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The Case for Femwork: Feminist Design Principles in Tech and Tech-Enabled Work

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We propose the notion of "Fernwork." By integrating this framework into the building of databases and digital systems, we can make inclusivity a default and not an afterthought in our mandates on the future of work. interface to data streams of various kinds—some generated at the point of contact, others brought into inter-

of contact, others brought into interaction and rendered into computation governed by "blended" humanmachine logics.¹

These data systems have fostered new relations between labor and capital, service provider and client, and employee and employer. The already richly nuanced contexts of what we have traditionally understood to be spaces of production and consumption are now further complicated by the mediating role of platforms that draw on large bodies of data.

rom transportation to retail to domestic and institutional service contracting, platforms are increasingly mediating between labor, consumer, business entities, and government. It is now the

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INTRODUCTION

Those who build these technologies—engineers, data scientists, systems designers, and other such actors typically focus on questions of efficiency and logic. This mindset operates from a solutions driven perspective that often results in design that emphasizes "clinical" productivity and financial return on investment over the EDITOR DOMENICO TALIA University of Calabria; talia@dimes.unical.it

wellbeing of users. Thereby, "we need to conceive and adopt a broader framework where other perspectives (ethical, social, legal, political, economic, and so on) are included when we conceive and develop systems that have an impact on individuals and society."²

The marginalized user

The notion of the user is based on a mainstream, largely Western centric, patriarchal imagination which serves as a dominant model of socialization that operates in most parts of the world, across the Global North and South.³ While several groups are left out of this imagination, women and those from historically marginalized groups tend to be furthest from the conceptualization of the user. The bulk of the labor force, however, belongs to this global majority—those who work in the gig and informal economy, whose services are contracted through platforms, and whose data are used to (re)build and energize systems.

When platforms and their datadriven layers become the dominant space of work life, work governance, and work regulation, what becomes of the marginalized worker? Is there a way in which we might infuse a consciousness of such a worker-and userinto the design of systems and the databases that they draw on? Might we draw from a set of principles to inform such a design, undergirded by feminist values? Feminist thinking, at its core, is about recognizing power imbalance and advocating for equity and fairness in the way life and work is structured. In a data-driven world, feminist approaches could help organize a just structure from the ground up.⁴

In this essay, we propose the notion of "Femwork," a feminist framework of reassessing and reimagining labor in the digital economy. By integrating this framework into the building of databases and digital systems, we can make inclusivity a default and not an afterthought in our mandates on the future of work.

CHALLENGES IN ENCODING FAIRWORK PRINCIPLES

"Fairwork" is a framework and set of principles that aim to evaluate and improve the working conditions in the gig economy and other forms of digimarginalized groups at the bottom of the data value chain tend to fall through the gaps.⁶ These principles, while universal, often manifest in specific indigenous and gendered forms, especially in patriarchal societies in the Global South. Legacy discriminatory labor practices such as the gender pay gap, lack of maternity leave and accommodation for childcare services,

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tal labor.⁵ It focuses on assessing and promoting fairness in digital labor platforms, such as ride-sharing services, food delivery apps, and online freelancing platforms. The Fairwork project aims to ensure that workers in these digital platforms receive fair treatment, decent pay, and adequate working conditions.

The key principles are fair pay (ensuring workers receive fair compensation for their work, including minimum wage standards and transparent payment systems), fair conditions (guaranteeing that workers have access to decent working conditions, including health and safety protections), fair contracts (ensuring that workers are provided with clear and enforceable contracts that outline their rights and responsibilities), fair management (promoting fairness in the management of workers, including transparent algorithms and dispute resolution processes), and fair representation (supporting workers' ability to collectively bargain and advocate for their rights).

While these principles are actively shaping labor movements in the gig economy worldwide, women and other serve as added layers that women need to cut through to gain fair treatment in the contemporary digital economy.

Gendered obstacles to quality data systems

At a rudimentary level, many women workers don't perceive themselves as workers and don't recognize what they do as work.⁷ They view their efforts as something that they "do on the side." Women workers constitute the bulk of informal economies, where the "gig economy" has been the norm in the Global South. This self and societal devaluation and persistent precarity translates to women workers typically not being accounted for as legitimate users and producers of value in data systems.

Adding to this invisibility is the fact that there is a significant "gender digital divide" that compounds and complicates their presence when online.⁸ Many women lack personal smartphone ownership and have to share them with their family members. Moreover, many women and other vulnerable groups lock their profiles, choose to be anonymous, use avatars, and mask their real presence to

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escape misogynistic treatment online. This collective sharing and profile obfuscation "corrupts" their profile data and fosters poor quality datasets and biased digital systems.

Optimal work conditions for women demand support and flexibility in where and when they work given that care work falls disproportionately on their shoulders. Women's work is oftentimes intermittent and serves as a thereby becoming a broader framework for achieving social and data justice.

Using Fairwork as a point of reference and departure, we offer a set of principles—Femwork—that can become the basis on which all labor related data management and design (online and offline) is predicated workspaces, contracts, regulation, and the positioning of work within life. Femwork extends the idea of fair

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contrast to the "always on" presence that current algorithmic systems privilege and reward in terms of more gigs and better ratings. Further, while rising unionization is yielding better conditions for digital work, women historically have been excluded or marginalized in these unions, relegating their concerns and needs to the side.⁹ We need alternative forms of social and digital collectives to be recognized as we reform such systems for all global workers.

These factors require an equitable reimagining of fairness in contemporary labor in the digital economy. We need to build on the efforts of Fairwork by incorporating a feminist approach for true worker solidarity against the dominant platform politics of our times.

WHAT IS FEMWORK?

A feminist approach to work and the worker demands a recognition of both the material context of work (infrastructures, regulations, expectations, facilitations) and the specificities of gendered relations in the workplace and in society.⁷ Feminism at its core is about acknowledging the power differentials that exist in society and about redressing those differences to achieve equity. It also takes into account other intersectional identities (caste, race, disability, sexual orientation, and so on), and just work by drawing on feminist values, which are then articulated as a set of discrete worker rights that can be applied across work platforms. Femwork centers on the well-being of workers over productivity and profitability of work. The Femwork principles described next operate in tandem with each other and may take different forms when managing data across work contexts and sectors.

- Fair: This is reflected in compensation, attribution, and effort, with a sense of proportionality between value assigned to the work and value of the person who does the work. Fairness is defined from the point of view of all workers in the value chain in how they perform the work, how this work is valued, and how the workers are treated by others in the data ecosystem.
- Equitable: Structures and policies must recognize the many intersections that create marginality and ensure that opportunities and rewards are distributed with this in mind. Task assignments and coding assessments are designed to build transparency of systemic exploitation and provide sustainable pathways to

eliminate it through redressal mechanisms.

- Mobility-enhancing: All work must allow for reasonable opportunities for meaningful engagement with the task, its context, and with the community. Workers also should have the right to refuse work that adversely impacts their physical and psychological well-being. Work must, as far as possible, allow for growth and development of the worker.
- Worker-identity focused: Organizational policies and practices, as well as workspaces and tools, should be designed to accommodate the workers and their plural identities, with a recognition of their intersecting identities within and outside the context of work.
- Opportunity to Organize: Workplaces must allow for creative ways to build community, facilitating the assertion of rights, while also having mechanisms for workers to advocate on their own behalf with management, and create a mutually productive relationship.
- Respect-based: At the core of a feminist approach to any relationship is respect. Work is a transaction based not on oppression but on mutual need and gain, a connection forged between individuals and groups who recognize each other as people. A feminist approach to work sees worker rights as human rights.
- Knowledge-based: A workplace that is reflexive draws on knowledge from multiple sources and multiple stakeholder perspectives. Feedback mechanisms and recursive feedback loops will allow for an organization to learn from these multiple perspectives while also giving workers the opportunity to learn and grow.

These principles can become the referential standard for a variety of workplace systems and structures, both material and regulatory. Within the context of the range of practices that generate, store, manage and assimilate data, these principles could be applied to both the work of data and the work with data.

Take for instance data representation. which in this framework would consider fairness and equity in the kinds of data harvested from platform workers. Often this data are used to surveil and discipline rather than empower and incentivize. Those managing the back-end of datafied systems often have little understanding of the material conditions of gig worksuch as that undertaken by sanitation workers or salon work contracted via a platform. Femwork can help evolve ways of using data to build redressal tools that protect the dignity and rights of workers.

Examples from platform work in the Global South bring such representational injustices to the surface.⁷ During the pandemic, we found that 94% of migrants in construction work in India could not claim digital bailouts because they were not inscribed in the state's data system. Women drivers in the ride-hailing sector are demanding two-way dashboards. This would give them insights into perceived efficiency (through customer ratings) as well as allowing them to rate customers to create accountability for misogynistic treatment which could be shared with other drivers and the platform. Consequences such as temporary and permanent blocking of such customers depending on persistent negative behavior can make platforms safe spaces for marginalized workers.

Obviously, to adopt these principles calls for a radical shift in perspective, from an assessment of what is needed to deliver a product or service, to what kind of a socio-technical environment would allow workers to fulfill the demands of their jobs—sustainably and satisfactorily. One could push this framework further to evolve a set of rights for workers and corresponding responsibilities for the employer or institution. Based on our conversations with women workers both on tech platforms and in other precarious jobs, there is an expectation that contracts would respect their right to dignity, to access professional development Pushing against historical patriarchal biases and traditional ways of being and doing demand creative approaches, for instance, debiasing datasets to retrain algorithms.

Platform accountability and transparency in tackling misogynistic behavior online requires mechanisms that detect, deter, demote, and even

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opportunities, and to refuse work that contravenes the Femwork principles.

Each organization of course would need to operationalize these principles and attend to these rights in a contextual manner. For those designing technology, the Femwork principles would be the basis for more fully imagining the end target of the data. A driving question guiding organizations should be how can digital dignity across platforms be imagined, embedded, managed, and mediated as work becomes data and data becomes value?

FEMWORK IN ACTION—BEHIND AND BEFORE SCREENS

Applying Femwork principles to programming, data management, and the design of new technologies for work involves a holistic approach that prioritizes values driven by care, collectives, and creative insurgencies. We need care-based ethics in technology design. This approach acknowledges that when technology serves the well-being and interests of the most marginalized groups, it inadvertently serves all groups.

Collective decision-making involves diverse stakeholders across the design and deployment process and institutes an iterative auditing process that ensures that these systems remain in alignment with Femwork principles. delete toxic users. A clear procedural pipeline needs to be in place for reporting and responding to harassment, discrimination, and issues around safety and security. Flexibility should be a core feature in design especially with the advent of new artificial intelligence technologies that are reshaping our worlds of work.

Choice allows for the repurposing of tools to accommodate diverse work styles, schedules, and needs, recognizing that a one-size-fits-all approach is not just inequitable but also fundamentally inefficient. The focus on individual users and singular identities needs to give way to collective and intersectional user groups.

Incorporating Femwork principles requires a systemic and ongoing commitment to social and data justice. It involves a shift in culture, values, and practices within the tech industry to ensure that technology economic interests should be subservient to the well-being of workers, especially those who are most marginalized and vulnerable.

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