Queer Joy in Practice: Designing Queer Social Wearables with Pride

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Social wearables have shown great potential in enhancing social connections and inclusion through physical play and everyday sociocultural practices. These devices, engaging with playful and expressive aspects of wearable design, facilitate identity expression and community building through sensory and embodied co-located interactions. In this paper, we propose queer social wearables, which aim to promote queer social experiences in physical environments. We discuss their potential contributions to research on queer joy and queer resistance within the HCI community and outline a research plan to guide further investigation.

Queer, Social Interaction, Wearables, Somaesthetic Design, Reflexivity

1. QUEER(ING) SOCIAL WEARABLES

Contemporary HCI studies have investigated queer experiences across various technologies such as social media (Carrasco and Kerne 2018; Kender 2022; DeVito et al. 2018; DeVito 2022), sound/audio (Kinnee et al. 2022; Rincón et al. 2021), archival (Riggs 2024; Riggs et al. 2024), VR (Freeman and Acena 2022; Bolesnikov et al. 2021), productivity (Janicki et al. 2024), AI & ML (Edwards et al. 2021; Queerinai et al. 2023; Baeza Argüello et al. 2021), game (George et al. 2023; Hantsbarger et al. 2022), wearables (Bolesnikov et al. 2023), and robots (Stolp-Smith and Williams 2024; Seaborn 2023). Proposed by Light (2011), queer HCI centers on identity and technology, studying the resistance to computation by "problematizing apparently structural and foundational relationships with critical intent." Such research is essential for acknowledging queer life in the digital era, supporting a sociotechnical approach to queer narratives.

Among these technologies, wearables have woven themselves into the fabric of everyday lives. This study builds on the discussion around "queer tangible interaction" (Riggs et al. 2024) and explores a particular type of tangible computing technologies - social wearables. Social wearables engages with psychological and sociological theories of human communication, exploring tangible design attributes that can improve existing social signaling and proactively intervene in social situations, thus augmenting co-located social interactions (Dagan et al. 2019; Márquez Segura et al. 2018). Unlike traditional expressive wearables that stresses the designer's perspective and single user use (Genç et al. 2018), social wearables prioritize human connections, creating tangible forms that transform and enrich digital social life.

Early wearable computing research has explored various expressive and aesthetic forms blended into everyday attire such as digital bagels (Falk and Björk 1999; Dierk et al. 2018), smart accessories (Colley et al. 2016; Rantala et al. 2018), cloth garments (Wilde and Marti 2018; Epp et al. 2020; Genç et al. 2020; Epp et al. 2022) to experiment with technology-enhanced social experiences. Recent studies have started engaging more deeply with identity expression and community support. For example, Epp et al. (2020) conducted a design ethnography study with Finnish university students and found that social wearables were able to prompt users to reflect on and negotiate differentiation and belongings in everyday sociocultural practices. Similarly, Epp et al. (2022) discusses how the use of a personalized interactive clothing patch ("Digi Merkki") afforded different social strategies among Nordic students, supporting meaning-making and community building through co-located social behaviors.

In relation to queer identity, to date, to our acknowledge, we are only aware of one study

(Bolesnikov et al. 2023) emphasizing the needs of leveraging queer experiences and identity into wearable design. Through a series of speculative design workshops with diverse queer communities, Bolesnikov et al. (2023) argue that "queer wearables" can potentially benefit queer individuals from four perspectives: (1) expression and communication, (2) changing bodies, (3) managing queer health, and (4) finding others. Building on these foundational work, queer social wearables focuses on queer identity and "queer social" in design, emphasizing the importance of felt experiences and identity expression, thereby embodying the potential outlined by Bolesnikov et al. (2023) and becoming a possible critical design example of provocative outcomes.

Driven by the author's intersectional queer experiences working in technology, this study responds to the research gap by echoing what Light (2011) called for "queer as a tool for analysis and a means for engaging with meta-values." Queer social wearables extend beyond mere discussion about sexuality and identity; they embody the pride and joy of living a queer life. This shared experience of queer joy and happiness should be witnessed not only by individuals but also within the queer community through meaningful social experiences. From a socialtechnical perspective, these wearables serve as a unique means to support those seeking joy, companionship, and belongingness through digital affordances. Lastly, they provide a critical design example for discussions on the "entanglement of queer desire and the design of computer-related technologies"(Kannabrian 2021), contributing to the community-wide resistance against queer feelings and erasure.

2. RESEARCH METHOD

To explore the design space for queer social wearables, this study employs Research through Design (RtD) (Zimmerman et al. 2007) and Co-design (Hardy et al. 2022) with self-identifying queer college students to create wearable prototypes and develop conceptual contributions. In HCI, RtD is perceived as "a research approach that employs methods and processes from design practice as a legitimate method of inquiry", thereby emphasizing the designer's practical contribution to knowledge generation (Zimmerman et al. 2007, 2010). Furthermore, this participatory, co-creation nature incorporated into the design inquiry opens up possibilities for engaging the queer community (Hardy et al. 2022), facilitating transparent and meaningful discussions around the ethics of queer social wearables design and application.

Reflexivity is a critical element in current HCI research with marginalized communities (Liang 2021). This term was firstly brought into discussion by Bødker (2006) and amplified by Rode (2011) to discuss its potential contribution to ethnography. This study engages with this discourse, drawing on foundational works such as Dourish (2001)'s concept of embodied interaction, Höök (2018)'s somaesthetic design principles, and Rode (2011)'s digital anthropology in HCI. It focuses on exploring the meaning-making process in design exploration and application, considering the subjective, first-person queer feelings of all participants, including the researcher's intersectional queer experiences. Specifically, the study looks into the lived bodily experiences (Young 1990) of queer social connections, engaging in an open inquiry into emotions, thoughts, and bodies mediated in movement-based interactions to inform an inclusive approach to queer social wearables. By doing so, the research aims to gain a comprehensive understanding of real-world experiences within the queer community and explore how queer social wearables can afford joyful and inclusive social experiences.

3. RESEARCHER'S BACKGROUND

Yifan Feng *(he/they)* is a first-year PhD student at University College London. He holds an MSc and an MRes from the University of the Arts London, Creative Computing Institute. Originally trained in Cultural Informatics, Yifan is particularly interested in technology-mediated communication among Queer People of Color (QPOC). He explores what queer experiences are both personally and to this specific group in various socio-technical contexts, such as queer dating/social applications and collaborative digital queer art practice. His research engages with creative and critical approaches in HCI to challenge white, Western, hetero/cis-normative narratives in technology design and use.

Jennifer A. Rode *(she/they)* is an Associate Professor at University College London. She is a distinguished member of the ACM, and earned a BS and MHCI at Carnegie Mellon, as well as a doctorate at University of California, Irvine under the supervision of Paul Dourish and Genevieve Bell. Rode researches critical computing examining how gender, LGBTQIA+, race, and disability biases are intersectionally embedded in technology, and is committed to designing equitable technologies.

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