Intersectional Trans-feminist Futures in HCI

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1 ABSTRACT

Although feminist theory and trans theory are both frameworks that can inform human-centered design, we argue that using feminist frameworks that embrace identity multiplicity would foster more equitable and just design practices. We present trans technological theories and other topics in HCI that are informed by and work well with feminist theory to suggest an intersectional feminist framework that could help to better represent multiply marginalized identities that are often excluded from feminist technology design.

2 POSITIONALITY

As a queer, trans woman of color, the first author is personally motivated to take an intersectional approach to research and design that centers the experiences of multiply marginalized folks such as herself.

3 INTRODUCTION

In Caroline Criado-Perez's book *Invisible Women: Data Bias in A World Designed for Men*, she argues that many technological systems are inadvertently designed with male biases, which harm female users [4]. While gender-based bias in technology design is certainly problematic and pervasive, Perez's approach is limited by her failure to account for trans identities and gender identities outside of the gender binary. Perez's book promotes bioessentialism, or the assumption that gender identity is tied to sex assigned at birth, and that only two categories exist (i.e. male and female). For example, she attributes privilege as related to genitals, saying, "The result is that when 'brilliance' is considered a requirement for a job, what is really meant is 'a penis'," [4]. Assumptions like these exclude and harm trans and intersex people, and deny the fact that gender is socially constructed. Bioessentialist and trans-exclusive approaches limit feminist theory's liberatory potential to reduce gender-based oppression as it relates to technology. Feminist theory often fails to sufficiently account for individuals marginalized based on other salient identities, such as race,

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class, ability, and sexuality. In response, there has been a call to incorporate other frameworks that represent more diverse perspectives, such as queer and trans theory. Similarly, to foster more equitable and just design, technology design processes must include diverse pools of users, and technology should be structured to allow identity fluidity and multiplicity.

4 BACKGROUND

Judith Butler insists that feminism can have more political impact by recognizing the diversity of women, rather than making generalizations about women. Butler details the potential harm of making generalizations about "men's perspectives" and "women's perspectives" in their response to Susan Bordo's "Feminist Skepticism and the 'Maleness' of Philosophy" [1]. Butler argues that certain generalizations can fragment and exclude individuals by erasing the different kinds of oppression some people face because of their intersecting identities such as race and class.

Therefore, following Butler's argument, feminist practice in HCI must explicitly involve intersectional frameworks to center multiply-marginalized individuals and communities in design. We use intersectionality as defined by Kimberlé Crenshaw to refer to the unique and additional oppression or marginalization faced by those with intersecting identities, which is difficult to understand through the lens of just one identity-based framework alone [3]. Crenshaw coined this term to describe the experiences of Black women specifically, but we use the term to describe those who are multiply marginalized more generally, as Crenshaw's work did not explicitly mention or include trans people [3]. To effectively implement an intersectional design approach that is equitable and inclusive for a diverse group of users, theoretical frameworks informing how users should be involved in the design process ought to emphasize multiplicity and fluidity of identity [2]. In this position paper, we will describe how trans technologies, transmisogyny, and misogynoir are useful frameworks to draw from in conjunction with other feminist theories to understand how technology can be designed for fluid and diverse identities.

5 INTERSECTIONAL FEMINIST APPROACHES IN HCI

Intersectional feminist approaches to HCI will enable design practices to center multiply-marginalized individuals and communities in sustainable and meaningful ways, as an alternative to universal design principles that have been historically implemented in HCI [2]. Universal design principles often prioritize designing for a 'typical' user, which can exclude or harm marginalized identities that might not have the same needs or values as an 'average' user. Feminist concepts have been helpful in our work in trans contexts [2], specifically work examining how misogyny affects marginalized groups. Julia Serano coined the concept of transmisogyny in 2007, describing the discrimination faced by trans women and other trans people at the intersection of misogyny and transphobia. Similarly, misogynoir, a term coined by Moya Bailey in 2010, refers to the distinct discrimination that Black women face at the intersection of misogyny and anti-Blackness [?]. Building off of these concepts, transmisogynoir refers to the violence and discrimination that Black trans women, and trans people of color more broadly, face due to racism and anti-Blackness, transphobia, and misogyny (Krell [?]. In writing about transmysogynoir, Krell highlights the need for a shift away from the whiteness-as-default present in gender and sexuality theories [?]. These frameworks inform how we think about technology, transness, and marginalization in HCI. In our prior work on trans technology, we provide two definitions for what it means for a technology to be trans – a practical definition and a theoretical definition [? ?]. The practical definition of trans technology refers to any technology that is designed by and/or for trans individuals, to meet trans-specific needs [?]. Importantly, trans technology is often designed as a response to mainstream technologies failing to account for

trans identities and needs. Our practical definition of trans technology describes a tangible application of equitable design in response to transmisogyny embedded in technology.

Applying these frameworks in practice is necessary to study trans technology designed specifically for trans people of color, as we will discuss using two examples from our research with creators of trans technologies: *We Are All Made of Starstuff* and *Arm the Girls*. *We Are All Made of Starstuff* is an augmented reality art installation consisting of a poster that, when viewed through a smartphone, transforms into an interactive art installation, featuring audio recordings of local trans women of color telling their stories. The project's creator, Chitra Gopalakrishnan, is a cisgender woman, but by centering the voices of trans women of color, she hopes that this installation will help humanize trans identities and increase empathy for trans people, especially for transphobic individuals. Gopalakrishnan hopes her work can decrease the harm and pervasiveness of transmisogyny and transmisogynoir, hopefully decreasing harm and discrimination against trans women of color. Guerrilla Davis, co-organizer of the *Arm the Girls* self-defense program, helps to coordinate an organization that runs fundraising events for mutual aid and creates and distributes self defense kits for trans women and transfeminine people of color in the Bay Area. This project was motivated to address a pressing need in trans communities of color: to increase safety and potentially prevent or limit harm when violent encounters occur. In 2022, at least 40 trans people were reportedly killed in the US according to the Human Rights Campaign (many more are likely unaccounted for) [?]. Trans women of color, specifically Black trans women, are disproportionately affected by this violence. *Arm the Girls* was designed as a community-centered response to transmisogyny and transmisogynoir, providing tangible support against these harms on both community and individual levels. These projects were successful in part because they explicitly aimed to address the issues faced by Black trans women and transfeminine people of color. Without an intersectional focus, technologies might not be as effective for those who most need them. Trans technology design also has potential to harm multiply marginalized individuals when designed without an intersectional framework. In our research, one limitation of the trans technology designers we interviewed was that the majority of them were white and educated. One example of this limitation is the Shinigami eyes browser extension, a tool designed to distinguish and mark trans social media accounts in green, and transphobic users in red. However, many users on Twitter note that the tool often reports racist users as 'trans-friendly,' while failing to mark Black trans individuals and allies with the same label.

6 DESIGN APPROACHES FOR IDENTITY MULTIPLICITY

Other trans technological frameworks can also support multiply-marginalized individuals by supporting identity multiplicity, even though they might not use an explicitly intersectional framework. For example, in artist micha cardenas' *Becoming Dragon* project, she spent 365 hours embodying a dragon in virtual reality, to question the year of ''real life experience" living in a preferred gender presentation requirement [?]. This requirement was published in the World Professional Association for Transgender Health (WPATH) 6 standards of care for gender affirming surgery. She asks if spending an equivalent amount of time in VR would make her eligible for "Species Reassignment Surgery" and highlights the fluidity and complexity of trans identity[?]. For trans individuals undergoing many physical and social changes, having technology that supports fluid identity is especially important. [?] This value of technology supporting fluid, complex identities relates to trans technology's more theoretical definition, which asserts that trans technology is designed specifically to support change and fluctuation, and that this type of technology design shows innovative possibilities of what technology means and is capable of in trans contexts [?]. The trans technologies we have interacted with and studied in our work that seem to be most meaningful and impactful are those that take an intersectional framework, as they tend to address both the practical and theoretical definitions of trans technology.

7 CONCLUSION

Feminist work in HCI could be most impactful if it incorporates the intersectional approaches, as well as the theoretical aspects of trans technology that push the boundaries of what technology is and what it is capable of. Designing technological tools for and with multiply marginalized individuals, as well as technology that supports multiple and fluid identities, could be a more equitable approach to design rather than frameworks that rely on generalization or assumptions that all women, or all gender minorities, have one set of technological needs.

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