

# Bringing Black Feminist's Thoughts, Self-Definitions, and Creative Agency to Digital Media and Technology Design

Brooke Bosley, Takeria Blunt, Jihan Sherman, Brandy Pettijohn, Britney Johnson,  
Amber G. Johnson, Blaire Bosley, Susana M. Morris, André Brock  
Georgia Institute of Technology  
{*bfbosley, tblunt3, jihansherman, bpettijohn3, bjohnson324*  
*ambergj31, bbosley45, susana, abrock35*}@gatech.edu

## Abstract

*Users from marginalized groups are often faced with the challenges that result from a lack of diverse thought in the design and implementation of media and technologies that we engage in our daily lives. It is these artifacts that result in the harm, erasure, and hyper-surveillance of Black and Brown people. We seek to disrupt problematic narratives present in tech and design fields by (re)inserting Black Feminism and leveraging our personal experiences to build on design methods. Though research centered on the importance of women's experiences and standpoints in tech practice is crucial, feminist scholarship has not always reflected the values and the liberation of women who are not white. This paper uses personal narrative to argue for the value of Black feminist thought and methods in the sub-disciplines of computing, such as digital media, human computer interaction (HCI) and human-centered computing (HCC).*

## 1. Introduction: Why Black Feminism in Tech Practice Matters

*"[Black women's] liberation is a necessity not as an adjunct to somebody else's but because of our need as human persons for autonomy." - The Combahee River Collective (1978)*

Computing is modern technology, and modernity is undergirded by colonialism; thus, computing is not just driven by notions of expansion, but it is colonial at its core [1]. Hegemonic power exercised by White men (typically Christian and heterosexual) has historically centered Western epistemology and ontology, a phenomenon visible across most disciplines—and especially in seemingly “neutral” and objective scientific and computational fields (see Prescod-Weinstein’s compelling writings on white empiricism as a barrier to Black women in physics [2]). Decolonial methodologies and paradigms move beyond

the limitations of strictly Western thought. Decolonial scholars indict the sedimentation of “colonial ways of knowing and being” embedded in the systems of classification and categorization used to reify persisting colonial artifacts, technologies, and design processes [1].

Black women in computing comprise one such group experiencing the double bind of racism and sexism (at minimum) while battling erasure and the devaluation of their knowledge and research under interpersonal and disciplinary systems of power which apply rules that uplift the work of some while shifting those rules to marginalize others [3]. Practices of silencing women of color reinforce the systems in which technologies are designed and deployed; artifacts created in such a system result in the harm, erasure, and hyper-surveillance of Black and Brown people—who are often outside of the design teams and think-tanks from which digital technologies emerge (see Benjamin’s work on the interconnectivity of race, technology, and carceral technoscience for a detailed critique and analysis of this) [4].

The mainstream introduction of feminism to HCI practice as presented by Bardzell [5] in 2011 challenges notions of objectivity and good science using feminist social science as a point of departure for the inclusion of feminist methodologies in computing. Although research centered on the importance of women’s experiences and standpoints in tech practice is crucial, feminist scholarship has been critiqued as not reflecting the values and the liberation of women who are not white. Black feminist scholars and activists have a long history of engagement with projects of decolonial thinking in the United States. Whether seeking to decolonize science fiction and its production of high-tech future worlds [6, 7]; to interrogate and reject the colonial tendencies of other feminisms [8, 9]; and, more recently, to reconceptualize epistemologies and methodologies in computing and design through equity-centered, inclusive, and critical theories and frameworks (i.e. the inclusion of intersectionality in

HCI as informed by critical race theory) [3, 10, 11, 12]. This paper is concerned with efforts to center feminism in design practice from a Black feminist perspective within the intertwined sub-disciplines of computing, such as digital media, human computer interaction (HCI) and human-centered computing (HCC). Black Feminist Thought (BFT) is an epistemology and philosophy that places Black women at the center of analysis and inquiry with a continued attentiveness to methodology. In order to understand the world around us, critical frameworks must be used that provide a lens through which we see design and implement technology from an aerial view. This view encapsulates the complexities of the world through the eyes of those at the margins, especially Black women. This interdisciplinary project centers our identities as Black doctoral researchers and practitioners collaborating across historically white and masculine disciplines. We align with Patricia Hill Collins' assertion that through the nature of historical and present lived experiences, Black women hold "powerful critical perspectives" [13], which we and other scholars argue can and should influence tech practice. This paper offers the beginnings of a collection of methods and framings employed by Black feminists in contribution to knowledge production through interdisciplinary pursuits of unlearning and relearning, altering present and imagining future tech practices, and pursuing projects of care and pleasure in design. These are matters that all too often take a backseat in Western computing discourse, and are prime reasons for why the authors make a point to make visible Black feminist practices in tech.

In line with intersectional Black feminist methodology, we include a position statement as part of these collective thoughts on digital media and design. All but one of the authors identify as women of the African diaspora. We all employ Black feminist framings in our studies of Black women craftpersons and design counter-histories, the visibility of Black queer folks in technology design, the representation and education of Black students in computing, Afrofuturism and Critical Race Theory in Human-Computer Interaction, digital Black Archival work, and VR/AR studies on Black youth in protest movements. We represent over 20 years in industry, and 15 plus years in the world of academia. Many of us are students in Digital Media and Human-Centered Computing programs. These are the positions that guide our views of and provocations for digital media and tech design practice.

## 2. Musings on Black Feminist Thought and Unlearning in Design

*Unlearn: to put out of one's knowledge or memory*  
*Relearn: to learn (something) again [14, 15]*

Although both words are codependent, they also reflect the tensions of the learning process. "Unlearning" challenges us to reevaluate our current beliefs, and to make room for accepting new paradigms. "Relearning" involves deconstructing previous ideals through morphing and transformation to produce new learnings. BFT has had a longstanding tradition of promoting the relearning of dominant societal beliefs built and reinforced through colonialism and notions of white supremacy. This collective essay emphasizes the ways in which BFT can deconstruct and decenter Western epistemology in fields of computing such as HCI, HCC, and DM. In these spaces, we see unlearning and relearning appear simultaneously in the creation of new practices of thinking through VR and game design, and as designers rethink notions of care and pleasure in practice. In this section, we seek to demonstrate how the process of relearning through a BFT lens has allowed us to world-build and center Black women's voices in technology design.

Black feminist theories and studies have offered new relearning approaches that build futures centering on marginalized and Black women's voices. Brittney C. Cooper's paper, "Love No Limit: Towards Black Feminist Future (in Theory)" [16], seeks to understand the future academic landscape for Black feminist theorists. Cooper's analysis offers insight into how BFT, at its core, centers world-building and in its offering of relearning as crucial to shifting societal thoughts and beliefs. Cooper states: "theory-building has to be part and parcel of our world-making. And the language of 'building' and 'making' is important because it marks the limits of critique" [16]. Thus, BFT offers us a chance to build and make technology design that is equitable and decentralized. Cooper's take on the future of BFT demonstrates the expansiveness of the field and the ways that Black women are theorizing and building futures that center equity. BFT in technology design is about centering folks at the margins of Queerness, Blackness, and Disabilities and deconstructing learnings of traditional methodologies with similar aims. Harrington, Erete, and Piper's paper, "Deconstructing Community-Based Collaborative Design: Towards More Equitable Participatory Design Engagements" [10], challenges practitioners and scholars to consider how even the activity of planning and envisioning the future in community-based design

can often enforce bias and privilege, especially in marginalized communities. They argue, “certain methods, such as the design workshop, or approaches to design thinking (e.g., “blue sky” ideation) have an ethos that can be exclusionary to communities that have historically faced systemic discrimination” [10]. Although participatory design and design workshops appear to center communities, the relationship between researchers and community members can be detrimental if it centers the researchers bias and not on the lens of the community.

Recently, discussions in HCI, HCC, and DM have shifted to discussions of equity and inclusion since the summer of 2020 as the Black Lives Matter (BLM) movement [17] reignited, global inequities highlighted by COVID-19 skyrocketed, hate crimes targeting Asian Americans increased, and climate change catastrophes intensified. The design field began to think more critically about how we tackle these and build equitable and inclusive solutions. Charlene Carruthers’s book *Unapologetic: A Black, Queer, and Feminist Mandate for Radical Movements* [18] speaks to the process of unlearning before relearning in her organizing work with BLM. Carruthers states, “the Black queer feminist (BQF) lens is a political praxis (practice and theory) based in Black feminist and LGBTQ traditions and knowledge, through which people and groups see to bring their full selves into the process of dismantling all systems of oppression” [18]. This lens allows organizers like Carruthers to build alternative practices and policies that center around the most marginalized. In “I Can’t Breathe: Reflections from Black Women in CSCW and HCI” [19], Erete, Rankin, and Thomas illuminate what it means as Black women in the field of HCI to speak up and stand ground in a white male-dominated field that rarely focuses on the work that Black folks have added to larger body and series. They identify the various ways Black women are ignored from CSCW and HCI, from the lack of citations to being seen as less competent when Black women center research on the most marginalized.

Over the past year, we have watched as scholars and practitioners in HCI and DM go through an unlearning process, from reevaluating the uses of empathy and personas, to even user recruitments and interviews. For instance, the User Research Conference(UXRconf) expanded their usual in-person conference to a virtual web-based platform known as Learners [20] enabling design researchers nationwide to have difficult conversations on how to challenge notions of empathy. These discussions highlighted that it is not just enough to feel a person’s experience, but diverse users need to be included in the design and

research process. A BFT lens challenges platforms like Learners, to allow Black women, queer folks, individuals with disabilities to bring their full selves and call out ways that technology design can relearn from excluded communities.

The UXR Learners website is now having conversations and discussions that have already been occurring among Black women in DM and HCI who have been expansively cultivating and creating possibilities. In *Emergent Strategy: Shaping Change, Changing Worlds* [21], adrienne maree brown states, “we are creating a world we have never seen. We are whispering it to each other cuddled in the dark, and we are screaming it at people who are so scared of it that they dress in war regalia to turn and face us.”. brown’s quote is a reminder that marginalized folks are dreaming and creating worlds that have seemed impossible, although these possibilities are unfamiliar their important in BFT shaping futures. A BFT Learners platform would center around designing for the most marginalized; it would challenge designers and researchers to deconstruct philosophies and principles to create new expansive practices and technologies. bell hooks in *Talking Back: Thinking Feminist, Thinking Black* [22] provides a personal reflection on how words and actions have systemic power, especially among Black women and those oppressed. hooks states, “moving from silence into speech is for the oppressed, the colonized, the exploited, and those who stand and struggle side by side, a gesture of defiance that heals, that makes new life and new growth possible” [22]. hook’s statement demonstrates that when oppressed and marginalized people speak up, they are challenging systems of oppression by claiming their right to exist and create new possibilities. BFT gives practitioners, scholars, freelancers, and others tools to unearth and combat issues around inclusivity and equity. BFT in technology design provides a method to relearn and shape equitable worlds that center marginalized voices many who have been doing this research. In the following sections, we dive deeper into BFT at work in these varying areas of study.

### 3. What Black Feminism Envisions for Tech Practice

*“It is an explicit goal of black feminist (and intersectional) thought to oppose oppressive research practices and engage in the work of knowledge production for the purposes of advancing social justice.”*  
– Patricia Hamilton [23]

Concerned with abolishing oppressive systems for all marginalized folks, Black feminist epistemology

lends to current and speculative practices aimed at dismantling misogyny, cissexism, classism, capitalism, and many more forms of oppression [23] [24] [25]. Like Chanda Talpade Mohanty declares, “Besides recognizing all this and formulating a clear analysis and critique of the behaviors, attitudes, institutions, and relational politics that these interwoven systems entail, a just and inclusive feminist politics for the present needs to also have a vision for transformation and strategies for realizing this vision” [26]. In this section we as Black women in digital media and design think through what Black feminist thought and methods bring to present and future tech practices. We are building on existing work in BFT that not only highlights how these oppressive systems are entrenched in technology, but also how tech practices can be reimagined – or relearned – for liberation and create futures that support equity, combat erasure, and that envision themes, such as joy and care at the center of how we design and make technology.

### **3.1. BFT As Knowledge Production in Tech and Game Design**

Black feminist epistemology brings a critical lens to technological practice through which to view and critique the technologies that emerge from normative design methodologies. Through the centering of BFT [13], narratives that convey the perspectives and lived experiences of Black women become integral to design practice. Emerging applications of Black feminist methodologies provide nuanced insight into a variety of technological phenomena such as algorithmic oppression [27] [28], interactions between Black youth and AI [29], the invisibility of women in game design [30], and the lived experiences of Black women computer scientists [31], to name several examples.

Black women researchers in computing and design disciplines apply Black feminism to technological practice to combat the lack of representation and inclusion of Black women in these spaces. We see a fruitful application as Rankin and Irish critically engage the lack of scrutiny of intersecting dynamics of race and gender in HCI design practices—despite Bardzell’s [5] push for intersectional feminism a decade ago. The trend of the depiction of Black women as outsiders in HCI presents concerning gaps in applications of feminist theory in HCI, which currently remain segregated and less concerned with Black women’s liberation [30]. Rankin and Irish apply BFT as a critical lens to address the ongoing invisibility of Black women’s experiences and “funds of knowledge” [32] in game design and development processes. The

male-dominated culture of gaming has long rendered women as hypersexual objects under the male gaze, and attempts made by feminist scholars to address these issues have insufficiently considered Black women’s intersectional experiences in gameplay. As a framework for game design, “BFT positions these Black women as intellectuals and equal partners in the context of a co-design game experience - a game designed by Black women, for Black women” [30]. On game studies and BFT, Rankin and Irish make visible the ways that Black women’s voices are centered:

“Just as BFT makes room for dissident voices to fully flesh out Black women’s lived intersectional experiences, game studies need to accommodate multiple perspectives of Black women gamers as well as those who choose to not play games. Furthermore, when conducting game studies, it is imperative not to seek an archetype supposedly indicative of the gamer persona or intentionally exclude any subgroup of Black woman from a game study.” [30]

Rankin and Irish take the gameplay narratives of Black women gamers together with BFT to produce a set of design decisions recommended by these women based on their own gameplay experiences. This includes: (1) authentic cultural experiences; (2) intersectional game characters; (3) accurate portrayal of the diversity of Black women’s bodies; and (4) customized game options to promote self-identity.

Would we see design considerations such as those derived from Rankin’s work by employing other design methods? Studies like these that utilize Black feminist theories for knowledge production allow us to imagine and produce technologies and design practices that are more inclusive and reflective of the ideas of those traditionally relegated to the margins of technological innovation. Principles like these which consider notions of Black women’s body images and self-identities serve as examples of the importance of Black feminism in design and current tech practices. For areas like game design—where the invisibility of women is a consistent uphill battle—alternative ways of generating knowledge are all the more crucial.

### **3.2. Black Feminist Thought and the Empathy Machine**

The ability to be immersed in a world other than your own, like traveling along the French countryside or placing a piece of artwork in a location where it

previously did not exist, illuminates our desires for exploration and creation. Presence and immersion in commercial projects like the Van Gogh Immersive Experience or the artistic projects produced on the Acute Art app are affordances of AR/VR/MR projects that make these desires come into reality. Creators of artistic, academic, philanthropic, and creative projects are also using AR/VR/MR technologies for social justice as pedagogical tools and/or to scaffold or foster empathy. However, there are potential pitfalls to using AR/VR/MR in social justice-oriented work. For example, topics concerning histories and scenes of enslavement, war, and other atrocities that are utilized in the AR/VR/MR space underscore that sensitivity and care are necessary. To that end, BFT provides a meaningful intervention to use in AR/VR/MR projects by providing a unique theoretical framework that will allow designers to avoid potential issues when approaching these types of projects. Knowledge of controlling images, understanding the difference between centering marginalized voices versus exploiting marginalized people, care, utilization of joy and pleasure, and decentering pathology are all ethics of BFT that will help designers recalibrate the meaning, beyond or along with empathy, that they seek to convey to audiences. This section will share the theoretical importance of using BFT in AR/VR/MR projects.

The use of film/cinema and photography, or media, has a long history of being used as propaganda for political projects. Films like *Clouds Over Sidra* [33] advances political propaganda in a 360-degree virtual reality film experience focused on the Syrian refugee crisis using the narration of a 12-year old Syrian child, Sidra. The film was created by Gabo Arora and Chris Milk in partnership with the United Nations and Samsung [34]. Nonny de la Pena has also used virtual reality for immersive journalism, including one that focused on the Syrian conflict, which was meant to bend emotional and behavioral responses in viewers/participants [35]. The term “empathy machine” has been used to describe virtual and augmented reality technologies for storytelling due to the feeling of being in another person’s proverbial shoes. Scholars have noted some of the potential problematic outcomes in AR/VR experiences with regards to the utilization of hegemonic narratives, as well as the collapsing of boundaries between non- and for-profit enterprises [36, 37]. Questions about “the gaze” as in, who is looking and who is being looked at, are central to feminist film criticism. These questions ask us to identify who the “other” is and what pleasures (or displeasures) are they evoking. However, Black feminists’ input, which I believe is a critical intervention for these particular

films, asks who is visible and who is not [38]? These tropes have existed to serve dominant visual culture throughout time, scholars have noted that Black women have either showed “strength and devotion in ways that pose no sexual or emotional threat to the white world, [or] a wildness that signifies the non-white” [39]. Sidra, the 12-year old’s “shoes” that the viewer is supposed to walk in goes unseen until the end of the film. This renders her body as a function to serve the other (or viewer), non-threatening to the person who would use her as an avatar in a western and semi-corporate production.

The problem of stereotypical and harmful images in film has existed as long as the medium itself. Decades before augmented and virtual reality in film, Patricia Hill Collins discusses “controlling images” in *Black Feminist Thought*, generally conceptualized as stereotypical images mitigated by media that categorizes people and used to justify oppression [13]. Collins, who centers on Black women’s epistemological significance, discusses media stereotypes that affect Black women, such as the mammy, welfare queen, jezebel, to name a few, and how stereotypes begat other inherited stereotypes about aptitude, access, and need. What BFT asks us to hold space for Black pleasure and joy both as resistance strategy [40] and as an ethic of care, in addition to summoning us to design projects that challenge systems of oppression.

As both consumers and scholars we witness how enticing new technological innovations are to people, the ability to use and master these innovations at times take precedence over the subject matter in design projects. When creatives are caught up in the potential to bend emotions or create empathy using technology, it creates a path for technological benevolence, the belief that technology is making an intervention better, less biased, or more inclusive, when in fact, it ends up doing the opposite [41]. Our jobs as creators and as Black feminist scholars in digital media is to figure out ways to account for media stereotypes in interactive storytelling so we can be about the work of care and repair to create a liberatory project with the subject matter that we have been entrusted.

Academics in digital media may be acquainted with aspects of Black feminist thought because scholars have explicitly used it in their texts. For example, Sasha Costanza-Chock’s *Design Justice* [42], and Catherine D’Ignazio and Linda Klein’s *Data Feminism* [43] explicitly discuss the use of Black feminist epistemology, centering stories of marginalized individuals, and citing Black feminist work on intersectionality in their text. Yanni Loukassis acknowledges ethics of care in his book, *All Data are*

*Local* [44]. Because traces of feminism, in general, have been embedded in aspects of HCI and digital media projects, designers and creators incorrectly believe that Black feminist thought is already being utilized and thus requires no further consideration. This could also hold true for projects that wish to focus on issues of social justice. Focusing on oppressions is not the same as resisting them. Using marginalized voices is not the same as centralizing their epistemology. Designers of virtual reality experiences can reinforce race, class, gender, and sexuality stereotypes even when they do not intend to do so - even when they believe they are focusing on social justice issues. An image of an indigent person, especially a child, is evocative, and when captured by existing photographic technology it can easily elicit a sense of empathy for the person regardless of the medium that it is experienced. This is a type of “empathy cheat code”, if someone wants to look like they care about the plight of humans, take images of oppressed people, the “worse off”, and show viewers (maybe potential donors) how good they have it. Placing this type of trope into a virtual or otherwise immersive experience does not make it a more dynamic story that engenders empathy - it’s the same old story with headgear. When embarking on these types of stories there is easy slippage from exploration to exploitation, therefore we must ask ourselves what if empathy is not accessible to the audience, what other things can be shown or learned in an augmented or virtual reality experience? Does showing audiences images of pain and suffering, which are already linked to certain populations, create empathy or does it become interactive pain porn? Does being in the so-called shoes reinforce the binaries of us and them, does it further stigmatize the other? Those of us who engage in telling complex and interactive stories, Black feminist epistemology offers a framework to think through what tropes are being too heavily relied upon, and what erasures have occurred along the way that informs how an audience sees and experiences a situation in augmented or virtual reality; and ultimately allow a viewer to question what they think they already knew.

### **3.3. BFT, Black Venus and the Future**

The dominant narrative of technology has been riddled with absences that have encoded bias and harm within our tech practices and artifacts [4, 28]. These absences are not coincidental or inconsequential. They are actions – an “aiding and abetting” [4] of erasure that has removed the contributions and lived experiences of those outside of the dominant white, male, western matrix and even enacted violence on

the spaces, bodies, and lives of those at the margins. Ruha Benjamin has extensively discussed how coded bias and imagined objectivity constitute the “New Jim Code” and how discriminatory design is invested in the “management, control, and correction of poor and racialized people” [4]. Safiya Umoja Noble has examined the power of algorithms and how they can “reinforce oppressive social relationships and enact new modes of racial profiling” — what Noble calls “technological redlining” [28]. Joy Buolamwini and Timnit Gebru have demonstrated how demographic groups that are underrepresented in benchmark datasets can be subjected to targeting by law enforcement, misdiagnosed or overlooked for medical treatments, or even excluded from employment opportunities [45]. Black women’s experience of racism and sexism magnifies and intensifies this erasure and coded bias, while also putting them at the center of harmful structures and practices such as the New Jim Code, technological redlining, and coded bias.

We can look to Black feminist methods to help us unlearn the dominant narrative of technology, construct counter-histories that redress erasure and support counter-futures that move beyond the embedded oppressions of current systems. For example, Sadiya Hartman describes the nature of Black women’s erasure in historical narratives and the resulting harm in her work with archives of Atlantic slavery:

“Hers is the same fate as every other Black Venus: no one remembered her name or recorded the things she said, or observed that she refused to say anything at all. Hers is an untimely story told by a failed witness” [46].

Venus is every Black woman and girl called by many different names whose lived experiences are in the shadows of the Atlantic world. The ghosts of the Atlantic slave trade are entrenched in the capitalist and colonial foundations of tech practice. The Black Venus not only lies in the archives of Atlantic slavery, she also resides in our algorithms, devices, game worlds, interfaces, and AI. These archival gaps have significant impact on our tech practices. History is intertwined with both the present and the future. Algorithms mine historical data to shape future behavior. The lack of diversity at tech companies is a continuation of oppressive systems that have intentionally limited access and opportunity, and that automates them within our technological artifacts. Chanda Prescod-Weinstein’s description of the “Diversity and Inclusion Racket” highlights how even the systems for addressing these problems of underrepresentation and bias often serve the

very oppressive systems they are supposed to combat and fail to have transformative impact or move us toward equity [47, 48]. We are constantly negotiating the past in the present, the future through the past, and the present with the future simultaneously. Black feminist thought (BFT) provides methods that not only resist the fate of the Black Venus but also allow us to navigate the complexity of futuring comingled with the past and present that breaks habits of harm in tech practice.

In this practice of futuring, Black feminist strategies for addressing historical absences and engaging alternative origin stories are critical to destabilizing the dominant narrative of design that serves transgressive systems such as capitalism, colonialism, imperialism, sexism, etc. For example, Hartman's method of critical fabulation works to confront archival gaps by deconstructing and re-presenting the sequence of events to engage divergent stories and contested points of view to displace the received or authorized account and imagine what might have been [46]. It is both a historical reckoning and a speculative formulation that "weaves present, past, and future in retelling stories" [46]. This counter-history rearranges and represents the sequence of events to develop a "recombinant narrative" that retells the story of the Black Venus (beyond reducing her down to the abuses and atrocities inflicted upon her) and narrates the time of slavery in our present [46]. Yet there is narrative restraint, a refusal to fill in the gaps and provide closure [46]. This is counter to the illusions of objectivity and universalism that have characterized tech practice and that Benjamin warns results in discriminatory designs. Applying critical fabulation presents the opportunity to not only displace the dominant narrative of technology, but to also make way for liberation. Similarly, Simone Brown's work with computational digital autoethnography offers a methodological approach that "reframes computation in service to Black feminist ways of knowing" [49]. By harvesting personal social media data, Brown combines computation and reflexive practices to create a "methodological cyborg". This work questions conventional methods and troubles the illusions of objectivity. Additionally, Robin M. Boylorn's auto/ethnography also confronts biases, interrupt narratives that resist diversity, and create alternative stories [50] – "As a form of "doubled storytelling that moves from self to culture and back again," auto/ethnography values lived experience as data and allows researchers to be fully conscious as writers and participants in their narratives" [50]. Auto/ethnography also connects the past with the future, "bridging (backward) in an effort to make sense and make meaning from difficult, painful, and complicated

experiences" [50]. Critical fabulation, computational digital autoethnography, and auto/ethnography serve as examples of the ways BFT reshapes methods to engage the lived experiences of Black women, confront bias, and imagine counter-narratives across time that support the possibility of liberation and new futures.

BFT also provides the critical theory necessary to further engage with the envisioning of new futures in tech. Afrofuturist Feminism [51] bridges principles of Afrofuturism and BFT to critique interpretations of the past and future. It also engages Black counter-pasts and counter-futures while placing Black women at the center of a progressive future [51, 52]. Afrofuturist Feminism seeks liberation that is grounded in "coalition and power sharing" methodologies that "incite a future quite different from the hegemony of present structures"[51]. These critical framings and methods serve as liberatory tech practices that free us from oppressive systems which Black feminism works to abolish. They allow us to reimagine and redefine ways of knowing and doing in technology and design. If we are to dismantle biased and oppressive systems, we must destabilized the single story [53] of design and tech practice and construct counter-histories that confront erasure, resist coded bias and shift to methods, such as those of BFT, the open trajectories toward equity and liberation.

#### **4. Black Feminism on Care, and Pleasure in Design**

As noted by the Combahee River Collective, Black feminism stems from the "shared belief" that Black women are "inherently valuable" and that the liberation of Black women within society is a necessity and not an "adjunct" or antithesis to anyone else's liberation [54]. We illustrate how BFT coupled with ideas of care and pleasure converge to create possibilities and spaces that not only prioritize joy and expressiveness in innovation, but that are open to the pursuit of new questions about Black feminist futures.

##### **4.1. The ethics of care and self-repair**

To understand the application of care in design, we first look at the history of Black women and labor in the United States. Since North America's colonization, the labor of Black, Indigenous, and other marginalized people has been fundamental to America's progress [55]. For Black women particularly, working outside the home often provided little protections, health care, maternity leave and other means for maintaining one's well being [56]. Thus, the battle that Black women have historically had to wage in the U.S. for their own self-care has been ongoing and significant. One such

example of this can be seen during World War II in Greenville, South Carolina. At the time many Black women left their employment as domestic workers, in white households, to become homemakers [57]. However, the lack of domestic staff forced Greenville's white community to recognize their desperate need for Black domestic laborers who could cook, clean, and care for their children. These public outcries and demands by white community members led Greenville's city council to pass an ordinance that required Black women to be employed and carry papers denoting their employment, or they would face fines or imprisonment [57]. From stories such as this, we often see how work has always been deemed a priority for Black women, often at the expense of their health. Connecting back to Atlantic slavery (as highlighted in the prior section), the prioritization of labor over the health of Black women has been shaped by the oppressive and capitalistic foundations of slavery. In a society that prioritizes labor over well-being and self-care, new organizations have been established to address the need for self-care. For example, the Nap Ministry, founded by Tricia Hersey, centers on the belief that rest is a form of resistance and liberation and prioritizes self-care rather than labor [58].

It is important to note; however, that self-care does not only center discourse on labor. Conversations around care are inclusive of both physical and virtual spaces, where Black women feel safe. These safe spaces are often where a Black woman's attitude, language, hairstyle, and body are not policed. Patricia Hill Collins [59] highlights the overlap that exists amongst African American culture and feminist perspectives within the realms of care. Care, in this way, can be applied within the field of design – to create tools and platforms that offer users a chance to feel liberated by creating spaces where they can express identities without being attacked or undermined. As can be seen in the scholarship and work of Audre Lorde, the care of Black women is deemed vitally important for the liberation of society [60]. One of the most famous statements by Lorde on self-care is that “caring for myself is not self-indulgence, it is self-preservation, and that is an act of political warfare.” However – expressiveness and care are often negated within the realms of technology, in an effort to not bias the outcome. Ruha Benjamin argues that while technological systems make Blackness hyper visible through surveillance and artificial intelligence, other technological systems fail to see Blackness [41]. The result is the diminishing of the identities and inner voices of marginalized communities, while communities considered as dominant remain represented. Furthermore, we argue that Black feminism reclaims and values the idea that “personal

expressiveness, emotions, and empathy are central to the knowledge-validation process” [59] and the ethics of care is impacted by institutions valuing one type of knowing over another [59].

## 4.2. The Ethics of Pleasure

One way of tackling issues such as coded bias in technology design that centers BFT or puts Black women at the core is through pleasure or pleasure activism. In adrienne maree brown's book, *Pleasure Activism: The Politics of Feeling Good*, she writes that her intention for the reader is to “create more room for joy, wholeness, and aliveness (and less room for oppression, repression, self-denial and unnecessary suffering) in your life” [61]. In response to harms, such as adultification and the policing of the bodies of Black women and girls, pleasure activism is a way to find freedom and “reclaim ...[ones] ...whole, happy, and satisfiable selves” [61]. Furthermore, this book, an anthology of articles on pleasure, looks at the many ways that individuals representing different races, genders, and sexualities can utilize pleasure as a form of liberation.

Pleasure as a form of liberation through Black feminism can be used to inform theoretical perspectives when it is prioritized [16] and significantly influence the realms of design and technology. Through her project *Pleasure Politics*, Joan Morgan presents how she and a collective of Black female theorists have “made a commitment to reframe the existing narrative about Black female sexuality by positioning desire, agency and Black women's engagements with pleasure as a viable theoretical paradigm” [62]. She continues by sharing how the project considers questions such as:

“What possibilities can a politics of pleasure offer for Black feminist futures? Specifically, how can deepening our understanding of the multivalent ways Black women produce, read and participate in pleasure complicate our understanding of Black female subjectivities in ways that invigorate, inform and sharpen a contemporary Black feminist agenda?” [62].

The ethics of pleasure remains largely understudied in feminism, design, and technical scholarship, but it can enable us to imagine a new and wider scope of possibilities for women. On the other hand, ignoring the ethics of pleasure perpetuates the narrative of “trauma and violence to Black women's lived and historical experiences” [62]. To build more inclusive



and supportive designs and technologies, the ethics of pleasure should be visible and valued.

## 5. Conclusion

What happens when you have the good fortune to find yourself among a group of Black women doing research in tech? You move differently. You ask questions differently. We find ourselves with the opportunity to not only center Black women, but to also build on the intellectual, critical, and creative possibilities that BFT affords. BFT allows us to engage and explore the intersections of the humanities and hard sciences, and to develop research that is legible and accessible in and outside of the academy. When practitioners and researchers engage with design and technology through a Black Feminist lens, it can not only provide an approach that differs from Western ideologies; but it also uncovers gaps in our work that significantly impact marginalized communities. Black Feminism provides computing, digital media, HCI, and HCC with the opportunity to engage in a deeper reflexive practice than what has been previously utilized. Every sensor and algorithm that refuses to see Black and Brown bodies pushes us further into the margins. As the failures of tech have been revealed in the previous sections, we can look to BFT to provide frameworks, methods and reformative scholarship that use care and pleasure as an ethic to move beyond reactions of the white dominant culture, and challenge heteronormative and western narratives.

Knowledge and its production fosters the empowerment of Black women [13]. Imagine Black students being given the space and place to develop themselves as critical, hopeful, and joyful technologists with all of the above notions at the center of their educational experiences. What worlds do we begin to reimagine, and re-envision, with Black feminist methodologies and principles embedded into computing and technology design? Black feminism at the root of our computational and design paradigms and methods serves as a ground-zero not only for eradicating the production of tools that harm marginalized folks, but centers care, joy and so much more as the foundation that replaces oppressive norms.

## References

- [1] M. Ali, "A brief introduction to decolonial computing," *XRDS*, vol. 22, p. 16–21, June 2016.
- [2] C. Prescod-Weinstein, "Making black women scientists under white empiricism: the racialization of epistemology in physics," *Signs: Journal of Women in Culture and Society*, vol. 45, no. 2, pp. 421–447, 2020.
- [3] Y. A. Rankin and J. O. Thomas, "Straighten up and

- fly right: Rethinking intersectionality in hci research," *Interactions*, vol. 26, no. 6, pp. 64–68, 2019.
- [4] R. Benjamin, *Captivating Technology: Race, Carceral Technoscience, and Liberatory Imagination in Everyday Life*. Duke University Press, 2019.
- [5] S. Bardzell and J. Bardzell, "Towards a feminist hci methodology: social science, feminism, and hci," *In Proceedings of the SIGCHI conference on human factors in computing systems*, pp. 675–684, 2011.
- [6] N. Hopkinson, *So long been dreaming: Postcolonial science fiction & fantasy*. ReadHowYouWant.com, 2010.
- [7] O. E. Butler, *Fledgling: A Novel*. even Stories Press, 2005.
- [8] T. C. Bambara, *The black woman: An anthology*, vol. 4317. Berkley, 1970.
- [9] J. Bliss, "Black feminism out of place," *Signs: Journal of Women in Culture and Society*, vol. 41, no. 4, pp. 727–749, 2016.
- [10] C. Harrington, S. Erete, and A. M. Piper, "Deconstructing community-based collaborative design," *Proceedings of the ACM on Human-Computer Interaction* 3, no. CSCW, p. 1–25, 2019.
- [11] I. F. Ogbonnaya-Ogburu, A. D. Smith, A. To, and K. Toyama, "Critical race theory for hci," in *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, pp. 1–16, 2020.
- [12] K. M. Q. Hall, "Technology in black feminist world," *Frontiers: A Journal of Women Studies*, vol. 40, no. 2, pp. 243–257, 2019.
- [13] P. H. Collins, *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*. Routledge, 2002.
- [14] *relearn*. G. & C. Merriam Co., 2019.
- [15] *unlearn*. G. & C. Merriam Co., 2019.
- [16] B. C. Cooper, "Love no limit: Towards a black feminist future (in theory)," *The Black Scholar*, vol. 45, no. 4, pp. 7–21, 2015.
- [17] "Movement for black lives."
- [18] C. Carruthers, *Unapologetic: A Black, queer, and feminist mandate for radical movements*. Beacon Press, 2018.
- [19] S. Erete, Y. A. Rankin, and J. O. Thomas, "'i can't breathe': Reflections from black women in cscw and hci," *Proceedings of the ACM on Human-Computer Interaction*, vol. 4, no. CSCW3, pp. 1–23, 2021.
- [20] "Join learners uxr."
- [21] a. m. brown, *Emergent Strategy: Shaping Change, Changing Worlds*. AK Press, 2017.
- [22] B. Hooks, *Talking back: Thinking feminist, thinking black*, vol. 10. South End Press, 1989.
- [23] P. Hamilton, "'now that i know what you're about': black feminist reflections on power in the research relationship," *Qualitative Research*, vol. 20, no. 5, pp. 519–533, 2020.
- [24] B. Hooks, *Feminism is for everybody: Passionate politics*. Pluto Press, 2000.
- [25] A. Lorde, "There is no hierarchy of oppressions," *Bulletin: Homophobia and education*, vol. 14(3/4), no. 9, 1983.

- [26] C. T. Mohanty, *Feminism without borders*. Duke University Press, 2003.
- [27] L. M. Hampton, “Black feminist musings on algorithmic oppression,” *arXiv preprint*, 2021.
- [28] S. U. Noble, *Algorithms of oppression: How search engines reinforce racism*. nyu Press, 2018.
- [29] Y. A. Rankin and K. K. Henderson, “Resisting racism in tech design: Centering the experiences of black youth,” *Proceedings of the ACM on Human-Computer Interaction*, vol. 4, pp. 1–32, 2021.
- [30] Y. A. Rankin and I. Irish, “A seat at the table: Black feminist thought as a critical framework for inclusive game design,” *Proceedings of the ACM on Human-Computer Interaction* 4, no. CSCW2 (2020), pp. 1–26, 2020.
- [31] J. . Thomas, N. Joseph, A. Williams, and J. Burge, “Speaking truth to power: Exploring the intersectional experiences of black women in computing,” In *2018 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, pp. 1–8, 2018.
- [32] A. L. Folk, a. l. (2018). drawing on students’ funds of knowledge: using identity and lived experience to join the conversation in research assignments,” *Journal of Information Literacy*, vol. 12, no. 2, 2018.
- [33] A. Gabo and B. Pousman, “Clouds over sidra.”
- [34] M. Butcher, “Un launches powerful, first ever, vr film following syrian refugee girl.”
- [35] N. De la Pena, “Towards behavioural realism experiments in immersive journalism,” In *I-Docs : The Evolving Practices of Interactive Documentary*, pp. 206–221, 2017.
- [36] B. Irom, “Virtual reality and the syrian refugee camps: Humanitarian communication and the politics of empathy,” *International Journal of Communication*, vol. 12, 2018.
- [37] C. Gillespie, “Virtual humanity—access, empathy and objectivity in vr film making,” *Global Society*, vol. 34, no. 2, pp. 145–162, 2020.
- [38] B. Hooks, *Black Looks*. South End Press, 1992.
- [39] J. Hobson, “Viewing in the dark: Toward a black feminist approach to film,” *Women’s Studies Quarterly*, vol. 30, no. 1/2, pp. 45–59, 2002.
- [40] J. Lu and C. K. Steele, “‘joy is resistance’: Cross-platform resilience and (re)invention of black oral culture online,” *Information, Communication & Society*, vol. 22, no. 6, pp. 823–37, 2019.
- [41] R. Benjamin, *Race after technology: Abolitionist tools for the new jim code*. Social Forces, 2019.
- [42] S. Constanza-Chock, *Design Justice: Community-led Practices to Build the Worlds We Need*. Information Policy Series, 2020.
- [43] C. D’Ignazio and L. F. Klein, *Data Feminism*. MIT Press, 2020.
- [44] Y. A. Loukissas, *All Data Are Local*. Cambridge: MIT Press, 2019.
- [45] J. Buolamwini and T. Gebru, “Gender shades: Intersectional accuracy disparities in commercial gender classification,” in *Conference on fairness, accountability and transparency*, pp. 77–91, PMLR, 2018.
- [46] S. Hartman, “Venus in two acts,” *Small Axe*, 2008.
- [47] C. Prescod-Weinstein, “Diversity is a dangerous set-up,” January 2018.
- [48] C. Prescod-Weinstein, “The rules of the diversity & inclusion racket,” September 2020.
- [49] N. M. Brown, “Methodological cyborg as black feminist technology: constructing the social self using computational digital autoethnography and social media,” *Cultural Studies Critical Methodologies*, pp. 55–67, 2019.
- [50] R. M. Boylorn, “From here to there: How to use auto/ethnography to bridge difference,” *International Review of Qualitative Research*, no. 7.3, pp. 312–326, 2014.
- [51] S. M. Morris, “Black girls are from the future: Afrofuturist feminism in octavia e. butler’s ‘fledgling’,” *Women’s Studies Quarterly*, vol. 40.3/4, pp. 146–166, 2012.
- [52] S. M. Morris, “More than human: Black feminisms of the future in jewelle gomez’s the gilda stories,” *The Black Scholar*, vol. 46.2, pp. 33–45, 2016.
- [53] C. N. Adichie, “The danger of a single story,” 2009.
- [54] C. R. Collective, “The combahee river collective statement,” *Home girls: A Black feminist anthology*, pp. 264–274, 1983.
- [55] R. V. Anderson and R. E. Gallman, “Slaves as fixed capital: slave labor and southern economic development,” *The Journal of American History*, vol. 64, no. 1, pp. 24–46, 1977.
- [56] N. Banks, “Diversity is a dangerous set-up,” February 2019.
- [57] “Negro women to be put to work.”
- [58] “About the nap ministry.”
- [59] P. H. Collins, “The social construction of black feminist thought,” *Signs: Journal of women in culture and society*, vol. 14, no. 4, pp. 745–773, 1989.
- [60] K. D. Scott, “Black feminist reflections on activism: Repurposing strength for self-care, sustainability, and survival,” *Departures in Critical Qualitative Research*, vol. 5, no. 3, pp. 126–132, 2016.
- [61] a. m. brown, *Pleasure Activism: The Politics of Feeling Good*. Chico, 2019.
- [62] J. Morgan, “Why we get off: Moving towards a black feminist politics of pleasure,” *The Black Scholar*, vol. 45, no. 4, pp. 36–46, 2015.