Ditching techno-patriarchy and the "permacrisis"

What's missing on digitalisation in the CSW67 Zero Draft

Action Group on Erosion, Technology and Concentration

On the occasion of International Women's Day
and the 67th session of the Commission on the Status of Women
8 March 2023

Contents

ETC Group is a small, international, research and action collective committed to social and environmental justice, human rights and the defence of just and ecological agri-food systems and the web of life. Our niche within civil society is understanding and challenging corporate-controlled techno-industrial systems and exposing the dangers of the technological manipulation of life, especially in relation to climate justice and food security. We uphold peasant and indigenous ways of life and knowledge systems; food sovereignty; people's control of technology; and just economies and governance.

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Summary

As CSW67 turns its attention to digitalisation, like the rest of the United Nations, this Briefing zooms in on less-discussed aspects of the ongoing digitalisation tsunami, which is likely to usher in a new worldwide wave of gender-based impacts, as the techno-patriarchy, along with Big Ag and other industries, relentlessly dreams up new ways of turning a profit by digitalising as many sectors as possible (often in extraordinarily far-fetched and unnecessary ways).

Technology-facilitated gender-based violence is likely to be exacerbated by the so-far overlooked environmental impacts of digital technologies, such as extensive energy use, water dependence and mineral extraction, all of which result in resource grabbing, marginalisation and the violation of communities' rights.

The ongoing (but little known) digitalisation of all food and agriculture sectors, from breeding through to retail, is also expected to have extensive gender-based impacts, such as exacerbating land and resource grabbing, displacement of livelihoods and labour, marginalisation of traditional food processing and retailers, and violation of the human rights of farm workers across the world.

Digitalisation is not a panacea to development challenges, nor is it a default route to societal transformation. The intensifying promotion of digital technologies as "technofix" solutions to current global crises around climate change (e.g. in the UN Framework Convention on Climate Change) and biodiversity loss (e.g. in the UN Convention on Biological Diversity) are extremely dangerous false solutions, that distract from and delay real solutions and foster further corporate control, all of which will have further direct and indirect impacts on women and others across the world.

1 Introduction

There is an old saying: when you're in a hole, stop digging.

In 2023, we collectively find ourselves in what has been dubbed a "permacrisis" that is having especially harsh impacts on women across the world. Still reeling from the tragic impacts of the Covid-19 pandemic and its lockdowns on our families, food systems and livelihoods, we face the gathering storm of linked climate change, biodiversity and food systems crises. Ever-widening income and wealth inequality is a silent catastrophe that poses a grave threat to global stability and security, even more so now as the most vulnerable and least secure bear the worst impacts of these crises.

Taking a critical look at what's happening through the lens of technology development and its gender-based impacts turns out to be extremely instructive: Pandemics, climate change and the destruction of our planetary home have all been propelled forward by runaway technological fixes – always in pursuit of short-term corporate and capital gains, and seemingly without thought or care for long-term impacts and collateral damage, including in

terms of massive disruption to lives, livelihoods and our environment. The Industrial Food Chain is a leading example of the ways in which profit-oriented technological development can trigger major crises – Big Food and Ag is, in one fell swoop, a leading cause of climate change, biodiversity loss *and* pandemics.[1]

> A "technofix" is the development of a profitable proprietary technological product or intervention, supposedly to address a social or environmental problem, that does nothing to resolve the underlying drivers of that problem – which in itself may have been created by an earlier technological failure.

Yet – as we show in the examples in this Briefing – more of exactly the same is now being promoted as the only way forward. "Technofixes", especially those based on or involving proprietary digital and biodigital technologies, are being ever more heavily promoted by "techno-solutionists" with vested commercial interests. Yet these technofixes divert attention away from the true underlying drivers of these intertwined crises, preventing their resolution, whilst upholding and perpetuating a status quo based on capitalism and patriarchy.

Box 1: Covid-19: Big bucks for the techno-patriarchy

The Covid-19 pandemic burdened women and others in unprecedented ways: homes suddenly had to become schools and offices as well, no matter how small; the care economy placed even heavier and often unrewarded burdens and responsibilities on women and other carers around the world, including mothers, housewives, schoolteachers and nurses; and domestic violence spiralled.

Yet it is now clear that at the same time the Covid-19 crisis benefitted digital technology sectors and industrial food and agriculture. In 2020 most of the world's largest food and agriculture giants saw sales and profits surge while almost a billion people went hungry and crops failed. At the same time, Big Tech has become ever more tightly entangled with industrial food production, and data extracted via digital technologies is now itself a commodity. The Industrial Food Chain relies on Big Data to grow, process, trade, track, sell and transport its products. At the same time online grocery platforms and food delivery apps (such as DoorDash, Zomato and Deliveroo) surged during pandemic lockdowns and are growing into a whole new 'last mile'/ last link of the Industrial Food Chain.

Further crises – or a "permacrisis" – effectively present additional potential profit-making and power-consolidating opportunities, especially for the proponents of new technologies (whether in the pipeline or still to be dreamed up). But the top-down imposition of digital technologies into this already toxic mix will do more harm than good. Within the current patriarchal and capitalist context, and without assessment or effective regulation,

[1] Ribeiro, S. (2020). Don't blame the bat! Silvia Ribeiro on the causes of the pandemic [blog interview by Claudia Korol]. https://www.etcgroup.org/content/dont-blame-bat

digitalisation can be expected to trigger further collateral damage for women and yet more existential risk for people and planet.

Any consideration of digitalisation must start by scrutinising the narrative around the "digital divide" thoughtfully and thoroughly, paying attention to the various ways in which digitalisation has been built upon and entrenches deep structural inequalities based on class, race, caste, geography and a particular world vision. Without this intensely analytical and transformational approach, these structural inequalities will persist, and even be reinforced by digitalisation.

Digital technologies need to be developed and deployed in response to the actual needs of people and with the involvement of those who are most likely to be impacted by them, especially women. This technofix approach needs to be rejected in favour of real solutions that uphold peoples' livelihoods, human rights, peace and the rights of Mother Nature, as the only feasible and equitable responses to the current climate and biodiversity crises.

Box 2: "Artificial Intelligence" and inequality

AI-related technologies are "trained" by feeding in large quantities of source data which may be scraped from across the internet or elsewhere. This is known to entrench the inequalities and oppression already present in those information sources. However, this can make it even more difficult to reverse and eliminate inequalities because it results in opaque "black box" algorithms, which cannot easily be analysed let alone challenged. Yet these algorithms are increasingly being used as the basis for AI-generated decision-making that is impacting people's daily lives – determining women's suitability for employment and credit eligibility for example.

For further information, see footnote.[2]

We need to stop digging and start examining the shovels – or rather the hi-tech digging machines – and those who wield them. In this way we can work to ensure that technologies, whether hi-tech or low-tech ("wide-tech" in ETC Group language), work for people and the planet – and that they are not dreamed up and driven simply to fuel capital gain at the expense of all else.

2 Big Tech patriarchs driving digitalisation and the "technofix" agenda

It is significant that the world's largest digital technologies and platforms were all founded by men, most of them white and from the Global North (mostly the U.S.), and almost all of

[2] For further information on gender-based AI impacts see Criado Perez, C. (2020). Invisible Women: Exposing data bias in a world designed for men. Vintage, London (1st ed paperback). ISBN: 9781784706289 For further information on bias in machine learning systems listen to: ETC (2020). Algorithmic Colonisation with Abeba Birhane [podcast]. www.etcgroup.org/content/5-algorithmic-colonisation-abeba-birhane

them became influential billionaires as a result of the expansion of these companies within a highly deregulated capitalist context. The digital tech companies they founded perpetuate patriarchy, hailing men as geniuses, self-made entrepreneurs and brilliant engineers, while women remain in the background as a minority in the corporate tech hierarchy. These companies also take an extractive approach to data as a profitable resource, a new tradeable commodity. As a result of these defining characteristics, digital technologies have not been designed or deployed with the interests of women and society in mind.

These tech companies and their financial investors went on to amass immoral profits during the Covid-19 pandemic while the rest of humanity, especially women, suffered from increased caring burdens, job losses, pay cuts, lack of social protection and ever higher costs of living. These companies now own extensive critical digital infrastructure, are largely unregulated in most parts of the world, and are often registered in tax havens.[3] At the same time, most policy makers are wrestling to understand the implications. What does the widespread uptake of new digital technologies mean for societies and economies, as traditional sectors such as food and agriculture become digitalised, as workers are displaced by robots, and as the world grapples with trying to use conventional rights to address the new digital realities we face?

In addition, in return for huge philanthropic cash injections, tech billionaires such as Jeff Bezos and Bill Gates have now inveigled themselves into policy-making circles that were previously the preserve of government policymakers. This has enabled these ultra-wealthy technologists to set parameters for crisis resolution that are beginning to normalise the technofix approach as the only way forward in intergovernmental negotiations – ignoring many other options and real solutions to climate change, on food production and even in relation to biodiversity conservation.

In biodiversity negotiations in the Convention on Biological Diversity (CBD), activists have exposed the attempts of Gates-sponsored lobbyists, science groups and public relations firms like the Alliance for Science, Emerging Ag Inc. and the African Network of Biosafety Experts to influence official UN expert groups and negotiations, as well as coordinating with the African Union, in order to advocate for gene drive experiments in Africa.[4] At the same time the Bill and Melinda Gates Foundation has invested heavily in the Target Malaria project (along with the Open Philanthropy Project and the U.S. Military), which is focused on developing gene drive mosquitoes for release in Africa.[5] Gates has also invested millions to promote geoengineering (i.e. climate-altering) technologies to attempt to undo a hard-won moratorium on such technologies at the CBD.[6]

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[3] Fernandez, R. (2020). The financialisation of Big Tech: engineering digital monopolies. SOMO, the Netherlands. https://www.somo.nl/the-financialisation-of-big-tech/

[4] ETC (2022). Press releases: Banners to Bezos and Gates: Back Off of Biodiversity! https://www.etcgroup.org/content/press-release-banners-bezos-and-gates-back-biodiversity and A Bitter Sweet Bargain on Biodiversity, https://www.etcgroup.org/content/bittersweet-bargain-biodiversity

[5] Target Malaria focuses on the release of "gene drive" mosquitoes, a high-risk "technofix" technology aimed at the elimination of entire species, by forcing manipulated genes through generations of that species. You can find out more here: https://www.etcgroup.org/content/target-malarias-gene-drive-project-fails-inform-local-communities-risks-new-film

[6] For more information see: ETC (2017). The Big Bad Fix. https://www.etcgroup.org/content/big-bad-fix

Similarly, the recently announced "Bezos Earth Fund" is a ten-billion-dollar fund, set up by Jeff Bezos, which is designed to secure what is known as the "30x30" policy goal in the CBD. Supporters of this conservationist approach aim to protect 30% of the world's terrestrial and marine biodiversity by 2030, including through the use of extensive surveillance and digital technologies.[7] This policy, which completely ignores territorial management by Indigenous Peoples and local communities, has been branded the biggest land grab in history and will have far-reaching gender-based impacts if implemented. Bezos also boasts a "Blue Origin" space business to build a "road to space." His stated aim is to move most human beings off the planet into future space colonies: With typical hubris, Mr Bezos told an audience in New York, "I've always wanted to turn the Earth into a sort of national park."[8] And now, with the Bezos Earth Fund, he's doing just that while peddling the dream to create space colonies.

In these ways – and often behind closed doors – the technofix-oriented approach, based resolutely on institutional science, and deeply supportive of Western, patriarchal, capitalist culture, is being relentlessly pushed across the world. Gender-based impacts and impacts on the environment everywhere are being conveniently overlooked, as perceived investment by Big Tech and its billionaires is given priority by governments.

3 Big Tech: the environmental nightmare behind the "cloud" story

Big Tech's "solutions" narrative could be encapsulated in three words: "Don't look down!" They want to keep us focused on the technofix tale of digital technologies being in "the cloud", with an implication that those technologies are light and ethereal, and can contribute to achieving a clean, green future. What they don't want is for us to look down and see that they are quite literally digging the ground, our territories and resources, from under our feet.

The land needed to house the servers that power the "cloud" for data and machine learning databases, the massive amount of energy required to manufacture and run these machines, and the immense amount of water needed to cool down servers to keep them running around the clock, all involve indelible carbon footprints and could compete directly with food production.

According to the New Scientist, "a typical data centre, which may house several thousand servers, can use between 11 million and 19 million litres of water per day, equivalent to

[7] upstream.tech (2021). Gaining New Perspective: Three Ways Technology Can Help Us Realize the 30x30 Goal. https://www.upstream.tech/posts/2021-04-13-gaining-new-perspective-three-ways-technology-can-help-us-realize-the-30x30-goal-1

[8] ETC (2022). Press releases: Banners to Bezos and Gates: Back Off of Biodiversity! https://www.etcgroup.org/content/press-release-banners-bezos-and-gates-back-biodiversity

what a city of 30,000 to 50,000 people uses." [9] All electronic devices use semiconductor chips, which are highly water-intensive to manufacture – and when Taiwan, home to TSMC, the world's largest manufacturer of semiconductor chips, faced a drought in 2021, the government halted irrigation of 183,000 acres of farmland (around one fifth of Taiwan's irrigated land) and prioritised supplying water to TSMC.[10] Women, as the primary care providers in households, bear the brunt in securing basic resources such as water for drinking and consumption in times when water becomes scarce or unaffordable.

In addition, the production of "smart" digital tools and building the core infrastructure to make digitalisation possible require the extraction of minerals and rare earths which are mostly found in the lands and territories of local and indigenous communities whose rights are often violated. For example, in 2019, Tesla, Dell, Microsoft, Alphabet and Apple were sued by families in Congo for sourcing cobalt from mines that involve child labour exploitation and deaths.[11] The processing of rare earth minerals is associated with high levels of radioactivity and radioactive wastes, posing serious threats to the health of peoples and ecosystems.

All these factors add to the multiple burdens that women face in their daily lives, which are barely talked about in the midst of the obsession over digitalisation being the "solution" to every problem. As we consider the need to connect the unconnected, such as rural and indigenous women, we should not forget that digital and bio-digital technologies have significant social, physical and resource costs and subsequent impacts on women's and others' lives and livelihoods.

4 Big Brother and the Food Barons: coming for your food whether you like it or not

Digitalisation can be expected to intensify the already stark impacts that the Industrial Food Chain has had on women around the world, including on those engaged in growing, distributing and sourcing healthy and nutritious food, small and local food retailers, and farm workers and food processors. Digitalisation also threatens to undermine the integrity of the Peasant Food Web, which currently feeds the equivalent of 70% of the world's people with less than 30% of the world's land, water and agricultural resources.[12] Overall, digitalisation can be expected to further marginalise women in the food and farming sectors, displace women workers, and make the contributions of women in agriculture even more invisible.

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[9] New Scientist (2022). How much water do data centres use? Most tech companies won't say. https://www.newscientist.com/article/2342490-how-much-water-do-data-centres-use-most-tech-companies-wont-say/

[10] New York Times (2021). Drought in Taiwan Pits Chip Makers Against Farmers. https://www.nytimes.com/2021/04/08/technology/taiwan-drought-tsmc-semiconductors.html

[11] Guardian (2019). Apple and Google named in US lawsuit over Congolese child cobalt mining deaths. https://www.theguardian.com/global-development/2019/dec/16/apple-and-google-named-in-us-lawsuit-over-congolese-child-cobalt-mining-deaths

[12] ETC Group (2022). Backgrounder: Small Scale Farmers and Peasants Still Feed the World. https://www.etcgroup.org/content/backgrounder-small-scale-farmers-and-peasants-still-feed-world

ETC Group's ongoing research reveals that digitalisation is already transforming every sector of the Industrial Food Chain, and Big Ag corporations are rebranding themselves as digital enterprises. The impact of digitalisation on food and agriculture should therefore be a primary concern in any debates about the future of digitalisation, especially in relation to women's livelihoods and welfare. The digitalisation of food and agriculture includes gene-edited seeds (which are associated with heavy agrochemical usage, thereby exposing farmers to health hazards and eroding genetic diversity), robotics and automation, digital platforms, drones and other digital technologies. It threatens to undermine farmers' rights and autonomy, turning them into mere data sources and extractors, and locking them into practices dictated by powerful digital and agribusiness corporations. This undermines farmers' agricultural knowledge and their capacity to pass it on through generations, including because of enforced standardisation around a limited number of crops.

Box 3: Big Ag joins forces with Big Tech

Big Ag corporations like Bayer, BASF and Syngenta have now acquired or developed their own proprietary digital platforms like Climate Fieldview and xarvio, which are amassing immense amounts of granular data from farms, including about soil moisture, soil health, seeds planted, weather conditions, and pest and weed presence. This enables them to then dictate agricultural practices: These platforms roll out "recommendations" to farmers on when to sow seeds, when to harvest, and exactly how much pesticide to use and which brands, thereby imposing their own or partners' brands onto farmers.

Such technologies are also likely to push women farmers even further away from realising their rights as farmers and ensuring local food security, especially since, in many cases, women are not even recognised as farmers or barely hold land rights. The difficulties they already experience in terms of being unable to access credit or markets, despite being crucial food producers, can be expected to intensify, because technology-related agricultural decisions rest primarily in the hands of men (including but not only because of the digital literacy gap).

Digitalisation also threatens to undermine farmers' land rights as land acquisition can be facilitated by digital technologies. This is because granular digital data on land productivity enables financial investors to find out exactly where the best land is. Corporations may also use digital technologies in land registries to evict Indigenous communities from their lands.

Digitalisation has enabled Big Tech corporations to become key players in global food and agriculture sectors, working in collaboration with Big Ag. Up and down the industrial food chain, digital technologies are being applied and pushed to further entrench Big Ag's chokehold while claiming to address the climate crisis under such technofix banners as "precision agriculture", "climate-smart agriculture", "nature-based solutions" and "carbon farming". Big Tech provides digital prowess and cloud services to the technical advisory services deployed by Big Ag to sell their products and machineries as a package, while

disempowering and deskilling farmers in the process. Meanwhile, the role and contributions of women farmers become even more unrecognised and invisible.[13]

5 A Shady Business: aiming to block out sunshine and "farm" carbon

Women bear most of the burden in climate adaptation and mitigation across communities. Sea level rise that endangers freshwater resources and cultivable land translates into increased burdens on women, on whose shoulders rest the responsibility of ensuring household health, nutrition and daily sustenance. Real and immediate solutions are needed.

However, with the worsening climate crisis and the failure of political solutions at the global level, highly risky geoengineering "solutions" that involve the manipulation of climate systems have been gaining traction in recent years: this entails the large-scale and intentional technological manipulation of the planet's climate through a suite of technologies that include interventions on land, in the oceans, or in the atmosphere. Technologies that are intended to capture carbon from the atmosphere are referred to as "carbon dioxide removal" (CDR) technologies. Those that aim to reduce the amount of sunlight that reaches the Earth or to reflect it back to space, are referred to as "solar geoengineering" or Solar Radiation Management (SRM).

Critically, most of these proposals are just theoretical or at pilot stage, and none has been successfully developed at a significant commercial scale. Furthermore, because they all entail significant social and environmental risks, two UN bodies – the Convention on Biological Diversity (CBD) and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (commonly known as the London Convention on ocean dumping) – have adopted strong precautionary calls, including moratoria on the deployment of geoengineering. These technologies, if ever successfully implemented, could have severe impacts on biodiversity, the environment, and the rights, territories and livelihoods of Indigenous peoples and local communities.

Nevertheless, the drive to have these risky technologies accepted as "solutions" continues, including in policy arenas and through field experimentation, which is being attempted in various different places but most notably on Indigenous territories and in the Global South. Indigenous peoples and civil society organisations have successfully blocked some of these experiments. A Harvard-based solar geoengineering experiment was suspended following Indigenous and civil society protests led by the Saami Council.[14] Another solar geoengineering project led by the US-based Arctic Ice Project has conducted experiments over Indigenous territories in Alaska, which have been opposed by an Alaska native

[13] See also: ETC (2022). False Solutions Alert: Geoengineering in Climate Negotiations. https://www.etcgroup.org/content/false-solutions-alert-geoengineering-climate-negotiations

[14] geoengineeringmonitor.com (2021). Widespread opposition to solar geoengineering halts test flight. https://www.geoengineeringmonitor.org/2021/04/widespread-opposition-to-solar-geoengineering-halts-test-flight/

delegation.[15] Most recently, in January 2023, the Mexican government set a global precautionary precedent when it decided to put a stop to solar geoengineering experiments in its territory.[16]

In another egregious example, the current promotion of "carbon farming", a proposed form of Carbon Dioxide Removal, is a blatant attempt to force through digital technologies and use them to dictate and mould agriculture according to corporate interests. In these corporate schemes, carbon is hailed as "the new crop" that can earn income for farmers (on condition that they follow the dictates of the company), be traded in carbon markets for offsets, and transform the image of big, bad polluters into "climate champions". However, the carbon sequestration potential of soil is claimed to have been miscalculated and the science behind optimistic estimates has already been challenged.[17]

Broadly, the technofix approach only considers the knowledge generated by institutions to be legitimate, scientific and unbiased. The knowledge of small-farmers, women food producers and pastoralists is relegated as unscientific: Claims about the "precision" of digital technologies are undermining centuries of wisdom about food production developed by local communities, casting them in a new subservient role as implementers of decisions taken by algorithms which have been designed by people who are entirely detached from agroecological realities.

6 Towards democratic technology development

Confronting the dark realities of digitalisation – the techno-patriarchy that drives it, the environmental nightmares behind the promises, the silent takeover of global food systems – is the only way to have meaningful and game-changing deliberations on digitalisation and sustainable development at CSW67 and across the UN.

To steer the world closer to democratic technology development and governance, we urge the inclusion of the following in the outcome document of CSW67 and in other UN processes that are focused on digitalisation for sustainable development:

- **Prioritising the implementation of the 2030 Agenda for Sustainable Development is non-negotiable**

UN Member States pledged in the 2030 Agenda that no-one would be left behind and that they would endeavour to reach the furthest behind first. Making digital devices more

[15] geoengineeringmonitor.com (2022). Support Alaska native delegation to stop Arctic Ice Project! https://www.geoengineeringmonitor.org/2022/05/support-alaska-native-delegation-to-stop-arctic-ice-project/

[16] ETC Group (2023). Mexico sets global precautionary example stopping solar geoengineering experiments. https://www.etcgroup.org/content/mexico-sets-global-precautionary-example-stopping-solar-geoengineering-experiments and ETC Group (2023). Stop the US start-up testing solar geoengineering in Mexico. https://www.etcgroup.org/content/stop-us-start-testing-solar-geoengineering-mexico

[17] The Guardian (2021). One of Earth's giant carbon sinks may have been overestimated - study. https://www.theguardian.com/environment/2021/mar/24/soils-ability-to-absorb-carbon-emissions-may-be-overestimated-study

affordable and accessible is meaningless to the more than 800 million people across the world who go hungry each day, and to those who have no access to basic health services, medicines, basic education, social protection and electricity. Digitalisation is not the only means to achieve the sustainable development goals, but just one of the many options that include technological, social and structural solutions which should be provided to those impacted to appropriately address specific situations and needs as decided by them. The top-down imposition of digital technologies will only exacerbate existing inequalities and power imbalances between classes, race and ethnicity, and between men and women. Prioritising digitalisation in terms of resource allocation could put more pressure on already scarce resources for provision of basic services.

- **A global mechanism for participatory technology assessment is urgently needed to scrutinise the impacts of digital technologies on society, including on women**

We need a new and effective precautionary system of technology assessment and regulation, with public funding for the development of technologies in the public interest. Allowing the unbridled pursuit of private profit to determine the direction in which technologies are developed is taking us in wholly the wrong direction – even though it may be seen as a panacea by those in charge of public purse strings who may be conveniently blinded by "technofix" narratives. The potentially transformative power of technology (considered in its widest sense, rather than a "hi-tech" interpretation) should be harnessed and directed in the public interest, supporting localised technologies and systems of food and production that work for all.

A democratic approach to the development of digital and bio-digital technologies based on human rights would include participatory technology risk assessments undertaken both prior to and during the development of such technologies, with the involvement of those likely to be most impacted by them. Such technology assessments must fully address the social, physical and resource costs of those technologies, and evaluate the potential impacts on society, especially on women. All risk assessments of digital technologies should take into account the benefits of and possible impacts on the existing models and lived experiences of women and others already engaged in the promotion of territorial markets, the conservation of genetic resources, and protecting the environment and providing sustainable livelihoods utilising appropriate and accessible technologies and local and traditional knowledge systems that ensure local control over resources, knowledge and data.

- **The global regulation of Big Tech**

The rapid pace of digitalisation requires the establishment of multilaterally agreed guidance for the regulation of digital platforms. The transnational operations of Big Tech and the transboundary impacts of digitalisation require global scrutiny and close monitoring of their business models and activities. The UN should lay down a process for multilateral deliberations on how to clip the power of Big Tech to protect societal interest.

To conclude, a fundamental approach to democratic technology development, in order to achieve equitable transformation, is to recognise, promote and enable the capacities, innovations and knowledge systems of women, especially in local and Indigenous communities. Moreover, it is imperative to address the root causes of the ever-widening Development Divide – between the North and South, between capitalism's winners and losers, between women and men, and between rural and urban populations. These divisions are held in place by persistent political, economic, social and cultural norms, which foster inequality and are based on patriarchal structures that allow for and perpetuate men's control over women's access to technology. Digitalisation is not a panacea or quick 'technofix' and will not automatically resolve existing structural problems. Simplistically overlaying and imposing digital technologies on top of this will only exacerbate existing inequalities and power imbalances.

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