

## Communication and Media

# Cross-Cultural Feminist Technologies

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## Global Perspectives

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As our contemporary problems of climate change, pandemics, tech reform, and worldwide wealth inequality demand global solidarities, cooperation, and collective and empathetic imagination, we need approaches that can carve critical pathways for an inclusive technological future. Much as technology is created to transcend borders and cultures, this essay proposes that cross-cultural feminism can do the same. This essay pioneers a framework that enables us to strive for global solidarities while decolonizing the feminist “common sense” that is institutionalized into how technologies are shaped. We advocate for an approach grounded in the materiality (embodiments), mobility (social movements), and modality (codes and modes of design). We believe this three-pronged lens can inform practice and help set the tenor for how to build cross-cultural feminist technologies for an inclusive future.

### INTRODUCTION

This is not your typical introduction. In shaping this special collection, what emerged was a bridge between distinct but related fields. Like all uncharted territory, it needs to be tread with guidance. What we present to you is a reader’s guide, of sorts—a method by which we suggest interpreting the pieces in this collection. In true collective (both anti-colonial and feminist) fashion, the interplay and collaboration between related pieces results in knowledge above and beyond the contribution of each individual piece.

Our audience is likely familiar with at least one aspect of cross-cultural, feminist, postcolonial, and sociotechnical literature, but possibly not all. We encourage staying with discomfort when venturing across disciplinary boundaries, and we view this essay as an invitation to explore each other’s terrain. In this introduction, we first frame the contributions of feminist literature and cross-cultural literature to a more robust understanding of technology. We follow with a suggested guide to how these topics are interrelated and brought to practice by framing overarching themes by which these pieces can be interpreted.

### WHY FEMINISM?

In the digital age, feminist scholars have shifted their attention to the impact of technology on gender inequalities, asymmetric power relations, and social circumstances. For instance, the internet used to be understood as a feminist media that could enable women’s liberation and lay the groundwork for a new type of social relations (Wajcman 2010). However, the restrictive and hierarchical nature of

the digital environment, while enabling many opportunities for marginalized communities, also engenders emergent issues such as cyberracism (Bliuc et al. 2018), online misogyny (Ging and Siapera 2018), and virtual sexual violence such as “revenge porn” (Arora 2019).

Given numerous threats to women and other gender or sexual minorities, activists and scholars alike advocate a feminist internet that ensures equity, freedom, and safety. Feminists active in science and technology studies (or technofeminists) actively examine the ways in which society, politics, and culture impact technological developments. Feminist HCI (human-computer interaction) scholars propose that interactive systems and technologies should integrate feminist values such as agency, identity, and empowerment in their agenda (Bardzell 2010). Their research makes use of feminist tools—both empirical and methodological—to understand issues of marginalization and exclusion within HCI.

### WHY CROSS-CULTURAL?

When appreciating a cross-cultural lens, a new issue arises: are these new feminized technologies inclusive? Critiques of the Enlightenment teleological narrative of dividing Western feminisms into “primitive” and “modern” are applicable in a technological space where these discourses intersect with the digitization of the Global South (Abu-Lughod 2013; Khader 2018). Critics of missionary feminism argue that these tools are not saving “from” but saving “to” a Westernized ideal (Abu-Lughod 2013). A decolonized conceptualization of technological feminism is therefore required.

A strictly localized approach to these issues might prove insufficient as digital platforms can foster communication and new alliances across physical borders. Can we make the case that, despite differences between feminist perspectives that have revealed systemic fractures of privilege and power, we can and should strive for a set of universal feminist values? As our contemporary problems of climate change, pandemics, tech reform, and worldwide wealth inequality demand global solidarities, cooperation, and collective and empathetic imagination, feminist approaches can carve critical pathways for an inclusive technological future. Much as technology is created to transcend borders and cultures, this special collection investigates whether a universal feminism can do the same.

## ENVISIONING A CROSS-CULTURAL FEMTECH FRAMEWORK

It seems, then, that we have a paradox: how can we develop feminist universalities while also appreciating a cross-cultural lens that highlights how “universalities” simply reflect the norms of the majority? Srnicek and Williams (2015, 78) propose that we should think of the universal as “an empty placeholder that hegemonic particulars (specific demands, ideals, and collectives) come to occupy.” Their global vision of “inventing the future” remains controversial because placeholders are never “empty”; they are politically encoded by human memory, imagination, aspiration, and power.

Cross-cultural feminist approaches to (digital) “placeholders” focus on the collective becoming, as technologies are never complete, and our futures are never fully realized. As Bardzell (2010) argues, universalisms in design can demote cultural, social, regional, and national differences among user experiences and outlooks. Instead, we need to foreground diverse possibilities and cultural approaches, making room for the full spectrum of the human condition, and recenter those at the margins.

We propose a cross-cultural framework that enables us to strive for global solidarities while decolonizing the feminist “common sense” that is institutionalized into how technologies are shaped. We advocate for an approach grounded in the following:

1. Materiality: embodiments and enactments of lived realities
2. Mobility and mediation: social movements and their positionalities and curations
3. Modality and morality: codes and modes of being translated into design

The contributions of our authors highlight and integrate these strands and showcase how a cross-cultural feminist approach can be created, but also where such a framework may have pitfalls. These essays give texture to otherwise abstract domains through their diverse social contexts, methodologies, and argumentations. We hope this collection serves as a critical mass of voices that transgress academia and practice and set the tenor for how to build cross-cultural feminist technologies for an inclusive future.

## 1. MATERIALITY: DIGITAL EMBODIMENTS AND FEMINIST MATTER

The body has long been a site for gendered norms, patriarchal disciplinary measures, and communal, national, and even transnational inscriptions (Ahmed 2008). Sex, sexuality, and fat can transform into “blasphemy,” which Haraway (1990, 117) advocates as a feminist weapon that “protects one from the moral majority within, while still insisting on the need for community.” By inserting the intersectionality of culture into this equation, we may see nuance and even feminist conflict in what is sacred and what is sacrilege. Postcolonial feminists have spoken of a “double colonization,” of being situated within patriarchal and colonial subjugation (Lewis and Mills 2003), where sexual politics have had to tread with craft and care.

This “blasphemy” may become a blunt instrument compared to subtler and less visible forms of feminist actualization in contexts steeped in religiosity, authoritarianism, and gendered institutional and legal environments that constitute many of our global societies. For instance, Islamic feminism may leverage piety to gain a stronger position in society and carve leadership positions in this moral space (Zia 2009). There is effort underway by some communication scholars to decolonize embodied media practice by centering a historical sensibility, legitimating the cultural power of non-Western subjectivities and untethering meaning-making from the Anglo-Saxon gaze (Kumar and Parameswaran 2018).

Social media platforms have rejuvenated the embodied battlefield through online misogyny, cyberbullying, and “slut-shaming,” communicative practices that steer toward intimidating, confining, domesticating, and reining in emergent feminist voices and visibilities against the patriarchal norm (Kudaibergenova 2019; Henry and Powell 2015; Arora 2019). As Brown (in Henry and Powell 2015, 232) puts it, “how embodied does ‘real’ victimisation have to be?” The cross-cultural feminist approach would take this further and investigate the biopolitical nature of embodiment, grounded in identity, culture, and agency, and the differences in consequences and lived impacts. We need, however, to go beyond the victimization narrative and give fair weight to the realities of seeking publicness, recognition, joy, pleasure, and happiness, to understand the cultural drivers for visibility despite these harms.

The feminist body politic is rooted in the refusal to be propertied—to serve as a territory within which the cartographies of oppression can become normalized. These concerns have taken new material forms with current conversations on data ownership and neocolonial extractions by global media platforms, particularly in the data harvesting of users in low-rights environments (Arora 2019; Couldry and Mejias 2020). This framework would benefit from partnership with Southern ecofeminists given their commitment to the struggle against regimes of gendered subordination and the disproportionate extraction of natural, human, and cultural resources of the Global South (Shiva and Mies 2014). The degradation of nature appears to be the price we are currently paying in our race to build artificial intelligence systems. As Kate Crawford (2021) argues, “we are extracting Earth’s geological history to serve a

split second of contemporary technological time” as we divert astronomical energy to support our expansive AI systems, data centers, and devices designed for obsolescence.

We envision forging an alliance between the feminist “old materialists” who have pushed for care labor as a public good and feminist “new materialists” who reconfigure our understandings of “matter” as “a method, a conceptual frame and a political stand, which refuses the linguistic paradigm, stressing instead the concrete yet complex materiality of bodies immersed in social relations of power” (Braidotti 2012, 21, in Shiva and Mies 2014). Embodiment is the biological, genetic, molecular, and geological, where human and planetary flourishing should be one and the same.

To illustrate materiality from our collection, Galit Ariel’s “Free the (Virtual) Nipple” teases out the space between the infinite possibilities that immersive technologies can provide and the constraining embodiments that occur in augmented realities. She identifies roadblocks of identity and role cultures and biases that shape how the body serves as an identity-defining space. She critically explores what it takes for a digital playground to be “both safe and experimental, outside technology’s dull, standardized, and self-celebrating monetization loop.” By shedding the “baggage” of objectification of the human body, she argues that we can transcend the “correct” or “biological” representation of the self.

Margaret Jack and Seyram Avle, in “A Feminist Geopolitics of Technology,” give grounding to the geopolitics of techno-empires by offering an intersectional feminist framework that foregrounds place, everyday surviving and thriving, and community building. Through a rich buildup of two cases—a grassroots creative space in Phnom Penh, Cambodia, and Ghanaian technologists and entrepreneurs pursuing a vision of global STEM education—they reveal how an “invisible infrastructure” of interpersonal support and trust shapes the feeling of belonging to a place. They advocate for attending to joy, affect, and “deliberate actions of quotidian pleasure” despite oppressive conditions as the ethical pathway to materializing the politics of possibility.

And, in “Black Women in Parliament and on Social Media: Link Visibility as an Intersectional and Solidarity-Building Tool,” Andrea Medrado, Renata Souza, and Monique Paulla interrogate the space between invisibility and hypervisibility, “when bodies are hyperexposed for commodification or criminalization purposes.” Situating their study in the case of Marielle Franco, a Black lesbian favela-born city councilor and human rights advocate who was murdered, they offer the concept of “link visibility” as a protection mechanism for women of color. By unpacking the tension of seeking high publicness for social impact while absorbing high levels of vulnerability, they demonstrate the “reembodied Black experience” as a resilience strategy.

## 2. MOBILITY AND MEDIATION: FEMINIST COLLECTIVES AND POSITIONALITIES

The #MeToo movement, with its cross-cultural manifestations worldwide, is perhaps the most widely known feminist activism that galvanized empathy and solidarity through a critical mass, enabled by social media. This comes at a time when there is a matured skepticism of such “hashtag feminism” (Chen, Pain, and Barner 2018), built on broader critique of passive activism, and when communicative media is neutrally foregrounded in the complex and continuing struggle for equity and justice. However, the #MeToo movement does demonstrate the discursive power of “intimate publics” (Berlant 2011) and reignites legitimacy for what Coleman, Page, and Palmer (2019, 9) describes as “infrastructures of feeling...across each other in a complex architecture of texts, textures, platforms and devices.” Yet it continues to be subjected to the classic feminist tensions between affective local self-organizing and scale, formality, and leadership.

In taking on a decolonial approach, formality and leadership need to be rethought and contemporary tensions unmasked. Informal economies and self-organizing labor movements, for instance, have long been a reality for marginalized majorities, and so have their quiet solidarities within constrained choices (Arora and Raman, Forthcoming). We need to go beyond the formality-informality binary to address desired values for flexibility, professionalism, choice, dignity, and decency of work. While formality can be empowering, particularly as the global future of work becomes increasingly platformized, automated, and algorithmically governed, it needs to be done by “decolonizing solidarity relationships based on self-reflexivity relevant to the settler-colonial context, and engagement with difference and discomfort” (Boudreau Morris 2017, 457).

As urban surveillance gets retooled with facial recognition, data tracking, and predictive analytics to deter protesters, we recognize how “deliberate leaderlessness” can create more flexibility, resilience, and safety in social movements. We have witnessed this in the Hong Kong protests; the anti-austerity movements in Chile, Ecuador, and Lebanon; and France’s antiestablishment Gilets Jaunes. The *Atlantic* (2020) calls it the “future of politics” as a “movement that’s overly organized can become too invested in its own tactics.”<sup>1</sup> The flip side to this proposition is what Jo Freeman (2019) calls the “tyranny of structurelessness” in contemporary feminist movements.<sup>2</sup> She argues that no social group exists without structure, be it formal or informal, and that to claim otherwise is to create further exploitation; “to strive for a structureless group is as useful, and as deceptive, as to aim at an ‘objective’ news story, ‘value-free’ social science, or a ‘free’ economy.” The cross-cultural feminist approach takes this critique seriously and recognizes that for sustainable change to occur, we need to fos-

1 See <https://slate.com/news-and-politics/2020/06/george-floyd-global-leaderless-movements.html>.

2 See <https://www.jacobinmag.com/2019/09/tyranny-structurelessness-jo-freeman-consciousness-raising-women-liberation-feminism>.

ter accountable collectives that, even when self-organized and organic, should be reflexive and transparent about the structure, standing, and rules of their social order.

Lastly, postfeminists and neoliberals make good bedfellows as they place their bets on individual participation in the supposedly free market as key to gender empowerment. Algorithmic logics of surveillance capitalism, though, have muddied the moral clarity of the liberal feminist truism that “the personal is political” (Phipps 2016). There is growing concern that the commodification and the datafication of self-presentation and digital labor result in depoliticization. While women’s participation online does fuel an “economy of visibility” (Banet-Weiser 2015), these extractive digital structures do not negate the real opportunities and potential empowering effects for these communities. Cross-cultural feminist approaches recognize this uncomfortable coexistence and advocate for reconstituting the data logics to allow for a sustainable feminist data commons without dismissing the value of the core principles embedded in the “personal is political” tenet. As Mohanty (1997, 267) argues, “It is only by understanding the contradictions inherent in women’s location within various structures that effective political action and challenges can be devised.”

Several of our essays speak to this theme of feminist mobilities and mediations. “Decolonizing the Internet by Decolonizing Ourselves,” by Whose Knowledge, a team of academics and activists who call themselves “pragmatic revolutionaries,” shares practical knowledge of how they use the existing digital tools at their disposal to remaster and reclaim knowledge-making for an inclusive internet as they work on and with underrepresented groups. Focusing on Wikipedia and the neutral point-of-view clause, they unearth for us their collaborative action with diverse groups by committing “to conflict, to reflexivity, and to personal ethics and politics” and by balancing “transactional metrics” (what can be counted; content pages) with “transformational metrics” (what is critical but intangible; e.g., relationships, collaborations, social change).

In the essay “Only Possible Feminisms,” Charlotte Webb draws insights from her experiences as the cofounder of the Feminist Internet. She argues against notions of neutrality as revealed through the different impacts that algorithmic and pandemic systems have had on marginalized populations. She unpacks notions such as “the virus doesn’t discriminate” to reveal normative assumptions about digital virality and contagion of ideas and ideals for social change. Building on Black feminist movements and creative practice, she illustrates how surveillance is racialized and how Black creative communities use artistic tools to reimagine how technologies could work for them to subvert structures of power.

Anna Lauren Hoffmann, in her essay “Even When You

Are a Solution You Are a Problem: An Uncomfortable Reflection on Feminist Data Ethics,” offers a thought piece on the limits of data ethics. She juxtaposes the dominant conversation on data harms within US legal frameworks with the global implications of data science and technologies. She rejects Western feminist calls for pluralism and instead proposes a “universal feminist value” as a way to “cut across cultures, generalizable to the struggles for gender justice regardless of the particular details in particular contexts.”

In “Whose Emancipatory Politics? Toward a Postcolonial Technological Subject,” Avrina Jos seeks to provide a “practical framework for feminist imaginaries of technology,” putting forward the works of transnational and so-called Third World feminists. Her article makes the case for a revolutionary feminism of “radical politics” that derives from microresistances, everyday agencies, and empowering the action of those at the margins. Jos navigates the terrains of difference and identity to escape the trappings of “a singular feminist history” while recognizing the critical need for feminist unity. She makes the case that there are strong cross-cultural alignments between Dalit, Black, and Indigenous feminisms in their pursuit of decolonizing normative social systems.

### 3. MODALITY AND MORALITY: CODES AND MODES OF FEMINIST DESIGN

In recent years, “the algorithm” has become common nomenclature. Numerous media stories have covered global public sentiment on this programmatic code, echoed in public calls to “Fuck the algorithm” and “Ditch the algorithm.”<sup>3</sup> This growing anger toward what for decades was considered mere technical instructions to fulfill a task comes from privileging code over context, with little transparency, responsibility, and mechanisms to address the consequences of encoded action. The omnipresence and the amplified bias of big data analytics in decision-making are being felt across institutions and sectors. Amazon had to discontinue its AI recruiting tool as it was found to be biased against women.<sup>4</sup> There is pressure to dismantle predictive policing algorithms as they are viewed as racist.<sup>5</sup> And while machine translation codes have enabled us to cross borders and communicate with one another, they continue to be skewed toward English and other dominant languages. Moreover, tools like Google Translate have been found to be gendered in their default translations.<sup>6</sup>

Scholarship in the area of algorithmic gender bias and discrimination has exploded across disciplines, pushing for a decolonial and intersectional feminist framework (Leurs 2017; Costanza-Chock 2020; D’Ignazio and Klein 2020). They have inspired much insight into how to justly reframe

3 See <https://www.theguardian.com/commentisfree/2020/aug/19/ditch-the-algorithm-generation-students-a-levels-politics>.

4 See <https://www.reuters.com/article/us-amazon-com-jobs-automation-insight-idUSKCN1MK08G>.

5 See <https://www.technologyreview.com/2020/07/17/1005396/predictive-policing-algorithms-racist-dismantled-machine-learning-bias-criminal-justice/>.

6 See <https://slator.com/machine-translation/google-fixes-gender-bias-in-google-translate-again/>.

and reconstitute code and mode of operating software and hardware into our everyday lives. Manovich's code as language as "culture undergoing computerization" (2002, 27) is well in sync with Haraway's feminist call to embrace technology as culture. However, our cross-cultural approach pays heed to Wajcman's warning that while in theory this framing accepts gender and technology as mutually constitutive, in practice there is an overemphasis in empirical work that seeks to examine how design choices impact gender relations rather than the other way around. Hence, it is essential to recognize code and culture as dialectical yet separate in their own right and to invest in generating a balance when seeking a joint narrative.

In that vein, the cross-cultural feminist approach commits to the entirety of the coding process, from the selection and management of the data sets, to the people and institutions behind data training decisions, to the recursive and reflective assessment of the impact of code on social life. We align with Leurs's (2017) call for a cross-fertilization of feminist, postcolonial, and data studies in approaching the construction of feminist data and AI-enabled systems. This moves away from the "positivist, transcendental empiricism and disembodiment value freeness" in datafication, which have reproduced dominant ideologies that are "masculine, able-bodied, heteronormative, middle-class and Western-centric representations of subjectivity and identity" (137).

We build on the efforts underway for feminist data sets that view data as speculative design material for a unifying feminist future, attending to words, conversations, and contexts from diverse cultures. This feminist data storytelling interrupts "the dominance of white feminist narratives of progress, loss, and return" (D'Ignazio and Klein 2020, 7) and actively undoes the past erasures of diverse communities of data practice. It requires us to broaden our ways of data collection and become cognizant of biases and unethical practices in labeling, tagging, and translating, built on the imperial legacy of extractive data mining and information control. A data set that is sensitized to cross-cultural feminist politics shapes inclusive parameters of meaning-making, thematic/embodyed concepts, action, ideology, and content.

The human apparatus behind code as translators has also come under scrutiny. The feminist approach has been to diversify boards in the technology industry and the programming teams that make design decisions, as their priorities are reflected in the construction of these systems (Crawford 2021). The cross-cultural approach expands these labor systems and builds visibilities, compassion, and legitimacies of the full spectrum of the global value chain. We seek to expand scholarship around data labelers, content moderators, and other essential but invisibilized workers—"ghost work" done by a global underclass (Gray and Suri 2019). The cross-cultural approach reflexively incorporates their perspectives and everyday practices and how their cultural understandings of data shape the design of our digital mediums.

This framework also gives weight to the growing yet largely neglected confluence of nationalism, feminism, and datafication playing out as cultural and moral sovereignty in platform design and data governance. The Euro cloud, the Iranian "halal" internet, the long-established Chinese firewall, a BRICS internet, and other such (intra)state efforts (Chander and Lê 2014) are slicing the internet in ways that challenge a universal feminist internet. This becomes evident in the censorship of the "Douban feminist groups,"<sup>7</sup> radical feminist groups in South Korea and China that have pioneered sociolinguistic codes to disrupt Confucian-oriented gender roles. We witness the tensions around data localization as a decolonizing initiative alongside the rise of data nationalism that can be counter to some universal rights (Daskal and Sherman 2020). There is renewed vigor for reclaiming locality by enforcing patriarchal values in data governance, including the preservation of women's honor online (Arora and Raman, Forthcoming).

Thereby, a cross-cultural feminist code would emphasize the spectrum of personal, social, and national values grounded in relationships and ecosystems, and attend to the power asymmetries that shape participation, accessibility, and social outcomes. Several of the articles in this special collection illustrate how cross-cultural values can shape feminist design. Padmini Ray Murray, Naveen Bagalkot, Shreyas Srivatsa, and Paul Anthony, in "Design Beku: Toward Decolonizing Design and Technology through Collaborative and Situated Care-in-Practices," offer a road map for decolonizing design in the context of global health and frontline health workers using data tools for social change. Drawing from their design collective initiative Design Beku, they shed light on how their nonurban clients can be collaborators in the process of translating contextual experiences into modes of design. They advocate for a feminist ethical frame of care instead of the prevalent "design ideal of empathy." This compels a shift from extractive client-designer relationships to that of sustainable and meaningful ones. They illustrate how predetermined standards, the so-called right features, and content need to be approached instead with subjective standards through collective tinkering.

Kate Sim's "Respond and Resolve: A Critical Feminist Inquiry for Technologies of Sexual Governance" and Kaushiki Das's "Digital Laxman Rekhas" both delve deeper into "antirape" technologies of sexual governance, but from different disciplinary perspectives and contextual exploration. Sim's analysis challenges the normative coding within these applications about sex and power, including "affirmative consent" and "workplace misconduct." She investigates how these codes operate within a legal and political space to categorize misconduct, communicate conduct, and facilitate reporting and grievance procedures. She makes the case that current inclusive and cooptation paradigms fall short of being cross-cultural in their approach as they continue to be rooted in "universally shared feminist sexual politics." Das looks at a range of safety apps in India that are designed to protect women, but in practice the logic

7 See <https://qz.com/1996143/chinas-douban-censors-ideas-from-south-korean-feminist-movement/>.

of their coding generates new digital boundaries that further entraps those that are most vulnerable. She argues that while designed as a collaborative initiative with urban planners, municipal authorities, and the police, the affordances of risk modeling, tracking, and rating in practice reproduce Indian patriarchal controls over women's movement.

Ralph Vacca's "Value-Sensitive Design for Feminist Technology: Designing for 'Feminist Fatherhood' with Non-white Latinx and White Fathers" deploys a value-sensitive design (VSD) approach to help reimagine how feminist fatherhood could be coded for cross-cultural feminist design. By engaging with Latinx and white non-Latinx fathers on their user experiences, he proposes alternative design choices that can expand traditional conceptualizations of fatherhood, where masculinity is not synonymous with domination or violence. Instead, he advocates for caring masculinities that encode cultural difference, authenticity, and interpretative malleability to foster feminist design.

## CONCLUDING REMARKS: BRIDGING ACADEMIA AND PRACTICE

What, then, are the practical applications of this work? There can be limitations to reasonable application of academic work, whether systemic investigations of social systems or complex mathematical functions created in the lab. From the cross-cutting analyses of this work, we can draw actionable insights, primarily in our reflections on ingrained antifeminist and colonized perceptions in the development process.

Our first reflection has to do with resource extraction and wealth distribution, a well-trodden path in both feminist and anticolonialist literature. Tech often considers itself as a wealth and knowledge distributor from Global North to Global South. Representations of the Global South in tech media are filtered through a Western lens of appropriateness. In this case, "appropriateness" is a technical artifact of social norms. For example, an examination of the seemingly simple task of translation reveals embedded linguistic norms on gendered artifacts, pronouns, temporal constructs, and more, in our language models. When there is knowledge flow from South to North, it often results in sub-optimal outcomes attributed to applications to non-Western settings. These should not be viewed as marginal errors or negative externalities of the models but as modes of improving them. Our discussions of **materiality** can influence how and when we discuss the pathways and flows of wealth.

A second reflection is on the notion of freedom—and in particular "freedom to" versus "freedom from." Feminist cross-cultural tech appreciates both equally. Freedom "from" can be framed as a contradiction, as it results from restrictions and limitations. However, it is not when considering the power dynamics of digital spaces, who benefits from unfettered access, and who is left vulnerable. These freedoms can also be embedded—for example, freedom from harassment allows for the freedom to freely express

and share. Conversely, the reason a "marketplace of ideas" construct falls apart in unmediated technological spaces is that status quo dominates in a social construct vacuum. Directly related to **mobility and mediation**, we draw from this framing a critical evaluation of core concepts of liberation.

Finally, we consider value and design choices. While not limited only to discussions of feminist cross-cultural tech, a long history of devaluation of feminized and non-Western labor and the fight to assert value informs how we should reconsider technical design. Simply put, considering the context of how our variables are operationalized, the level of agency a user has in their environment, and how we consider generalizability are three stages of tech development in which value decisions should be explicitly discussed. Directly related to **modality and morality**, calling out the (de)valuation of particular codes and modes in design is simply making the implicit explicit.

Our goal with this special collection was to bring to the forefront salient issues of diverse and robust pedagogies and to apply a feminist analysis to a new frontier: global technology. The articles in this collection have inspired us to pioneer a cross-cultural feminist framework that we hope can be instrumentalized to further build momentum in these areas of scholarship and practice. We anticipate this conversation among disciplines and across thematic considerations to continue to spur curiosity, care, and action.

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## COMPETING INTERESTS

None to report.

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