Research and Scholarship Statement Dossier Section E

I am a human-computer interaction (HCI) researcher, game designer, and social justice activist. In my work I use qualitative research methods to explore, document, and study experiences of marginalization in technology and gaming contexts. I then utilize critical design methods to explore empowerment and flourishing for people in marginalized contexts through lenses of critical race theory, justice, queer games theory, and intersectionality. **My current research focuses on BIPOC (Black, Indigenous, and People of Color) flourishing - which I define as research that centers the joy, wellness, and healing of communities of color.** Specifically, I use methods such as interviews to develop relationships with my participants that give space for difficult emotional self-disclosure (e.g., conducting narrative episode interviews with targets of racism). I then design artifacts and interactions that productively disrupt these situations to uncover the underlying assumptions and dynamics at play (e.g., conducting workshops in low-income community centers to co-design transformational STEM board games). As critical design methodology my work is aimed not at "fixing" people, but shedding light on existing strategies, providing tools for empowerment, and designing for flourishing.

Context - Marginalization and HCI

Marginalization describes a process where individuals or groups are unjustly relegated to positions of lower status, power, and importance. My work produces new models and theories connecting experiences of marginalization with technology. The general public is increasingly aware of the ways that technologies reproduce oppression (e.g., surveillance, racially biased search algorithms, harassment perpetuated by the design of online platforms, etc.). Games are an accessible entry point for these conversations because they provide high levels of interactivity and agency, are already poised to help players interact with futuristic technologies and societies, and they can be designed as safe spaces for engaging with vulnerable and sensitive topics. As a multidisciplinary field including computer science and social science, HCI has a unique inroads to impact how our technology is designed, developed, and disseminated. For example, in the past several years I have spoken directly to large tech companies about how to incorporate Critical Race Theory into their work from an HCI perspective (see Statement on Service).

My research has primarily been published through conference proceeding papers - the gold standard for HCI. I have won Best Paper Awards (top 1%) for my work at top ACM HCI venues - CHI, CSCW, and UIST for my research conducting interviews around coping with interpersonal racism with social technologies. In HCI, co-authoring is common and the first author is typically the theoretical/intellectual leader (often a student or postdoc) and the last author is typically the senior mentoring/thought leader (often faculty). I now lead a large research lab with 5 PhD Students (see Appendix A). I use the apprenticeship model of PhD advising where my students collaborate with me while simultaneously growing into their own specialties and expertise. My students are all junior and in a training period, meaning that research output from the lab is lower and most papers will be written collaboratively.

Prior and Current Work - Critical Race Theory, HCI, and BIPOC Flourishing

My early work focused on designing for Black, Indigenous, and People of Color two specific contexts of marginalization: 1) in adolescence in STEM educational contexts through transformational game design intervention and 2) for adults for social coping with racist experiences using information and communication technology. In order to create design interventions in this space, I leverage the medium of games to engage participant-designers deeper into the topic to facilitate their analysis of the challenges and opportunities in designing social technologies as and for people of color. For example, using the interactive fiction tool Twine, I designed the interactive fiction story game "*They Didn't Mean That*" to open up conversations about racism, followed by group generative design workshops analyzing and creating speculative fictions about future technologies, and this work culminated in a remote user study using a new method for evaluating speculative future design utilizing Twine games. This work contributes methods for prioritizing participant safety while facilitating generative design conversations around sensitive and vulnerable topics as well as visions of anti-racist future technologies. This work resulted in an ACM CSCW paper and two ACM CHI papers and has been awarded a Best Paper Award and an Award for Contributions to Diversity and Inclusion.

More recently my work has shifted focus. At the beginning of my career, it was difficult to publish work on race in HCI and I received feedback representing "colorblind" approaches to computing (i.e., that race is not relevant to computing). In response, co-authors and I penned the now widely celebrated "*Critical Race Theory for HCI*" ACM CHI 2020 paper. This research has had a massive impact on the field of HCI with over 6000 downloads from the ACM DL and 226 citations as counted by Google Scholar, in addition to dozens of invited talks. Now with strong evidence that computing has responded well to this call to action to recognize racial inequality and address it in our collective work, my current research focuses on BIPOC flourishing. This work resists the idea that people of color only exist as marginalized and traumatized - an unfortunate but serious consequence of Critical Race Theory being the field's only model of how race operates in our sociotechnical world.

At the core of all of my current work is finding productive applications of BIPOC flourishing to HCI. Currently there are three main thrusts of this in my research:

1. **BIPOC Games**. While there is extensive study of Black Gamers and other gamers of color as well as extensive critique around racial representation in games, there is little movement in games scholarship to explore designing games that are by, for, and about people of color. In my ongoing work I explore opportunities for BIPOC games through 1) examining how Black Sims players modify the Sims video game to represent themselves in the game visually, culturally, and through in-game narrative, 2) designing extensions of my interactive fiction game ``*They Didn't Mean That*" to represent and process experiences with gender and/or race-based microaggressions, and 3) exploring how game narrative can facilitate identity development for students of color at predominantly white

institutions. In 2022 I submitted an NSF Faculty Early Career Development Program (CAREER) Grant, which proposes a five-year trajectory for this work.

2. **Speculative Racially-Just Design Futures**. I am making steps forward to bring together speculative design futures and racial justice, using the tools of games. In 2022 I submitted an NSF HCC Medium grant as a PI with co-PI Chris Martens (NEU) on using "Speculative Narrative Technologies for Liberatory Futures" where we will further explore how games such as tabletop role-playing games can be used as a tool for generating speculative fictions in the context of social justice. I am additionally collaborating with Hillary Carey (CMU) on work with racial justice organizers exploring how they use the concept of futures in their organizing work so we can understand racial justice as a site for future game-based intervention.
3. **Designing for BIPOC Flourishing.** While (1) and (2) are specific applications of flourishing, I am simultaneously working on developing a broader design framework for designing for the flourishing of people of color through collaboration with Christina Harrington (CMU) and Angela D.R. Smith (UT Austin).

Beyond research I am passionate about public scholarship and integrating social justice activism into games and HCI research. In addition to traditional HCI modes of scholarship (i.e., conference proceedings) I aim to do work that is accessible to folks in industry as well as the broader public. In an example of scholarship that impacts the academy, I also published an alt.CHI 2020 paper, "*Lab Counterculture*," that discusses ways that individual research labs can institute practices to combat the systemic, oppressive dark patterns of academic research and achievement (~2000 downloads from the ACM DL). In an example of scholarship that impacts industry, I have published work at ToDiGRA (2017) collaborating with game developers collecting examples of games that represent diverse characters and analyzing patterns that can be utilized by games academics and industry professionals. In an example of public scholarship, I have presented my research work twice at the Pittsburgh Racial Justice Summit (2021, 2022). Finally, I am being sought as an expert in the areas of race in technology and have been invited to speak at several high-profile HCI colloquium speaker series (see Statement on Service).

Future Directions - BIPOC Joy

My vision for my career is to broaden the scope of my work to include designs and interventions that impact the individuals and systems that enact racial bias. How does messaging about diversity and inclusion impact students at predominantly and historically white institutions? How might design to encourage meaningful, productive discourse about race and racism for people in the majority? How might we do this with digital social systems or with playful interactions and games? Moving forward with a lab with five PhD students, my research output will begin to look more varied as I support their trajectories as individual researchers. However, in all of the work that comes from my lab, we will continue my trajectory of interdisciplinary, collaborative research and design work that uplifts BIPOC joy.