

Gender Equality in the Digital Economy: Emerging Issues
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1. What is at stake

The global economy is getting rapidly ‘Uberised’, with platform companies emerging as the prime movers. For feminists from the global South, this shifting landscape signals a deep, systemic shift. 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 a feminist task.

According to ING’s 2017 Innovation Analysis Report, five of the world’s 10 largest listed companies by market cap[italisation] 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 intelligence⁴, 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 finance⁵, portending a future where all sectors will be part of the digital economy. Historical definitions of primary, industrial and services sectors are being transformed, in a manner that conventional global value chains logics are giving way to the embedding of economic activities in platformisation and financialization.

A [new era of digital colonisation](#) is upon us, as the rapacious race for data to build digital infrastructure fuels surveillance capitalism⁶ and illiberal democracies. While the role of data for

1 Pan, L. & Woelderren, S. (2017). Platforms: Bigger, Faster, Stronger. ING. Retrieved from <https://www.ingwb.com/media/1985605/platform-foundations-report-20170706.pdf>

2 The network effect may be understood as demand-side economy of scale where a product or service increases in value as the number of users rises. Iansiti, M. & Lakhani, K.R. (2017). Managing Our Hub Economy. Harvard Business Review. Retrieved from <https://hbr.org/2017/09/managing-our-hub-economy>

3 Morozov, E. (2018, January 28). Will tech giants move on from the internet, now we’ve all been harvested? The Guardian. Retrieved from <https://www.theguardian.com/technology/2018/jan/28/morozov-artificial-intelligence-data-technology-online>

4 For economic domination, the primary strategy that digital platforms rely upon has shifted from personalised digital advertising directed at a captive user base to harnessing and monetising digital intelligence.

5 For Amazon, the biggest source of profit is not online retail, but the digital intelligence solutions of its business subsidiary [Amazon Web Services](#) that will eventually enable the company to vertically integrate every aspect of consumption, across every sector of the economy.

6 Singh, P.J. (2017). Developing Countries in the Emerging Global Digital Order. Retrieved from <http://www.itforchange.net/sites/default/files/Developing-Countries-in-the-Emerging-Global-Digital-Order.pdf>

sustainable development becomes unequivocal, quite paradoxically, discussions about its governance in the global policy orthodoxy seem to valorise the rhetoric of unrestricted, cross-border data flows that Big Tech desperately needs for market consolidation.

The discursive control is one dimension. What makes this situation even more daunting is the impunity of Big Tech⁷. Platform companies bend laws across the various jurisdictions they operate in, whether it be for tax avoidance (such as Google's Double Irish and Dutch Sandwich), or for clandestine anti-competitive maneuvers that stifle competition. It is only occasionally that these manipulations come to light, and oftentimes the penalties that states, especially those in the global South can impose, do not serve as a sufficient deterrent. Moreover, many developing countries perceive these tax exemptions as one of their few opportunities to attract those companies 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, freedoms⁸.

The feminist adage about gender justice and economic justice being two sides of the development coin is reconfirmed in this new era of the platformisation of the everyday and the financialization of everything⁹. Yet, as platformisation shapes the rules of a new economic order, global development debates seem to produce a glib instrumental vision of digital technologies and women's rights. Feminist critiques of technological determinism have shown how celebratory narratives gloss over the social power programmed into technology. As socially re-constitutive technologies, digital technologies must be seen for how they become assimilated into dominant structures of power, and co-determining new social hierarchies. 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.

7 IT for Change.(2017). *Draft input text for UN treaty on TNCs and human rights*. Retrieved from <https://www.itforchange.net/draft-treaty-on-transnational-corporations-and-human-rights>

8 For example, consider China's MediaBrain project – a collaboration between Alibaba and China's state news agency to create an all-seeing digital eye that can potentially access data collected from countless surveillance cameras, Internet of Things (IoT) devices, dashboard-mounted car cameras, air pollution monitoring stations and personal wearable devices in order to increase efficiencies in "finding leads, news gathering, editing, distribution and finally feedback analysis".

9 Hildyard, N. (2018). *Why Now? Structural drivers behind, PPPs and Megacorridor Projects*, Presentation at the meeting "Challenging the 'Billions to Trillions' Model of Financing Development", organised by the Center of Concern, SID, Eurodad and the Heinrich Böll Foundation, July, 2018.

2. Issues in the frame

2.1 Lives and livelihoods under siege

The digital economy is neo-feudalist, reminiscent of *subinfeudation*, a system through which property rights in land were conferred to the landed aristocracy¹⁰, subject to the punctual payment of revenue to the government at a fixed rate. As intermediaries between cultivators and the colonial state that sought guaranteed revenue, the *zamindars* were entrusted with the responsibility of collecting rent from the cultivators. 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 clamour 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 coloniser*”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, annexing new sites of primitive accumulation¹³. Similar analyses have been put forward about the seven major mergers in the agriculture sector in 2016¹⁴, for consolidation of market advantage by transnational agricultural corporations (TNCs) through control over seed, soil and weather datasets. Digital intelligence solutions are fast becoming the basis of demand-based pricing of agricultural inputs. These trends may render traditional farming unviable, displacing family farming and women from land-based livelihoods, with very limited alternative opportunities or skills to make ends meet. At best, they might end up in a low-paid service sector occupation allied to the zero-sum consumption games of the elite (such as personal care aides, home nurses,

10 For example, in colonial India, as intermediaries between cultivators and the colonial state that sought guaranteed revenue, the *zamindars* who were landed aristocrats were entrusted with the responsibility of collecting rent from the cultivators.

11 Sharma, P. (n.d.). *Top 3 Land Tenure Systems during the British Rule in India*. Retrieved from <http://www.historydiscussion.net/history-of-india/economic-history/top-3-land-tenure-systems-during-the-british-rule-in-india/5977>

12 Gurumurthy, A. (forthcoming). Digital Globality, in *Digital Economies at Global Margins*, Edited by [Mark Graham](#), MIT press.

13 Roberts, W. (2017, June 19). Amazon’s move on whole foods is primal, more than “disruptive”. [Blog Post]. Retrieved from <https://medium.com/@wayneroberts/why-amazon-should-not-be-allowed-to-take-over-the-whole-food-industry-2524e792671>

14 The Monsanto–Bayer tie-up is just one of seven; Mega-Mergers and Big Data Domination Threaten Seeds, Food Security. (2016, September 15). Retrieved from <http://www.etcgroup.org/content/monsanto-bayer-tie-just-one-seven-mega-mergers-and-big-data-domination-threaten-seeds-food>

foot workers of the cosmetics and fashion industry)¹⁵ that may require moving from their lands or small towns to the cities.

The monopolistic tactics pursued by US and Chinese e-commerce platforms for market domination not only pose a major threat to family farming, cooperatives and Small and Medium Enterprises (SMEs)¹⁶, but also to ecological sustainability¹⁷, spinning off a livelihoods crisis that disproportionately affects the most vulnerable and marginalised groups, including women facing multiple discriminations in the global South¹⁸.

Further, the material-technical infrastructure underpinning the digital economy – microchips, cables, electricity – is built upon an unsustainable exploitation of natural and common property resources in the global South, resulting in shrinking access to fodder, fuel, water and other resources and devastating the ecological basis of the livelihoods of the most marginalised¹⁹.

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 women²⁰. These are mid-level, routine, cognitive jobs, where women dominate²¹. 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 faster²³. Although many of the projections of the future of work are based on analysis from developed countries and BRICS economies²⁴, even with existing limitations in data and forecasting, the future of employment for

15 Turner, A. Capitalism in an Age of Robots. [PowerPoint Presentation]. Retrieved from <http://azimpremjiuniversity.edu.in/SitePages/pdf/ADAIRS-FINAL.pdf>

16 James, D. (2017). Twelve Reasons to Oppose Rules on Digital Commerce in the WTO. Huffington post. Extracted from https://www.huffingtonpost.com/entry/twelve-reasons-to-oppose-rules-on-digital-commerce_us_5915db61e4b0bd90f8e6a48a

17 Koh, H., Shah, V., Fernandez, H., Hicks, R & Cheam, J. (2017, December 4). How e-commerce is changing us and our planet. Retrieved from <http://www.eco-business.com/news/how-e-commerce-is-changing-us-and-our-planet/>

18 Gurumurthy, A. & Chami, N. (2017, May). A feminist action framework on development and digital technologies. Issue Paper]. Retrieved from <https://www.apc.org/sites/default/files/FeministActionFrameworkOnDevelopmentAndDigitalTechnologies.pdf>

19 Federici, S. (n.d.). Feminism and the politics of the commons. Retrieved from <http://wealthofthecommons.org/essay/feminism-and-politics-commons>

20 Martinson, J. (2018, January 21). Technology will widen pay gap and hit women hardest – Davos report. The Guardian. Retrieved from https://www.theguardian.com/inequality/2018/jan/21/technology-widen-pay-gap-hit-womens-jobs-hardest-davos-report?CMP=Share_AndroidApp_Gmail

21 Research by the World Economic Forum indicates that women face five jobs lost for every job gained, versus three jobs lost to one gained for men overall.

22 For example, in Silicon Valley, hardly 11% of executive positions are held by women.

23 Middleton, C. (2018, June 1). Robots & AI creating more jobs in Asia than they destroy. Retrieved from <https://internetofbusiness.com/robots-ai-creating-more-jobs-in-asia-than-they-destroy-report/>

24 Brazil, Russia, India, China and South Africa.

women in the fourth industrial revolution is highly likely to imply a reversal of gender equality gains in both pay and status.

In the pervasive economic restructuring of the digital age, we are witness to a radical reconfiguration of the global labour chain. Increasing digitalisation and platformisation of routine cognitive work has facilitated a parceling out of ‘micro work’ to a planetary labour market²⁵. While micro work has often been held out as a solution that can lift women and youth out of poverty²⁶, this promise has not materialised. Researchers working on digital labour have highlighted how microwork platforms push wages into a downward spiral, as workers find themselves with zero bargaining power²⁷.

The restructuring of work is also unlikely to make a dent on jobs where wages are low enough to make automation uneconomic²⁸. 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 feminised²⁹.

Digitalisation is also seen to disproportionately impact the informal sector that historically has been highly feminised³⁰. As Pratap and Bose (2017) argue: *“For every new job that digitalisation has opened up, ... (we) may not realise 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”*³¹.

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 survival, one that the

25 Graham, M. (2018, January 29). The rise of the planetary labour market – and what it means for the future of work. *New Statesman*. Retrieved from <http://tech.newstatesman.com/guest-opinion/planetary-labour-market>

26 Janah, L. (n.d.). Microwork – dignified digital work for women, youth & refugees. Retrieved from <https://www.changemakers.com/technologywomen/entries/microwork-dignified-digital-work-women-youth-refugees>

27 Graham, M. (2018, January 29). *op. cit.*

28 Azim Premji University. (2017, October 5). Adair Turner – Capitalism and Robots | ‘Resurrecting the Public’ Lecture Series. [Video file]. Retrieved from <https://www.youtube.com/watch?v=Dgf8K244j1o>

29 Saxer, M. (2017). The future of work in Asia - How can India create livelihoods in the digital age?. Retrieved from library.fes.de/pdf-files/bueros/indien/13226.pdf

30 In low and lower-middle income countries, a higher proportion of women are in informal employment than men. In Africa, 89.7 percent of employed women are in informal employment. See http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_626831.pdf

31 Aspects of India’s Economy. (2017, June). Retrieved from <http://www.rupe-india.org/68/gulffour.html>

numbers are not likely to capture. Evidence from studies about corporatisation 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, labour or even environmental practices have macro and meso impacts³².

With Artificial Intelligence(AI)-facilitated transition to Industry 4.0, digital infrastructure becomes a critical consideration. Hence, manufacturing is being reshored to the developed world.

Automation of manufacturing jobs is also expected to adversely impact emerging economies whose competitive labour advantage is being rapidly eroded by rising wages. The massive scale of technology-induced job displacement is imminent at a time when the welfare state is globally in retreat and there is an increasing financialization of social security undermines the basis of the universal rights. The intensification 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”³³ and possibly the last generation that has the responsibility to sustain the gains and fights from workers and unions from the past centuries through the twenty first century, reaffirming social security as a human right and confronting its erosion under platformisation and the increasing corporate capture of the state.

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 liberalise the current regime on customs duties in cross-border e-commerce; prohibit domestic presence requirements on transnational businesses; narrow the leeway that World Trade Organisation (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 localisation measures³⁴:

32 Sara D. Elder & Peter Dauvergne (2015) Farming for Walmart: the politics of corporate control and responsibility in the global south, *The Journal of Peasant Studies*, 42:5, 1029-1046, DOI: 10.1080/03066150.2015.1043275, <https://doi.org/10.1080/03066150.2015.1043275>

33 UN Secretary General (2015) Ban Ki Moon, ‘We Are the First Generation that Can End Poverty, the Last that Can End Climate Change’, Secretary-General Stresses at University Ceremony, Press Release, Belgium, May 28, <https://www.un.org/press/en/2015/sgsm16800.doc.htm>

34 James, D. (2017). *op.cit.*

The proponents of this agenda argue that these measures are essential to remove tariff and non-tariff entry barriers that prevent the effective integration of Micro, Small and Medium Enterprises (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 gains³⁵.

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 marginalised women in developing countries disproportionately³⁶. International initiatives trying to bring online platforms to the service of women entrepreneurs, women in STEM or rural women's associations often seem to adopt a simplistic approach that overlooks the need to sustain efforts in upgrading over time for long term labour 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. It presupposes that making a woman an entrepreneur is good for her and the economy. It proceeds from an assumption of a connected and flat world where everyone is free to participate online. But, in practice most women in the developing world lack access to the necessary techno-social capabilities to compete in a global online environment. Further, the valorisation of 'flexi-work' and 'home-based work' for women in the digital economy not only obscures the real divide in techno-social capabilities, but also can undercut the hard-won battles for women's equal work participation, pushing women back into a highly individuated sphere with rigid gender-based role divisions³⁷.

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

35 Barrientos et al. (2010) and Milberg and Winkler (2011) argue

36 Barrientos et al. (2010)

37 Scassera, Sofia (2018). E-commerce, future of labour and its impact on women.

economic sovereignty³⁸. Creative regulation is critical in providing the enabling environment for women's MSMEs to find a footing in e-commerce. Today, 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 as a decoy for promoting new trade rules favouring 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"³⁹. 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. Recognising 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".

2.4 Data extractivism as the route for colonising bodies

The network-data nexus has so far been the driver of a new phase of financial globalisation, which has used digital technology for a brutally extractive regime⁴⁰ built on racial and gendered faultlines. New datafied innovations such as 'fintech', purported to reach banking and credit to women, are rapidly becoming the next predatory instrument for capital⁴¹, 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 marginalised.

38 Digital trade and industrialization: perspectives from the south (2018, march). Key Messages from the workshop held on Colombo, Sri Lanka. Retrieved from http://unctad.org/meetings/en/SessionalDocuments/gdsecidc20180308_Key%20Messages%20of%20the%20Meeting.pdf

39 WTO Ministerial Conference in Buenos Aires.(2017). Joint Declaration on Trade and Women's Economic Empowerment. Retrieved from https://www.wto.org/english/thewto_e/minist_e/mc11_e/genderdeclarationmc11_e.pdf

40 Sassen,S. (2017). Predatory Formations Dressed in Wall Street Suits and Algorithmic Math. *Science, Technology & Society* 22:1 (2017): 1–15. Retrieved from <http://saskiasassen.com/PDFs/publications/Predatory-formations.pdf>

41 Lazarus, D. (2017, June 16). Pricey 'fintech' lenders put the squeeze on cash-strapped small businesses. *Los Angeles Times*. Retrieved from <http://www.latimes.com/business/lazarus/la-fi-lazarus-small-business-loans-20170616-story.html>

Projects using call detail records to track migration⁴² or smart chip contraceptive implants, mooted by the Bill and Melinda Gates Foundation⁴³, conveniently leave out the question of data ethics. The celebratory discourses around AI also obscure the exploitation by big tech of women's bodies and the lack of appropriate governance frameworks in this regard (as discussed below).

2.5 Democratic deficit in global norms-building

Information and Communication Technologies (ICTs) are seen exclusively as market commodities meant to be left to the whims of the market. Corporations in the digital space exercise a powerful discursive hold, perpetuating a 'no-governance-is-good-governance' approach. 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 (on international public policies pertaining to the Internet) set up by the United Nations Commission on Science and Technology for Development (UN CSTD) – tasked with developing institutional proposals towards appropriate global governance of the Internet⁴⁴ and the larger digital phenomenon – disbanded after two years of failed attempts to arrive at a consensus, divided by ideological lines on the respective roles of governments in global Internet policies.

Developed countries have also sought to bypass the global arena, pursuing plurilateral rule-making, outside the WTO in digital trade. In the Sustainable Development Goals (SDGs) review processes, the language of ICTs for women's rights is whittled down to 'access', seeking a blind solutionism through 'data for development' and women's empowerment. Access to ICTs is measured through a reductionist indicator such as the proportion of individuals who own a mobile telephone by sex (SDG indicator 5.B.1.).

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, the pathway to economic development in the twenty first century.

42 Taylor, L., Floridi, L., & Sloot, B. (Eds.). (2017). *Group Privacy New Challenges of Data Technologies*. (vol. 126). Springer. Retrieved from <https://linnettaylor.files.wordpress.com/2017/01/groupprivacy.pdf>

43 Arrow for Change (2017). *Sexuality, SRHR and the Internet*. Retrieved from <http://arrow.org.my/publication/arrow-change-sexuality-srhr-internet/>

44 IT for Change was one of the members of this multi-stakeholder Working Group. The failure to produce a report reflects the fissures within the group about the respective roles of government and private sector in the policy making process.

In the emerging AI industry, there have been a few moves at self-regulation by industry leaders in response to employee pressure to ensure that the deployment of these emerging technologies is in line with widely accepted principles of international law and human rights⁴⁵. But there are no binding regulations in these areas. This lack of normative consensus presents a serious challenge to social and gender justice considering that some of the fastest growing applications of AI today are patently sexist: obedient ‘sexbots’ that reinforce cultures of male entitlement, or digital assistants that reinforce the trope of the subservient woman⁴⁶. The proliferation of lethal autonomous weapons – autonomous military robots and drones that can search and engage targets based on programmed descriptions and constraints – poses another major challenge for global norms-setting. Negotiations on new international law on governing fully autonomous weapons are currently at a global stalemate – with France, Israel, Russia, United States and the United Kingdom explicitly vetoing this proposal at the April 2018 meeting of the United Nations Convention on Conventional Weapons (UN CCW) Group of Governmental Experts⁴⁷.

3. The new agenda for gender equality

3.1 Legal-institutional frameworks to protect and promote women’s rights in the platformised 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 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 programmes specifically targeted at women in the informal and traditional labour intensive sectors, including at women farmers and indigenous women whose livelihood ecosystems are threatened, are necessary.

45 Coldewey, D. (2018, June 8). Google’s new ‘AI principles’ forbid its use in weapons and human rights violations . Retrieved from <https://techcrunch.com/2018/06/07/googles-new-ai-principles-forbid-its-use-in-weapons-and-human-rights-violations/>

46 Saran, S., & Srikumar, M. (2018, April 16). AI has a gender problem. Here’s what to do about it. Retrieved from <https://www.weforum.org/agenda/2018/04/ai-has-a-gender-problem-heres-what-to-do-about-it/>

47 Davey, T. (2018, April 30). Lethal Autonomous Weapons: An update from the United Nations. Retrieved from <https://futureoflife.org/2018/04/30/lethal-autonomous-weapons-an-update-from-the-united-nations/>

Policies on AI and automation must contribute to a longer term 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 incentivise cooperativism and local platform enterprises of women's groups.

3.2. Alternative data governance frameworks to counter dominant extractivist models

Data governance models outside of the logic of data markets can further the idea of data as a public good. When conceptualised from a southern feminism standpoint, such models *“must correspond to the hope and outrage of the most marginalised 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”*⁴⁸.

The idea of local data infrastructure that furthers public interest cannot be complete without policy imagination on open data, mandatory data sharing by corporations with local governments; new techniques for crowd-sourcing public data and more. As a commons-based, or 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 proactive health services.

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

A global data governance framework infused with a rights-and-inclusion 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 marginalised 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.

48 Gurumurthy, A., & Chami, N. (2016, May 31). Data: The new four-letter word for feminism. Retrieved from <https://www.genderit.org/articles/data-new-four-letter-word-feminism>

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 binding human rights obligations. We also need national level AI ethics councils that will specifically focus on addressing complaints of all forms of unintended and unjustified cultural bias, including gender bias and on undertaking audits of new AI technologies that enter market and governance systems.

A global social contract needs to be invented urgently 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. Where appropriate, and in accordance with domestic law, the term "victim" also includes the immediate family or dependents of the direct victim and persons who have suffered harm in intervening to assist victims in distress or to prevent victimization."*⁴⁹

The first draft of the legally binding instrument, to regulate in international human rights law the activities of TNCs and other business enterprises, connects the responsibilities of states and TNCs in terms of human rights violations, and 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 and data extractivism described in this document 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.

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

49 UN (2018) Legally Binding Instrument To Regulate, In International Human Rights Law, The Activities Of Transnational Corporations And Other Business Enterprises, Zero Draft 16.7.2018, <https://www.ohchr.org/documents/hrbodies/hrcouncil/wgtranscorp/session3/draftlbi.pdf>

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 marginalised 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.

A global data governance framework infused with a rights-and-inclusion 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 marginalised 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.

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 binding human rights obligations. We also need national level AI ethics councils that will specifically focus on addressing complaints of all forms of unintended and unjustified 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 singular, solutionistic, narrative on ICTs, the emerging digital economy has perpetuated a legacy of gender equality that is depoliticised. The familiar discourse of individual entrepreneurship 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 organisations, discourses, policies and international institutions that are calling for gender equality and a new era of feminism⁵⁰. 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

50 Gurumurthy, A. (2017, May). A history of feminist engagement with development and digital technologies. [Issue Paper]. Retrieved from <https://www.apc.org/sites/default/files/HistoryOfFeministEngagementWithDevelopmentAndDigitalTechnologies.pdf>

civil society empowerment. 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-human⁵¹ context and coherent with human rights obligations of states (as well as TNCs, in the near future).

51 Post-humanism is an emerging body of philosophical and theoretical approaches to understand the redefinition of the human subject by twenty first century developments in the technological and biological realms.

Annexure 1: List of Abbreviations

AI	Artificial Intelligence
CSR	Corporate Social Responsibility
CSTD	Commission on Science and Technology for Development
ESCR	Economic, Social and Cultural Rights
EU	European Union
GAT	General Agreement on Trade in Services
GDP	Gross Domestic Product
ICT	Information and Communication Technologies
MC	Ministerial Conference
MSME	Micro, Small and Medium Enterprise
SDG	Sustainable Development Goals
SME	Small and Medium Enterprise
TNC	Transnational Corporation
UN	United Nations
UN CCW	United Nations Convention on Conventional Weapons
US	United States
WTO	World Trade Organization