Feminist human–computer interaction: Struggles for past, contemporary and futuristic feminist theories in digital innovation

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Abstract

In this short paper, we introduce our Special Section in *Feminist Theory* titled 'Feminist human–computer interaction: Struggles for past, contemporary and futuristic feminist theories in digital innovation'. Over the last years, we worked with the authors of the articles presented herein to bring together feminist theories with their practical application in the design, development, use and exploration of digital technologies. Our section follows three aspects: (1) an overview of past feminist histories and discourse; (2) the development of actionable, contemporary theory; and (3) speculative futures of what a feminist human–computer interaction (HCI) could be. Together with the contributing authors, we are excited to explore these areas of post-disciplinary connection at the intersection of theory, practice and activism.

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Keywords
Technology, design, human–computer interaction

Human–Computer Interaction (HCI) represents a fast-growing, multidisciplinary field that, broadly, explores how we can design digital technologies to better meet the needs of people, and, dyadically, attempts to better understand people through the use of digital technologies. In recent years, this field has begun to shift its focus towards scrutinising relations. These relations extend beyond a single person or interaction (such as the pressing of a button), onto the rich, nuanced context that a person acts in and contributes to, and the societal forces that impact upon them (Kuutti and Bannon, 2014; Dombrowski et al., 2016). It was only a matter of time before the forces of justice-oriented action and critical activism began to shape our understandings of the inherently political nature of technology's design and use in practice. Interest in how the power of theory can inform such research and conversations has grown over the past decade, including several interpretations of feminist theories, methodologies, methods and/or tools (Bardzell, 2010; Ahmed and Irani, 2020; Rankin and Irish, 2020). Such work calls to, for instance, the development of activist campaigns for more inclusive and welcoming conference venues (Strohmayer et al., 2018), the formalisation of a Feminist HCI community (Bellini et al., 2018) and a dramatic increase in the number of publications that recognise their links to feminist theory (Chivukula and Gray, 2020).

However, while some scholars have sought to argue that feminisms are a powerful lens by which to engage HCI through theory, thoughts, methods and values, this research is still often marginalised or sensationalised. Feminism is perhaps well accustomed to being shunned, sidelined or ridiculed for highlighting what is unjust, particularly within a male-dominated space such as computing and technology. Sara Ahmed, alongside other feminist scholars, has highlighted that once a problem is brought to light, it is the speaker not the problem that becomes the target of aggression and hostility (Ahmed, 2017). Correspondingly, the cultivation of feminist research within multidisciplinary HCI has been a slow, yet delicate and determined one (Bardzell and Bardzell, 2011).

In this academic context, Feminist HCI, as an overarching agenda, works to carefully engage critical perspectives, tacit value systems and situated knowledges (Haraway, 1988) of HCI's dominant research and design paradigms on human interactions with technology. As Bardzell and Bardzell (2011) initially described, it is not the problem domain of gender and computing (or, perhaps, the lack of such) that makes a methodology practice feminist, but rather its 'connection to feminist thought'. Through the striving of researchers seeking to challenge the dominant gender invisibility of technical design and deployment, the field is gradually working towards addressing greater inclusivity in research in both practice and theoretical framing. Informed by feminist standpoint theory (Bardzell, 2010), intersectionality (Fox et al., 2017; Rankin and Thomas, 2019; Schlesinger et al., 2017), care ethics (Toombs et al., 2015), ecofeminism (Kannabiran, 2015) and feminist disability theory (Moeller, 2015), a feminist HCI narrative has been shaped through careful debate, support and production. As an applied discipline, HCI has sought to apply the theoretical frameworks offered by feminism to

its own design practices, yet there exist tensions in which of these are taken up and enacted. Given the pervasive and ubiquitous nature of communicative technologies, how we design, understand and evaluate these practices is arguably one of the most important frontiers in contemporary feminist debate.

Feminist HCI is now at an important point in its lifecycle, on the ten-year anniversary of the publication of the first prominent HCI work that dared to call itself explicitly 'feminist'. This acknowledgement of time has been accompanied by important critiques of how such theories of feminisms are discussed, and how they are leveraged for those we work with, such as the erasure of the social categorisation of race in more neutral representations of intersectionality (Erete, 2021). Furthermore, this addresses questions of who are important to include in what kinds of research methods in an attempt to put into practice feminist approaches. (Hancox-Li and Kumar, 2021). These questions strike the heart of what we mean by technology, what it means to digitise the human experience and how it does or does not work in ways that are conducive to feminist goals. For example, we note that technology, as a concept within existing works within *Feminist Theory*, has been conceptualised in two ways. Firstly, as a firmly fixed, permanent and unmovable entity, where the effects of matters such as virtual body image (Fantone, 2003), criminal justice for sexual violence (Dodge, 2018) and reproduction (O'Riordan and Haran, 2009) on feminist identities are studied. Alternatively, technology is framed as an abstract, fictional and futuristic concept through the studying of Donna Haraway (Currier, 2003), Joan Tronto (Stoate, 2012) and Judith Butler (Hellstrand, 2016). When we position technology in these ways, it can illuminate design spaces and paradigms that feminist theory is essential to address, contribute to, and/or fight against. Yet when the design, implementation and use of technologies are excluded from the picture, we are left without the tools and methods to alter our interactions with technology. As Faulkner pointed out, feminist accounts in technology studies signal 'an insistence that both technology and gender be understood as socially shaped and so potentially reshapeable' (Faulkner, 2001: 80). Through this special section, we aim to bring such an approach into *Feminist Theory* and address an extant literature gap in terms of the theoretical contributions of researchers, designers, theorists and software engineers producing digital tools in the contemporary context. By incorporating content that represents the heart of emerging feminist technologies, we aspire to demonstrate the best of these efforts. Our special issue brings forward alternative approaches to feminist thought and theory in HCI through the synthesis of three vital themes that run their course through feminist works of the past, present and (hopefully) the future: a lookback on understandings of feminist HCI theories and their role in political debates; the development of actionable theory (i.e. tools and approaches) to build nuanced and inclusive theories and applications for feminist HCI; and the careful construction of feminist speculative futures. Examining the critical perspectives to tacit value systems within HCI's dominant research and design paradigms along the dimension of time, as feminism in HCI has developed, brings an additional layer of complexity and care to future feminist endeavours.

This special issue aims to take on just some of the challenges that we have expressed above. Against the backdrop of deep-set gender- and sex-based inequalities brought to

light and exacerbated through a global pandemic, we contribute this unique collection of articles that brings together new modes of feminist thought and practice to the issues of our time, and of the future. Our first two articles present specific case studies of how feminist theory and action is so desperately required in digital technology design and deployment across a woman's rights to space and rights to engage to vote. Each of these articles delicately curate an *overview of past feminist histories and discourse* to a contemporary challenge in political debates. Stefanie Wuschitz's piece on 'A Feminist Hacklab's Resilience towards Anti-Democratic Forces' powerfully narrates, against an unstable history of exclusion of women from spaces of technology, how a feminist hacklab sustained a severe attack from right-wing and conservative voices following an exhibition on female pleasure. Through careful and investigative approaches, Wuschitz offers the case as a critical example of how voice is utilised by the chaos that ensues, with recommendations for growth in resilience across feminist collectives. Along a similar strain of (curbed) growth, Isha Mangurkar and Nimmi Rangaswamy offer 'Controlled Empowerment of Women: An Intersection of Feminism, HCI and Political Communication in India' around the role of empowerment of women across the 2014 Indian general election. Akin to Wuschitz, we see the entanglement of right-wing ideologies at play with calls to promote the antithetical approach of 'controlled empowerment' of women's voices, which the authors scrutinise through the influence of feminist thinking and internet technologies that support online discourse around politics and the structural, legal and everyday consequences for women citizens in India.

The special issue then continues in the theme of *actionable, contemporary theory* with Ralph Vacca's piece 'Intersectional Elaboration: Using a Multiracial Feminist Co-design Technique with Latina Teens for Emotional Health', which focuses on the vast and occasionally unwieldy group of methods known by its umbrella term 'co-design', in a specific application of mental health services with Latinx teens. Vacca blends scenario-based design while foregrounding the importance of multiracial frameworks to cultivate a novel approach known as *intersectional elaboration*. This approach aims to generate new power dynamics and stakes in the scrutiny of forces of privilege and oppression that operate along different layers of one's social ecology. Following this, Anna Croon offers a different actionable development of theory and practice. She considers how we contribute to the ever-larger toolkit of feminist thought and approaches in 'Thinking with Care in Human–Computer Interaction'. In building the bridge between the contemporary and the speculative, Croon recommends a strategy to 'seed' a speculative design space by drawing attention to dilemmas and neglected things to foster abilities and sensibilities for dealing with difference differently.

For our concluding theme of *speculative futures*, Katta Spiel offers 'Transreal Tracing: Queer-Feminist Speculations on Disabled Technologies'. Spiel imagines the human body as 'surfaces of possibilities' which necessitate vital reflections on how disabled bodies are represented now, but also what disabled bodies do and could look like. This presents a powerful final shift in gaze for our special section which seeks to transform the overwhelming scrutiny on disabled technologies, support, isolation and shame to potential, appreciation, kinship and ultimately pride. We cannot think of a better outcome to

leave our readers with as the journey through research continues, equipped with ever-improving critical tools to challenge inequalities when they occur.

We now take pause to consider how this special issue not only tackles some of these themes, but also provides us, as editors, with the space for critical reflection on our actions of bringing feminist HCI to *Feminist Theory* and beyond. We have all been heavily involved in building a community of feminist HCI scholars, way back in the summer of 2016 when we, as part of a larger group of interested individuals, established fempower.tech, a feminist technology collective in HCI, to be able to better organise within our community. As part of our work, we engaged in critical debate around issues of feminism in HCI, such as running workshops and special interest groups on feminism and inclusion (Bellini et al., 2018; Strohmayer et al., 2018), while simultaneously putting into practice this work through the development of what Asad (2019) describes as a 'prefigurative politic' at large HCI conferences. In many ways, we saw experiences first-hand of the hostility of the interdisciplinary space that overlooked and understated the importance of feminist works from our fellow members. In many ways, we positioned this special issue itself as an intervention grounded in feminist principles, where we could examine the systems of power in publishing professional work, systems that did not recognise the implicit value of performing this kind of work. In crafting such a proposal to *Feminist Theory*, we sought to challenge this power through the hopeful provision of alternative channels for such works. In doing so, we wished to introduce the active practice of making and doing technology work by feminists and for feminists known to theorists to strengthen the relationships between action and information. In our initial article selection, we sought to prioritise students and less experienced 'early career researchers' (ECRs), and topics that may be overlooked or misunderstood through other publication channels; such as falling through the cracks of design, practice, theory and activism.

While these five articles cannot cover all aspects of feminist HCI work, we consider that the three themes represent the challenges facing the space as of today. To this effect, we did not accept promising work from more established researchers who we deemed, in our professional opinion, would be able to publish their call to feminist work elsewhere, acknowledging their experience in carefully synthesising feminist works in ways that may be more palatable to mainstream audiences. We specifically did this because we understood that, as editors, we would have the ability to forefront work by these early career researchers and could willingly take on the labour required to bring feminist work to new audiences, highlight emerging approaches and contribute novel reflections on the intersection of theory and practice. We hope that this special section highlights that Feminist HCI has a home even in the most far-reaching of places, and that striving for feminist practice and voice to be heard should be something that editors consider in their publication journeys moving forward.

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