



Gender Equality in the Digital Economy Emerging Issues

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Digital Justice is a collaborative research and advocacy initiative of IT for Change and DAWN (Development Alternatives with Women for a New Era). We aim to re-interpret the emerging techno-social paradigm from a Southern feminist standpoint. The project foregrounds debates at the intersection of enduring feminist concerns about gender justice and women's human rights on the one hand, and emerging issues at the digital frontier on the other. It responds to the urgent need for Southern visions of transformative change in these times of paradigmatic shift, exhorting feminists from the South to engage with the political economy of data, and to use their knowledge and experience to re-frame the debates. In doing this, we seek to support and strengthen informed and cutting edge feminist analysis and action.

This is the first piece in a series of issue papers that traces the contours of a feminist development agenda for the digital economy.



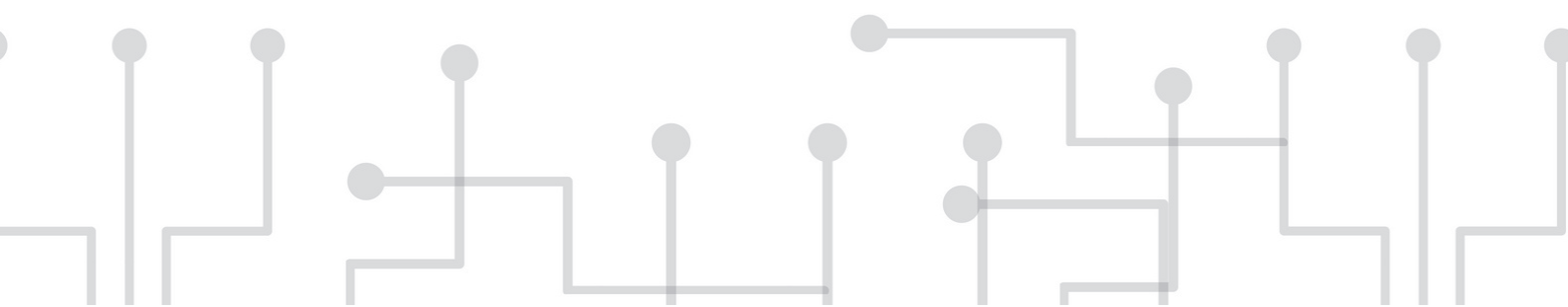
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SUMMARY

The global economy is witness to the rise of platform companies that have emerged as a dominant force controlling marketplace and social interactions. The phenomenon of platformization transforms production, distribution and social reproduction in ways that reinforce the concentration of economic and social power in the hands of digital corporations and countries of the Global North.

In this Uberizing economic terrain, digital platform companies have emerged as neo-feudal overlords profiting from a brutally extractive data regime. Using intelligence harvested from vast and varied data sets as the key driver for locally responsive innovations and targeted marketing, these corporations are able to monopolize markets. In sectors like agriculture, they can create dependencies, locking local livelihood practices of women in the Global South into corporatized supply chains and taking away women's control over land.

Hard-won gender equality gains in pay and job status are at risk of being reversed by automation-led job displacement in various sectors, even as the welfare state is shrinking. In trade negotiations, the Global North is pushing for e-commerce, arguing that it will open up opportunities for women entrepreneurs from the developing world. This is but a 'pink herring' that distracts from the real issues of the gender divide in techno-social capabilities and the wider socio-economic challenges faced by women's enterprises. The 'no-governance-is-good-governance' rhetoric that has gained ascendancy in the discursive arena of the digital also exacerbates the challenges.

Reclaiming digital technologies and framing a feminist development agenda in relation to the post-human context is an urgent task. Given this imperative, the paper outlines a strategic road map focusing on new legal-institutional frameworks and data governance models to both counter data extractivism and women's exploitation and envision alternative data-based development approaches that work for women from the South. The hope is that actions along these two lines can help us carve out a new global social contract for the digital economy, founded upon feminist ethics.

Gender Equality in the Digital Economy

Emerging Issues

1. What is at stake

The digital paradigm is transforming the world just like the industrial paradigm did more than a century ago. The network society, as the emerging paradigm is often referred to, demands a stocktaking through feminist lenses. This paper focuses on the connections between the global economy and digital technologies, exploring the way economic relations and economic activity are being reorganized through the advent of platforms and data-based intelligence. It examines how transnational digital corporations adversely impact the autonomy and well-being of marginalized women in the Global South. Arguing how this situation is exacerbated by the democratic governance deficit in the digital economy and offering a forward-looking feminist vision, the paper makes the case for institutional transformation from global to local levels.

Today, the global economy is getting rapidly 'Uberized', with platform companies emerging as the prime movers. As we enter the fourth industrial revolution, the relations of production and social reproduction are getting restructured globally. Understanding and responding to this change, so that the material infrastructures of the emerging paradigm can be directed towards transformative ends, is an urgent feminist task. According to ING's 2017 Innovation Analysis Report, five of the world's 10 largest listed companies by market capitalization are platform companies.

Notably, in the period 2014 to 2016, the revenue of the five largest platform companies in the United States (US) grew more than three times faster than the national Gross Domestic Product (GDP).¹ Platform companies derive their extraordinary power by creating and controlling networked ecosystems that support "essential connections" for marketplace and social interactions, reaping advantages of the network effect.²

In retaining and consolidating this position of dominance, platform companies bank on user data mining or "data extractivism"³ as a stepping stone to creating hold-all digital intelligence, which enables them to completely re-architect social and economic activities and structures.

This is true for all sectors – from consumer retail, health care, automobiles, to manufacturing, agriculture and finance⁴ – portending

Digital Economy is the worldwide network of economic activities and transactions enabled by digital technologies. There is no sector today that is untouched by digital components. The industrial sector incorporates digitization from the production floor to market access. Even the agricultural sector now has AI technologies to support input and marketing practices.

Market capitalization is the aggregate valuation of a company based on its current share price and the total number of outstanding shares in the market.

The network effect refers to the demand-side economy of scale where a product or service increases in value as the number of users in the network rises.

Platformization is the phenomenon where digital platforms – built on the networked economies of scale – become the essential connections for market-based and social interactions. Transnational corporations, which own and operate these platforms, acquire inordinate economic power by annexing more and more connections in the network and charging monopoly rents from users. Increasingly, the business model of these platforms has shifted from advertising to harnessing and monetizing user data for building digital intelligence solutions with wide applicability across different economic sectors.

Feminists must critically examine the platformization of the everyday and financialization of everything

Financialization is the process of economic re-organization in which the integration of economic activities into the capital market becomes more important than the actual material production of goods and services. This manifests as the securitization of future revenue streams anticipated from business projects in the pipeline. New financial instruments created by governments and investment bankers are thus traded in the marketplace of global finance.

a future where all sectors will be part of the digital economy. Historical definitions of primary, industrial and service sectors are being transformed in a manner that the conventional logic of global value chains is giving way to the embedding of economic activities in platformization and financialization.

For example, Soft Bank's 100 billion Vision Fund for funding platform companies and digital start-ups has been seen as altering the conventional relationship between tech companies and capital markets. In recent years, the Bank has invested in major tech platforms such as Uber, Didi Chuxing, and Alibaba as well as emerging players such as Flipkart and PayTM. In fact, its 28% stake in Alibaba has a market value that is ranked higher than its own capitalization.⁵ It is also pouring cash into platform companies that have not yet managed to break even – most famous being its December 2017 deal with Uber. This has sparked fears of the emergence of an unsustainable nexus between Big Tech and Big Finance that may trigger another boom and bust cycle.⁶

A new era of digital colonization is upon us, as the rapacious race for data to build digital infrastructure fuels surveillance capitalism⁷ and illiberal democracies. While the role of data for sustainable development becomes unequivocal, quite paradoxically, discussions about its governance in the global policy orthodoxy seem to valorize the rhetoric of unrestricted, cross-border data flows that Big Tech desperately needs for market consolidation.

Discursive control is one dimension. What makes this situation even more daunting is the impunity of Big Tech.⁸ Platform companies bend laws across various jurisdictions they operate in, whether it be for tax avoidance (such as Google's Double Irish and Dutch Sandwich tricks) or for clandestine anti-competitive maneuvers. It is only occasionally that these manipulations come to light, and oftentimes the penalties that states, especially in the Global South may impose, do not serve as a sufficient deterrent. Moreover, many developing countries perceive tax exemptions as one of the few incentives they can offer to attract transnational corporations (TNCs) to their territories. The unholy alliance between state and corporate power in building the ultimate surveillance net, often referred to as the digital panspectron, further contributes to platform power running amok, undermining citizen rights and freedoms.⁹

In this new era of the platformization of the everyday and financialization of everything,¹⁰ global development debates seem to produce a glib instrumental vision of digital technologies and women's rights. The emerging economic order calls for a renewed engagement with the twin agendas of gender justice and economic justice. Feminist critiques of technological determinism have shown

how celebratory narratives gloss over the social power programmed into technology. As socially re-constitutive forces, digital technologies must be seen for how they become assimilated into dominant structures of power. Equally, social determinism must also be eschewed. The digital moment must be unpacked for how its footprint in the form of digital intelligence is ushering in change of a magnitude and rapidity hitherto unknown, and sometimes, dangerously unknowable.

2. Issues in the frame

2.1 Lives and livelihoods under siege

The neo-feudalist digital economy is reminiscent of subinfeudation, a colonial system in which property rights conferred on the landed aristocracy were contingent on punctual payments to the colonial master, collected at a fixed rate from tenant cultivators who had no choice but to pay. The system of subinfeudation marked the transition from "unregulated imperialism" to "regulated imperialism."¹¹

Today, mergers and acquisitions in the economy, driven as they are by the clamor for digital intelligence-based control and consolidation, subsume "layers of rent seekers and intermediaries, exploiting the last person on the chain, the poor peasant or her equivalent, in quite the same way as the colonizer."¹²

In the agriculture sector for example, Amazon's entry into food retail through its acquisition of Whole Foods is expected to drive numerous farmers off the land, by suppressing payments of farm produce.¹³ The seven major mergers in the agriculture sector in 2016,¹⁴ reflect the consolidation of market advantage by transnational agricultural corporations who seek control over multiple datasets – from seed to soil and weather – for building products and services based on Big Data analytics.

With increasing control over micro-local agricultural information, corporations can offer inputs tailored to hyper-local conditions, easily edging out traditional practices and creating dependencies on corporate controlled agriculture. It is well-established that in the shift to corporatized farming, women farmers engaged in subsistence agriculture lose their livelihoods – either because their holdings are too small to be commercially viable or because there is no room in externally-driven farming practices for their traditional knowledge.

The monopolistic tactics pursued by US and Chinese e-commerce platforms for market domination not only pose a major threat to family farming, Micro, Small and Medium Enterprises (MSMEs)¹⁵, and cooperatives but also to ecological sustainability,¹⁶ spinning off a

The datafication of agriculture jeopardizes the livelihoods of women farmers

Big Data analytics is a computational method providing a means of analyzing large and varied data sets (individual and social behavior data, data from IoT devices, images etc.), and drawing conclusions about them to help organizations make informed business decisions. It involves complex applications like statistical algorithms, predictive modeling and what-if analyses.

Routine/non-routine and cognitive/manual jobs: Daron Acemoglu and David Autor¹²⁴ suggest that all work can be divided into a two-by-two matrix: cognitive versus manual, and routine versus non-routine. According to them, digital automation will substitute labor in routine tasks, whether cognitive or manual.

Digital automation portends a reversal of gender equality gains in pay and job status

Micro-work is the smallest unit of work in the virtual assembly line through which a particular project is broken down into discrete task components and parceled out over the Internet to different workers in remote locations.

livelihoods crisis that disproportionately affects the most vulnerable and marginalized groups, including women facing multiple discriminations in the Global South.¹⁷ The displaced are most likely to end up in low-paid service sector jobs in the cities, as the migrant underclass.¹⁸

Third World livelihoods are also threatened by the material-technical infrastructure underpinning the digital economy – from microchips and cables to server farms and even electricity – built upon an unsustainable exploitation of natural and common property resources in the Global South. The resultant shrinking of access to fodder, fuel, water and other resources has devastating impacts for the most marginalized.¹⁹

2.2 Reversal of gender equality gains and trends towards precarity

A recent World Economic Forum report highlights that over 57% of the jobs that are set to be displaced by digital automation between now and 2026 belong to women.²⁰ These are mid-level, routine, cognitive jobs, where women dominate.²¹ Women have a very low share in the advanced technology jobs²² (the non-routine, cognitive tasks) that are in demand in the digital economy, where employment expansion and real wage increase is much faster.²³

Although many of the projections of the future of work are based on analysis from developed countries and BRICS economies,²⁵ even with existing limitations in data and forecasting, the future of employment for women in the fourth industrial revolution may well imply a reversal of gender equality gains in both pay and status.

In the pervasive economic restructuring of the digital age, we are witnessing a radical reconfiguration of the global labor chain. Increasing digitalization and platformization of routine cognitive work has facilitated a parceling out of 'micro work' to a planetary labor market.²⁶ While micro work has often been held out as a solution that can lift women and youth out of poverty,²⁷ this promise has not materialized. Researchers working on digital labor have highlighted how microwork platforms push wages into a downward spiral, as workers find themselves with little bargaining power.²⁸

The restructuring of work is also unlikely to make a dent on jobs where wages are low enough to make automation uneconomic.²⁹ That is, even though automation is likely to lead to rapid technology-induced displacement of the workforce in routine manual tasks and routine cognitive tasks such as data collection and processing, it is not likely to reduce human drudgery in menial occupations that are highly feminized.³⁰

Digitalization is also seen to disproportionately impact the informal sector that historically is highly feminized.³¹ As Pratap and Bose (2017) argue: “For every new job that digitalization has opened up, ... (we) may not realize what job opportunities are being taken away, because in the first place, the majority are in the informal sector and may not be easily visible. A squeeze on the informal sector will not really take the form of outright ‘job’ losses; indeed, in most cases there are not ‘jobs’ as such, to be lost, but livelihoods. What would happen is a steady compression of incomes, making survival precarious.”³²

The displacement of local women’s groups providing urban catering, when food orders go online, or of marginal women farmers supplying to urban markets, when giants like Amazon take over retail supply chains, is likely to have a far-reaching impact on women’s economic survival, one that the numbers are not likely to capture. Evidence from studies about corporatization of agriculture retail – for instance, Walmart’s efforts to control supply chains in Nicaragua – shows negative consequences for rural sustainability, in stark contrast to the mainstream corporate social responsibility (CSR) literature. Supply chain management practices of most of the corporations tend to contradict their own CSR values and mission, and many times their social initiatives are at the micro level and the impact of their market, labor or even environmental practices have macro and meso impacts.³³

With Artificial Intelligence (AI)-facilitated transition to Industry 4.0, digital infrastructure becomes a critical consideration. Hence, manufacturing is being re-shored to the developed world.³⁴ Automation of manufacturing jobs is also expected to adversely impact emerging economies whose competitive labor advantage is being rapidly eroded by rising wages.

A massive scale of technology-induced job displacement is imminent at a time that the welfare state is globally in retreat and social security is increasingly being financialized. The intensification of women’s care work burdens arising from the erosion of state obligations is only likely to deepen in a platformized economy. We may be “the first generation that can end poverty, the last that can end climate change”³⁵ and possibly the only generation that can confront the erosion of human rights under platformization.

2.3 The insidious buzz around e-commerce and data flows

E-commerce has become a key site of contestation in trade negotiations. Powerful countries with mature e-commerce markets are strongly pushing for a complete deregulation of digital trade. They are seeking a binding e-commerce agenda that will liberalize the current

In the platformized economy, women's care work burdens are likely to intensify

Re-shoring refers to the reversal of off-shoring, the process through which businesses transfer production activities to geographic locations outside the country of their origin in a bid to minimize costs. Off-shoring has invariably meant the shifting of production activities from the developed world to the developing world, taking advantage of the comparative advantage of labor and lower thresholds for legal compliance. Re-shoring refers to re-location of production activities from developing countries back to older industrial centers in the developed world, as the rise of AI technologies in manufacturing calls for a highly skilled work-force and capital intensive production that is easier for companies to manage in First World locations.

regime on customs duties in cross-border e-commerce, prohibit domestic presence requirements on transnational businesses, narrow the leeway that World Trade Organization (WTO) member-states currently enjoy to introduce additional regulation on digital services beyond what has been agreed to under the General Agreement on Trade in Services (GATS), and push for unrestricted cross-border data flows, strongly discouraging data localization measures.³⁶

The proponents of this binding e-commerce agenda argue that these measures are essential to remove tariff and non-tariff entry barriers that prevent the effective integration of MSMEs from developing countries into global value chains. Such integration is upheld as particularly beneficial to women-owned enterprises, who are now free to reap the digital opportunity to overcome gendered barriers to market participation. However, what the evidence tells us is that even in the best scenario, economic upgrading does not always translate into social status gains.³⁷

Most women in the developing world lack access to the necessary techno-social capabilities to compete in a global online environment

Moreover, efforts to upgrade can in fact lead to increased inequality among workers, undermine worker organization and result in unemployment of workers from vulnerable groups, affecting marginalized women in developing countries disproportionately.³⁸ International initiatives trying to bring online platforms to the service of women entrepreneurs, women in STEM (Science, Technology, Engineering and Mathematics) or rural women's associations often seem to adopt a simplistic approach. They overlook the need for sustaining efforts in upgrading over time, for long term labor market impact, failing to create a wider impact beyond the direct beneficiaries of these initiatives.

The dominant rhetoric surrounding e-commerce requires to be unpacked for its deep neo-liberal motivations. There are two assumptions here; one, that making a woman an entrepreneur is good for her and the economy and two, that we live in a connected and flat world where everyone is free to participate online. In practice however, most women in the developing world lack access to the necessary techno-social capabilities to compete in a global online environment. Further, the valorization of 'flexi-work' and 'home-based work' for women in the digital economy not only obscures the real divide in techno-social capabilities, but can also undercut the hard-won battles for women's equal work participation, pushing women back into a highly individuated sphere with rigid gender-based role divisions.³⁹

The e-commerce agenda being championed by powerful developed countries will also end up reinforcing the very same unequal terms of trade that have currently pushed the countries of the South to the fringes of the global economy. If their ability to use tariff regimes and other regulatory instruments to protect nascent sectors of the

domestic economy is taken away, developing countries will be reduced to dumping grounds for goods and services of powerful countries. They will have no policy wiggle-room to engage in “digital catch-up” strategies that help them build their economic sovereignty.⁴⁰ Creative regulation is critical in providing the enabling environment for women’s MSMEs to find a footing in e-commerce. Thanks to the discourse of free flow of data, developed countries and their platform behemoths have captured markets worldwide, harvesting consumer information to build invaluable digital intelligence. Data-based intelligence is the new factor of production. Developing countries that lack the digital infrastructure to mine and process data into intelligence are likely to remain locked in the low value segments of the economy, with little bargaining power vis-à-vis the big platforms.

Considerable vigilance is needed to guard against the cooption of women’s economic participation for promoting new trade rules favoring developed countries and their corporations. For example, in December 2017, at Ministerial Conference (MC) 11, 119 of the 164 members of the WTO voted to adopt the non-binding Buenos Aires Joint Declaration on Women and Trade that provides a framework for collaborative actions in the WTO to remove barriers for women’s economic empowerment and increase their participation in trade. One of the key provisos of this Declaration was the promotion of dialogues/ seminars between members to exchange learnings around promoting the participation of women MSMEs in the global value chain. Recognizing that this proviso was clearly an attempt to resurrect the discredited agenda on binding rules on e-commerce that the Friends of e-Commerce group – led by US, Japan, Canada and European Union (EU) – had unsuccessfully tried to push through at the official MC 11, women’s rights activists rejected the Declaration, labeling it as “pink-washing” and asserting that it was “likely to deepen inequality.”⁴¹

2.4 Data extractivism as the route for colonizing bodies

The network-data nexus has so far been the driver of a new phase of financial globalization, which has used digital technologies for a brutally extractive regime⁴² built on racial and gendered fault lines. New datafied innovations such as ‘fintech’, purported to reach banking and credit to women, are rapidly becoming the next predatory instrument for capital,⁴³ often thriving under weak regulatory frameworks. ‘Big Data for Development’ partnerships may do little for strengthening the local economy, deepening dependence and violating rights of the poorest and most marginalized. Projects using call detail records to track migration⁴⁴ or smart chip contraceptive implants, mooted by the Bill and Melinda Gates Foundation,⁴⁵ conveniently leave out the question of data ethics. The

Developed countries eager to expand e-commerce markets are hijacking the women's economic participation agenda

Fintech, in its broadest sense, refers to technologies that are used by financial institutions to manage the back-end of their businesses. But increasingly, fintech is being used as a shorthand for app- or platform-based payment and credit services that have disrupted conventional ideas of banking and financial services.

The celebratory discourses around AI obscure the exploitation of women's bodies by Big Tech

Legal regimes for data governance ignore concerns of data sovereignty

celebratory discourses around AI also obscure both the exploitation by Big Tech of women's bodies and the lack of appropriate governance frameworks in this regard, discussed below.

2.5 Democratic deficit in global norms-building

In the discursive terrain of the digital, corporations actively perpetuate the rhetoric of 'no-governance-is-good-governance'. While this state of affairs is shifting slowly, the political economy of the Internet prevents international norm building, perpetuating a well-orchestrated global governance deficit. Developed countries, along with their economic groups and corporations, are keen to preserve their hold over the digital ecosystem, reluctant to relinquish their control. The Working Group on Enhanced Cooperation, WGEC (on international public policies pertaining to the Internet) – tasked with developing institutional proposals towards appropriate global governance of the Internet⁴⁶ – disbanded after two years of failed attempts to arrive at a consensus, divided by ideological lines on the role of governments in global Internet policies.

Developed countries have also sought to bypass the global arena, pursuing plurilateral rule-making in digital trade, outside the WTO. In the Sustainable Development Goals (SDGs) review processes, the language of 'ICTs for women's rights' is whittled down to 'access', a simplistic techno-solutionism that cannot work to achieve women's empowerment. Access to ICTs is measured through the proportion of individuals who own a mobile telephone, by sex (SDG indicator 5. B.1.), which can hardly capture divides in digital capability.

Legal regimes for data governance tend to use a narrow individualist approach that focuses only on personal data protection. They are markedly silent on the collective right to data, that is, the protection that is foundational for communities to determine what data will be collected about them and how such data will be used for their own development. The framing of data rights, as mostly limited to individual privacy, sidesteps the right of communities and countries in the Global South to data sovereignty, which is the pathway to economic development in the twenty first century.

Industry leaders such as Google have proposed new principles for AI technologies, responding to employee fears about their abuse.⁴⁷ However, these self-governance modalities of Big Tech leave questions about accountability unaddressed in an industry that is known to collude actively with state power. The lack of a binding international framework in relation to the Internet and AI also presents a serious challenge to social and gender justice. AI's forays into all aspects of societal life suggest that it can reproduce and reinforce gender biases. This is not only in the form of patently sexist digital

assistants that reinforce the trope of the subservient woman.⁴⁸ As we have seen, a new economic logic ushered in through AI is all set to undo the gains for women's participation in the economic sphere.

3. The new agenda for gender equality

3.1 Legal-institutional frameworks for women's rights in the platformized economy

The digital economy needs new thinking for revamping legal-institutional mechanisms at national and sub-national levels so that they protect and promote human rights and women's right to economic participation, livelihood security and wellbeing. Policies and laws on social security, decent work, wages, collective bargaining, rural livelihoods, opportunities for reskilling, care infrastructure, women's education, health and economic empowerment must respond to the opportunities and threats for gender equality in the new economy.

Given the immediate and short-term impacts of automation, social support and employment programs specifically targeted at women in the informal and traditional labor-intensive sectors are necessary. This should also include programs targeting women farmers and indigenous women whose livelihood ecosystems are threatened.

Policies on AI and automation must contribute to the reduction of drudgery and be adapted to suit local conditions, promoting employability and wage security. Digital infrastructure policies must ensure digital public goods provisioning that can enable equitable economic growth across sectors and incentivize cooperativism and local platform enterprises of women's groups.

3.2. Alternative data governance frameworks to counter extractivist models

Data governance models outside of the logic of data markets can further the idea of data as a public good. When conceptualized from a Southern feminist standpoint, such models "must correspond to the hope and outrage of the most marginalized women and gender minorities, bringing data to the service of a new civic intelligence that privileges their autonomy and self-determination in all spheres of life. Institutional frameworks commensurate with this imperative must actively promote the conditions that can enable non-commercial applications of connectivity, promoting women's technological and political agency, citizenship and association, and spawning multiple mini-publics, able to govern their own data in the larger public interest."⁴⁹

The digital economy needs new legal-institutional mechanisms to protect and promote women's right to economic participation, livelihood security and well-being

Data governance: There are three key aspects of data governance that every country must address through legislative and policy measures are – (1) protection of personal data and right to privacy (2) creation of a national data strategy for domestic digital innovation (3) regulation of cross-border data flows to prevent strategic and economic interests from being compromised by data extractivist platform companies.

Data infrastructure refers to sectoral databases that contain key behavioral and IoT generated data sets pertaining to a sector (such as agriculture, health or education), which are accessible for the creation of innovative digital intelligence solutions. Such infrastructure must effectively balance the individual right to privacy with the public interest goal of deploying digital technologies for development and empowerment of citizens.

The idea of local data infrastructure that furthers public interest cannot be complete without policy imagination on open data, mandatory data sharing (of aggregate and anonymized datasets) by corporations with local governments, new techniques for crowd-sourcing public data, and more. As a commons-based, public resource, these data sets can become the basis of digital intelligence, providing institutions the wherewithal to be accountable to citizens. For instance, such intelligence can be the basis for reliable and safe public transport in remote areas or for proactive health services that can support the empowerment of women.

3.3. Overcoming the democratic deficit in norms-building for the global digital economy

A global data governance framework infused with a rights perspective is the need of the hour. In addition to encompassing individual rights to privacy and data protection, this framework must acknowledge and affirm data as a key resource and digital intelligence as the foundation of public value that brings benefits for marginalized women in all spheres of life. Where such efforts to generate public value from data involve public-private-community partnerships, such partnerships must be backed by robust transparency and accountability measures. Data governance regimes need to be alert to the caprice of financial markets and their new role in the platform economy.

A global social contract is urgently needed to respond to the governance challenges of the digital economy. The runaway power of TNCs arising from their control over platform marketplaces and/or digital intelligence solutions in key sectors must be curtailed. The international community has acknowledged that we need an international binding treaty on TNCs to hold them to account for human rights and women's human rights. The very first draft defines 'victims' as the "persons who individually or collectively (are) alleged to have suffered harm, including physical or mental injury, emotional suffering, economic loss or substantial impairment of their human rights, including environmental rights, through acts or omissions in the context of business activities of a transnational character."⁵⁰

The first draft of the legally binding instrument states that future trade or investment agreements should not violate this binding treaty. However, the pace of its negotiation under the United Nations can result in the undermining of ESCR fulfillment in many countries in the short term. Structural changes to the economy through platformization need to be reflected in future drafts to contribute an understanding of how TNCs and business activities in the digital economy and their association with illiberal democracies or authoritarian regimes can undermine human rights fulfillment in various ways.

A global social contract is urgently needed to prevent violations of women's human rights in the data economy

The democratic deficit in global digital trade governance also requires urgent intervention. Currently, plurilateral groupings at the WTO (such as the Friends of E-commerce Group) or regional Free Trade Agreements (such as the Trans Pacific Partnership and Regional Comprehensive Economic Partnership) are setting the terms of digital trade in blatantly undemocratic ways. The rhetoric in these spaces privileges the interests of developed countries and their TNCs, whilst ignoring questions of economic sovereignty and right to development of people of the Global South. In order to prevent the likely adverse impacts on marginalized women of default policy regimes arising out of the geo-politics in digital trade, developing countries and their civil society will need to put forth progressive agendas for the twenty first century global economy.

The development of AI technologies needs to be backed by a binding global code of ethics that prevents their deployment for purposes that contravene international law and human rights obligations. We also need national level AI ethics councils that will specifically focus on addressing complaints of all forms of cultural bias, including gender bias, and on undertaking audits of new AI technologies that enter market and governance systems.

4. Endnote: towards a feminist vision of digital justice

Through a techno-solutionist narrative on ICTs, the emerging digital economy has perpetuated a legacy of gender equality that is depoliticized. The familiar discourse of individual entrepreneurism as the answer to systemic crisis and an unfortunate preoccupation of gender equality activism mainly with digital liberties has obscured the necessary interconnections between civil, political rights and economic, social, cultural and environmental rights. This has created a political vacuum in organizations, discourses, policies and international institutions that are calling for gender equality and a new era of feminism.⁵¹ A new framing that accounts for how the structures and threats of neo-liberal techno-solutionism impact the agency and wellbeing of the majority of women in the Global South is urgently in order. Open government initiatives, where some developing countries are leading the way, show that transparency and accountability is not a matter of budget or economic development, but a matter of deepening democracy, political will and civil society empowerment.⁵² The digital rights domain needs to be informed by feminist perspectives from the margins – on livelihoods and natural ecosystems, trade and development, reproductive and sexual health and rights, global justice and local autonomy – so that emerging institutional frameworks are adequate to gender equality in the post-human⁵³ context and coherent with human rights obligations of states (as well as TNCs, in the near future).

The democratic deficit in global digital trade governance must be overcome to guarantee the economic sovereignty and right to development of marginalized women in the Global South

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Annexure : List of Abbreviations

AI	Artificial Intelligence
BRICS	Brazil, Russia, India, China and South Africa (economic bloc)
CSR	Corporate Social Responsibility
ESCR	Economic, Social and Cultural Rights
EU	European Union
GAT	General Agreement on Trade in Services
GDP	Gross Domestic Product
ICTs	Information and Communication Technologies
MC	Ministerial Conference
MSME	Micro, Small and Medium Enterprise
SDGs	Sustainable Development Goals
STEM	Science, Technology, Engineering and Mathematics
TNC	Transnational Corporation
UN	United Nations
US	United States
WTO	World Trade Organization

Design: Meenakshi Yadav
Editorial Support: Damien Gock and Virginia Rodríguez
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