Working at the Intersection of Race, Disability, and Accessibility

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ABSTRACT

Examinations of intersectionality and identity dimensions in accessibility research have primarily considered disability separately from a person's race and ethnicity. Accessibility work often does not include considerations of race as a construct, or treats race as a shallow demographic variable, if race is mentioned at all. The lack of attention to race as a construct in accessibility research presents an oversight in our field, often systematically eliminating whole areas of need and vital perspectives from the work we do. Further, there has been little focus on the *intersection* of race and disability within accessibility research, and the relevance of their interplay. When research in race or disability does not mention the other, this work overlooks the potential to better understand the full nuance of marginalized and "otherized" groups. To address this gap, we present a series of case studies exploring the potential for research that lies at the intersection of race and disability. We provide examples of how to integrate racial equity perspectives into accessibility research, through positive examples found in these case studies and reflect on teaching at the intersection of race, disability, and technology. This paper highlights the value of considering how constructs of race and disability work alongside each other within accessibility research studies, designs of socio-technical systems, and education. Our analysis provides recommendations towards establishing this research direction.

CCS CONCEPTS

• **Human-centered computing** → **Accessibility**; • **Social and professional topics** → **Race and ethnicity**.

KEYWORDS

Race, Disability, Accessibility, Intersectionality, Inclusion

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1 INTRODUCTION

> *"If Disability Studies took up Black Studies and Critical Race Theory in ways that displaced the white disabled body as the norm, we might gain a stronger, more flexible, and globally relevant framework… Too often we engage race and its impact as an additive or comparative category of difference rather than a constitutive aspect of notions of disability in the West."* (Bailey and Mobley, [5])

In her 1991 Stanford Law Review article, Kimberlé Crenshaw speaks of the importance of *intersectionality* as a analytic lens saying *"although racism and sexism readily intersect in the lives of real people, they seldom do in feminist and anti-racist practices"* [35]. Sociologists Patricia Hill Collins and Sirma Bilge note that the theoretical lens of intersectionality stands to address the gap within social problems experienced by women of color that persists within a single-focused lens on social inequalities [31]. Since the coining of this term and emergence of its use among scholars in law and the humanities, we have seen researchers apply the theoretical framework of intersectionality to various areas of study to understand the many axes of social division that work together and influence people's lives and their relationship to power. Scholars who take a critical look at technology research have applied intersectionality as a framework to examine race and social class in regards to sociotechnical systems, arguing that this lens and research approach has the potential to "bring about solidarity within the HCI community" [127]. Similarly, we argue that, while ableism and racism often collide in everyday life [109], the intersection of these constructs is mostly absent from both accessibility research and race and HCI research. As a result, implicitly, the bulk of accessibility research contributes to a limited understanding of the experiences of people with disabilities, primarily focusing on those who are White [52, 118, 134], or well off and have access to higher education (to even be diagnosed with some types of disability is a privilege of the white middle class [17]).

Important advances have been established at the nexus of race and disability outside the technology space. Various scholars have begun to advocate for an intersectional lens when studying disability [53, 68], primarily in areas of education and law. For example, Harris [68] asserts that some of the more salient socio-political

issues can no longer stand to look at racialization and disability as distinct. In his recent article, Harris states that centering those at the intersection of the racial justice and disability rights movements present a "unifying lens to understand the roots of both race and disability discrimination, the nature of the harms experienced by those with intersectional identities" and presents a construction of remedies to address inequality. Outside of the ivory tower, disability activists have led efforts to advocate for more intersectional movements where these constructs and dismantling the axes of power that they succomb to are acknowledged as critical to liberation [77], citing not only the erasure but the regression of progress that happens when neglecting one or the other. Technology research has additionally demonstrated the importance of looking at race and disability, (although in isolation from each other) for certain topics (e.g., biased algorithms [34, 62, 108, 125]). Preliminary investigations of an intersectional lens to disability and accessibility research point to the advantages for digital inclusion [54, 105], and highlight the potential of neglecting such perspectives. Given this context, by ignoring the intersection of race and disability in accessibility research, we may fail to study topics that arise only at their intersection (such as the need for captioning systems that support the rapid code switching common in multilingual families [140]). The potential for investigating the intersections experienced by racially minoritized groups that live with disbilities is vast, and calls attention to how we might make technology and our research practice more inclusive.

We might also ask what new domains of study accessibility might engage with, were it to consider the intersection of race and disability. For example, disaster response and safety is an important area of vulnerability for both Black and Brown people and people with disabilities [39], and of interest to HCI researchers (e.g., [110, 121, 137]), disability scholars (e.g., [2, 75, 114, 124]) and race scholars (e.g., [15]). HCI researchers have also begun to engage with groups such as unhoused people [84], institutionalized or incarcerated people [120], and unemployed individuals [42, 43]. All of these are domains where people with disabilities, and Black and Brown communities, are either over- or underrepresented and as a result must be considered through an intersectional lens to accessibility research.

A few accessibility papers have begun to emerge in this landscape to address this gap (e.g., [11, 79, 98, 141]). For example, Bennett et al. [11] explore the role of race in image descriptions through interviews with a variety of people with diverse identities. Their paper represents a valuable foray into what we believe is a rich and under-examined space for research in accessibility. Building upon the recent emergence of this area, we echo that a broader understanding and awareness of these constructs is foundational to meaningfully engage the intersection of race, disability, and technology. Thus, our exploration of this topic was spurred initially by an effort by the authors to educate themselves in this space. In the Fall of 2020, two members of our research team led a research seminar on Race, Disability, and Technology. We detail this experience in Section 3. Developing the reading list and seminar discussions revealed the scarcity of work in this space. The seminar also helped highlight the many impactful topics that can be understood only through the intersection of race, disability, and accessibility research.

This paper provides an overview of our efforts towards developing a graduate seminar focused on the intersection of race, disability and technology. We reflect on our experience teaching this research seminar as the catalyst to an analysis of existing work and research in our field. Reflections of this seminar led to the formation of this research team, and our work together to learn about the intersection of race and disability. From our realization that we did not have a framework for thinking about work at this intersection, we present a review of considerations for engaging with race and disability in the research and education process and highlight four opportunities for intersectional engagement with disability and race in accessibility research. We then analyze three exemplary papers which lie at the intersection of race, disability and technology, identifying research recommendations to rethink our efforts towards accessibility research.

Positionality. We offer the analyses of the case studies in this paper as one of several possible interpretations which are influenced by our identity and positionality as scholars. Situated knowledge is essential to evaluating technological systems in sociocultural contexts [155], and as a result there is an active discourse around accessibility research that includes the perspectives of disabled people and those that technology aims to serve [12, 60]. At the same time, it has rightly been pointed out that disabled academics do not represent all people with disabilities [86]. With these considerations in mind, we worked with the intention to form an author group that could draw from both personal and professional knowledge in doing this work. We note this is of particular importance as research scholars examining the intersection of race, disability, and accessibility. Thus, our research team is composed of both scholars with and without disability, graduate students and senior academic faculty, and individuals who identify as White American, Black American, South Asian-American, and South Asian immigrant. All authors have extensive experience studying accessibility.

We also acknowledge that our scope of race is contextualized to the United States based on our collective positionality and experiences as living across the United States. Following work by To et al. [143], we situate our work in the United States as a first step. Our discussion of what it means to engage race and disability in accessibility research throughout this paper is therefore informed by the perspective of the history and current state of racial dynamics within the United States.

2 BACKGROUND ON DISABILITY, ACCESSIBILITY & RACE

Much of the research on technology-related accessibility has focused primarily on a very few categories of disability [99] such as blind and low vision technology (over 40%); while research on the intersection of accessibility and other identity categories is rare. For example, in the summer of 2020, we conducted a search of the ACM digital library for papers that used words like "race", "disability" and "Black" in preparation for the teaching seminar. Our search turned up extremely few results that were not relevant to the constructs of race and disability (such as about *black lists* and *race conditions* in the security sphere)*. In the rare case when a paper talks about both

*We acknowledge that since the submission and acceptance of this paper there have been additional papers published in this area that were not included in this search

disability and race [98], they are often treated separately, providing information on what percentage of participants are in various categories without considering how those identities interact or how they impact lived experiences of participants (e.g., [67, 156]). We note that literature on the intersection of disability and race has arisen from both academic contexts such as DisCrit [32] and community contexts such as Disability Justice [77]; however much of this literature is not yet connected to most accessibility research.

To that end, we focus this review on important adjacent domains where these constructs have been studied. First, we define what we mean by the terms 'disability' and 'race', and contextualize what it means to engage with these constructs in research. We next review some of the ways in which race and disability interact to amplify inequity and highlight key precedent work at this intersection. Finally, we identify technology-related work at the intersection of disability and race including those that have amplified disability or racial bias.

2.1 Defining Constructs of 'Disability' and 'Race'

Scholars have acknowledged that both disability and race are social constructs with no objective reality, and thus people come to make decisions on them based on their social identities [93, 122]. For example, according to Leonardo and Broderick, 'Whiteness' *"reserves the right to exclude any person or group for the purposes of racial domination. 'White' is whatever Whites make it to be, using whatever ideological reasoning happens to be available at the time"* [93]. Explaining the historical musings of historians James McPherson and Ralph Waldo Emerson, Ta-Nehisi Coates positions that race is an American social construct that is a product of social context [30]. He explains that there are no physiological measures which separates the races, instead they were adapted to explain social difference and inferiority.

Similarly, scholars have positioned disability as one that is subjective with no one particular experience. The specific language used by people with disabilities to describe themselves and the concept of a disability identity are inconsistent [101, 129, 136]. As noted by Susan Jones, the experiences of disability vary across time, culture, and environments [80]. There is no singular experience of disability, rather humans define what it means to be disabled. For example, while the medical model situates disability within the individual (as impairment), the social model of disability posits that disability is caused by barriers in the environment and society [117], and the political/relational model further recognizes the ideological systems and discriminatory attitudes that contribute to disability [82]. Within the context of HCI and design research, scholars posit that exploring and engaging constructs of 'disability' and 'race' must also move past solution-problem framing and orientation [37, 64, 141], and instead employed in ways that leverage the social complexities of these constructs. Engaging constructs of race and disability in new research efforts will require such an orientation that can be used to navigate discussions and analyze research findings, outcomes, and what this means for accessibility as a result.

Several research-related challenges may exist due to the nature of these variables being defined by social consensus. One consequence of the complexities underlying understanding how to engage these social constructs in research assessments is that they are hard to measure. Oftentimes, within a collection of demographics, there are several compounding factors that can act as proxies for engaging in race and disability. Common adjacent data and identifiers that are reported as ways to define or operationalize these constructs include health status and services utilized, socioeconomic status, and locality [115]. For example, evaluating what healthcare services are utilized by an individual and the extent of their use are used as determinants of access, even though disability, type of impairment, and level of severity can be multi-faceted and require consideration of social factors [117]. Research efforts can be further complicated by the fact that identifying along each of the constructs of race or disability can have undesirable effects. Mannerisms and interactions of how folks are treated upon revealing they belong to a certain identity, community, and group can have negative perceptions and consequences. This is common within employment and other professional settings [70]. The disclosure of these facets also subject people at this intersection to more criticism and harm. Finally, data collection (and the labeling associated with it) are complicated by the fact that these social constructs are a moving target [93]. People may interpret one's race based on social positioning or other subjective factors (e.g. perceptions of skin tone, regional background). In accessibility research, this is potentially exarcerbated by the fact that little emphasis is placed on reporting or recording information about race, or engaging with it as a construct.

2.2 The Intersection of RacexDisability

As a field, HCI broadly continues to refine what it means to appropriately enact intersectionality [127, 135]: Scholars Rankin and Thomas assert that drawing on intersectionality requires far more than checking boxes of race, class or gender but instead an understanding of the *politics* of identity [127]. When enacted through an approach of categorizing identities, the structural dynamics of research that is intended to center the voices of participants "still often perpetuates the exploitation of marginalized folks" [22]. Although the intersection of disability and race is understudied in the accessibility technology literature, it is very much a topic of inquiry in the broader disability literature [32, 40, 77, 158]. This body of literature touches on topics such as religion, fashion, innovation, science inclusion, communication access, climate and disaster response, mutual aid, interdependence, joy, class, ability, opportunity gaps, over and under representation, the school-to-prison pipeline and school reform, and race, disability and the law.

Engaging both race and disability within research also means recognizing that the intersection of these social constructs might not be explicit. On the one hand, those that sit at the crossover of these identities often face a "double burden" [44]. This overlapping marker within social stratification dicates additional inequities, disparities, and lack of access. On the other hand, Rankin and others acknowledge that observing the lens of such intersectional identities may in fact lead to a more unified research practice through unique experiences [126, 127]. For example, a study of STEM workers found that people of color with disabilities were among the most disadvantaged compared to white able bodied heterosexual men and 31 other intersectional groups on measures ranging from social

inclusion to salary [26]. More generally, race, disability and poverty are deeply intertwined in the United States [56, 76], with disabled people, especially those of color, facing inequities in education, poverty status, employment, medical debt, food security, and more [56]. Given this context, it is not surprising that students with disabilities, particularly people of color with disabilities, are less than half as likely to complete a bachelor's degree as their non-disabled counterparts [56]. Similarly, entire books have been written about the interlocking factors that contribute to the over-representation of both people of color (particularly Black people) and people with disabilities in the North American carceral system, refugee and asylum systems, and systems that feed into these [28, 40]. These problems have deep historical roots, in the context of eugenics and medical experimentation and immigration, as highlighted in studies re-examining historical events from a lens that considers the intersection of race and disability (e.g., [78, 112, 147]). For example, (supposed) disability was used to justify slavery and to deny immigration to unwanted groups [108, 112]: "...discrimination against people of color, women, and other historically marginalized groups has often been justified by representing these groups as disabled.... Thus disability is entwined with, and serves to justify, practices of marginalization." ([108], p. 11).

There is also an active and informative dialogue taking place outside of academia at the intersection of race and disability, including blogs and podcasts such as the 'Chicas Talk Disability YouTube Channel'[†] and the 'Black Disabled Men Talk' podcast[‡]. Disability activists have also championed the #BlackDisabledLivesMatter[§] and #DisabilityTooWhite [109] movements to acknowledge this intersection. Many of those driving this broader conversation have histroically been actively excluded from academia in the past, but have provided a strong foundation for any discourse around the intersection of race and disability.

Out of these and other settings, the concept of 'Disability Justice' has arisen [14, 77]. Disability Justice, which was founded by a group of marginalized, disabled community activists and artists, is based on the observation that "all bodies are caught in bindings of ability, race, class, gender, sexuality and citizenship ... [and that] only universal, collective access can lead to universal, collective liberation" [77]. Rather than focusing on one issue, disability justice recognizes the power in complex identities, and situates power in an intersectional, anti-capitalist collective framework of caring, interdependence, solidarity and liberation. At the same time, it provides a critical lens for examining oppression [141].

2.3 Race and Disability in the Technology Space

The idea that technology can reproduce racism is discussed in works such as Hankerson et al. [61], which found that at the time only six articles in the ACM digital library mentioned the term "racism." The authors ask why racism is not reflected in our literature and highlight how technology can perpetuate racial bias, a premise that is further investigated in Ruha Benjamin's book 'Race After Technology' [9]. It does not require digging far beneath the surface to uncover a multitude of examples of such technologies. Multiple articles have taken up the important topic of how technology and race intersect (e.g., [66, 116]) as well as the inclusiveness of the field to scholars of color [47]; our methods (e.g., [21, 41, 95, 145]); and the potential for technology to directly address the implicit and explicit racism in app and algorithm design (e.g., [14]) and the impacts of racism (e.g., [144]).

Similarly, technology can reproduce ableism. Not only are many websites and apps simply not accessible to people who do not use the traditional combination of keyboard, mouse, and monitor in traditional configurations (e.g., [132, 149]); but many apps, data sets, and algorithms may all encode ableist biases [104]. Data-related biases can be made worse by the heterogeneity of the disability experience, making it hard to ensure that data about any one person can be collected at scale [125]. As with racism and technology, many examples exist of ableist biases impacting a multitude of domains. The risks associated with ableist technology include serious concerns such as disclosure (of disability), surveillance, and technology's role in denying services to people or failing to even recognize that a sensed signal is a person as well as exacerbating or causing disability [104]. Ableism is so prevalent, even within our own accessibility research community, that multiple papers have taken a critical perspective on how we as a community co-construct our domains of inquiry (e.g., [97]'s discourse analysis of institutional logics in discourses of housing and [162]'s analysis of epistemic violence in disability-related technology research).

Despite the parallels in these two domains of inquiry, few technology focused articles have considered the intersectional aspects of race, disability and technology. There is a robust literature studying race and culture in the context of assistive technology adoption [74, 131, 146], which illustrates the importance of intersectional analyses that illuminate how racism and ableism intertwine and interact to generate unique forms of inequality and resistance (e.g., [74]). Such literature includes the examination of disability and labor of data workers in China [159], the study of image descriptions with and about intersectional identities [11], post-COVID mutual aid networks among communities of color and people with disabilities [139], and the intersectional experiences of refugees with disabilities [59]. Some of this literature even acknowledges the complex nuance of the intersectional lens, such as Edwards et al. [46] highlighting tensions in intersectional persona development with regard to concerns such as oversimplification and stereotyping. Finally, Sum et al. [141] organized a workshop on Disability Justice in HCI, which included 34 submissions touching on topics from disability justice in the Global South to body autonomy to smart cities to virtual and hybrid conferences as a form of intersectional equity. Although these workshop papers represent early thinking in this space, they demonstrate the breadth and depth of research that our community is inspired to do at the intersection of race and disability.

3 TEACHING & LEARNING AT THE INTERSECTION

This project started with a graduate-level reading seminar that focused on disability, race, and technology held in the Fall of 2020 led by two members of our research team. This course was in response to the national activism for racial equity, forefronted by the Black

[†]https://www.youtube.com/@chicastalkdisabilityyoutub7482/about
[‡]See https://blackdisabledmentalk.com/
[§]See https://blacklivesmatter.com/disabled-black-lives-matter/

Lives Matter movement in 2020, which led some of our research team to acknowledge their lack of experience with the intersection of race, disability, and accessibility. Instructors chose a seminar format to structure self-education, and open the opportunity to others. This seminar was neither exhaustive nor perfected, but it provides context for this paper and experience for others to draw from, especially those who do not feel they have the background to begin exploring the intersection of race, disability, and technology.

3.1 Structure

The Fall 2020 seminar was a specialized version of a graduate-level accessibility research seminar that had been offered in a computer science department for years. The class included about 20 people who self-identified with a range of cultural backgrounds with many students identifying as disabled. However, the group was predominantly white and female graduate students from computer science, engineering, and human-centered design. Almost all attendees had research focused on accessibility. Few had professional experience engaging with race in their research. Overall, the class, including the members of the research team that served as instructors, were more comfortable discussing accessibility research, disability, and access needs. This created opportunities for learning and unlearning as well as challenges in extending our discussions to meaningfully engage with race.

To prepare for the seminar, two members of our research team that instructed the seminar spent the summer of 2020 searching for technical academic publications in the ACM digital library using phrases such as "race", "disability", "accessibility", and "Black", but found very few relevant papers, a driving factor for continuing the project presented in this paper. The instructors also began reading books that discussed the intersection of race and disability, such as DisCrit[32]; Blackness and disability: Critical examinations and cultural interventions [78]; and Disability Visibility [158]. The scarcity of literature at the intersection of race, disability and technology led us to bring a variety new of perspectives into our seminar including press, blogs, panels, and other media. When searching for non-academic papers, our team of instructors tried to prioritize sources from people with first-hand experience. Table 1 presents the final reading schedule, which included areas with known large impacts at the intersection of race and disability (e.g., policing, healthcare, algorithmic bias); common topics from previous iterations of the accessibility seminar that instructors wanted to revisit with a race-disability intersectional lens (e.g., speech technology, fabrication); and topics that emerged from seminar discussions (e.g., self description & disclosure, activism in academia). The Activism in Academia topic emerged during the seminar as the group balanced self-education (i.e., through the reading and discussions) and calls-to-action. Within the seminar attendees presented current events and opportunities for taking action (e.g., protests and petitions to local governance around police brutality in the wake of BLM protests, petitions and open letters on discrimination in our academic spaces). Instructors tried to balance using the seminar for building capacity for collective action with not wanting to misuse our power as facilitators.

Additionally, the team of instructors sought guest presenters who worked in relevant topic spaces outside of accessibility or had done accessibility work that featured Black participants. Scholars included researchers whose work supported Black communities of elders, and a researcher who had done work in bias in artificial intelligence systems reflecting on race and disability independently. Our guests were all academics from our close professional networks (see Table 1). While the broader (non-academic) use of blog posts and podcasts was beneficial to the seminar, instructors did not contact those authors. On reflection, this may have undermined these authors' ability to get value from our use of their material. Moving forward, we encourage proactively contacting authors about the use of their publications and creating paid opportunities for those authors to join the discussions.

3.2 Lessons from Facilitating: Access Needs, Identity, and Power Dynamics

The seminar was intended to be inclusive for people with a range of backgrounds, accessibility needs, and communication styles. The process of co-creating access practices within the identity-focused topics of the seminar, surfaced how access interacts with race, cultural background, and other identity dimensions. This led to discussion topics, opportunities for learning, and points of reflection for us as facilitators.

To support access, people were encouraged to speak their name when commenting verbally, voicing text-based contributions, and verbally describing our visual appearance and setting for people who were blind, low-vision, did not have video access, or otherwise benefitted from that information. Driven by the seminar's focus and the expectations set by the course instructors' introductions, these self-descriptions often included race/skin-tone and disability information. Some participants shared identity information as an access practice, others to contextualize their contributions. Discussions arose around balancing access with disclosure.

Additionally, there was uncertainty around the language of self-description (e.g., describing skin-tone versus racial or cultural background), discomfort in drawing additional attention to people with minority identities, and creating implicit pressures for people to share more parts of their identity than they wanted (e.g., pronoun sharing for someone questioning their gender identity). One example of an initial misstep during the seminar was the understanding and misuse of the term "white-presenting" as a descirptive phrase. Providing historical context to the term provided space to understand its misuse for the correct term, "white-passing". Students responded (including through more private channels) that others had recognized this mis-use as well but not felt comfortable speaking up. While this was an opportunity to demonstrate learning among instructors, it was also indicative of the power dynamics that other people in the discussion group did not feel comfortable raising this as a concern before instructors did. This examples indicates both the importance of engaging with scholars from diverse backgrounds and viewpoints in discussing disability and accessibility but also the need to create safe and open learning environments that facilitate reflection, open discussion, and correction.

Table 1: List of topics and readings assigned each week.

Introduction	How to center disability in the tech response to COVID-19 [24]; On Being Black and 'Disabled but Not Really' [7]
AI & Fairness *[Guest visitor: Dr. Shari Trewin]*	Algorithmic de-biasing [125]; Artificial Intelligence's White Guy Problem [34]; Can you make an AI that isn't Ableist? [62]; Optional: [108]
Speech & Speech Technologies	On How Deaf People Might Use Speech to Control Devices [16]; Why racial bias still haunts speech-recognition AI [17, 96]; Black AAC User Perspectives on Racism and Disability [153] Optional: [20]; [88];[55]
Governmentality & Algorithms	Exposing Error in Poverty Management Technology: A Method for Auditing Government Benefits Screening Tools [49]; What Happens when an Algorithm Cuts your Healthcare [92] Financial Inequality: Disability, Race and Poverty in America [56] (Introduction) Optional: [84]; [156]
Health and Healthcare Provision *[Guest visitor: Dr. Christina Harrington]*	Engaging low-income African American older adults in health discussions through community-based design workshop [65]; Challenging Invisibility, Making Connections: Illness, Survival, and Black Struggles in Audre Lorde's Work [18]; Compounded Disparities: Health Equity at the Intersection of Disability, Race, and Ethnicity. [161] (especially Section 4a) Optional: [163]; [85]
Self-Description and Disclosure *[Guest visitor: Dr. Cynthia Bennett]*	"Recovering our Stories": A small act of resistance. [33]; How to write an image description. [27] Optional: [71]; Audio Description example [Kartemquin Films]; [50]; [25] [142]
Policing, Prison & the School to Prison Pipeline *[Guest visitor: Dr. Karin Martin]*	Surveillance and Confinement: Explaining and Understanding The Experience of Electronically Monitored Curfews [111]; Migrant surveillance: How the federal government monitors asylum seekers [1]; When They Call You a Terrorist. Chapter 4. [36]; Crippin' Jim Crow: Disability, dis-location, and the school-to-prison pipeline [48]; Optional: [4](1 hr listen); [72] (preface and first chapter); [8]
Activism in Academia & the Workplace	Addressing institutional racism within initiatives for SIGCHI's diversity and inclusion. [57]; A challenging response. [102]; Mayor Durkan and Seattle Police: Release the Public Records of Herbert Hightower Jr.'s '04 Police Killing NOW! (policing and disability in Seattle petition); Demand for the University of Washington Administration to Meet the Needs of Black Students (petition on policing and education at the University of Washington)
Fabrication & Cyborgs	3D printing prosthetics for amputees in Haiti [29]; Shifting Expectations: Understanding Youth Employees' Handoffs in a 3D Print Shop [45]; A very kind conversation between a cyborg and some biohackers [150]

3.3 Reflections on Teaching Race and Accessibility

Students appreciated the breadth of topics and sources covered. Seminar participants had a range of backgrounds, so having grounding material in topics around race, disability, and technology was useful. However, due to the skew in experience of seminar attendees toward accessibility research, it was an ongoing challenge to have rich discussions around the intersection of race in the accessibility and technology spaces. One solution could be integrating more

foundational readings into the course and continuing to build our own understanding to be better able to facilitate those discussions.

In the time since leading the seminar, instructors have continued to explore literature on race in computing and critical studies. Future iterations or continuations of this seminar could include recent additions to the literature in the HCI and Accessibility communities, as well as more historic readings to contextualize the systemic history of the intersection of race and disability and the systemic history of race and disability-based oppression through technical systems. Further, scholars could draw from a larger range of disciplines. We explore this approach as a part of this paper.

4 FRAMEWORKS FOR ENGAGING THE INTERSECTION OF RACE & DISABILITY

Learning from the experiences of the seminar, our larger research group formed to begin exploring next steps that would address the gap observed within intersectional work in the field of accessibility. Here we present a first important step: Identifying existing frameworks for engaging with race (e.g., [3]) and disability (e.g., [81, 100]). We are not aware of a single framework within HCI that engages with the intersection of both race and disability, however the frameworks we review here share a common focus of engaging across the research process. Andrews et al. provide one foundation of appropriately engaging with race and ethnicity in research [3]. Here, scholars discuss four stages, and related substages, for incorporating a racial and ethnic equity perspective throughout the research process as critical to work is both inclusive and respectful. According to this framework, researchers who work with or study phenomena related to racially minoritized communities have a responsibility not to "perpetuate disparities, inequalities, and stereotypes" [3]. As such, they recommend that such research should start with a *"landscape assessment"*, or understanding the history and values of a community; collecting the contextual information necessary to properly define the research problem without bias and identify root causes. Next, study design requires developing equitable research questions, designing the research process with community input, and considering who should collect data and how to share and prioritize information. Data analysis must guard against implicit bias and support community investment in the results. Finally, dissemination should consider audience, messaging, medium and sustainability through ongoing engagement with the community of focus.

Within the field of computing, Mack et al. [100] identify a staged process for inclusive methods to consider disability starting with "doing your homework" (similar to a landscape assessment), and then integrating the study design with accessibility considerations for method selection, recruitment, access checks, transportation to the study, and accessibility of physical space if relevant. They also discuss data analysis and dissemination, where they highlight the importance of member checking at the end of the study [100]. This process demonstrates the potential for people with disabilities to participate in the research process and ideal research parameters through activities such as member checking, which ensures that participants' voices are not only heard, but clearly valued. Kabir [81] additionally introduces participant health concerns as being central to any framework of engaging with disability; listing a similar set of stages. Both Mack et al. [100] and Kabir [81] also argue for the importance of both anticipating potential barriers to access, and adjusting in the moment. This is especially true when needs may change dynamically [101].

In addition to framework-level contributions, we draw from literature that highlights new methodological structure and goals that arise in working at these intersectional spaces [145, 152]. For example, Leal et al. and Ymous et al. [91, 162] highlight how this work can perpetuate epistemic violence and oppression. Oftentimes, disabilty or even racialized identity "demarcate a type of knowing and lived experience that is systematically subverted" and marginalized away from what is considered "real" research. There is also a risk of invalidation in work that stems from people that might not carry institutional power [63, 91, 162]. Such work may be seen as threatening [86], or be categorized as service or advocacy and not considered legitimate in the perspectives of the research community at large. Reactions such as recent efforts to silence and ban concepts such as "equity" and "critical race theory" threaten our ability to engage in the full body of work relevant to the intersection of race and disability [123]. Finally, Williams et al. [154] highlight the importance of critique in their paper on counterventions, "a critical approach to research design that engages with community-informed counterargument in the production of empirical studies that imagine alternatives to normative intervention." They illustrate examples of studies and critique research aims using two sets of criteria. The first relates to landscape assessment and asks whether the researcher discusses "the political/historical tensions between literature and participant experiences and describe how they hope to address it with the project". The second relates to community input, and asks whether the project has been successfully oriented (or re-oriented) to critically examine whether an intervention is "devoted to participants' desires without ulterior motive."

By learning from the frameworks described, researchers can build a strong foundation for doing access work at the intersection of race and disability. These frameworks can help support reflection on where ableism and racial bias might influence research questions, study design questions, analysis questions, and dissemination concerns. Our discussions around what it means to engage with the intersection of race and disability in HCI have been shaped by reviewing this literature along with our own experiences as researchers. However, there are some unique considerations at the intersection of race and disability. We highlight this with respect to four research considerations. The first two, ***formalization*** and ***framing and scoping***, relate to landscape assessment but also require an understanding of the literature and theory relevant to race, disability and its intersection. The next, ***methods***, relates directly to study design. Finally, ***writing and analysis*** relates to analysis and parts of dissemination.

4.1 Stage 1: *Formalization*

In this stage of research, researchers may define what is meant by race, disability, and their intersection, and use that to guide what phenomena is studied. This is informed by theories that draw separately from race and disability scholarship (e.g., Critical Race Theory [116] and [52] or Disability Studies [103]) as well as intersectional frameworks and theories (e.g., DisCrit [32, 93, 128]).

Engaging with disability in HCI has prominently looked at how we can use technology to make the world accessible for people with disabilities, or highlighting the exclusionary nature of existing technologies and corresponding failures to meet access needs of people with disabilities (e.g., [10, 73, 99, 103]). Engaging with race in HCI similarly explores the impact and adoption of technologies by different racial groups, experiences with certain systems, and how these technologies may perpetuate harm against those with marginalized racial identities (e.g., [3, 61, 64, 78, 116, 138]). Engaging with the intersection of race and disability may involve framing the research more broadly than either construct individually, and highlight new avenues for research.

For example, a study of disability in the school system might focus on a math tutoring system that helps to address negative emotional behaviors [9]. A study of race in the school system might focus on cultural and language relevance in technologies that improve learning [51]. A study that engages with the intersection of race and disability might start by identifying relevant theory in both domains and identify the inequities faced by students of color with disabilities. These may include 1– being more likely to be labeled as learning disabled, and less likely to receive an actual disability diagnosis [17], and 2– facing school suspensions and other disciplinary actions for students of color with disabilities, that in turn lead to students being held back, placed in the juvenile justice system, or other outcomes [40, 94]. This intersectional analysis thus suggests a widening set of stakeholders involved in the study as well as a need to bring together systems that address how negative emotions are read and understood with cultural relevance and an understanding of the inadequacy of student labeling.

4.2 Stage 2: *Framing and Scoping*

This is the stage of research where we decide what research questions are worth answering. To do this, the dynamics of knowledge production need to be interrogated and reimagined, including who is included in the process [3, 162]. In HCI, that has been realized through a shift towards participatory research methods for accessibility and action research [69]. The opportunity to engage in the definition of research questions is a particularly powerful part of the research process where engaging diverse voices is important.

As an example, an accessibility focused research project may focus on automated speech recognition and captioning technologies potential to support d/Deaf and hard-of-hearing individuals (e.g., [13, 83, 89, 106]). A similar project in this space that engages with racial identity may explore the use of speech recognition technologies (such as Alexa) by speakers with different dialects (e.g., [38, 66, 148, 151]). Engaging with the intersection of race and disability brings up new research questions – how well do current captioning systems capture different dialects? How well do speech recognition systems work for speakers of these dialects who also have deaf accents, stutters, or non-normative speech patterns? Disability and race each offer new dimensions to explore. How does the potential for surveillance through captioning tech impact adoption by those with multiple marginalized identities? How does internalized ableism shape how folks adapt/hack speech recognition technologies for use?

4.3 Stage 3: *Methods*

The next step in the research process is to identify the epistemological foundations of the project and select and execute methods. As an example, research that engages with the construct of race may need to address insider/outsider dynamics, cultural relevance, and power structures [58, 107]. An accessibility focused methodological plan must additionally consider how research addresses accessibility needs such as breaks, access to interpreters, and multiple modalities [100]. Researchers might also ask, do the selected methods provide room for the identification of root causes and the development of insights based on lived experience [73]. Further, this is a continual, iterative process: When we venture into sensitive spaces, we must repeatedly and consistently interrogate the work we do as we do it to identify potential unintended consequences and negative impacts of our interventions and interactions. Whether those consequences represent unexpected accessibility needs [100], difficulties with recruiting or retaining participants, or deeper expressions of bias and ableism, ongoing attention to their possibility is essential to reacting to and addressing them, minimizing harm, and maximizing the power and positive impact of the time gifted by participants to the endeavor.

For example, consider this sequence of studies (all by the same authors): First, a study of passively sensed behavior correlates of discrimination experiences among students might start by talking to a broad sample of students of different races and ethnicities, uncovering changes in psychological state, physical activity, phone use and sleep [136]. However, the representation of people with disabilities in the study was only 1%, and in later iterations of the same study despite attempts to recruit, this only went up to an average of 10% [160], about half of the true representation at universities [90]. A deeper look at the study methods must question the root cause of these challenges, which might be recruitment, retention due to inaccessible study design, or an unknown factor and adjust the methods accordingly. Alternatively, a new approach might revisit the same questions in an interview format, as [164] do. This may in turn require returning to questions of framing and scoping. For example, Zhang et al. [164] mention one example of the intersection of race and disability where a participant benefited from office hours not only due to the ease with which they could zoom in on the whiteboard (they were low vision); but also because they felt unsafe walking to in-person office hours due to their race and gender. We present this as an example of a sequence of articles that variously touch on race and disability, but never fully engage with their intersection. Even just by touching on demographics, however, they aptly illustrate the importance of iterating on methods to engage with different populations.

4.4 Stage 4: *Analysis and Writing*

The final stage of a project involves integration and synthesis of the work, to carry the intersectional research questions and analysis goals that guided the research through to writing and analysis as well. Recognizing how researchers' own identities and biases have shaped the research process is one key aspect of this work. This has increasingly shown up in HCI literature as explicit positionality statements regarding ability and racial identities of authors. At a deeper level, this may look like interrogating power dynamics

and relations between researchers and participant communities or amongst the research team due to these identities. For example, in a co-design effort with a local Black community group, Tran O'Leary et al. [145] found, upon reflection that that the very methods being studied morphed during their analysis, where the researchers were "thinking in terms of lines of 'perfect' alignment for the concrete forms [while their collaborators] prioritized specific people's engagements over an idealized design process." While that study did not engage with disability, the importance of critical questioning of assumptions and definitions extends to intersectional work as well.

In addition, even when research questions explored by a paper do not center the intersection of race and disability, there is still potential for these constructs to come up in data and findings (as illustrated in the case above). Through analysis and writing, researchers have a chance to reflect on biases and new dimensions of inquiry. This may involve noting instances of ableism and racism in collected data (e.g., participant interviews), as well as identifying historic and systemic factors/biases and root causes that may be contributing/impacting research questions and findings. While this is often realized through positionality statements, Boveda and Annama [19] call for researchers to reflect on "how they engage with and communicate knowledge about multiply marginalized people" throughout the research process. Their three-pronged framework on the onto-epistemic, sociohistorical and sociocultural outlines questions for researchers to reflect on throughout the research process, from design to publication [19].

Although our work does not dive into the final stage of Andrews' framework [3], it is worth noting that writing often must consider multiple audiences, including the communities that offered their time for the research to take place.

4.5 Final Considerations

While we have endeavored to offer some concrete examples for each of the outlined stages, we do not mean to oversimplify the nuances related to deep and meaningful engagement with social constructs of race and disability. This engagement looks different for each project. We emphasize that researchers need to be responsive to what the wants and needs of multiple marginalized communities and what they say is right and important. Further, work in this space necessitates iteration based on learning, and constantly adapting with and to needs of the community.

5 CASE STUDIES

A prominent way in which HCI progresses in understanding, reflecting, and advancing our work can be attributed to case studies. Researchers have used case studies to study various types of intersectional work [6, 55], construct compelling narratives, and cultivate a critical lens for HCI research. This process of reflecting through a collection of existing work and projects surfaces new ways of thinking and research futures for the community [12, 65, 103, 154]. Below we present a series of case studies of literature that exemplify engagement with both race *and* disability through the course of research.

In choosing our case studies, we focused on what it means to engage with race and disability, the discussion of these two as social constructs, and the overlapping oppressions that populations face, amplified by or experienced through interactions with technology. In addition to using keywords such as *'Race'*, *'Disability'* and *'Intersectionality'*, we used keyword descriptors of research approaches (e.g., equity, inclusion, diverse) to guide our search across the ACM Digital Library and Google Scholar. We read through articles following a scoping search to identify research questions outlined, frameworks used, and engagement with constructs of race and disability within the research article to choose our three case studies. This was not intended to be an exhaustive review, and we note the field continues to introduce notable publications since this work has commenced. Through our selected case studies, we attempt to address a broad coverage of themes through examples that portray elements of intersectionality based on existing frameworks.

The case studies selected below comprise different domains of technology and technology use. The choices of papers have no intention of dissecting a particular group or type of disability, or assessment and evaluation of technology's role in the space, or its usability. Our analysis examines the people, focus of the study, and methods applied while contemplating how each facet of the research process engages with constructs of race and disability and undertakes intersectional approaches. Given these components as core to our review, our search goes beyond the ASSETS/HCI research sphere and its associations. Instantiation of these themes are strongly represented in other fields and adjacent research communities we draw from.

5.1 Case Study 1: Negotiation Accessibility and (Mis)Representation in Image Descriptions

Bennett et al. [11] provide a landmark example in the discussion of race, gender, and disability around image descriptions, suggesting a need to critically assess tensions across these generally siloed categories of identity for accessibility research. This paper serves as an imperative case study for HCI research as it expands upon an intersectional lens by interviewing people at the nexus of identities (racial minorities, gender, and disability) and provides analysis across these multiple dimensions of identity which are arguably and frequently narrowly classified.

This paper reports on interviews with 25 screen reader users (mix of totally blind, those with visual memories, and other visual impairments) who also identify as "Black, Indigenous, People of Color, Non-binary, and/or Transgender," and actively browsed social media as their main criteria. The study focuses on how to describe appearance – preferences for self-descriptions of identity; experiences and concerns around misrepresentation by others and/or too much description; interest in knowing others' appearance; and guidance for AI generated image descriptions.

While the goal of the work was to figure out how to better describe appearance in image-descriptions, it recognizes that explicit expression of these parts of identities and their manifestations might not always be appropriate and necessary in all interactions of content. People aren't always seeking the same level of acknowledgement, feedback, and detail in all scenarios and use cases. Therefore, it is crucial to point out that there are certain contexts vs. others in which the interplay of race and disability might not be of significance or priority. However, if unknown, there are situations

where making an assumption and erasing these facets of identity, (e.g., by AI generated prediction) can be more harmful.

Why this paper? Due to the nature of image description as an assistive technology for people with vision impairments and the level of access it might afford, populations that are more marginalized and minoritized typically take the burden of its harms. This paper delves into these tradeoffs between access and microaggressions that skew these experiences with technology. The authors go beyond just reporting demographics data of race and ethnicity of participants to actively comparing and contrasting the specific perspectives that emerged as a result of participants' particular identity–how it affected their choices to use the technology, how much of the burden of misrepresentation they had to endure, and levels of harm they had to tolerate. Taking a critical deeper dive into engaging them through potential benefits and harms, the paper called for "intersectional ethical review of accessibility research."

Another nuance to note is the domain and type of technology being discussed in this case study. While the paper immerses in intersectional analysis and discussion across dimensions of race and disability, it is significant to observe how race plays a role in the functionality of the technology in question. Image descriptions by nature require description of physical features and appearances that can allude to aspects of race itself. Therefore, even though the case study examines what might be considered a more traditional form of accessibility in supporting people with visual disabilities, it engages with the construct of race by challenging its conceptualization in visual vs. nonvisual ways of sensemaking, the power dynamics, and the historical validity associated with both.

5.2 Case Study 2: Designing for Intersectional, Interdependent Accessibility

Gonzales [55] outlines how an interdependent and intersectional approach to translation work can help with creating accessible digital content. This work is directed towards a technical communication researcher audience who often negotiate making their works accessible to a variety of audiences. By combining insights from disability studies and translational studies, it highlights how access practices as well as cultural and racial practices influence every stage of research design, method, and dissemination, in the context of the author's prior work with communities of translators. Using these prior works to generate data narratives, along with her own experience as a bilingual immigrant, technical communicator, and translator, the author's reflections showcase meaningful engagement with intersectional tenets through the course of research.

From 2014-2017, the author worked with communities of translators to learn how they used a variety of digital and non-digital resources and practices to transform information across languages. While her focus was initially on spoken/written language translation, she quickly realized that communication is an embodied experience wherein translators use any available mode to communicate (drawing figures, texting, using their bodies, singing, dancing). The embodied nature of this practice depends on issues of access and dis/ability, and cannot be separated from material conditions, histories, and experiences of translators and audiences of translation. The translators she worked with often identified as immigrants and with many dis/abilities, and so she noted how their identities influenced their approach to their work. It was through disability studies work that she came to understand the interconnectedness and interdependence of modalities, communities, and histories. By "threading disability studies' ongoing attention to embodiment, dexterity, and mobility with translation and language diversity scholars' attunement to racial and cultural practices," we can reimagine access in technical communication research. In creating video montages of these translation sites, she wanted to understand how her decisions regarding accessibility (such as adding captions) impacted the presentations of translanguaged information. Thus in this paper, she reflects on her experiences designing and publishing that work, using data narratives to highlight interdependent and intersectional considerations in creating accessible and bilingual digital content.

The first narrative, regarding creating bilingual captions, discusses tensions between translations and accessibility for audiences. Subtitles usually offer language translations for viewers from different languages, and captions offer transcriptions of both speech and non-speech audio for d/Deaf and hard of hearing audiences. As the author's work focused on sites of translation, the videos contain a mix of "Spanishes and Englishes and gestures"– the act of adding captions and subtitles necessitates making assumptions about ability and linguistic background of the audience, and balancing the need for access with the goal of showcasing linguistic tensions that arise during translation work. The second narrative, which focuses on technical skills and language competencies, talks about the need to acknowledge non-normative communication practices. By highlighting multimodality in their work, they had to further interrogate the impact of "dis/ability, power, agency and consent" on participants and surrounding communities. The third narrative, regarding rights and representation, discusses her attempts to include translators in writing and analysis (moving from "about" to "with") and notions of reciprocity and consent and interdependence in the shaping of any intellectual work. It concludes by setting goals for intersectional interdependent accessible content creation: including designing for language fluidity, developing culturally relevant policies for digital publishing, and recognizing labor of multilingual content creation.

Why this paper? The author's reflections on how frameworks of interdependence and intersectionality informed the methods used, as well as decisions made through the research process demonstrate what strong engagement with intersectionality can look like. For example, the choice to use video recordings in sites of translation allowed her to capture multimodal, embodied communication, but brought up new considerations regarding comfort and consent of participants, and the role of race, class, and gender in shaping power dynamics. The resulting discussion of centering collective access and goals shaped data collection and which video data was disseminated. This also came up when she incorporated translators' perspectives through her work – by working *with* translators and not just writing *about*, she reflected on reciprocity and giving back to the community whose time she was using. This led to collectively deciding with participants to not anonymize data, and thus allow them to trace their contributions in resulting publications. The use of data narratives through this analysis shows one of many possible choices to address needs of multiply marginalized – the constant

acknowledgement of many possible ways of addressing these needs and multiplicity is well done.

Additionally, the phenomena studied and case made for disseminating research in a way that is accessible to those from different linguistic backgrounds and a variety of dis/abilities has direct implications for the research community and how we move towards engaging with race and disability at multiple scales and beyond the scope of a single project. The decisions she reflected on are not unique to a single project and often embedded in research publication and dissemination pipelines. By explicitly stating these choices, we can begin to interrogate how we may be reinforcing structures of oppression. If we want to *"purposely decenter standardized notions of language, culture, and ability simultaneously"* as Gonzales states, we need to recognize the critical considerations involved in working with multiply marginalized communities, AND the labor of doing so well. This has value to prepare the research community and professionals for this area of work.

5.3 Case Study 3: Understanding Socio-cultural Accessibility Barriers for Refugees with Disabilities in the US

Hamidi et al. [59] examines the amplified challenges surrounding access to disability and healthcare services that refugees with disabilities face in host countries. Hamidi and colleagues report findings from semi-structured interviews with six experts who have experience serving marginalized refugees in the United States. The authors note that composed interview protocols were developed based on preliminary literature review. Their analysis reveals two major categorizations of barriers to accessing disability and healthcare resources: cultural factors and language factors. Further, their analysis examines the use of digital technologies by refugees with disabilities and raises opportunities for further development of technology solutions towards structural change in order to promote culturally sensitive accessibility and healthcare resources.

To reduce potential burdens that could emerge from the participation of refugee families with a member with disabilities, the authors capture the perspectives of experts who have experience serving marginalized refugees in the United States. Three of the experts who have lived experiences of arriving in the United States as refugees themselves, highlight their personal navigation of cultural and language barriers. The authors make note of this limitation, as the presented recruitment strategy limits the comprehensive understanding of refugees' personal perspectives regarding accessibility and access to healthcare services. The authors surface future directions for incorporating such perspectives into their work.

Through the lens of cultural barriers, their findings identify cultural disconnects in the social interpretations of disability between refugees and their host countries– this is rooted in the different types and levels of stigma. Regarding language barriers, their findings identify two main contributing factors to the presence of communication gaps: limited language support (lack of resources for refugees to overcome language barriers to accessing healthcare and accessibility resources) and both refugees' and providers' limited uptake of services to overcome language difficulties. The authors found that these highlighted cultural and language barriers between refugees and disability/health services contribute to misunderstandings, in turn, lending to mistrust, not having sufficient tools to address accessibility and healthcare concerns at this intersection. The authors argue that this dilemma, "can be understood from an intersectional perspective that places the experiences of refugees with disabilities at the intersection of multiple overlapping categories of power relations, disability and immigration status. Viewed from this perspective, it becomes clear that the resources and training of experts serving only people with disabilities or refugees will not be adequate to address the needs of people who are both refugees and have disabilities." Hamidi et al.'s analysis goes on to examine current technologies used by refugees with disabilities and raise recommendations for future assistive technology solutions that build on these existing technologies available to refugees with disabilities.

Why this paper? This work examines a phenomena that has been previously overlooked in accessibility scholarship– demonstrating the value in expanding the domain in which we do accessibility research. This phenomena goes beyond traditional avenues to promote structural change in order to make accessibility and healthcare resources more culturally sensitive for refugees with disabilities. Their usage of post-medical frameworks honors the social conceptualizations of disability and emphasizes the rights of people with disabilities, while also offering room to recognize overlapping power relations that impact the intersectional experiences of people with disabilities. The authors' reflections of these frameworks aid in informing their composed methods and analysis. When recruiting they were mindful of their target population. Thus, to reduce potential burdens that could emerge from the participation of refugee families with a member with disabilities, the authors capture the perspectives of experts who are experienced with serving refugees in the United States. The authors also highlight lived experiences of navigating personal cultural and language barriers, as three of the experts came to the United States as refugees themselves.

Through their identified cultural and language barriers, the authors center the voices of experts who serve refugees in providing recommendations of future assistive technology approaches that build on existing technologies (e.g., social networks, low-cost cell phones) that are available to refugees. Their identified cultural and language barriers between refugees with disabilities and services directly inform technology recommendations. Examples of recommendations raised by the participants include language support/integration, improving the cultural training of healthcare service providers, training refugees on how to use technologies to identify resources, among others. This paper can serve to guide future work to examine understudied accessibility topics through an intersectional perspective.

5.4 Considering a Framework and Agenda for RacexDisability in Accessibility Research

Our case studies exhibit the various points in a research endeavor in which accessibility research may benefit from analyzing data from the perspective of race and disability. Both disability and race are positioned as constructs that cause us to reflect on equity, equality, access and inclusion in our research practice. Frameworks such as *Intersectional HCI* and *Critical Race Theory in HCI* have provided a critical foundation for such an analysis, and we build

upon such frameworks to explicitly incorporate race as a construct into the consideration of disability work in technology-related research. By analyzing these cases we aim to not just suggest this methodological undertaking as one of labor, but to push beyond the categorization of demographics and truly reflect on and engage with these constructs. To this end, we discuss the overall representation of these case studies against our proposed framework.

1– Formalization: All of the case studies examined include some form or formalization. Race is treated differently in each paper, in part because each paper looks at different social and technical contexts. For example, Bennett et al. [11] treat race as a "sociomaterial system for categorizing people" based on cultural, behavioral and physical traits because that is most relevant to how it translates to language and description, and draw on critical race theory in their analysis. Hamidi et al [59] focus on and discuss ethnicity, which is consistent with their participants, who do not necessarily identify according to U.S. concepts of race before they arrive in the US. In contrast, the immigrants in Case Study 2 (Gonzales et al.) [55] have been part of the U.S. context for much longer and race manifests in the power structures impacting translation work. Disability is also addressed through multiple frames. For example, Bennett et al [11] discuss disability in terms of "margins of normalcy", meaning something that does not go along with normalizing expectations imposed by society. They draw from feminist crip theory and disability studies in their analysis. Gonzales et al. [55] draw from interdependence frameworks and thus considers disabilities both in the consumers of transcription and translators' experiences. Hamidi et al. [59] surfaces cultural factors that lead to barriers in accessing disability and healthcare services and references the social model and human rights model of disability. This latter model offers room for the experiences of refugees with disabilities who are also impacted by other facets of their identity. In terms of topic, Bennet et al. [11] and Gonzales et al. [55] use their approaches to critique problem spaces that are already central to accessibility research, while Hamidi et al. [59] focus on a domain that is outside the scope of traditional accessibility research. Both represent important benefits of doing intersectional work.

2– Framing: The influence of the research questions being asked is profound. For example, despite many works on image description, Bennett et al. [11] is the first to ask how we should describe people in images who experience the marginalization of their impairment and their racial identity. It is a reflection of the depth of Bennett et al.'s [11] engagement with intersectional approaches that they specifically asked people of color who are screen reader users about their preferences for descriptions of self-identity and appearance nonvisually in various contexts. Hamidi et al. [59] are motivated to better understand the amplified cultural and language barriers that people with disabilities face, and to elicit structural change that supports their navigation of healthcare services and the technology that refugees with disabilities use to access these services. Their work uncovers a disconnect between refugees and service providers, stigma, language barriers and lack of resources and uptake of services to address these difficulties. Gonzales [55] aims to better understand the material conditions, histories, and cultural and bodily experiences of translators with disabilities and reflect on tensions in creating accessible, inclusive digital content for disseminating research to people with different linguistic backgrounds and disabilities. In each of these projects, we can see the deep impact of the intersectional frame on the questions being asked.

Each of these papers also does work to connect intersectional issues to the design of technology. For example Bennett et al.'s [11] work has direct implications for the design of AI based image description technologies. Hamidi's work can impact the creation of accessibility technologies aimed at supporting refugees. Gonzales' work helps us to understand tools and practices that can support creation and dissemination of accessible digital content by researchers.

3– Method: In reflecting on the themes across these works, we note that the choice to work with populations marginalized along various axes of identity directly impacted how the researchers recruited participants and the methods they chose. Recruitment limitations were noted in multiple papers. For example, Hamidi et al. [59] discuss how, to reduce potential negative consequences and burdens on participation for refugee families, they worked with experts who serve refugees, some of whom also had prior experience as refugees themselves. The authors note this as a limitation, citing a lack of personal perspectives from some of the experts, and discuss the need to include those perspectives in the future. Bennet et al. [11] intentionally recruit for identities they know people have disclosed, take pride in, and are connected to through advocacy and community organizing spheres. The authors describe this as both a limitation and a necessary process for sampling. It is also worth noting that although none of the case studies formally used participatory design, some of the specific choices that these cases made about participant engagement reflect a careful attention to topics like power, cost to stakeholders, credit, and so on. For example, Gonzales et al. [55] use video recordings to capture translators work to avoid prioritizing only "auralist ways" of knowing and being. In doing this, they also needed to consider power relations, privacy, and disclosure that come with video recordings. They worked with participants to make sure they could represent their work on their own terms, including the impact of prior experiences on their work. They also discuss the rights and representation, collectively reaching a decision not to anonymize so that participants receive credit for the time they put into the paper. Bennett et al. [11] intentionally focus on stakeholders who are screen reader users themselves, in contrast to many prior papers who focus on describers.

4– Writing/Analysis: We find that each of these papers engage the interplay of race and disability into their conclusions, even though they differ in how they represent the identities of participants and their own positionality. Bennett et al. [11] go beyond standard positionality statements to actively expose personal perspectives where they are relevant, while being careful not to do this when a topic is not personally relevant. Before diving into the analysis and discussion of findings, the authors designate space to carefully discuss the identities of participants beyond reporting demographics tables, commenting on "shared disabilities" other than the one in focus, the relationship between gender and those self-reporting as BIPOC, and those who have "white passing privilege." Hamidi et al. [59] surfaces the conceptualizations of overlapping power relations and imbalances that impact refugees with

disabilities. They argue that barriers due to cultural and language disconnects between refugees with disabilities and providers can be understood from these power relations. Further, their analysis discusses root causes of discrimination towards refugees, in turn, influencing access on both the refugee and providers part. Gonzales [55] draws on their own background "as an immigrant, visibly able bodied tech communicator and translator for the work". The authors frequently talk about how visible and invisible dis/abilities of participants influenced their translation practices. Their work highlights tensions between linguistic/cultural access and disability access that has implications for how we might approach later stages of race and disability informed research such as member checking and dissemination [3, 81, 100].

6 DISCUSSION

Our work on this project has taken almost three years to reach a point where we were ready to submit it. In the meantime, we have seen a rapid increase in the attention this intersection is receiving, with over 40 of our references published in 2021 (the year we began the analysis of the included case studies) or later, including two of our three case studies [11, 59]. In doing this work, we have learned and grown together.

Our three case studies, while notably distinct in their domains of inquiry and methodology, highlight the breadth of work that can be done when inspired to engage with the intersection of race and disability, from new perspectives on technology work (such as image annotation [11]) to domains entirely new to the field of accessibility (such as technology use among refugees [59], or mutual aid [139]). The field of accessibility has already begun to move past a focus on GUI and web accessibility, past access to next generation technology such as AR/VR and intelligent agents, and into all of the spaces where people interact with technology. In all of these spaces, there are people marginalized by both race or disability, and people at the intersection of both who deserve our attention and will in turn lead us to new innovations and insights. HCI research that has engaged intersectional considerations into research practices [22, 54, 127], whether through project scope or framing of analysis has paved a path for solidarity across HCI and address power relations in technology needs and access. While prior work has highlighted the value of critique as one way to forge alternatives to normative research practices [154], we see equal value in highlighting the promise of this area through exemplary case studies.

Framing research at the intersection of race and disability can also lead to a broader set of meaningful perspectives being included (i.e., stakeholder expansion) in research. As seen through [59], this brings up questions of how one might balance the inclusion of first-person perspectives with burden to community, and whether one should work with other stakeholders instead. In doing this work, there are crucial considerations around continued engagement and reciprocity with the community in question (as seen in [55]), without imposing technocentric biases and destabilizing assumptions before intervening as highlighted by [11]. Defining race and disability is central to engagement, since they shift in meaning with respect to culture, community, and social positioning. As dynamic dimensions of identity, race and disability vary in how they determine technology use. While each of our case studies define race and disability, there is variation in detail provided. It is important to acknowledge that this may be for various reasons including participant privacy or disclosure. Lastly, the constant reflection and interrogation of power relations cannot be understated. These surface across authors, within stakeholder and participant groups, between technologies and communities, and through access and cultural practices.

With the lack of data, research, and reporting on intersectional disability work related to technology [23, 119, 130, 133], there needs to be an increased amount of credibility and trust in situated knowledge. This can be attributed to the dynamics of knowledge production in disability, its embodied nature, epistemological bases, and how this information is bound to be translated to formal knowledge [113]. What is traditionally viewed as empirical research and knowledge sidelines and excludes much of the rich insight and meaning disability groups construct based on their lived experiences. This has been called to attention in the ASSETS community by Hofmann et. al [73], where they highlight three core observations: ableism, oversimplification of disability, and centering human connections and relationships around disability.

Of course, we acknowledge that race does not have to be squarely in the focus of every accessibility project or vice versa. Further, identity is often a fluid context, and a community of people may not all share the same identity. For example, it would be a mistake to assume that all older people are disabled [67, 87], just as it is a mistake to assume all disabled people are white, or that all racial groups view disability the same way. We must go beyond implicit assumption about who is present in our work to meaningfully engage with this intersection. It is also important to note the challenges with intersectional research design that must be considered. For example, moving away from additive thinking and incorporating intersectional concepts into data collection may pose as a challenge to some in the accessibility space [157]. Based on our analysis we provide guiding principles to help establish and support this research area as one that looks to amplify the experiences of individuals who sit at this intersection of disability and race as opposed to a problem-solution orientation:

1– Looking Beyond Academia. We learned during our seminar that much of the conversation taking place at the intersection of race and disability is notably happening outside of the ivory tower of academia. Disability advocates and racial justice activists alike have taken to media platforms, blogs, and artistic expression to call attention to the particular experiences of racially minoritized individuals who have a disability. Engaging with this ongoing conversation means that citational justice, and noting what kinds of knowledge production are valid and valued are ways to take action. Researchers should look to activist-led projects and integrate these works into syllabi and invitations for course lectures. Teaching and project collaboration are spaces where we can look beyond the academy to expand our understanding of this intersection.

2– Reduce Assumptions of Participant Defaults. It has been shown through various meta reviews that very few papers within the HCI accessibility-related space report on the construct of race let alone the interplay of this construct and technology [67]. We must, as a field, move beyond the default of leaving the reader to assume that the sample is white (or able bodied) without explicitly saying

so. Such defaults hinder the inclusiveness of the whole research process. As such, we as a field must work to educate ourselves about race and disability, because even if a project (or body of work) isn't engaged with race, it is imperative to recognize when intersectional issues arise in a study or they will end up either on the cutting board or as a small side note. Researchers should debunk a lot of the standing defualts and definitions that ignore the nuance and complexitities of experiences of those that sit at the intersection of racial identity and disability. We urge for more reporting of race as a demographic factor and the engagement with it as a construct in terms of research design and analysis of findings where appropriate.

3– Going Beyond Basics. While reporting (and collecting) data is essential, we should beware of categorizing for categorization sake and work to engage with race and disability meaningfully. What is it about the race of participants in the sample, how does this social positioning impact perspective, how do their culturally embedded experiences influence their accessibility needs? Going beyond the basics pushes beyond the additive nature of listing mutliplte dimensions of identity [126, 157]. Researchers should avoid skating around the social context of race and instead lean into what this may tell us about phenomena of sociotechnical systems and technology needs. Simply conflating race to being synonymous with marginalization or underserved does a disjustice to the ways racial identity may be at play. This also disproportionately paints the picture of certain groups as less than in our research field. Often, when we think of low socioeconomic status, we think Black/Brown, this is a false assumption which neglects the perspective of White people in this category. Further, the presumption that poor=Black or Brown is itself inherently racist, but also skewed due to the geographic regions we are working in. We urge scholars to critically consider social dimensions of these dimensions and their relation to accessibility.

4– Making Mistakes. While a part of our research practice is to ensure careful intention in our research questions, study design and analysis, as learners in this field it is probably inevitable that we will make mistakes. Fear of these mistakes should not stop us from doing this work. Sometimes we need to just try and possibly fail fast, as with the seminar. Other times, as with the long path to this paper being complete, failure might look like slow progress. We chose, studied, and discarded two of our own papers and multiple other papers before we settled on those presented here. Along the way we found our writing at times too critical, at other times we struggled to connect our work to our stated focus. Making mistakes may be a vital part of developing a research agenda at this intersection, as a way to refine methods and ingenuitive research approaches.

Considerations Going Forward. Existing frameworks call for continued engagement with communities (e.g., [3]). This is critical, but continued engagement with representation in our community is critical. Multiple of us have been engaged in varying ways with addressing social justice within our own research community [91]. How we run our research groups, the volunteer work we do in the community, and how the research community operates as a whole all set the stage for an environment where engaging with race, disability, and intersectionality is a norm. It is through parts of research (that maybe do not fit into the scope of a single project) like community building, dissemination, teaching, advocacy, and activism that we can dismantle structures of power and oppression, and have a positive lasting impact on the communities we work with. Just as disability work done without the input of people with first person experience of disability can be problematic, it has been valuable for our team to have representation from multiple people with varying experiences in disability, race, and their intersection. In doing this work, there is an obligation to make space for people who can speak for the community directly i.e. people with disabilities, racially minoritized individuals, and people at the intersection.

It is no surprise that some of the leading researchers who have begun to enter these spaces are also people who have personal experiences that make it impossible for them to ignore how our existing approaches silence and ignore common and consequential experiences. We must, as a field, work to ensure that we create safe spaces to increase representation of people with disabilities, Black and Hispanic and other minoritized researchers, and people that have been historically disenfranchised. As Brewer [22] argues, "radically centering intersectional voices that break binary boundaries and decolonize racial hierarchies" is one important path towards more meaningful engagement with intersectional work.

7 CONCLUSION

We present case studies and accompanying framework to suggest why examining the intersection of race and disability may strengthen accessibility research. There is great promise for accessibility research to engage with this nexus in the research questions, methodology, analysis, and documentation of the work that we do. In this paper, we discuss a strong precedence of work that has led to defining this research agenda for the ASSETS community, contextualize race and disability in this area, and highlight work that exemplifies this area. We encourage the accessibility community to see this as a starting point for future research engagements.

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REFERENCES

[1] Roshan Abraham. 2016. *Migrant Surveillance: How the Federal Government Monitors Asylum Seekers.* Master's thesis. The City University of New York.
[2] David Alexander, JC Gaillard, and Ben Wisner. 2012. Disability and disaster. In *The Routledge handbook of hazards and disaster risk reduction.* Routledge, Oxfordshire, England, UK, 413–423.
[3] Kristine Andrews, Jenita Parekh, and Shantai Peckoo. 2019. A guide to incorporating a racial and ethnic equity perspective throughout the research process. https://www.childtrends.org/publications/a-guide-to-incorporating-a-racial-and-ethnic-equity-perspective-throughout-the-research-process
[4] Ramtin Arablouei and Rund Abdelfatah. 2020. American Police.
[5] Moya Bailey and Izetta Autumn Mobley. 2019. Work in the intersections: A black feminist disability framework. *Gender & Society* 33, 1 (2019), 19–40.
[6] Joy Banks. 2014. Barriers and supports to postsecondary transition: Case studies of African American students with disabilities. *Remedial and Special Education* 35, 1 (2014), 28–39. https://doi.org/10.1177/0741932513512209
[7] Imani Barbarin. 2019. On Being Black and 'Disabled But Not Really.'. https://rewirenewsgroup.com/2019/07/26/on-being-black-and-disabled-but-not-really/
[8] Samantha Bee. 2019. Stop Doing That! With Nyle DiMarco Full Frontal on TBS. https://www.youtube.com/watch?v=hMr831Ro2-k
[9] Ruha Benjamin. 2020. Race after technology: Abolitionist tools for the new Jim code.

[10] Cynthia L. Bennett, Erin Brady, and Stacy M. Branham. 2018. Interdependence as a Frame for Assistive Technology Research and Design. In *Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility, ASSETS 2018, Galway, Ireland, October 22-24, 2018*, Faustina Hwang, Joanna McGrenere, and David R. Flatla (Eds.). ACM, New York, NY, USA, 161–173. https://doi.org/10.1145/3234695.3236348

[11] Cynthia L Bennett, Cole Gleason, Morgan Klaus Scheuerman, Jeffrey P Bigham, Anhong Guo, and Alexandra To. 2021. "It's Complicated": Negotiating Accessibility and (Mis) Representation in Image Descriptions of Race, Gender, and Disability. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. ACM, New York, NY, USA, 1–19. https://doi.org/10.1145/3411764.3445498

[12] Cynthia L Bennett and Daniela K Rosner. 2019. The promise of empathy: Design, disability, and knowing the" other". In *Proceedings of the 2019 CHI conference on human factors in computing systems*. ACM, New York, NY, USA, 1–13. https://doi.org/10.1145/3290605.3300528

[13] Larwan Berke, Christopher Caulfield, and Matt Huenerfauth. 2017. Deaf and Hard-of-Hearing Perspectives on Imperfect Automatic Speech Recognition for Captioning One-on-One Meetings. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility, ASSETS 2017, Baltimore, MD, USA, October 29 - November 01, 2017*, Amy Hurst, Leah Findlater, and Meredith Ringel Morris (Eds.). ACM, New York, NY, USA, 155–164. https://doi.org/10.1145/3132525.3132541

[14] Patricia Berne, Aurora Levins Morales, David Langstaff, and Sins Invalid. 2018. Ten principles of disability justice. *WSQ: Women's Studies Quarterly* 46, 1 (2018), 227–230. https://doi.org/10.1353/wsq.2018.0003

[15] Jeffrey W Bethel, Sloane C Burke, and Amber F Britt. 2013. Disparity in disaster preparedness between racial/ethnic groups. *Disaster Health* 1, 2 (2013), 110–116. https://doi.org/10.4161/dish.27085

[16] Jeffrey P Bigham, Raja Kushalnagar, Ting-Hao Kenneth Huang, Juan Pablo Flores, and Saiph Savage. 2017. On how deaf people might use speech to control devices. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York, NY, USA, 383–384. https://doi.org/10.1145/3132525.3134821

[17] Wanda J Blanchett. 2010. Telling it like it is: The role of race, class, & culture in the perpetuation of learning disability as a privileged category for the white middle class. *Disability Studies Quarterly* 30, 2 (2010). https://doi.org/10.18061/dsq.v30i2.1233

[18] Stella Bolaki. 2011. . Michigan State University Press, East Lansing, MI, Chapter Challenging invisibility, making connections: Illness, survival, and Black struggles in Audre Lorde's work, 47–74.

[19] Mildred Boveda and Subini Ancy Annamma. 2023. Beyond making a statement: An intersectional framing of the power and possibilities of positioning. *Educational Researcher* 52 (2023), 0013189X231167149. Issue 5. https://doi.org/10.3102/0013189X231167149

[20] Danielle Bragg, Oscar Koller, Mary Bellard, Larwan Berke, Patrick Boudreault, Annelies Braffort, Naomi Caselli, Matt Huenerfauth, Hernisa Kacorri, Tessa Verhoef, et al. 2019. Sign language recognition, generation, and translation: An interdisciplinary perspective. In *Proceedings of the 21st International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York, NY, USA, 16–31. https://doi.org/10.1145/3308561.3353774

[21] Kirsten Bray and Christina Harrington. 2021. Speculative blackness: considering Afrofuturism in the creation of inclusive speculative design probes. In *Designing Interactive Systems Conference 2021*. Association for Computing Machinery, New York, NY, USA, 1793–1806. https://doi.org/10.1145/3461778.3462002

[22] Johanna Brewer. 2022. Playing Unbound: Towards a Radically Intersectional HCI. In *Extended Abstracts of the 2022 Annual Symposium on Computer-Human Interaction in Play*. ACM, New York, NY, USA, 270–272. https://doi.org/10.1145/3505270.3558362

[23] Aurora H Brinkman, Gianna Rea-Sandin, Emily M Lund, Olivia M Fitzpatrick, Michaela S Gusman, and Cassandra L Boness. 2022. Shifting the discourse on disability: Moving to an inclusive, intersectional focus. *American Journal of Orthopsychiatry* 93 (2022), 50–62. Issue 1.

[24] Lydia X. Y. Brown. 2020. How to centre disability in the tech response to Covid-19.

[25] Brenda Jo Brueggemann and Debra Moddelmog. 2002. Coming-out pedagogy: Risking identity in language and literature classrooms. *Pedagogy* 2, 3 (2002), 311–335.

[26] Erin A Cech. 2022. The intersectional privilege of white able-bodied heterosexual men in STEM. *Science Advances* 8, 24 (2022), eabo1558.

[27] Alex Chen. 2020. How to write an image description. https://www.youtube.com/watch?v=hMr831Ro2-k

[28] N. Jamila Chisholm. 2020. To Be BIPOC, Disabled and Fighting for Justice. https://colorlines.com/article/be-bipoc-disabled-and-fighting-justice/

[29] Corey Clarke. 2017. 3D Printing Prostethics for Amputees in Haiti. https://3dprintingindustry.com/news/3d-printing-prosthetics-amputees-haiti-102132/

[30] Ta-Nehisi Coates. 2013. What we mean when we say 'race is a social construct.'. *The Atlantic* 15 (2013).

[31] Patricia Hill Collins and Sirma Bilge. 2016. *Intersectionality (Key Concepts)*. Polity Press, Cambridge, United Kingdom.

[32] DJ Connor, BA Ferri, and S Annamma. 2016. DisCrit: Critical conversations across race, class, & dis/ability.

[33] Lucy Costa, Jijian Voronka, Danielle Landry, Jenna Reid, Becky Mcfarlane, David Reville, and Kathryn Church. 2012. "Recovering our stories": A small act of resistance. *Studies in Social Justice* 6, 1 (2012), 85–101.

[34] Kate Crawford. 2016. Artificial intelligence's white guy problem. *The New York Times* 25, 06 (2016), 5.

[35] Kimberle Crenshaw. 1990. Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stan. L. Rev.* 43 (1990), 1241.

[36] Patrisse Cullors et al. 2018. *When they call you a terrorist: A black lives matter memoir*. St. Martin's Press, New York, NY, USA.

[37] Jay Cunningham, Gabrielle Benabdallah, Daniela Rosner, and Alex Taylor. 2023. On the grounds of solutionism: Ontologies of blackness and HCI. *ACM Transactions on Computer-Human Interaction* 30, 2 (2023), 1–17. https://doi.org/10.1145/3557890

[38] Jay L. Cunningham. 2023. Collaboratively Mitigating Racial Disparities in Automated Speech Recognition and Language Technologies with African American English Speakers: Community-Collaborative and Equity-Centered Approaches Toward Designing Inclusive Natural Language Systems. In *Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems, CHI EA 2023, Hamburg, Germany, April 23-28, 2023*, Albrecht Schmidt, Kaisa Väänänen, Tesh Goyal, Per Ola Kristensson, and Anicia Peters (Eds.). ACM, New York, NY, USA, 484:1–484:5. https://doi.org/10.1145/3544549.3577057

[39] Jennifer S Dargin, Chao Fan, and Ali Mostafavi. 2021. Vulnerable populations and social media use in disasters: Uncovering the digital divide in three major US hurricanes. *International Journal of Disaster Risk Reduction* 54 (2021), 102043.

[40] Angela Y Davis. 2014. Deepening the debate over mass incarceration. *Socialism and Democracy* 28, 3 (2014), 15–23.

[41] Tawanna R. Dillahunt, Sheena Lewis Erete, Roxana Galusca, Aarti Israni, Denise C. Nacu, and Phoebe Sengers. 2017. Reflections on Design Methods for Underserved Communities. In *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing, CSCW 2017, Portland, OR, USA, February 25 - March 1, 2017, Companion Volume*, Charlotte P. Lee, Steven E. Poltrock, Louise Barkhuus, Marcos Borges, and Wendy A. Kellogg (Eds.). ACM, New York, NY, USA, 409–413. https://doi.org/10.1145/3022198.3022664

[42] Tawanna R. Dillahunt, Matthew Garvin, Marcy Held, and Julie Hui. 2021. Implications for Supporting Marginalized Job Seekers: Lessons from Employment Centers. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–24.

[43] Tawanna R. Dillahunt, Aarti Israni, Alex Jiahong Lu, Mingzhi Cai, and Joey Chiao-Yin Hsiao. 2021. Examining the Use of Online Platforms for Employment: A Survey of US Job Seekers. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. ACM, New York, NY, USA, 1–23.

[44] Kirsten Donato. 2018. National Minority Health Month: The Double Burden for Minorities with Disabilities. https://www.naccho.org/blog/articles/national-minority-health-month-the-double-burden-for-minorities-with-disabilities

[45] William Easley, Foad Hamidi, Wayne G Lutters, and Amy Hurst. 2018. Shifting expectations: Understanding youth employees' handoffs in a 3D print shop. *Proceedings of the ACM on Human-Computer Interaction* 2, CSCW (2018), 1–23.

[46] Emory James Edwards, Cella Monet Sum, and Stacy M Branham. 2020. Three tensions between personas and complex disability identities. In *Extended abstracts of the 2020 CHI conference on human factors in computing systems*. ACM, New York, NY, USA, 1–9.

[47] Sheena Erete, Yolanda A. Rankin, and Jakita O Thomas. 2021. I can't breathe: Reflections from Black women in CSCW and HCI. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW3 (2021), 1–23.

[48] Nirmala Erevelles. 2014. *Disability Incarcerated: Imprisonment and disability in the United States and Canada*. Springer, Palgrave Macmillan, New York, Chapter Crippin'Jim Crow: Disability, dis-location, and the school-to-prison pipeline, 81–99.

[49] Nel Escher and Nikola Banovic. 2020. Exposing Error in Poverty Management Technology: A Method for Auditing Government Benefits Screening Tools. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW1 (2020), 1–20.

[50] Heather D Evans. 2019. 'Trial by fire': forms of impairment disclosure and implications for disability identity. *Disability & Society* 34, 5 (2019), 726–746.

[51] Samantha L. Finkelstein, Evelyn Yarzebinski, Callie Vaughn, Amy Ogan, and Justine Cassell. 2013. The Effects of Culturally Congruent Educational Technologies on Student Achievement. In *Artificial Intelligence in Education - 16th International Conference, AIED 2013, Memphis, TN, USA, July 9-13, 2013. Proceedings (Lecture Notes in Computer Science, Vol. 7926)*, H. Chad Lane, Kalina Yacef, Jack Mostow, and Philip I. Pavlik (Eds.). Springer, New York, 493–502. https://doi.org/10.1007/978-3-642-39112-5_50

[52] David Gillborn. 2015. Intersectionality, Critical Race Theory, and the Primacy of Racism: Race, Class, Gender, and Disability in Education. *Qualitative Inquiry* 21, 3 (2015), 277–287. https://doi.org/10.1177/1077800414557827

[53] Tina Goethals, Elisabeth De Schauwer, and Geert Van Hove. 2015. Weaving Intersectionality into Disability Studies Research: Inclusion, Reflexivity and Anti-Essentialism. *DiGeSt. Journal of Diversity and Gender Studies* 2, 1-2 (2015), pp. 75–94. https://www.jstor.org/stable/10.11116/jdivegendstud.2.1-2.0075

[54] Gerard Goggin and Karen Soldatić. 2022. Automated decision-making, digital inclusion and intersectional disabilities. *New Media & Society* 24, 2 (2022), 384–400. https://doi.org/10.1177/14614448211063173

[55] Laura Gonzales. 2019. Designing for intersectional, interdependent accessibility: A case study of multilingual technical content creation. *Communication Design Quarterly Review* 6, 4 (2019), 35–45.

[56] Nanette Goodman, Michael Morris, and Kelvin Boston. 2017. *Financial inequality: disability, race and poverty in America.* Technical Report. National Disability Institute.

[57] Siobahn Day Grady, Pamela Wisniewski, Ron Metoyer, Pamela Gibbs, Karla Badillo-Urquiola, Salma Elsayed-Ali, and Eiad Yafi. 2020. Addressing institutional racism within initiatives for SIGCHI's diversity and inclusion.

[58] Yasmin Gunaratnam. 2003. *Researching 'race' and ethnicity: Methods, knowledge and power.* Sage, London.

[59] Foad Hamidi and Zulekha Karachiwalla. 2022. "I'm ok because I'm alive": understanding socio-cultural accessibility barriers for refugees with disabilities in the US. In *W4A'22: 19th Web for All Conference, Lyon, France, April 25 - 26, 2022*, Dragan Ahmetovic and Victoria Yaneva (Eds.). ACM, New York, NY, USA, 26:1–26:11. https://doi.org/10.1145/3493612.3520446

[60] Aimi Hamraie and Kelly Fritsch. 2019. Crip technoscience manifesto. *Catalyst: Feminism, Theory, Technoscience* 5, 1 (2019), 1–33.

[61] David Hankerson, Andrea R. Marshall, Jennifer Booker, Houda el Mimouni, Imani Walker, and Jennifer A. Rode. 2016. Does Technology Have Race?. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, San Jose, CA, USA, May 7-12, 2016, Extended Abstracts*, Jofish Kaye, Allison Druin, Cliff Lampe, Dan Morris, and Juan Pablo Hourcade (Eds.). ACM, New York, NY, USA, 473–486. https://doi.org/10.1145/2851581.2892578

[62] Karen Hao. 2018. Can You Make an AI That Isn't Ableist? https://www.technologyreview.com/2018/11/28/1797/can-you-make-an-ai-that-isnt-ableist/

[63] Donna Haraway. 1988. Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist studies* 14, 3 (1988), 575–599.

[64] Christina Harrington, Daniela Rosner, Alex Taylor, and Mikael Wiberg. 2021. Engaging race in HCI. *Interactions* 28, 5 (2021), 5–5.

[65] Christina N Harrington, Katya Borgos-Rodriguez, and Anne Marie Piper. 2019. Engaging low-income African American older adults in health discussions through community-based design workshops. In *Proceedings of the 2019 chi conference on human factors in computing systems*. ACM, New York, NY, USA, 1–15.

[66] Christina N. Harrington, Radhika Garg, Amanda Woodward, and Dimitri Williams. 2022. "It's Kind of Like Code-Switching": Black Older Adults' Experiences with a Voice Assistant for Health Information Seeking. In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems* (New Orleans, LA, USA) *(CHI '22)*. Association for Computing Machinery, New York, NY, USA, Article 604, 15 pages. https://doi.org/10.1145/3491102.3501995

[67] Christina N. Harrington, Aqueasha Martin-Hammond, and Kirsten E. Bray. 2022. Examining Identity as a Variable of Health Technology Research for Older Adults: A Systematic Review. In *CHI '22: CHI Conference on Human Factors in Computing Systems, New Orleans, LA, USA, 29 April 2022 - 5 May 2022*, Simone D. J. Barbosa, Cliff Lampe, Caroline Appert, David A. Shamma, Steven Mark Drucker, Julie R. Williamson, and Koji Yatani (Eds.). ACM, New York, NY, USA, 265:1–265:24. https://doi.org/10.1145/3491102.3517621

[68] Jasmine E Harris. 2021. Reckoning with race and disability. *Yale Law Journal Forum+ H2332* 130 (2021), 916–958.

[69] Gillian R Hayes. 2011. The relationship of action research to human-computer interaction. *ACM Transactions on Computer-Human Interaction (TOCHI)* 18, 3 (2011), 1–20.

[70] Laurie Henneborn. 2021. Make It Safe for Employees to Disclose Their Disabilities. https://hbr.org/2021/06/make-it-safe-for-employees-to-disclose-their-disabilities

[71] Shawn Lawton Henry. 2022. How to write an image description.

[72] Marc Lamont Hill. 2016. *Nobody: Casualties of America's war on the vulnerable, from Ferguson to Flint and beyond.* Simon and Schuster, New York, NY.

[73] Megan Hofmann, Devva Kasnitz, Jennifer Mankoff, and Cynthia L Bennett. 2020. Living disability theory: Reflections on access, research, and design. In *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York, NY, 1–13.

[74] Daudet Ilunga Tshiswaka, Shondra Loggins Clay, Chung-Yi Chiu, Reginald Alston, and Allen Lewis. 2016. Assistive technology use by disability type and race: Exploration of a population-based health survey. *Disability and Rehabilitation: Assistive Technology* 11, 2 (2016), 124–132.

[75] Rooted in Rights. 2016. The Right to be Rescued (Film). https://rootedinrights.org/video/therighttoberescued/

[76] National Disability Institute. 2020. *Race, ethnicity and disability: The financial impact of systemic inequality and intersectionality.* Technical Report. National Disability Institute.

[77] Sins Invalid. 2020. What is disability justice? *Sins Invalid. June* 16 (2020), 2020.

[78] Michelle Jarman. 2012. . Michigan State University Press, Lansing, MI, Chapter Coming Up from Underground: Uneasy Dialogues at the Intersection of Race, Mental Illness, and Disability Studies, 9–29.

[79] Jazette Johnson, Vitica Arnold, Anne Marie Piper, and Gillian R. Hayes. 2022. "It's a lonely disease": Cultivating Online Spaces for Social Support among People Living with Dementia and Dementia Caregivers. *Proc. ACM Hum. Comput. Interact.* 6, CSCW2 (2022), 1–27. https://doi.org/10.1145/3555133

[80] Susan R Jones. 1996. Toward inclusive theory: Disability as social construction. *NASPA journal* 33, 4 (1996), 347–354.

[81] Kazi Sinthia Kabir, Ahmad Alsaleem, and Jason Wiese. 2021. The Impact of Spinal Cord Injury on Participation in Human-Centered Research. In *Designing Interactive Systems Conference 2021*. Association for Computing Machinery, New York, NY, USA, 1902–1914.

[82] Alison Kafer. 2013. *Feminist, Queer, Crip.* Indiana University Press, IN. http://www.jstor.org/stable/j.ctt16gz79x

[83] Sushant Kafle and Matt Huenerfauth. 2017. Evaluating the usability of automatically generated captions for people who are deaf or hard of hearing. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility*. Association for Computing Machinery, New York, NY, USA, 165–174.

[84] Naveena Karusala, Jennifer Wilson, Phebe Vayanos, and Eric Rice. 2019. Street-level realities of data practices in homeless services provision. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 1–23.

[85] Elizabeth Kaziunas, Mark S Ackerman, and Tiffany CE Veinot. 2013. Localizing chronic disease management: Information work and health translations. *Proceedings of the American Society for Information Science and Technology* 50, 1 (2013), 1–10.

[86] Reuben Kirkham. 2021. Why Disability Identity Politics in Assistive Technologies Research Is Unethical. In *International Conference on the Ethical and Social Impact of ICT*. Universidad de La Rioja, Universidad de La Rioja, Logroño, Spain, 475–487.

[87] Bran Knowles, Vicki L Hanson, Yvonne Rogers, Anne Marie Piper, Jenny Waycott, Nigel Davies, Aloha Hufana Ambe, Robin N Brewer, Debaleena Chattopadhyay, Marianne Dee, et al. 2021. The harm in conflating aging with accessibility. *Commun. ACM* 64, 7 (2021), 66–71.

[88] Allison Koenecke, Andrew Nam, Emily Lake, Joe Nudell, Minnie Quartey, Zion Mengesha, Connor Toups, John R Rickford, Dan Jurafsky, and Sharad Goel. 2020. Racial disparities in automated speech recognition. *Proceedings of the National Academy of Sciences* 117, 14 (2020), 7684–7689.

[89] Raja S Kushalnagar, Walter S Lasecki, and Jeffrey P Bigham. 2014. Accessibility evaluation of classroom captions. *ACM Transactions on Accessible Computing (TACCESS)* 5, 3 (2014), 1–24.

[90] David Leake. 2015. Problematic Data on How Many Students in Postsecondary Education Have a Disability. *Journal of Postsecondary Education and Disability* 28, 1 (2015), 73–87.

[91] Debora de Castro Leal, Angelika Strohmayer, and Max Krüger. 2021. On activism and academia: Reflecting together and sharing experiences among critical friends. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. Association for Computing Machinery, New York, NY, USA, 1–18. https://doi.org/10.1145/3411764.3445263

[92] Colin Lecher. 2018. What Happens When An Algorithm Cuts Your Health Care. The Verge (Mar 2018).

[93] Zeus Leonardo and Alicia A Broderick. 2011. Smartness as property: A critical exploration of intersections between whiteness and disability studies. *Teachers College Record* 113, 10 (2011), 2206–2232.

[94] CE Lhamon, P Timmons-Goodson, DP Abegbile, GL Herriot, PN Kirsanow, D Kladney, K Narasaki, and M Yaki. 2019. Beyond suspensions: Examining school discipline policies and connections to the school-to-prison pipeline for students of color with disabilities.

[95] Calvin A Liang, Sean A Munson, and Julie A Kientz. 2021. Embracing four tensions in human-computer interaction research with marginalized people. *ACM Transactions on Computer-Human Interaction (TOCHI)* 28, 2 (2021), 1–47.

[96] Jeff Link. 2020. Why Racial Bias Still Haunts Speech-Recognition AI. https://builtin.com/artificial-intelligence/racial-bias-speech-recognition-systems

[97] Kevin M. Storer and Stacy M. Branham. 2021. Deinstitutionalizing Independence: Discourses of disability and housing in accessible computing. In *Proceedings of the 23rd International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York, NY, USA, 1–14.

[98] Kelly Mack, Rai Ching Ling Hsu, Andrés Monroy-Hernández, Brian A. Smith, and Fannie Liu. 2023. Towards Inclusive Avatars: Disability Representation in Avatar Platforms. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems* (Hamburg, Germany) *(CHI '23)*. Association for Computing Machinery, New York, NY, USA, Article 607, 13 pages. https://doi.org/10.1145/3544548.3581481

[99] Kelly Mack, Emma McDonnell, Dhruv Jain, Lucy Lu Wang, Jon E. Froehlich, and Leah Findlater. 2021. What Do We Mean by "Accessibility Research"?: A Literature Survey of Accessibility Papers in CHI and ASSETS from 1994 to 2019. In *CHI '21: CHI Conference on Human Factors in Computing Systems, Virtual Event / Yokohama, Japan, May 8-13, 2021*, Yoshifumi Kitamura, Aaron Quigley, Katherine Isbister, Takeo Igarashi, Pernille Bjørn, and Steven Mark Drucker (Eds.). ACM, New York, NY, USA, 371:1–371:18. https://doi.org/10.1145/3411764.3445412

[100] Kelly Mack, Emma McDonnell, Venkatesh Potluri, Maggie Xu, Jailyn Zabala, Jeffrey Bigham, Jennifer Mankoff, and Cynthia L. Bennett. 2022. Anticipate and Adjust: Cultivating Access in Human-Centered Methods. In *CHI '22: CHI Conference on Human Factors in Computing Systems, New Orleans, LA, USA, 29 April 2022 - 5 May 2022*, Simone D. J. Barbosa andCliff Lampe, Caroline Appert, David A. Shamma, Steven Mark Drucker, Julie R. Williamson, and Koji Yatani (Eds.). ACM, New York, NY, USA, 603:1–603:18. https://doi.org/10.1145/3491102.3501882

[101] Kelly Mack, Emma J. McDonnell, Leah Findlater, and Heather D. Evans. 2022. Chronically Under-Addressed: Considerations for HCI Accessibility Practice with Chronically Ill People. In *Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility, ASSETS 2022, Athens, Greece, October 23-26, 2022*, Jon Froehlich, Kristen Shinohara, and Stephanie Ludi (Eds.). ACM, New York, NY, USA, 9:1–9:15. https://doi.org/10.1145/3517428.3544803

[102] Jennifer Mankoff. 2020. A Challenging Response. https://interactions.acm.org/blog/view/a-challenging-response

[103] Jennifer Mankoff, Gillian R. Hayes, and Devva Kasnitz. 2010. Disability studies as a source of critical inquiry for the field of assistive technology. In *Proceedings of the 12th International ACM SIGACCESS Conference on Computers and Accessibility, ASSETS 2010, Orlando, FL, USA, October 25 - 27, 2010*, Armando Barreto and Vicki L. Hanson (Eds.). ACM, New York, NY, USA, 3–10. https://doi.org/10.1145/1878803.1878807

[104] Jennifer Mankoff, Devva Kasnitz, Disability Studies, L. Jean Camp, Jonathan Lazar, and Harry Hochheiser. 2022. Areas of Strategic Visibility: Disability Bias in Biometrics. (2022), 10 pages. arXiv:2208.04712 https://doi.org/10.48550/arXiv.2208.04712 RFI Response to the Science and Technology Policy Office's request for "Information on Public and Private Sector Uses of Biometric Technologies".

[105] Nina Markl. 2022. Language variation and algorithmic bias: understanding algorithmic bias in British English automatic speech recognition. In *FAccT '22: 2022 ACM Conference on Fairness, Accountability, and Transparency, Seoul, Republic of Korea, June 21 - 24, 2022*. ACM, New York, NY, USA, 521–534. https://doi.org/10.1145/3531146.3533117

[106] Emma J McDonnell, Ping Liu, Steven M Goodman, Raja Kushalnagar, Jon E Froehlich, and Leah Findlater. 2021. Social, environmental, and technical: Factors at play in the current use and future design of small-group captioning. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–25.

[107] Sharan B Merriam, Juanita Johnson-Bailey, Ming-Yeh Lee, Youngwha Kee, Gabo Ntseane, and Mazanah Muhamad. 2001. Power and positionality: Negotiating insider/outsider status within and across cultures. *International journal of lifelong education* 20, 5 (2001), 405–416.

[108] Mara Mills and Meredith Whittaker. 2019. *Disability, Bias, and AI.* Technical Report. NYU Center for Disability Studies.

[109] Carrie Elizabeth Mulderink. 2020. The emergence, importance of# DisabilityTooWhite hashtag. *Disability Studies Quarterly* 40, 2 (2020).

[110] Michael J. Muller and Sacha Chua. 2012. Brainstorming for Japan: rapid distributed global collaboration for disaster response. In *CHI Conference on Human Factors in Computing Systems, CHI '12, Austin, TX, USA - May 05 - 10, 2012*, Joseph A. Konstan, Ed H. Chi, and Kristina Höök (Eds.). ACM, New York, NY, USA, 2727–2730. https://doi.org/10.1145/2207676.2208668

[111] Mike Nellis. 2009. Surveillance and confinement: Explaining and understanding the experience of electronically monitored curfews. *European Journal of Probation* 1, 1 (2009), 41–65.

[112] Kim E Nielsen. 2012. *A disability history of the United States*. Vol. 2. Beacon Press, Boston.

[113] Greg Nijs and Ann Heylighen. 2015. Turning disability experience into expertise in assessing building accessibility: A contribution to articulating disability epistemology. *Alter* 9, 2 (2015), 144–156.

[114] Janet Njelesani, Shaun Cleaver, Myroslava Tataryn, and Stephanie Nixon. 2012. . IntechOpen, United Kingdom, Chapter Using a human rights-based approach to disability in disaster management initiatives, 21–46.

[115] National Academies of Sciences Engineering, Medicine, et al. 2018. *Health-care utilization as a proxy in disability determination.* Technical Report. National Academies of Science Engineering and Medicine.

[116] Ihudiya Finda Ogbonnaya-Ogburu, Angela D. R. Smith, Alexandra To, and Kentaro Toyama. 2020. Critical Race Theory for HCI. In *CHI '20: CHI Conference on Human Factors in Computing Systems, Honolulu, HI, USA, April 25-30, 2020*, Regina Bernhaupt, Florian 'Floyd' Mueller, David Verweij, Josh Andres, Joanna McGrenere, Andy Cockburn, Ignacio Avellino, Alix Goguey, Pernille Bjøn, Shengdong Zhao, Briane Paul Samson, and Rafal Kocielnik (Eds.). ACM, New York, NY, USA, 1–16. https://doi.org/10.1145/3313831.3376392

[117] Mike Oliver. 2013. The social model of disability: Thirty years on. *Disability & society* 28, 7 (2013), 1024–1026.

[118] Rhoda Olkin, H'Sien Hayward, Melody Schaff Abbene, and Goldie VanHeel. 2019. The experiences of microaggressions against women with visible and invisible disabilities. *Journal of Social Issues* 75, 3 (2019), 757–785.

[119] Ruth Owen. 2022. How will data help us break the cycle of intersectional discrimination for girls and women with disabilities? https://www.inclusive-education-initiative.org/blog/how-will-data-help-us-break-cycle-discrimination-and-intersectional-disadvantages-girls-and

[120] Kentrell Owens, Camille Cobb, and Lorrie Faith Cranor. 2021. "You Gotta Watch What You Say": Surveillance of Communication with Incarcerated People. In *CHI '21: CHI Conference on Human Factors in Computing Systems, Virtual Event / Yokohama, Japan, May 8-13, 2021*, Yoshifumi Kitamura, Aaron Quigley, Katherine Isbister, Takeo Igarashi, Pernille Bjørn, and Steven Mark Drucker (Eds.). ACM, New York, NY, USA, 62:1–62:18. https://doi.org/10.1145/3411764.3445055

[121] Leysia Palen and Sophia B. Liu. 2007. Citizen communications in crisis: anticipating a future of ICT-supported public participation. In *Proceedings of the 2007 Conference on Human Factors in Computing Systems, CHI 2007, San Jose, California, USA, April 28 - May 3, 2007*, Mary Beth Rosson and David J. Gilmore (Eds.). ACM, New York, NY, USA, 727–736. https://doi.org/10.1145/1240624.1240736

[122] Elizabeth B. Pearce. 2013. The Social Construction of Difference.

[123] Eesha Pendharkar. 2022. Efforts to ban critical race theory could restrict teaching for a third of America's kids. https://www.edweek.org/leadership/efforts-to-ban-critical-race-theory-now-restrict-teaching-for-a-third-of-americas-kids/2022/01

[124] Mark Priestley and Laura Hemingway. 2007. Disability and disaster recovery: a tale of two cities? *Journal of Social Work in Disability & Rehabilitation* 5, 3-4 (2007), 23–42.

[125] Manish Raghavan, Solon Barocas, Jon M. Kleinberg, and Karen Levy. 2020. Mitigating bias in algorithmic hiring: evaluating claims and practices. In *FAT* '20: Conference on Fairness, Accountability, and Transparency, Barcelona, Spain, January 27-30, 2020*, Mireille Hildebrandt, Carlos Castillo, L. Elisa Celis, Salvatore Ruggieri, Linnet Taylor, and Gabriela Zanfir-Fortuna (Eds.). ACM, New York, NY, USA, 469–481. https://doi.org/10.1145/3351095.3372828

[126] Yolanda A. Rankin and Jakita O. Thomas. 2019. Straighten up and Fly Right: Rethinking Intersectionality in HCI Research. *Interactions* 26, 6 (oct 2019), 64–68. https://doi.org/10.1145/3363033

[127] Yolanda A Rankin, Jakita O Thomas, and Nicole M Joseph. 2020. Intersectionality in HCI: Lost in translation. *Interactions* 27, 5 (2020), 68–71.

[128] Joel Michael Reynolds. 2022. Disability and white supremacy. *Critical Philosophy of Race* 10, 1 (2022), 48–70.

[129] Kathryn E Ringland, Jennifer Nicholas, Rachel Kornfield, Emily G Lattie, David C Mohr, and Madhu Reddy. 2019. Understanding mental ill-health as psychosocial disability: Implications for assistive technology. In *Proceedings of the 21st International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York, NY, USA, 156–170.

[130] Dianne Rios, Susan Magasi, Catherine Novak, and Mark Harniss. 2016. Conducting accessible research: including people with disabilities in public health, epidemiological, and outcomes studies. *American journal of public health* 106, 12 (2016), 2137–2144.

[131] Jacquie Ripat and Roberta Woodgate. 2011. The intersection of culture, disability and assistive technology. *Disability and Rehabilitation: Assistive Technology* 6, 2 (2011), 87–96.

[132] Anne Spencer Ross, Xiaoyi Zhang, James Fogarty, and Jacob O Wobbrock. 2020. An epidemiology-inspired large-scale analysis of android app accessibility. *ACM Transactions on Accessible Computing (TACCESS)* 13, 1 (2020), 1–36.

[133] Carla Sabariego, Carolina Fellinghauer, Lindsay Lee, Kaloyan Kamenov, Aleksandra Posarac, Jerome Bickenbach, Nenad Kostanjsek, Somnath Chatterji, and Alarcos Cieza. 2022. Generating comprehensive functioning and disability data worldwide: development process, data analyses strategy and reliability of the WHO and World Bank Model Disability Survey. *Archives of Public Health* 80, 1 (2022), 6.

[134] Sami Schalk. 2022. Black Disability Politics. https://doi.org/10.1215/9781478027003

[135] Ari Schlesinger, W Keith Edwards, and Rebecca E Grinter. 2017. Intersectional HCI: Engaging identity through gender, race, and class. In *Proceedings of the 2017 CHI conference on human factors in computing systems*. ACM, New York, NY, USA, 5412–5427.

[136] Yasaman S Sefidgar, Woosuk Seo, Kevin S Kuehn, Tim Althoff, Anne Browning, Eve Riskin, Paula S Nurius, Anind K Dey, and Jennifer Mankoff. 2019. Passively-sensed behavioral correlates of discrimination events in college students. *Proceedings of the ACM on Human-computer Interaction* 3, CSCW (2019), 1–29.

[137] Irina Shklovski, Leysia Palen, and Jeannette Sutton. 2008. Finding community through information and communication technology in disaster response. In *Proceedings of the 2008 ACM conference on Computer supported cooperative work*. ACM, New York, NY, USA, 127–136.

[138] Angela DR Smith, Alex A Ahmed, Adriana Alvarado Garcia, Bryan Dosono, Ihudiya Ogbonnaya-Ogburu, Yolanda Rankin, Alexandra To, and Kentaro Toyama. 2020. What's race got to do with it? Engaging in race in HCI. In *Extended abstracts of the 2020 CHI conference on human factors in computing systems*. ACM, New York, NY, USA, 1–8.

[139] Robert Soden and Embry Owen. 2021. Dilemmas in mutual aid: Lessons for crisis informatics from an emergent community response to the pandemic. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–19.

[140] Anat Stavans and Ronit Porat. 2019. *Multidisciplinary Perspectives on Multilingualism: The Fundamentals*. De Gruyter Mouton, Berlin, Boston, Chapter Code-switching in multilingual communities., 123–148.

[141] Cella M Sum, Rahaf Alharbi, Franchesca Spektor, Cynthia L Bennett, Christina N Harrington, Katta Spiel, and Rua Mae Williams. 2022. Dreaming Disability Justice in HCI. In *CHI Conference on Human Factors in Computing Systems Extended Abstracts*. ACM, New York, NY, USA, 1–5.

[142] Carly Thomsen. 2015. The Post-raciality and Post-spatiality of Calls for LGBTQ and Disability Visibility. *Hypatia* 30, 1 (2015), 149–166.

[143] Alexandra To, Angela D. R. Smith, Dilruba Showkat, Adinawa Adjagbodjou, and Christina Harrington. 2023. Flourishing in the Everyday: Moving Beyond Damage-Centered Design in HCI for BIPOC Communities. In *Proceedings of the 2023 ACM Designing Interactive Systems Conference* (Pittsburgh, PA, USA) *(DIS '23)*. Association for Computing Machinery, New York, NY, USA, 917–933. https://doi.org/10.1145/3563657.3596057

[144] Alexandra To, Wenxia Sweeney, Jessica Hammer, and Geoff Kaufman. 2020. "They Just Don't Get It": Towards Social Technologies for Coping with Interpersonal Racism. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW1 (2020), 1–29.

[145] Jasper Tran O'Leary, Sara Zewde, Jennifer Mankoff, and Daniela K Rosner. 2019. Who gets to future? Race, representation, and design methods in Africatown. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. ACM, New York, NY, USA, 1–13.

[146] Courtney Ward-Sutton, Natalie F Williams, Corey L Moore, and Edward O Manyibe. 2020. Assistive technology access and usage barriers among african americans with disabilities: A review of the literature and policy. *Journal of applied rehabilitation counseling* 51, 2 (2020), 115–133.

[147] Harriet A Washington. 2006. *Medical apartheid: The dark history of medical experimentation on Black Americans from colonial times to the present*. Doubleday Books, New York, NY.

[148] Alicia Beckford Wassink, Cady Gansen, and Isabel Bartholomew. 2022. Uneven success: automatic speech recognition and ethnicity-related dialects. *Speech Communication* 140 (2022), 50–70.

[149] WebAim. 2021. The WebAIM Million. https://webaim.org/projects/million/

[150] Jillian Weise, Berkelly Gonzalez, Cobalt Barnett, Hylyx Hyx, Jacob Boss, and Ryan O'Shea. 2020. A Very Kind Conversation Between a Cyborg and Some Biohackers. https://disabilityvisibilityproject.com/2020/10/06/a-very-kind-conversation-between-a-cyborg-and-some-biohackers/

[151] Kimi Wenzel, Nitya Devireddy, Cam Davison, and Geoff Kaufman. 2023. Can Voice Assistants Be Microaggressors? Cross-Race Psychological Responses to Failures of Automatic Speech Recognition. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. ACM, New York, NY, USA, 1–14.

[152] Jen White-Johnson. Visited July, 2023. Zine Workshops for Community Engagement. https://jenwhitejohnson.com/Zine-Workshops-for-community-engagement

[153] Kevin Williams and Lateef McLeod. 2020. Black AAC User Perspectives on Racism and Disability. https://www.youtube.com/watch?v=iTSAK4yRf5A

[154] Rua Mae Williams, Louanne Boyd, and Juan E Gilbert. 2023. Counterventions: a reparative reflection on interventionist HCI. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. ACM, New York, NY, USA, 1–11.

[155] Rua M Williams, Kathryn Ringland, Amelia Gibson, Mahender Mandala, Arne Maibaum, and Tiago Guerreiro. 2021. Articulations toward a crip HCI. *Interactions* 28, 3 (2021), 28–37.

[156] Susan Copeland Wilson. 2012. e-government legislation meets the poverty threshold: issues for the economically disadvantaged. In *Proceedings of the 13th Annual International Conference on Digital Government Research*. Association for Computing Machinery, New York, NY, USA, 74–83.

[157] Elena Ariel Windsong. 2018. Incorporating intersectionality into research design: an example using qualitative interviews. *International Journal of Social Research Methodology* 21, 2 (2018), 135–147. https://doi.org/10.1080/13645579.2016.1268361

[158] Alice Wong. 2020. *Disability visibility: First-person stories from the twenty-first century*. Vintage Books, New York, NY.

[159] Di Wu. 2023. Good for tech: Disability expertise and labor in China's artificial intelligence sector. *First Monday* 28 (2023), 1–20. Issue 1.

[160] Xuhai Xu, Han Zhang, Yasaman Sefidgar, Yiyi Ren, Xin Liu, Woosuk Seo, Jennifer Brown, Kevin Kuehn, Mike Merrill, Paula Nurius, et al. 2022. GLOBEM Dataset: Multi-Year Datasets for Longitudinal Human Behavior Modeling Generalization. *Advances in Neural Itnformation Processing Systems* 35 (2022), 24655–24692.

[161] Silvia Yee, Mary Lou Breslin, Tawara D. Goode, Susan M. Havercamp, Willi Horner-Johnson, Lisa I. Iezzoni, and Gloria Krahn. 2016. Compounded Disparities: Health Equity at the Intersection of Disability, Race, and Ethnicity.

[162] Anon Ymous, Katta Spiel, Os Keyes, Rua M Williams, Judith Good, Eva Hornecker, and Cynthia L Bennett. 2020. "I am just terrified of my future"—Epistemic Violence in Disability Related Technology Research. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems*. ACM, New York, NY, USA, 1–16.

[163] Tae-Jung Yun, Hee Young Jeong, Tanisha D Hill, Burt Lesnick, Randall Brown, Gregory D Abowd, and Rosa I Arriaga. 2012. Using SMS to provide continuous assessment and improve health outcomes for children with asthma. In *Proceedings of the 2nd ACM SIGHIT International Health Informatics Symposium*. ACM, New York, NY, USA, 621–630.

[164] Han Zhang, Margaret Morris, Paula Nurius, Kelly Mack, Jennifer Brown, Kevin Kuehn, Yasaman Sefidgar, Xuhai Xu, Eve Riskin, Anind Dey, et al. 2022. Impact of Online Learning in the Context of COVID-19 on Undergraduates with Disabilities and Mental Health Concerns. *ACM Transactions on Accessible Computing* 15, 4 (2022), 1–27.