Leveraging Technological Advances for Sustainable Development: Re-writing the Racial Codes of Emerging Digital Technologies

By:

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Introduction

Emerging digital technologies have become indispensable in the realization of sustainability and development goals (SDGs). Ordinary social interactions worldwide are increasingly delineated across technological lines, so much so that work, trade, and communication have become impossible for enterprises without the use of digital technology. That being said, the economic divide between the Global North and the Global South continues to shape emerging digital technologies' character, function and exclusivity, making them a stubbornly hostile instrument toward accelerating the SDGs.

Accordingly, this article aims to situate the regulatory challenges that emanate from this divide within the international human rights standards that inform the use and development of emerging digital technologies. Given the necessity for brevity, particular focus will be afforded to two proposals set out in the United Nations Department of Economic and Social Affairs Elements Paper for the outcome document of the Fourth International Conference on Financing for Development (FfD4). Namely, (1) technology transfer and (2) the promotion of equitable access to artificial intelligence (AI), including the development of a regulatory ecosystem that promotes safe, secure, and trustworthy AI systems. The analysis will also briefly address the Zero Draft Outcome Document for the Fourth International Conference on Financing for Development (Zero Draft FfD4) because it acknowledges the transformative potential of technology in achieving the Sustainable Development Goals (SDGs).

The importance of technology transfer and access to AI

The Addis Ababa Action Agenda of the Third International Conference on Financing for Development (The Addis Agenda) found that the economic divide which characterized relations between the Global North and the Global South continued to be reinscribed through persistent limitations on technology transfer. The Addis Agenda appropriately characterized emerging technologies' unequal development and diffusion as a “digital divide”. The two FfD4 proposals identified above are particularly important because, without technology transfer and equitable access to AI, the digital divide will continue exacerbating “uneven innovative capacity, connectivity and access to technology, including information and communications technology, within and between countries”. As a result of the urgency for technology transfer and equitable access to AI, Member States have resolved to promote access to science and technology for marginalized groups such as women, youth, children and persons with disabilities as well as to:

promote the use of information and communications technology infrastructure, as well as capacity-building, particularly in least developed countries, landlocked developing countries and small island developing States, including rapid universal and affordable access to the Internet.

This kind of undertaking is consistent with the FfD4 proposal to improve digital literacy by prioritising all segments of society, particularly marginalised groups, in promoting science and technology. More importantly, the focus on marginalised groups of society corresponds strongly with the STI for SDGs roadmaps, which identified that "developing countries need to establish effective strategies to use STI to further their economic and social development to achieve the SDGs".

The explicit recognition of a "digital divide" is a welcome improvement on previous UN FfD outcomes (Doha Declaration and Monterey Consensus), which primarily focused on technology to attract foreign direct investment and buttress the existing multilateral and regional financial and development architecture. Despite the apparent progress in the Addis Agenda's recognition of the broader social, political and economic effects of technology transfer - the "digital divide", as it were, it remains critically important to avoid muting the full scope of the term's meaning. Only then will we move one step closer towards aligning financing flows with the SDGs. The FfD4 proposals and Zero Draft FfD4 on technology transfer and access to AI are one such step. Paragraphs 29 (c) and 44 (b) in Zero Draft of the FfD4 are particularly instructive in this regard. Although the Zero Draft recognizes the need for improving digital infrastructure and enhancing international cooperation to promote equitable access to technology, particularly for least developed countries, these proposals remain aspirational and do not adequately address the socio-economic barriers that perpetuate the digital divide.

Technology's colour blind façade

A key finding of the 2020 report of the former United Nations Special Rapporteur (UNSR) on contemporary forms of racism, racial discrimination, xenophobia and related intolerance (E. Tendayi Achiume) found that "emerging digital technologies exacerbate and compound existing inequities, many of which exist along racial, ethnic and national origin grounds". Despite this, there has been a persistent tendency to think of technology purely in scientific terms. That is to say that technology is commonly viewed as being value-neutral and independent of the social and historical processes that its very existence remains contingent upon.

As the former Special Rapporteur noted:

The public perception of technology tends to be that it is inherently neutral and objective, and some have pointed out that this presumption of technological objectivity and neutrality is one that remains salient even among producers of technology. But technology is never neutral – it reflects the values and interests of those who influence its design and use, and is fundamentally shaped by the same structures of inequality that operate in society.

This presumption, however, is not limited to technology producers or the general public. Technology is very much seen as a *sine qua non* for development, embedded in the economic language for progress and innovation. Although one can appreciate how technology is a valuable signifier of economic growth, such a view remains partially incomplete precisely because technology is not "inherently neutral". Leading intellectual property expert and scholar Ruth L. Okediji warns against this naturalising view of technology, arguing that "machines ultimately are expressions of what we want them to be. Their seduction – and their danger - lies precisely within our human limits."

Technological advances and systems of discrimination

Among the most influential emerging technologies on global markets today are predictive technologies such as big data, machine learning and artificial intelligence, and it is important to acknowledge their "human limits" when advancing their development in LDCs, LLDCs and SIDS. As the former Special Rapporteur noted in the same report:

As "classification technologies that differentiate, rank, and categorize", artificial intelligence systems are at their core "systems of discrimination". Machine-learning algorithms reproduce bias embedded in large-scale data sets capable of mimicking and reproducing implicit biases of humans, even in the absence of explicit algorithmic rules that stereotype. Data sets, as a product of human design, can be biased due to "skews, gaps, and faulty assumptions".

It is impossible to address the "digital divide" simply by promoting, developing, and advancing information and communications technology infrastructure in LDCs, LLDCs, and SIDS without addressing the "system of discrimination" that

already underscores this divide. Part of any strategy to invest in science and technology education (following the FfD4 proposals) should also include grounding science and technology education within the immediate national contexts of respective nations. Indeed the former Special Rapporteur called on states to “reject a “colour-blind” approach to the governance and regulation of emerging technologies”. This is because even where technology’s intended use is not necessarily discriminatory, very often, the data sets relied upon in especially predictive technologies are instrumentalised as proxies or “invisible statistical procedures” for race and ethnicity.

There are countless examples of racialised and gendered applications of predictive and information technologies, even when that is not their intended use. For example, in Kenya and India, the 2020 report of the former Special Rapporteur noted the discriminatory procedures that both countries had disguised within their respective biometric identification systems necessary for accessing public services:

The programmes include collection of various forms of biometric data, including fingerprints, retina and iris patterns, voice patterns and other identifiers. When trying to access public services through these systems, certain racial and ethnic minority groups in both countries find that they are excluded from them, while others face logistical barriers and long vetting processes that in effect can result in de facto exclusion from accessing public services to which they are entitled.

In Uganda, three civil society organisations - the Initiative for Social and Economic Rights (ISER), Unwanted Witness (UW), and the Health Equity and Policy Initiative (HEAPI) filed a case on behalf of affected persons before the High Court of Uganda in Kampala alleging that the national digital ID commonly referred to as “Ndaga Muntu” which is a mandatory requirement for accessing key social services violates women’s right to health and older persons’ right to social security. This is because “up to a third of the adult population in Uganda remains excluded from the Ndaga Muntu system because they do not yet have a national ID, and many others have critical errors in their data or cannot verify their identity biometrically”.

Part of the aim of the FfD4 has been to "leverage emerging digital technologies, including digital public infrastructure, to deepen financial inclusion". From a purely metric vantage point, one which prioritises long-term development goals, it is clear to see how key sectors such as housing, healthcare services, employment and education stand to benefit significantly from such initiatives. That being said, the commitment to ensuring that developmental objectives are satisfied must not allow technology to become a Potemkin village in which capacity building and economic growth conceal technology's potential adverse effects on already unequal social relations.

It is precisely because of the discriminatory effects that many emerging technologies engender that the former Special Rapporteur called on states to avoid ignoring "the specific marginalization of racial and ethnic minorities…relating to such technologies without accounting for their likely effects on these groups". They urged States to regulate these technologies within "an approach that recognizes structural racism and is based on key human rights standards". Anchoring the development of emerging technologies within these standards requires committing to the non-discrimination principles that are a cornerstone of international human rights law. While the term "discrimination" exists on specific grounds in the International Covenant on Civil and Political Rights, the Convention on the Elimination of All Forms of Discrimination against Women, and the International Convention on the Elimination of All Forms of Racial Discrimination, respectively, the Human Rights Committee's CCPR General Comment no 18. on non-discrimination has clarified that the term "discrimination":

should be understood to imply any distinction, exclusion, restriction or preference which is based on any ground such as race, colour, sex, language religion, political or other opinion, national or social origin, property, birth or other status, and which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise by all persons, on an equal footing, of all rights and freedoms.

Recommendations

It is of moot concern whether producers of technology intend for their creations to be used for discriminatory ends. Developing information and

communications technology infrastructure in LDCs, LLDCs and SIDS ought to take place alongside a corresponding regulatory infrastructure which would serve to prohibit the discriminatory harm which is more likely to take place where marginalised social groups are particularly vulnerable.

The Report of the Working Group of Experts on People of African Descent on *fulfilling the economic, social and cultural rights of people of African descent in the age of digitalization, artificial intelligence, and new and emerging technologies* brought attention to the fact that emerging technologies had the potential to revolutionise key economic sectors in developing countries however that it was also important to strike a balance "between individual, business and public interests" given the fact that the majority of emerging technologies were developed by a "small number of companies and elite university laboratories which engage mostly white males and have a history of discrimination against and exclusion of 'others', including people of African descent".

Many emerging technologies that could be usefully leveraged to meet development goals are creatures of private industry. Although they could greatly benefit LDCs, LLDCs, and SIDS in the long term, these benefits remain largely incidental to the profit motives that stimulate international business. If emerging technologies are to be of any transformative value, then the social, economic and cultural interests of marginalised groups belonging to LDCs, LLDCs, and SIDS must take precedence in directing the development and character of their implementation.

The report of the 2020 former Special rapporteur report has since been expanded upon by the current mandate holder, Ashwini K.P and a number of their recommendations for states are of particular relevance to the work of the UN FfD4, summarised here below:

- Develop regulatory frameworks around emerging technologies that centre international human rights law.

- Ensure that the implemented regulatory frameworks consult marginalised ethnic and racial groups.

- Ensure that there are robust mechanisms in place which would oversee and monitor the role of emerging technological instruments

- Institute regular audits which would assess the impact of emerging technologies on affected individuals and communities

- Ensure that any public education around emerging technologies centres on human rights and raises awareness about their potential discriminatory harms

- Prohibit emerging technologies that display dangerous human rights risks.

- Urgently and adaptably address the regulation of emerging technologies, given their rapid evolution.

- Establish mechanisms that would grant remedies to affected individuals and communities against the dangers posed by emerging technologies.

Conclusion

Emerging technologies will remain a moving target for the foreseeable future due to their novelty, the rapid rate at which they develop, and the unpredictability of many of their applications in different national contexts.

What is required is a greater degree of responsiveness and vigilance on the part of developing states to ensure that their developmental aspirations are not hollowed out by the desire to implement, develop, and advance technology infrastructure (emerging, communications, information) that may be detrimental to “the peace and security among peoples and the harmony of persons living side by side even within one and the same State.”

The UN FfD4 has a unique opportunity to build on previous outcomes by drawing attention to the fact that the need to leverage technological advances for sustainable development must be balanced against the social, political and cultural interests of those groups who remain the most vulnerable to technology’s “colour blind” faćade.

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