Conclusion: Defining FemWork for Labour Futures

Payal Arora, Usha Raman, & René König

Abstract

This essay introduces the notion of "FemWork" as an ongoing, reflexive, and collective practice around labour to recentre the marginalized with regards to social and planetary well-being. This demands a realignment of how work and workers are valued. It makes the case that the pathway to feminist labouring comes in the form of inclusive design, care-based networks, collective governance, and empathetic vision.

Keywords: women, tech, data, work, feminism

The Case for FemWork

Designing with women at the centre is on the rise. It has become market-worthy. In the last few years, "FemTech" or "female technology" has expanded exponentially (Faramarzi 2019). In 2025, the global FemTech industry is predicted to be valued at \$50 billion. McKinsey (2022) calls this phenomenon "the dawn of the FemTech revolution." *The Guardian* (Faramarzi 2019), among other media sources, sees this as a "source of good," a feminist shift in tech innovation. Women entrepreneurs are leveraging this critical global momentum by organizing themselves, networking and partnering with one another, and doubling down on the "designing for women by women" wave.

Venture capitalists are opening their wallets and betting generously on FemTech. Neha Mehta, the founder of FemTech Partners, an organization started in 2019 in Singapore and Amsterdam, argues that it is time to break

 ${\tt 1} \qquad {\tt https://ww2.frost.com/frost-perspectives/femtechtime-digital-revolution-womens-health-market/}$

the barriers between capital and care, where FemTech needs to align with FinTech:

It was very clear that there was not great participation in general from women across the various sectors, that there weren't many female founders of fintech companies and that, when there were, achieving the funding to take those businesses or innovations forward was also more challenging for women than it was for their male counterparts. That was really the point at which I thought it time to take the plunge, to go solo, and to really try to do what I felt was right and have a wider impact on women and their opportunities (High 2020).

The enthusiasm is understandable. The prototype user has long been male, young, and almost always from the Anglo-Saxon context. Caroline Criado Perez, in her book, *Invisible Women: Exposing Data Bias in a World Designed for Men* argues that women have systematically been neglected in market research based on "the assumption that male bodies can represent humanity as a whole" (Perez 2019, 167). Today, the market sees opportunity in diversity. Applications are being built on the premise that there is a need to differentiate user groups and personalize design. The universalist approach gives way to a contextual approach based on, in the case of FemTech, women's needs, concerns, aspirations, and specific gender issues of mental, physical, and spiritual well-being.

This momentum has seeped across work sectors, given the omnipresence of digital media in our everyday lives. The ride-hailing sector asks questions of how to best cater to women customers to optimize safety. The healthcare sector looks to plug the data gaps on women-specific healthcare issues in fertility, menstruation, pregnancy, sexual, and gynecological health. The artisanal sector seeks to build networks to connect, help, and empower women on e-commerce platforms. While these efforts are commendable, we make the case that the underlying logic of such initiatives need a rethink if we are to go beyond the convenience of quick fix solutions to complex problems.

FemTech to FemWork

We need to recalibrate the underlying assumptions on design values, networks of engagement, socio-technical governance, and global visions to ensure feminist labour futures. This demands sidelining tools, gadgets, devices, wearables, and apps for market-based consumption solutions to address human-centred problems. The fact is that FemTech as an industry is increasingly becoming a biometric monitoring economy (Brown 2021). Under the guise of wellness programmes, diversity optimization, and accountability in remote work, workplaces have become surveillance regimes, seamlessly collecting, tracking, and computing vast amounts of workers' data that can have the reverse effect, particularly on marginalized workers.

Legal scholar Elizabeth Brown (2021) argues that this can create an amplified threat to women workers as FemTech increases the likelihood of gender discrimination by providing more specific types of information on women's than men's bodies to employers and health data clearinghouses, and this data gets processed through often gender-biased algorithmic systems, which can escalate data harms. Ethicists Tereza Hendl and Bianca Jansky make a convincing case for concern, having analysed the rhetoric around these apps that has spawned this movement:

The discourse of empowerment promoted through the majority of the apps is grounded in narrow, exclusionary and oppressive conceptualisations of normative embodiment, gender and sexuality and involves epistemic injustice and elements of rape culture, which seriously undermines the liberational tales. We conclude that the troubling discourse of apps raises urgent questions about the content, empowering potential and effects of apps on users' health and wellbeing (Hendl and Jansky 2021, 31).

We propose to pivot away from the technocratic, datafied, individualistic, and market orientation that comes with the world of FemTech. While tech can be catalysts for change, they are rarely the prime cause of it. It is human resistance, resilience, and commitment to change that fosters a future worth living. Instead, we suggest a more expansive and holistic feminist approach to the future of work and tech in what we term as "FemWork"—a feminist approach to work. After all, tech *is* work—it is not an objective entity but a subjective materialization of human endeavour. There is no tech without work. By replacing "tech" with "work" in this popular term, we force a sustained recognition and a just reconciliation of invisible, informal, and collective labour that is often absent in the framing of FemTech. From the exploitative labour that goes into the mining of conflict minerals in Congo to build our phones, to the ongoing labour of millions of global gig workers to keep an app alive, an artefact is fuelled by sweat.

The liberal feminist self-care gives way to a decolonial feminist groupcare. Women and other marginalized groups are not mere recipients of change. In our FemWork model, they are leaders of change. We shift the face of the everyday entrepreneur, innovator, and pioneer of creative work practices from Silicon Valley women leaders to cooperatives and collectives that organize themselves in ways to find opportunity, make a living, support one another, and share tactics of survival, pleasure, joy, and even flourishing. We recentre aspirational goals to produce dignified work, social well-being, and inclusive sustainability to bridge environmental, social, and design justice.

To get tech to work for the good of society, it requires meaningful policy reform, inclusive design interventions, institutional building, legal enforcement, building cooperatives, critical upskilling, and socio-cultural shifts. This is an ongoing and laborious effort. Work is rarely time-bound nor always individual-centred. We readily accept that the digital is the air we breathe, that tech is omnipresent, that our social lives are datafied. We argue, however, that it is work that is continuous, ever-present, a slow churning wheel in motion, keeping us tethered as cogs in the machine. We labour outside the confines of the work week, the factory hours, beyond the assigned tasks. While a job is time-bound, we humans are bound by the time we put into producing "worth"—and that benchmark appears to move steadily downwards with the race to the bottom. We appear to face an inflation of time. Moreover, in the digital age, we continuously produce, through our everyday enactments with platforms, with each other when online, value for corporations and sometimes for ourselves and for each other.

Nations, organizations, families—their well-being rests not just on functional efficacy but on ongoing synergies that infuse compassion and care into the equation to make a system work. The worth of our future will be determined by how we value ourselves, each other, and our planet, and how these values translate to meaningful action.

FemWork can be defined as ongoing, reflexive, and collective practices around labour to recentre the marginalized in alignment with social and planetary well-being. This demands a realignment of how work and workers are valued. The pathway to feminist labouring comes in the form of inclusive design, care-based networks, collective governance, and empathetic vision.

Designing Pathways to Inclusive Labour

Much labour goes into architecting and sustaining inclusion in design systems. Energy goes into identifying marginalized groups and when possible, co-designing with them to mitigate vulnerabilities, and enhancing aspirational goals in design choices. Participatory design can be useful to ensure there is a feedback loop for the design to be responsive and just, especially for those at the margins. However, co-design has its limits. It puts the onus on the shoulders of those already weighed down by work. It burdens workers who are now supposed to also strive and help architect such values while already in precarious situations. The burden to facilitate progress should not be on their shoulders, at least not primarily. Good design needs to be informed not just from the voices below, but also by ethical values, and well-established guidelines for fair work (Graham et al. 2020). We recognize that many vulnerable groups may be non-users, indirect users, or limited and intermittent users. Few vulnerable groups enjoy the freedoms of choice, self-expression, self-management, and ownership of their everyday lives within the socio-technical designs that are available to them.

In patriarchal societies for example, women's digital presence and work are tied closely to familial surveillance and gender norms. This requires careful crafting of familial cooperation and compliance to carve spaces of freedom for them. In such cases, user groups are not individual but family units. Professionalism can be the new political, for instance, as women make the case to enter the digital world for work and not play. Once in, they may labour at chipping away the confining structures, and potentially expanding their networks and capacities for leisure, pleasure, joy, solidarity, and self-actualization. Marginalized groups often don't have access or ownership to what they produce. FemWork is geared to realign this propertied equilibrium and enable access for transparency, self and community agency, and as a right in itself. This should become default by design. From "prosumer" (producer + consumer) or "produser" (producer + user) (Bruns 2009), we propose the paradigm shift of the femworker (feminism + worker) who can enjoy the fruits of fair work and dignified labour.

We recognize that inclusion is a fraught concept but a necessary value. Diversity is a critical resource but a continued challenge. Questions abound: Is there a prototype user? Do all voices count equally, and if so, does one design for everyone? In this datafied world, can inclusion lead to further extraction, exploitation, and exclusion of those already at the margins of power? Can inclusive and universal values become aligned?

Inclusive design has evolved as a discipline and field. Inclusive design in the seventies was synonymous with universal design with a focus on accessibility for groups with disabilities. The "father" of this field, Ronald Mace, defined this concept as "designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless

of their age, ability, or status in life." Universalist design practitioners would insist that including perspectives of disabled groups is about "good design" for all users, not the particular needs of disabled users (Hamraie 2015). Today, universal approaches sit uncomfortably with diversity and intersectionality and have pushed the field towards areas of use that are equitable, flexible, simple, intuitive, low effort, and sustainable.

FemWork advocates taking design beyond the technical interventions and immersing into the socio-digital life worlds beyond the normative contexts of privilege. This cannot be a tourist gaze of the everyday work from below but a genuine engagement that translates to meaningful action. We need to do the painstaking job of navigating through these seemingly confounding challenges in a systemic manner and with vested stakeholders. We build on the psychologist Bernardo Ferdman's view of inclusion as a multilevel system and set of practices that,

[...] spans and connects macro, meso, and micro processes and contexts, ranging from societal and organizational ideologies, values, policies, and practices, to leadership models and practices and group norms and climates, to interpersonal behavior and individual experiences of inclusion. Two people referring to inclusion, then, could be thinking about diversity dynamics at any, some, or all these levels of analysis (Ferdman 2017, 239).

Ferdman argues that only when we welcome the "contradictions inherent in inclusion" would we become "equipped to engage and address diversity dynamics in organizations and society as well as the ongoing work of expanding social equality in ways that are at once realistic and more effective" (2017, 259).

This demands accepting that paradox is intrinsic to inclusion. To mitigate inequality, we need to disrupt supposed binaries or paradoxes in our approach on labouring through and with platforms—flexibility and formality, individual and collective, standardized and localized—which are not diametrically opposite; instead, can be complementary to the pathway on inclusive work.

Questions We Ask of the Future of Work

The COVID-19 pandemic has caused much discussion on how to recover and reset our systems. What policies do governments need to prioritize for an inclusive recovery? Can we go back to the old normal?

2 Center for Inclusive Design. https://centreforinclusivedesign.org.au/

Questions of recovery are on many minds. Recovery connotes a "return to"—however, for workers at the margins, they need a "moving from," which demands a reconstituting of patriarchal relations through concrete measures for change at a legal, institutional, and socio-technical level. For instance, while the West introspects about the future of remote work in relation to community culture, work-life balance, and the great resignation in demand for more meaningful work, many informal labour groups have long been remote, as in hidden from our imagination, uncaptured by our gross domestic product (GDP), and silent and silenced in their domestic spheres.

Often this means recognizing and accommodating the challenges of workers' life-worlds, many of which are intangible and difficult to quantify. While standardization across institutions, platforms, and sectors matter for a cooperative and collective recovery, a case needs to be made for decentralization. We need to give real power to local and regional intermediaries, autonomy and voice to civic actors to serve as accountability forces for such power, and most importantly, to make visible and vocal the marginalized majority who needs to be at the forefront of recovery efforts.

This book was born during the nascent days of the pandemic. The pandemic has undoubtedly been a radical disruptor of thought and action in many sectors; the way we see ourselves in relation to others in our families, in our community, in the world. Yet, we would be naïve to dismiss the possibility of relapse. Status quo doubles down as nostalgia for the simpler days, at least to those who are on the consumption end of the supply chain. The pandemic, the climate crisis, and now the Ukraine war have disrupted supply chains around the world, with companies and countries panicking.

How do we reduce the vulnerability of our value chains? How can we become more autonomous and self-reliant as organizations and companies and even nations? Is going local the answer to these global disruptions?

There seems to be broad consensus among these stakeholders that our global systems are "broken," "incredibly vulnerable," and "fragile" (Arora 2020). However, when we scratch the surface, the empathy is directed towards the consumer and the top of the value chain, of the interrupted flows of products and services to often Global North markets. Vulnerability equates to hyper-dependencies of multinational organizations on markets outside the West. Remedies stay close to reassessing outsourcing inventories, hoarding practices, and re-evaluating cost-efficiencies. Where diversification was the answer to reduce fragility, today it could be a consolidation of networks of ideological alignment. The World Economic Forum claims this may be "the key to building stronger, smarter supply chains and ensuring a lasting recovery" (Lin and Lanng 2020). Fragility refers to the numerous

shocks the system had to absorb from the supply side. Resetting the system surrounds these concerns.

When we speak about consumption, we quickly lapse into the world of customers. When we speak of production, it triggers panic on supply scarcity and disruption. The former is humanized, and the latter is not. FemWork contributes to building a feminist value chain where attention is pivoted to the bottom of the supply chain upheld by millions of workers. We shift focus from consumption to the production end where empathy should reside. At the bottom of the pyramid, life has been radically disrupted. From the over-labouring of delivery workers, nurses, and sanitation workers to the under-labouring of millions who lost their jobs, their homes, their hopes for an urban life as they retreated to their rural enclaves, work in its presence/absence has been an intense instrument of disruption. The millions of unpaid and underpaid garment workers in Bangladesh to the Amazon warehouse staff working overtime are the true face of vulnerability.

Fragility is the crippling precarity that takes a toll on the physical, psychological, and emotional well-being of these people. To reset the system, we need to reimagine these transnational and cross-sectoral networks less as chains, pipelines, supply channels and more as human interdependencies for mutual flourishing. Work needs to go into building solidarity between the opposing ends of these networks. There is a case to be made to revive the ethos of the economist E. F. Schumacher's (2011) "small is beautiful" mantra, promoting "enoughness," appreciating both human needs and limitations, and appropriate use of technology. The feminist lens to the future of work could actually lead to more objectivity by building more robust networks, by taking the diversity of human experiences seriously. This is also a call for qualitative methodology which develops a deeper understanding of working conditions instead of creating simplified "facts" through data analytics based on a limited representation of voices online. There is nothing objective about reducing infrastructures and processes to objects. Not centring humans in assessments will inevitably lead to wrong conclusions.

That would be a good starting point to reset the world of work.

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About the Authors

Payal Arora (arora@esphil.eur.nl) is a digital anthropologist and author of award-winning books, including *The Next Billion Users* with Harvard Press. Her expertise lies in digital cultures, inequality, and inclusive design. She is a Professor and Chair in Technology, Values, and Global Media Cultures at Erasmus University Rotterdam, and co-founder of FemLab, a future of work initiative.

Usha Raman (usharaman@uohyd.ac.in) is a professor in the Department of Communication, University of Hyderabad. Her research and teaching span the areas of journalism pedagogy, critical studies of science, health and technology, feminist media studies, and digital culture. She was elected Vice President of IAMCR for the period 2020–24. She is co-founder of FemLab, an IDRC-funded initiative on feminist futures of work.

René König (kontakt@renekoenig.eu) is a sociologist interested in the co-evolution of the internet and society. He has worked in the field of Technology Assessment and is currently a PhD student at the University of Stuttgart.