, Kimberle. 1989. "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics," University of Chicago Legal Forum: Vol. 1989: Iss. 1, Article 8. Available at: <http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8>< /bib>

< bib id="bib34">< number>[34]< /number> Crenshaw, K. 1991. Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Review*. (1991). DOI:<https://doi.org/10.2307/1229039>.< /bib>

< bib id="bib35">< number>[35]< /number> Gaeta, A. 2019. Crippling Emotional Labor: A Field Guide. Retrieved from <https://disabilityvisibilityproject.com/2019/06/03/cripping-emotional-labor-a-field-guide/>.< /bib>

< bib id="bib36">< number>[36]< /number> D'Ignazio, C., Hope, A., Michelson, B., Churchill, R. and Zuckerman, E. 2016. A Feminist HCI approach to designing postpartum technologies: “When I first saw a breast pump I was wondering if it was a joke.” *Conference on Human Factors in Computing Systems - Proceedings* (2016). 2612–2622. DOI:<https://doi-org/10.1145/2858036.2858460>< /bib>

< bib id="bib37">< number>[37]< /number> D'Ignazio, C. and Klein, L.F. 2020. *Data Feminism*. MIT Press.< /bib>

< bib id="bib38">< number>[38]< /number> Daley, S., Wingard, D.L. and Reznik, V. 2006. Improving the retention of underrepresented minority faculty in academic medicine. *Journal of the National Medical Association*. (2006).< /bib>

< bib id="bib39">< number>[39]< /number> Le Dantec, C.A. and Edwards, W.K. 2008. Designs on dignity: Perceptions of technology among the homeless. *Conference on Human Factors in Computing Systems - Proceedings* (2008). 627–636. DOI:<https://doi-org/10.1145/1357054.1357155>< /bib>

< bib id="bib40">< number>[40]< /number> Le Dantec, C.A., Farrell, R.G., Christensen, J.E., Bailey, M., Ellis, J.B., Kellogg, W.A. and Edwards, W.K. 2011. Publics in practice: Ubiquitous computing at a shelter for homeless mothers. *Conference on Human Factors in Computing Systems - Proceedings* (2011). 1687–1696. DOI:<https://doi-org/10.1145/1978942.1979189>< /bib>

< bib id="bib41">< number>[41]< /number> Daum, C.W. 2020. Social Equity, Homonormativity, and Equality: An Intersectional Critique of the Administration of Marriage Equality and Opportunities for LGBTQ Social Justice. *Administrative Theory and Praxis*. (2020). DOI:<https://doi.org/10.1080/10841806.2019.1659044>.< /bib>

< bib id="bib42">< number>[42]</ number>Dell, N. and Kumar, N. 2016. The ins and outs of HCI for development. *Conference on Human Factors in Computing Systems - Proceedings* (2016). 2220–2232. DOI:https://doi-org/10.1145/2858036.2858081</ bib>

< bib id="bib43">< number>[43]</ number>Design Justice Network. 2018. Design Justice Network Principles. Retrieved from <https://designjustice.org/read-the-principles>.</ bib>

< bib id="bib44">< number>[44]</ number>Dey, I. 1999. *Grounding grounded theory: Guidelines for qualitative inquiry*. Emerald Publishing Limited.</ bib>

< bib id="bib45">< number>[45]</ number>Dillahunt, T., Mankoff, J. and Paulos, E. 2010. Understanding conflict between landlords and tenants: Implications for energy sensing and feedback. *UbiComp '10 - Proceedings of the 2010 ACM Conference on Ubiquitous Computing* (2010). 149–158. DOI:https://doi-org/10.1145/1864349.1864376</ bib>

< bib id="bib46">< number>[46]</ number>Dillahunt, T.R. and Veinot, T.C. 2018. Getting there: Barriers and facilitators to transportation access in underserved communities. *ACM Transactions on Computer-Human Interaction*. (2018). DOI:https://doi.org/10.1145/3233985.</ bib>

< bib id="bib47">< number>[47]</ number>Morgan, K.P. 1996. Describing the Emperor's New Clothes: Three Myths of Educational (In-)Equity. In Diller, A., Houston, B., Morgan, K.P., Ayim, M. and Morgan, K.P. 1996. *The Gender Question in Education*. Routledge.</ bib>

< bib id="bib48">< number>[48]</ number>Dimond, J.P., Dye, M., Larose, D. and Bruckman, A.S. 2013. Hollaback!: The role of collective storytelling online in a social movement organization. *Proceedings of the ACM Conference on Computer Supported Cooperative Work, CSCW* (2013). 477–490. DOI:https://doi-org/10.1145/2441776.2441831</ bib>

< bib id="bib49">< number>[49]</ number>Dombrowski, L., Harmon, E. and Fox, S. 2016. Social justice-oriented interaction design: Outlining key design strategies and commitments. *DIS 2016 - Proceedings of the 2016 ACM Conference on Designing Interactive Systems: Fuse* (2016). 656–671. DOI:https://doi-org/10.1145/2901790.2901861</ bib>

< bib id="bib50">< number>[50]</ number>Duggan, L. 2002. The new homonormativity: The sexual politics of neoliberalism. In Castronovo, R. and Nelson, D. 2002. *Materializing Democracy Toward a Revitalized Cultural Politics*. Duke University Press.</ bib>

< bib id="bib51">< number>[51]</ number>Dye, M., Nemer, D., Pina, L.R., Sambasivan, N., Bruckman, A.S. and Kumar, N. 2017. Locating the internet in the parks of Havana. *Conference on Human Factors in Computing Systems - Proceedings* (2017). 3867–3878. DOI:https://doi-org/10.1145/3025453.3025728</ bib>

< bib id="bib52">< number>[52]</ number>Palen, L. Empirical Epistemologies Applied to Human-Centered Computing Research: 2014. Retrieved from <https://cmci.colorado.edu/~palen/EmpiricalEpistemologiesforHCC-7.pdf>.</ bib>

< bib id="bib53">< number>[53]</ number>England, K.V.L. 1994. Getting personal: Reflexivity, positionality, and feminist research. *Professional Geographer*. (1994). DOI:https://doi.org/10.1111/j.0033-0124.1994.00080.x.</ bib>

< bib id="bib54">< number>[54]</ number>Epstein, D.A., Lee, N.B., Kang, J.H., Agapie, E., Schroeder, J., Pina, L.R., Fogarty, J., Kientz, J.A. and Munson, S.A. 2017. Examining menstrual tracking to inform the design of personal informatics tools. *Conference on Human Factors in Computing Systems - Proceedings* (2017). 6876–6888. DOI:https://doi-org/10.1145/3025453.3025635</ bib>

< bib id="bib55">< number>[55]</ number>Erete, S., Israni, A. and Dillahunt, T. 2018. An intersectional approach to designing in the margins. *Interactions*. 25, 3 (May-June 2018), 66–69. DOI:https://doi.org/10.1145/3194349.</ bib>

< bib id="bib56">< number>[56]</ number>Erete, S., Rankin, Y.A. and Thomas, J.O. 2020. I Can't Breathe: Reflections from Black Women in CSCW and HCI. *CSCW 2020*. 37, 4. DOI:https://doi.org/10.1145/1122445.1122456.</ bib>

< bib id="bib57">< number>[57]</ number>Erete, S.L. 2015. Engaging around neighborhood issues: How online communication affects offline behavior. *CSCW 2015 - Proceedings of the 2015 ACM International Conference on Computer-Supported Cooperative Work and Social Computing* (2015). 1590–1601. DOI:https://doi-org/10.1145/2675133.2675182</ bib>

< bib id="bib58">< number>[58]</ number>Evans, N.J., Assadi, J.L. and Herriott, T.K. 2005. Encouraging the development of disability allies. *New Directions for Student Services*. (2005). DOI:https://doi.org/10.1002/ss.166.</ bib>

< bib id="bib59">< number>[59]</ number>Evans, N.J. and Wall, V.A. 1991. *Beyond Tolerance: Gays, Lesbians and Bisexuals on Campus*. UPA.</ bib>

< bib id="bib60">< number>[60]</ number>Cifor, M., Garcia, P., Cowan, T.L., Rault, J., Sutherland, T., Chan, A., Rode, J., Hoffmann, A.L., Salehi, N., Nakamura, L. (2019). Feminist Data Manifest-No. Retrieved from: <https://www.manifestno.com/></ bib>

< bib id="bib61">< number>[61]</ number>Fiesler, C., Morrison, S. and Bruckman, A.S. 2016. An archive of their own: A case study of feminist HCI and values in design. *Conference on Human Factors in Computing Systems - Proceedings* (2016). 2574–2585. DOI:https://doi-org/10.1145/2858036.2858409</ bib>

< bib id="bib62">< number>[62]</ number>Fine, M. 1994. Working the hyphens: Reinventing self and other in qualitative research. *Handbook of Qualitative Research*. Retrieved from http://www.uky.edu/~addesa01/documents/Fine_Hyphens.pdf.</ bib>

< bib id="bib63">< number>[63]</ number>Franks, M. 2002. Feminisms and cross-ideological feminist social research: Standpoint, situatedness and positionality - Developing cross-ideological feminist research. *Journal of International Women's Studies* (2002). 3(2), 38-50. Available at: <http://vc.bridgew.edu/jiws/vol3/iss2/3> </ bib>

< bib id="bib64">< number>[64]</ number>Fricker, M. 2007. *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford University Press.</ bib>

< bib id="bib65">< number>[65]</ number>Fusch, P.I. and Ness, L.R. 2015. Are we there yet? Data saturation in qualitative research. *Qualitative Report*, 20(9), 1408-1416. Retrieved from <https://nsuworks.nova.edu/tqr/vol20/iss9/3>.</ bib>

< bib id="bib66">< number>[66]</ number>Gallagher, M. 2008. "Power is not an evil": Rethinking power in participatory methods. *Children's Geographies*. (2008). DOI:https://doi.org/10.1080/14733280801963045.</ bib>

< bib id="bib67">< number>[67]</ number>Ghoshal, S. and Bruckman, A. 2019. The role of social computing technologies in grassroots movement building. *ACM Transactions on Computer-Human Interaction*. 26, 3, Article 18 (June 2019), 36 pages. DOI:https://doi.org/10.1145/3318140</ bib>

< bib id="bib68">< number>[68]</ number>Gillespie, T. 2018. *Custodians of the internet: Platforms, content moderation, and the hidden decisions that shape social media*. Yale University Press.</ bib>

< bib id="bib69">< number>[69]</ number>Grady, S.D., Wisniewski, P.J., Metoyer, R., Gibbs, P., Badillo-Urquiola, K., Elsayed-Ali, S. and Yafi, E. 2020. Addressing Institutional Racism Within Initiatives for SIGCHI's Diversity and Inclusion. *Interactions*. Retrieved from <https://interactions.acm.org/blog/view/addressing-institutional-racism-within-initiatives-for-sigchis-diversity-an>.</ bib>

< bib id="bib70">< number>[70]</ number>Grieb, S.D., Eder, M.M., Smith, K.C., Calhoun, K. and Tandon, D. 2015. Qualitative research and community-based participatory research: Considerations for effective dissemination in the peer-reviewed literature. *Progress in Community Health Partnerships: Research, Education, and Action*. (2015). DOI:https://doi.org/10.1353/cpr.2015.0041.</ bib>

< bib id="bib71">< number>[71]</ number>Grimes A., Grinter R.E. (2007) Designing Persuasion: Health Technology for Low-Income African American Communities. In: de Kort Y., Jsselsteijn W., Midden C., Eggen B., Fogg B.J. (eds) *Persuasive Technology. PERSUASIVE 2007. Lecture Notes in Computer Science*, vol 4744. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-540-77006-0_4 </ bib>

< bib id="bib72">< number>[72]</ number>Haimson, Oliver L.; Gorrell, Dyke; Starks, Denny L.; Weinger, Z. 2020. Designing Trans Technology: Defining Challenges and Envisioning Community-Centered Solutions. *ACM CHI Conference on Human Factors in Computing Systems*.</ bib>

< bib id="bib73">< number>[73]</ number>Halperin, D.M. 2012. *How To Be Gay*. Belknap Press.</ bib>

< bib id="bib74">< number>[74]</ number>Hancock, A.M. 2007. When multiplication doesn't equal quick addition: Examining intersectionality as a research paradigm. *Perspectives on Politics*. (2007). DOI:https://doi.org/10.1017/S1537592707070065.</ bib>

< bib id="bib75">< number>[75]</ number>Hankerson, D., Marshall, A.R., Booker, J., El Mimouni, H., Walker, I. and Rode, J.A. 2016. Does technology have race? *Conference on Human Factors in Computing Systems - Proceedings* (2016). 473–486. DOI:https://doi-org/10.1145/2851581.2892578</ bib>

< bib id="bib76">< number>[76]</ number>Haraway, D.J. 2016. *Staying with the Trouble*. Duke University Press.</ bib>

< bib id="bib77">< number>[77]</ number>Harding, S. 1992. Rethinking Standpoint Epistemology : What is "Strong Objectivity?". *The Centennial Review*, 36(3), 437-470. Retrieved December 23, 2020, from <http://www.jstor.org/stable/23739232></ bib>

<bib id="bib78"><number>[78]</number>Harding, S.G. 2004. The Feminist Standpoint Theory Reader. *The Feminist Standpoint Theory Reader: Intellectual and Political Controversies*. Routledge.</bib>

<bib id="bib79"><number>[79]</number>Hardouin, S., Cheng, T.W., Mitchell, E.L., Raulhi, S.J., Jones, D.W., Siracuse, J.J. and Farber, A. 2020. Prevalence of unprofessional social media content among young vascular surgeons. *Journal of Vascular Surgery* (2020).</bib>

<bib id="bib80"><number>[80]</number>Harrington, C.N., Borgos-Rodriguez, K. and Piper, A.M. 2019. Engaging Low-Income African American Older Adults in Health Discussions through Community-based Design Workshops. (2019). Paper 593, 1–15. DOI:https://doi-org/10.1145/3290605.3300823</bib>

<bib id="bib81"><number>[81]</number>Harrington, C.N., Erete, S. and Piper, A.M. 2019. Deconstructing community-based collaborative design: Towards more equitable participatory design engagements. *Proceedings of the ACM on Human-Computer Interaction*. 3, CSCW, Article 216 (November 2019), 25 pages. DOI:https://doi.org/10.1145/3359318.</bib>

<bib id="bib82"><number>[82]</number>Harrington, C.N. and Piper, A.M. 2018. Informing design through sociocultural values: Co-creation with low-income african-american older adults. *ACM International Conference Proceeding Series* (2018). 294–298. DOI:https://doi-org/10.1145/3240925.3240966</bib>

<bib id="bib83"><number>[83]</number>Harris, P. 1995. Who am I? Concepts of disability and their implications for people with learning difficulties. *Disability & Society*. (1995). DOI:https://doi.org/10.1080/09687599550023570.</bib>

<bib id="bib84"><number>[84]</number>Hayes, G.R. 2011. The relationship of action research to human-computer interaction. *ACM Transactions on Computer-Human Interaction*. 18, 3, Article 15 (July 2011), 20 pages. DOI:https://doi.org/10.1145/1993060.1993065.</bib>

<bib id="bib85"><number>[85]</number>Scheuerman, M.K., Spiel, K., Haimson, O., Hamidi, F., Branham, S.M. 2019. HCI Guidelines for Gender Equity and Inclusivity. Retrieved from <https://www.morgan-klaus.com/sigchi-gender-guidelines>.</bib>

<bib id="bib86"><number>[86]</number>Bauer, G., Devor, A., heinz, m., Marshall, Z., Pullen Sansfaçon, A., Pyne, J. 2019. *CPATH Ethical Guidelines for Research Involving Transgender People & Communities*. Retrieved from <https://cpath.ca/wp-content/uploads/2019/08/CPATH-Ethical-Guidelines-EN.pdf>.</bib>

<bib id="bib87"><number>[87]</number>Heeks, R. 2002. Information systems and developing countries: Failure, success, and local improvisations. *Information Society*. (2002). DOI:https://doi.org/10.1080/01972240290075039.</bib>

<bib id="bib88"><number>[88]</number>Heimerl, K., Hasan, S., Ali, K., Brewer, E. and Parikh, T. 2013. Local, sustainable, small-scale cellular networks. In *Proceedings of the Sixth International Conference on Information and Communication Technologies and Development: Full Papers - Volume 1 (ICTD '13)*. Association for Computing Machinery, New York, NY, USA, 2–12. DOI:https://doi-org/10.1145/2516604.2516616</bib>

<bib id="bib89"><number>[89]</number>Hill Collins, P. and Bilge, S. 2016. What is Intersectionality ? Using intersectionality as an analytic tool. *Intersectionality*. DOI:https://doi.org/DOI: 10.1016/j.scriptamat.2009.08.024.</bib>

<bib id="bib90"><number>[90]</number>Hoffmann, A.L. 2019. Where fairness fails: data, algorithms, and the limits of antidiscrimination discourse. *Information Communication and Society*. (2019). DOI:https://doi.org/10.1080/1369118X.2019.1573912.</bib>

<bib id="bib91"><number>[91]</number>Hopkins, P.E. 2009. Women, men, positionalities and emotion: Doing feminist geographies of religion. *ACME: An International Journal for Critical Geographies*, 8(1), 1-17. Retrieved from <https://acme-journal.org/index.php/acme/article/view/818> </bib>

<bib id="bib92"><number>[92]</number>Howard, D. and Irani, L. 2019. Ways of knowing when research subjects care. *Conference on Human Factors in Computing Systems - Proceedings*. Paper 97, 1–16. DOI:https://doi-org/10.1145/3290605.3300327</bib>

<bib id="bib93"><number>[93]</number>Hui, J., Barber, N.R., Casey, W., Cleage, S., Dolley, D.C., Worthy, F., Toyama, K. and Dillahunt, T.R. 2020. Community Collectives: Low-tech Social Support for Digitally-Engaged Entrepreneurship. *Conference on Human Factors in Computing Systems - Proceedings*. 1–15. DOI:https://doi-org/10.1145/3313831.3376363</bib>

<bib id="bib94"><number>[94]</number>Imrie, R. 2012. Universalism, universal design and equitable access to the built environment. *Disability and Rehabilitation*. (2012). DOI:https://doi.org/10.3109/09638288.2011.624250.</bib>

<bib id="bib95"><number>[95]</number>Dutt-Ballerstadt, R. 2020. In Our Own Words: Institutional Betrayals. Retrieved from <https://www.insidehighered.com/advice/2020/03/06/underrepresented-faculty-members-share-real-reasons-they-have-left-various></bib>

<bib id="bib96"><number>[96]</number>Irani, L., Vertesi, J., Dourish, P., Philip, K. and Grinter, R.E. 2010. Postcolonial computing: A lens on design and development. *Conference on Human Factors in Computing Systems - Proceedings* (2010). 1311–1320. DOI:https://doi-org/10.1145/1753326.1753522</bib>

<bib id="bib97"><number>[97]</number>Israel, B.A., Parker, E.A., Rowe, Z., Salvatore, A., Minkler, M., López, J., Butz, A., Mosley, A., Coates, L., Lambert, G., Potito, P.A., Brenner, B., Rivera, M., Romero, H., Thompson, B., Coronado, G., Halstead, S. 2005. Community-based participatory research: Lessons learned from the Centers for Children's Environmental Health and Disease Prevention Research. *Environmental Health Perspectives*. (2005). DOI:https://doi.org/10.1289/ehp.7675.</bib>

<bib id="bib98"><number>[98]</number>Israel, B.A., Coombe, C.M., Cheezum, R.R., Schulz, A.J., McGranaghan, R.J., Lichtenstein, R., Reyes, A.G., Clement, J. and Burris, A. 2010. Community-based participatory research: A capacity-building approach for policy advocacy aimed at eliminating health disparities. *American Journal of Public Health*. (2010). DOI:https://doi.org/10.2105/AJPH.2009.170506.</bib>

<bib id="bib99"><number>[99]</number>Iyer, A. and Leach, C.W. 2009. Helping Disadvantaged Out-Groups Challenge Unjust Inequality: The Role of Group-Based Emotions. *The Psychology of Prosocial Behavior: Group Processes, Intergroup Relations, and Helping*. <https://doi.org/10.1002/9781444307948.ch17></bib>

<bib id="bib100"><number>[100]</number>Kane, S.K., Bigham, J.P. and Wobbrock, J.O. 2008. Slide rule: Making mobile touch screens accessible to blind people using multi-touch interaction techniques. *ASSETS'08: The 10th International ACM SIGACCESS Conference on Computers and Accessibility* (2008). 73–80. DOI:https://doi-org/10.1145/1414471.1414487</bib>

<bib id="bib101"><number>[101]</number>Keyes, O. 2018. The misgendering machines: Trans/HCI implications of automatic gender recognition. *Proceedings of the ACM on Human-Computer Interaction*. (2018). DOI:https://doi.org/10.1145/3274357.</bib>

<bib id="bib102"><number>[102]</number>Keyes, O., Hoy, J. and Drouhard, M. 2019. Human-Computer Insurrection. (2019). Paper 339, 1–13. DOI:https://doi-org/10.1145/3290605.3300569</bib>

<bib id="bib103"><number>[103]</number>Keyes, O., Peil, B., Williams, R.M. and Spiel, K. 2020. Reimagining (Women's) Health: HCI, Gender and Essentialised Embodiment. *ACM Trans. Comput.-Hum. Interact.* (2020). 27, 4, Article 25 (September 2020), 42 pages. DOI:https://doi-org/10.1145/3404218</bib>

<bib id="bib104"><number>[104]</number>Kluttz, J., Walker, J. and Walter, P. 2019. Unsettling allyship, unlearning and learning towards decolonising solidarity. *Studies in the Education of Adults*. (2019). DOI:https://doi.org/10.1080/02660830.2019.1654591.</bib>

<bib id="bib105"><number>[105]</number>Kolovson, S., Pratap, A., Duffy, J., Allred, R., Munson, S.A. and Areán, P.A. 2020. Understanding Participant Needs for Engagement and Attitudes towards Passive Sensing in Remote Digital Health Studies. *PervasiveHealth: Pervasive Computing Technologies for Healthcare*. (2020). <https://doi.org/10.1145/3421937.3422025></bib>

<bib id="bib106"><number>[106]</number>Koster, R., Baccar, K. and Lemelin, R.H. 2012. Moving from research ON, to research with and for Indigenous communities: A critical reflection on community-based participatory research. *Canadian Geographer*. (2012). DOI:https://doi.org/10.1111/j.1541-0064.2012.00428.x.</bib>

<bib id="bib107"><number>[107]</number>Laws, J.L. 1975. The psychology of tokenism: An analysis. *Sex Roles*. (1975). DOI:https://doi.org/10.1007/BF00287213.</bib>

<bib id="bib108"><number>[108]</number>De Leeuw, S., Cameron, E.S. and Greenwood, M.L. 2012. Participatory and community-based research, Indigenous geographies, and the spaces of friendship: A critical engagement. *Canadian Geographer*. (2012). DOI:https://doi.org/10.1111/j.1541-0064.2012.00434.x.</bib>

< bib id="bib109">< number>[109]</ number>Leonard, G. and Misumi, L. 2016. W.A.I.T. (Why Am I Talking?): A Dialogue on Solidarity, Allyship, and Supporting the Struggle for Racial Justice Without Reproducing White Supremacy. *Harvard Journal of African American Public Policy*. 61, 74 (2016), 61.</ bib>

< bib id="bib110">< number>[110]</ number>Lee, C. and Hume-Pratuch, J. 2013. Let's Talk About Research Participants. Retrieved from <http://blog.apastyle.org/apastyle/2013/08/lets-talk-about-research-participants.html>.</ bib>

< bib id="bib111">< number>[111]</ number>Lightman, E., Vick, A., Herd, D. and Mitchell, A. 2009. 'Not disabled enough': Episodic disabilities and the Ontario Disability Support Program. *Disability Studies Quarterly*. (2009). DOI:<https://doi.org/10.18061/dsq.v29i3.932>.</ bib>

< bib id="bib112">< number>[112]</ number>Lloyd-Jones, B. 2014. African-American Women in the Professoriate: Addressing Social Exclusion and Scholarly Marginalization through Mentoring. *Mentoring and Tutoring: Partnership in Learning*. (2014). DOI:<https://doi.org/10.1080/13611267.2014.945737>.</ bib>

< bib id="bib113">< number>[113]</ number>Lugones, M. 2007. Heterosexualism and the Colonial/Modern Gender System. *Hypatia*. (2007). DOI:<https://doi.org/10.1111/j.1527-2001.2007.tb01156.x>.</ bib>

< bib id="bib114">< number>[114]</ number>Malinverni, L. and Pares, N. 2017. An Autoethnographic Approach to Guide Situated Ethical Decisions in Participatory Design with Teenagers. *Interacting with Computers*. (2017). DOI:<https://doi.org/10.1093/iwc/iww031>.</ bib>

< bib id="bib115">< number>[115]</ number>Black Lives Matter.#TalkAbout Trayvon: A Toolkit for White People. 2017. Retrieved from <https://blacklivesmatter.com/wp-content/uploads/2017/10/Toolkit-WhitePpl-Trayvon.pdf></ bib>

< bib id="bib116">< number>[116]</ number>Mignolo, W.D., 2018. What Does It Mean to Decolonize? 105-134. In Mignolo, W.D. and Walsh, C.E., 2018. *On Decoloniality*. Duke University Press.</ bib>

< bib id="bib117">< number>[117]</ number>Minkler, M. 2004. Ethical challenges for the "outside" researcher in community-based participatory research. *Health Education and Behavior*. DOI: 10.1177/1090198104269566</ bib>

< bib id="bib118">< number>[118]</ number>Mizock, L. and Page, K. V. 2016. Evaluating the ally role: Contributions, limitations , and the activist position in counseling and psychology. *Journal for Social Action in Counseling and Psychology*. (2016). DOI: <https://doi.org/10.33043/JSACP.8.1.17-33></ bib>

< bib id="bib119">< number>[119]</ number>Moon, K. and Blackman, D. 2014. A Guide to Understanding Social Science Research for Natural Scientists. *Conservation Biology*. DOI: 10.1111/cobi.12326</ bib>

< bib id="bib120">< number>[120]</ number>Moss, P., Jones, J.P., Nast, H.J. and Roberts, S.M. 1999. Thresholds in Feminist Geography: Difference, Methodology, Representation. *Economic Geography*. (1999). DOI:<https://doi.org/10.2307/144254>.</ bib>

< bib id="bib121">< number>[121]</ number>Muller, M.J. 2003. Participatory design: The third space in HCI. *Human-Computer Interaction Handbook*. (2003). DOI:<https://doi.org/10.1145/153571.255960>.</ bib>

< bib id="bib122">< number>[122]</ number>Munteanu, C., Molyneux, H., Moncur, W., Romero, M., O'Donnell, S. and Vines, J. 2015. Situational ethics: Re-thinking approaches to formal ethics requirements for human-computer interaction. *Conference on Human Factors in Computing Systems - Proceedings* (2015). 105–114. DOI:<https://doi.org/10.1145/2702123.2702481></ bib>

< bib id="bib123">< number>[123]</ number>Waller, A. 2020. Nextdoor Removes App's 'Forward to Police' Feature. The New York Times. Retrieved from <https://www.nytimes.com/2020/06/23/us/nextdoor-forward-to-police.html></ bib>

< bib id="bib124">< number>[124]</ number>O'Leary, J.T., Zewde, S., Mankoff, J. and Rosner, D.K. 2019. Who gets to future? Race, representation, and design methods in Africatown. *Conference on Human Factors in Computing Systems - Proceedings* (2019). Paper 561, 1–13. DOI:<https://doi.org/10.1145/3290605.3300791></ bib>

< bib id="bib125">< number>[125]</ number>Ogbonnaya-Ogburu, I.F., Smith, A.D., To, A. and Toyama, K. 2020. Critical Race Theory for HCI. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–16. DOI:<https://doi.org/10.1145/3313831.3376392></ bib>

< bib id="bib126">< number>[126]</ number>Gay, R. 2016. On Making Black Lives Matter: 2016. Retrieved from <https://www.marieclaire.com/culture/a21423/roxane-gay-philando-castile-alton-sterling/></ bib>

< bib id="bib127">< number>[127]</ number>Orlikowski, W.J. and Baroudi, J.J. 1991. Studying information technology in organizations: Research approaches and assumptions. *Information Systems Research*. (1991). DOI:<https://doi.org/10.1287/isre.2.1.1>.</ bib>

< bib id="bib128">< number>[128]</ number>Parker, A.G., Kantroo, V., Lee, H.R., Osornio, M., Sharma, M. and Grinter, R.E. 2012. Health promotion as activism: Building community capacity to effect social change. *Conference on Human Factors in Computing Systems - Proceedings* (2012). 99–108. DOI:<https://doi.org/10.1145/2207676.2207692></ bib>

< bib id="bib129">< number>[129]</ number>Peshkin, A. 1988. In Search of Subjectivity—One's Own. Educational Researcher. (1988). DOI:<https://doi.org/10.3102/0013189X017007017>.</ bib>

< bib id="bib130">< number>[130]</ number>Poole, E.S. and Peyton, T. 2013. Interaction design research with adolescents: Methodological challenges and best practices. *ACM International Conference Proceeding Series* (2013). 211–217. DOI:<https://doi.org/10.1145/2485760.2485766></ bib>

< bib id="bib131">< number>[131]</ number>Powell, J. and Kelly, A. 2018. Accomplishes in the academy in the age of Black Lives Matter. *Journal of Critical Thought and Praxis*. (2018). DOI:<https://doi.org/10.31274/jctp-180810-73>.</ bib>

< bib id="bib132">< number>[132]</ number>Quijano, A. 2000. Coloniality of power and Eurocentrism in Latin America. *International Sociology*. (2000). DOI:<https://doi.org/10.1177/0268580900015002005>.</ bib>

< bib id="bib133">< number>[133]</ number>Rankin, Y.A. and Thomas, J.O. 2019. Straighten up and fly right: Rethinking intersectionality in HCI research. *Interactions*. 26, 6 (November - December 2019), 64–68. DOI:<https://doi.org/10.1145/3363033></ bib>

< bib id="bib134">< number>[134]</ number>Rankin, Y.A., Thomas, J.O. and Joseph, N.M. 2020. Intersectionality in HCI: lost in translation. *Interactions*. 27, 5 (September - October 2020), 68–71. DOI:<https://doi.org/10.1145/3416498></ bib>

< bib id="bib135">< number>[135]</ number>Rittel, H.W.J. and Webber, M.M. 1973. Dilemmas in a general theory of planning. *Policy Sciences*. (1973). DOI:<https://doi.org/10.1007/BF01405730>.</ bib>

< bib id="bib136">< number>[136]</ number>Rodopoulos, L.S. 2004. Becoming an Ally: Breaking the Cycle of Oppression (2nd edn). *Australian Social Work*. (2004). DOI:<https://doi.org/10.1111/j.0312-407x.2004.00170.x>.</ bib>

< bib id="bib137">< number>[137]</ number>Russell, G.M. 2011. Motives of Heterosexual Allies in Collective Action for Equality. *Journal of Social Issues*. (2011). DOI:<https://doi.org/10.1111/j.1540-4560.2011.01703.x>.</ bib>

< bib id="bib138">< number>[138]</ number>Russell, G.M. and Bohan, J.S. 2016. Institutional Allyship for LGBT Equality: Underlying Processes and Potentials for Change. *Journal of Social Issues*. (2016). DOI:<https://doi.org/10.1111/josi.12169>.</ bib>

< bib id="bib139">< number>[139]</ number>Ryan, S., Yip, J., Stieff, M. and Druin, A. 2013. Cooperative inquiry as a community of practice. *Computer-Supported Collaborative Learning Conference, CSCL* (2013). 2. 145-148. Retrieved from http://bigyipper.com/wp-content/uploads/2010/11/CSCL2013_ShortPaper_Submission.pdf</ bib>

< bib id="bib140">< number>[140]</ number>de Sousa Santos, B. 2014. A Critique of Lazy Reason: Against the Waste of Experience and Toward the Sociology of Absences and the Sociology of Emergences. In Santos, B. de S., 2014. *Epistemologies of the South: Justice Against Epistemicide*. Routledge. <https://doi.org/10.4324/9781315634876></ bib>

< bib id="bib141">< number>[141]</ number>Santuzzi, A.M., Waltz, P.R., Finkelstein, L.M. and Rupp, D.E. 2014. Invisible disabilities: Unique challenges for employees and organizations. *Industrial and Organizational Psychology*. (2014). DOI:<https://doi.org/10.1111/iops.12134>.</ bib>

< bib id="bib142">< number>[142]</ number>Schalk, S. 2013. Coming to claim crip: Disidentification with/in disability studies. *Disability Studies Quarterly*. 33, 2 (2013). 10.18061/dsq.v33i2.3705</ bib>

< bib id="bib143">< number>[143]</ number>Scheuerman, M.K., Branham, S.M. and Hamidi, F. 2018. Safe spaces and safe places: Unpacking technology-mediated experiences of safety and harm with transgender people. *Proceedings of the ACM on Human-Computer Interaction*. (2018). DOI:<https://doi.org/10.1145/3274424>.</ bib>

< bib id="bib144">< number>[144]</ number>Schlesinger, A., Edwards, W.K. and Grinter, R.E. 2017. Intersectional HCI: Engaging identity through gender, race, and class. *Conference on Human Factors in Computing Systems - Proceedings* (2017). 5412–5427. DOI:https://doi-org/10.1145/3025453.3025766</ bib>

< bib id="bib145">< number>[145]</ number>Shrinivasan, Y.B., Jain, M., Seetharam, D.P., Choudhary, A., Huang, E., Dillahun, T. and Mankoff, J. 2013. Deep conservation in urban India and its implications for the design of conservation technologies. *Conference on Human Factors in Computing Systems - Proceedings* (2013). 1969–1978. DOI:https://doi-org/10.1145/2470654.2466261</ bib>

< bib id="bib146">< number>[146]</ number>Siek, K.A., LaMarche, J.S. and Maitland, J. 2009. Bridging the information gap: Collaborative technology design with low-income at-risk families to engender healthy behaviors. *Proceedings of the 21st Annual Conference of the Australian Computer-Human Interaction Special Interest Group - Design: Open 24/7, OZCHI '09* (2009). 89–96. DOI:https://doi-org/10.1145/1738826.1738841</ bib>

< bib id="bib147">< number>[147]</ number>Smith, C.E., Wang, X., Karumur, R.P. and Zhu, H. 2018. [Un]breaking news: Design opportunities for enhancing collaboration in scientific media production. *Conference on Human Factors in Computing Systems - Proceedings* (2018). Paper 381, 1–13. DOI:https://doi-org/10.1145/3173574.3173955</ bib>

< bib id="bib148">< number>[148]</ number>Smith, L.T. 2012. *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books. 2nd Ed.</ bib>

< bib id="bib149">< number>[149]</ number>Spiel, K., Walker, A.M., DeVito, M.A., Birnholtz, J., Barlas, P., Ahmed, A., Brubaker, J.R., Keyes, O., Brulé, E., Light, A., Hardy, J., Rode, J.A. and Kannabiran, G. 2019. Queer(ing) HCI: Moving forward in theory and practice. *Conference on Human Factors in Computing Systems - Proceedings* (2019). SIG11, 1–4. DOI:https://doi-org/10.1145/3290607.3311750</ bib>

< bib id="bib150">< number>[150]</ number>Strohmayr, A., Comber, R. and Balaam, M. 2015. Exploring learning ecologies among people experiencing homelessness. *Conference on Human Factors in Computing Systems - Proceedings* (2015). 2275–2284. DOI:https://doi-org/10.1145/2702123.2702157</ bib>

< bib id="bib151">< number>[151]</ number>Sturm, C., Oh, A., Linxen, S., Abdelnour-Nocera, J., Dray, S. and Reinecke, K. 2015. How WEIRD is HCI? Extending HCI principles to other countries and cultures. *Conference on Human Factors in Computing Systems - Proceedings* (2015). 2425–2428. DOI:https://doi-org/10.1145/2702613.2702656</ bib>

< bib id="bib152">< number>[152]</ number>Subašić, E., Reynolds, K.J. and Turner, J.C. 2008. The political solidarity model of social change: Dynamics of self-categorization in intergroup power relations. *Personality and Social Psychology Review*. (2008). DOI:https://doi-org/10.1177/1088868308323223.</ bib>

< bib id="bib153">< number>[153]</ number>Sultana, S., Guimbretière, F., Sengers, P. and Dell, N. 2018. Design within a patriarchal society: Opportunities and challenges in designing for rural women in Bangladesh. *Conference on Human Factors in Computing Systems - Proceedings* (2018). Paper 536, 1–13. DOI:https://doi-org/10.1145/3173574.3174110</ bib>

< bib id="bib154">< number>[154]</ number>Tanis, M. and Postmes, T. 2005. Short communication a social identity approach to trust: Interpersonal perception, group membership and trusting behaviour. *European Journal of Social Psychology*. (2005). DOI:https://doi-org/10.1002/ejsp.256.</ bib>

< bib id="bib155">< number>[155]</ number>Tatum, B.D. 1994. Teaching White students about racism: The search for White allies and the restoration of hope. *Teachers College Record*, 95(4), 462–476. Retrieved from http://www.goldenbridgeschool.org/uploads/1/9/5/4/19541249/teaching_white_students_about_racism.pdf</ bib>

< bib id="bib156">< number>[156]</ number>Taylor, A. 2011. Out there. *Conference on Human Factors in Computing Systems - Proceedings* (2011). 685–694. DOI:https://doi-org/10.1145/1978942.1979042</ bib>

< bib id="bib157">< number>[157]</ number>Thomas, J.O., Joseph, N., Williams, A., Crum, C. and Burge, J. 2018. Speaking Truth to Power: Exploring the Intersectional Experiences of Black Women in Computing. *2018 Research on Equity and Sustained Participation in Engineering, Computing, and Technology, RESPECT 2018 - Conference Proceedings* (2018). DOI: 10.1109/RESPECT.2018.8491718</ bib>

< bib id="bib158">< number>[158]</ number>Thompson, L. and Reinhartz, S. 1992. Feminist Methods in Social Research. *Journal of Marriage and the Family*. (1992). 54(4), 996-997. DOI:https://doi-org/10.2307/353180.</ bib>

< bib id="bib159">< number>[159]</ number>To, A., Sweeney, W., Hammer, J. and Kaufman, G. 2020. “they Just Don’t Get It”: Towards Social Technologies for Coping with Interpersonal Racism. *Proceedings of the ACM on Human-Computer Interaction*. (2020). Article 024 (May 2020), 29 pages. DOI:https://doi-org/10.1145/3392828</ bib>

< bib id="bib160">< number>[160]</ number>Unertl, K.M., Schaeffbauer, C.L., Campbell, T.R., Senteio, C., Siek, K.A., Bakken, S. and Veinot, T.C. 2016. Integrating community-based participatory research and informatics approaches to improve the engagement and health of underserved populations. *Journal of the American Medical Informatics Association*. (2016). DOI:https://doi-org/10.1093/jamia/ocv094.</ bib>

< bib id="bib161">< number>[161]</ number>Vashistha, A., Anderson, R., Garg, A. and Raza, A.A. 2019. Threats, abuses, flirting, and blackmail: Gender inequity in social media voice forums. *Conference on Human Factors in Computing Systems - Proceedings* (2019). Paper 72, 1–13. DOI:https://doi-org/10.1145/3290605.3300302</ bib>

< bib id="bib162">< number>[162]</ number>Vashistha, A., Sethi, P. and Anderson, R. 2018. BSpeak: An accessible crowdsourcing marketplace for low-income blind people. *Conference on Human Factors in Computing Systems - Proceedings* (2018). Paper 57, 1–13. DOI:https://doi-org/10.1145/3173574.3173631</ bib>

< bib id="bib163">< number>[163]</ number>Veinot, T.C., Ancker, J.S., Cole-Lewis, H., Mynatt, E.D., Parker, A.G., Siek, K.A. and Mamykina, L. 2019. Leveling Up: On the Potential of Upstream Health Informatics Interventions to Enhance Health Equity. *Medical Care*. 57(6), S108-S114. DOI: 10.1097/MLR.0000000000001032</ bib>

< bib id="bib164">< number>[164]</ number>Villenas, S. 1996. The Colonizer/Colonized Chicana ethnographer: Identity, marginalization, and co-optation in the field. *Harvard Educational Review*. (1996). DOI:https://doi-org/10.17763/haer.66.4.3483672630865482.</ bib>

< bib id="bib165">< number>[165]</ number>Vines, J., McNaney, R., Clarke, R., Lindsay, S., McCarthy, J., Howard, S., Romero, M. and Wallace, J. 2013. Designing For- and With- Vulnerable People. *Conference on Human Factors in Computing Systems - Proceedings* (2013). 3231–3234. DOI:https://doi-org/10.1145/2468356.2479654</ bib>

< bib id="bib166">< number>[166]</ number>Vines, J., McNaney, R., Lindsay, S., Wallace, J. and McCarthy, J. 2014. Designing for and with vulnerable people. *Interactions*. 21, 1 (January - February 2014), 44–46. DOI:https://doi-org/10.1145/2543490</ bib>

< bib id="bib167">< number>[167]</ number>Shapiro, N. 2020. Viral #MedBikini Response To Controversial Manuscript Leads Editor To Retract Article. *Forbes*. Retrieved from <https://www.forbes.com/sites/ninashapiro/2020/07/25/viral-medbikini-response-to-controversial-manuscript-leads-editor-to-retract-article/?sh=283a146c1f47></ bib>

< bib id="bib168">< number>[168]</ number>Wallerstein, N.B. and Duran, B. 2006. Using Community-Based Participatory Research to Address Health Disparities. *Health Promotion Practice*. (2006). DOI:https://doi-org/10.1177/1524839906289376.</ bib>

< bib id="bib169">< number>[169]</ number>Walter, J.K., Burke, J.F. and Davis, M.M. 2013. Research Participation by Low-Income and Racial/Ethnic Minority Groups: How Payment May Change the Balance. *Clinical and Translational Science*. 6, 5 (2013), 363–371. DOI: 10.1111/cts.12084</ bib>

< bib id="bib170">< number>[170]</ number>Waycott, J., Wadley, G., Schutt, S., Stabolidis, A. and Lederman, R. 2015. The challenge of technology research in sensitive settings: Case studies in “Sensitive HCI.” *OzCHI 2015: Being Human - Conference Proceedings* (2015). 240–249. DOI:https://doi-org/10.1145/2838739.2838773</ bib>

< bib id="bib171">< number>[171]</ number>Wendell, S. 2016. Unhealthy disabled: Treating chronic illnesses as disabilities. *The Disability Studies Reader, Fifth Edition*. <https://doi.org/10.1111/j.1527-2001.2001.tb00751.x></ bib>

< bib id="bib172">< number>[172]</ number>Williams, E.P. and Walter, J.K. 2015. When does the amount we pay research participants become “undue influence”? *AMA Journal of Ethics*. DOI: 10.1001/journalofethics.2015.17.12.ecas2-1512</ bib>

< bib id="bib173">< number>[173]</ number>Williamson, G.R. and Prosser, S. 2002. Action research: Politics, ethics and participation. *Journal of Advanced Nursing*. (2002). DOI:https://doi-org/10.1046/j.1365-2648.2002.02416.x.</ bib>

< bib id="bib174">< number>[174]</ number>Winner, L. 1985. Do artifacts have politics? *Daedalus*. 109(1):26-38 DOI: 10.4324/9781315259697-21</ bib>

< bib id="bib175">< number>[175]</ number>Wong-Villacres, M., Kumar, A., Vishwanath, A., Karusala, N., DiSalvo, B. and Kumar, N. 2018. Designing for intersections. *DIS 2018 - Proceedings of the 2018 Designing Interactive Systems Conference* (2018). 45–58. DOI:https://doi-org/10.1145/3196709.3196794</ bib>

< bib id="bib176">< number>[176]</ number>Wyche, S., Dillahunt, T.R., Simiyu, N. and Alaka, S. 2015. “if god gives me the chance i will design my own phone”: Exploring mobile phone repair and postcolonial approaches to design in rural Kenya. *UbiComp 2015 - Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing* (2015). 463–473. DOI:https://doi-org/10.1145/2750858.2804249</ bib>

< bib id="bib177">< number>[177]</ number>Wyche, S.P., Densmore, M. and Geyer, B.S. 2015. Real Mobiles: Kenyan and Zambian Smallholder Farmers? Current Attitudes Towards Mobile Phones. *ACM International Conference Proceeding Series* (2015). Article 9, 1–10. DOI:https://doi-org/10.1145/2737856.2738013</ bib>

< bib id="bib178">< number>[178]</ number>Wyche, S.P. and Murphy, L.L. 2012. “Dead China-make” phones off the grid: Investigating and designing for mobile phone use in rural Africa. *Proceedings of the Designing Interactive Systems Conference, DIS '12* (2012). 186–195. DOI:https://doi-org/10.1145/2317956.2317985</ bib>

< bib id="bib179">< number>[179]</ number>Ymous, A., Spiel, K., Keyes, O., Williams, R.M., Good, J., Hornecker, E. and Bennett, C.L. 2020. “I am just terrified of my future”: Epistemic Violence in Disability Related Technology Research. (2020). 1–16. DOI:https://doi-org/10.1145/3334480.3381828</ bib>

< bib id="bib180">< number>[180]</ number>Linton, S. 1998. Claiming disability: knowledge and identity. NYU Press. (1998). DOI:https://doi.org/10.5860/choice.35-6303.</ bib>