CONCEPTUAL AND INSTITUTIONAL CONSIDERATIONS IN THE REGULATION OF TECHNOLOGY FOR HUMAN RIGHTS

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Abstract

Today, a rights-based approach to technology regulation is central to national and international law-making. A human-rights-based approach would involve viewing technology from the prism of human rights objectives and principles. A more specific turn would be to evaluate their impact on specific rights, namely the right to life, right to peaceful assembly, right to development, right to redressal, rights against discrimination, right to education, etc. Normative frameworks have emerged to further protect human rights from technology-based harms. This paper covers a few conceptual and institutional considerations highlighted in seminal works from scholars and international human rights institutions. To name a few; (1) technology and discriminatory challenges (2) design and use of technology (3) digital divide amongst countries (4) duty of actors, (5) neoliberal technologies, (6) the use of prohibitions and remedies, and (7) the emergence of new human rights. Much of the advocacy and rights-based interventions around the globe are attentive to technology's challenges for human rights. The abovementioned considerations define the core of the international normative framework, which is often advanced to protect human rights from technology-based harms.

Key Words: *Technology, Discrimination, Human Rights, International Law, Governance*

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Introduction

Today, a rights-based approach to technology regulation is central to national and international law-making. With a rapidly growing field of technological advancements, assessing their impact on human rights has become a crucial agenda.[1] A human-rights-based approach would involve viewing technology from the prism of human rights and principles, including the right to life, right to peaceful assembly, right to development, right to redressal of violations, rights against discrimination, right to education, etc. In the case of technologies, human rights speak of the core values that all societies feel must be prioritized. In this regard, Lucchi writes,

> "the global governance of science and technology involves the regulatory function of appropriately standardized set of values and norms. Scientific research and technology policies have recently placed great interests on identifying and prioritizing human rights risks and other potential adverse effects of techno-scientific developments. In this regard, the internal ethical norms and principles of science and technology – although important and useful in many situations – are considered inappropriate when it is necessary to implement responsible and effective directions for strategic research and innovation".[2]

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[1] "The term new and emerging digital technologies or new technologies will be used to refer to technological innovations that are transforming the boundaries between virtual, physical, and biological spaces. They include new technologies and techniques of datafication, data distribution, and automated decision-making, such as Artificial Intelligence (AI), the Internet of Things, blockchain, cloud computing, and personalized medicine, among others." See Human Rights Council, *New and emerging digital technologies and human rights* (2019) *Available at:* https://www.ohchr.org/_layouts/15/WopiFrame.aspx?sourcedoc=/ Documents/HRBodies/HRCouncil/AdvisoryCom/Session25/ A_HRC_AC_25_CRP_2.docx&action=default&DefaultItemOpen=1.

[2] Nicola Lucchi, The Impact of Science and Technology on the Rights of the Individual (Springer 2016), at 8.

Across forums, the common pursuit has been to endorse and employ "human rights law definitions"[3] or international human rights standards in all interventions in the field of technology use, design, and application. Take the example of the children's human rights. The Committee on Rights of Child in its General Comment No. 25 provides, "states parties should review, adopt and update national legislation in line with international human rights standards. Legislation should remain relevant in the context of technological advances and emerging practices. They should mandate the use of child rights impact assessments to embed children's rights into legislation, budgetary allocations and other administrative decisions relating to the digital environment and promote their use among public bodies and businesses relating to the digital environment".[4]

A part of the international human rights framework is also international guidelines or soft law instruments that establish private actors' human rights obligations. According to Jorgensen, the most important benchmark is the Guiding Principles on Business and Human Rights (2011).[5]

"Anchored in the 'Protect, Respect, and Remedy' framework, the UN Guiding Principles on Business and

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[3] Human Rights Council, Report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance Racial discrimination and emerging digital technologies: a human rights analysis (2020: A/HRC/44/57). *Available at:*

[4] Committee on Rights of Child, General Comment No. 25 on Children's Environment in Digital Environment (2021) *Available at:* https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/ Download.aspx?symbolno=CRC%2fC%2fGC%2f25&Lang=en.

[5] UN Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework (2011). *Available at:* https://www.ohchr.org/Documents/Publications/ GuidingPrinciplesBusinessHR_EN.pdf.

Human Rights (UNGP) establish a widely accepted vocabulary for understanding the respective human rights roles and responsibilities of states and business. The right to remedy when businesses are involved in human rights abuses is an essential component of the Guiding Principles. Despite broad support of the Guiding Principles by the technology sector, access to effective remedy is less established in this sector compared to other industries that have faced serious human rights scrutiny, including extractive industries and manufacturing."[6]

A closer reading of the scholarly literature and international works leads one to identify the emergence of a normative framework in the form of key considerations that influence this field.

An Equality Based Approach

There is a lot of attention to the discriminatory challenges posed by emerging technologies. A tailor-made approach also called the equality-based approach to technology, is being advanced to address the challenges. The equality-based approach lies at the heart of much advocacy and litigation worldwide. The approach endorses that technology must not further perpetuate or lead to the discrimination of individuals. In terms of international human rights bodies, of relevance are the following Reports, including (1) Report of the Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance on Racial discrimination and emerging digital technologies: a human rights

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[6] Rikke Frank Jorgensen, "When Private Actors Govern Human Rights", in Ben Wagner, Matthias C. Kettemann, Kilian Vieth (eds.), Research Handbook on Human Rights and Digital Technology: Global Politics, Law and International Relations 350 (Edward Elgar, 2019).

analysis (2020)[7], (2)CRC's General Comment No. 25 on Children's Rights in Relation to Digital Environment (2021)[8], (3) Report on New and Emerging Digital Technologies and Human Rights (2019),[9] and (4) Impact of new technologies on the promotion and protection of human rights in the context of assemblies, including peaceful protests (2020)[10].

A cursory view of the reports mentioned above and studies introduces the conceptual and regulatory basis of addressing the human rights challenges posed by technology. In addition, the reports emphasize the importance of an equality-based approach to protecting the interests of individuals within societies and countries within the international sphere.

In the Report on *Racial Discrimination* mentioned-above[11], a set of considerations are advanced in light of the *discriminatory challenges* faced by individuals and groups at the hands of technological advancements and their applications. It reads as,

> "in the present report, the Special Rapporteur urges an equality-based approach to human rights governance of emerging digital technologies. What is required in the

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[7] *Supra* note 3.

[8] *Supra* note 4.

[9] Human Rights Council, New and Emerging Digital Technologies and Human Rights (2019). Available at https://digitallibrary.un.org/record/3834165

[10] Report of the UN High Commissioner for Human Rights, Impact of new technologies on the promotion and protection of human rights in the context of assemblies, including peaceful protests (2020). *Available at:*https://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session44/_layouts/15/WopiFrame.aspx?sourcedoc=/EN/HRBodies/HRC/RegularSessions/Session44/Documents/A_HRC_44_24_AEV.docx&action=default&DefaultItemOpen=1

[11] *Supra* note 3.

context of emerging digital technologies is careful attention to their racialized and ethnic impact, from government officials, the United Nations and other multilateral organizations, and the private sector. In the present report, the Special Rapporteur highlights intersectional forms of discrimination, including on the basis of gender and religion, and calls attention to the ongoing failure of States and other stakeholders to track and address compounded forms of discrimination at the intersections among race, ethnicity, gender, disability status, sexual orientation and related grounds".

Highlighting the intersections between new technologies and racial discrimination emphasizes the need to address the social, economic, and political forces that shape discriminatory design and use. In addition, the all-pervasiveness of the challenge track the geopolitical inequalities at the international level and the patterns of racial, ethnic, and gendered inequality within individual countries.

About the vulnerability of children, General Comment No. 25 of the CRC highlights the additional complexity that technology brings in the investigation and prosecution of crimes against children, which may cross national borders."[12] In such a case, non-intervention on the state's part can harm children's rights. Regulatory deficits can also lead to sexual offenders using digital technologies to solicit children for sexual purposes and to participate in online child sexual abuse, etc. An equality-based approach supports legislative and other states' interventions to minimize and address the harms technologies pose to children. Further, children with disabilities "may be more exposed to risks in the digital environment, including cyberaggression and sexual exploitation and abuse."

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[12] *Supra* note 4.

The report on Technologies and Assemblies (Peaceful Protests)[13] highlights both the enabling qualities of technologies and the harms and dangers that can ensue. As part of the threat is "interference with access to and the availability and use of new technologies in the context of peaceful protests". In addition, technology-enabled surveillance, including face recognition technology, poses significant risks to the enjoyment of human rights in peaceful assemblies and is an important contributor to the shrinking of civic space in many countries. New technologies have significantly expanded State authorities' abilities to surveil protests, protest organizers, and participants. These technologies are used to monitor the planning and organization of protests.

The challenges highlighted above find evidence in the multiple national-level litigations pursued to address the human rights challenges posed by technologies' design, use, and application. The reports shed light on the potential of technologies to discriminate and exclude. The challenge of conceptual, legal, and institutional gaps also stifles the path for meaningful reforms and governance mechanisms. The key conceptual considerations include:
1.   The presumption against the neutrality and objectivity of technology.
2.   Emerging technologies exacerbate existing inequalities.
3.   The digital divide amongst countries.
4.   The emergence of new rights.

The Conceptual Considerations

With a pool of challenges for human rights, the first requirement is to develop and improvise a normative landscape to understand and combat the discriminatory challenges posed by technologies. Based on the reports and scholarly literature mentioned above, the

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[13] *Supra* note 11.

following are a few notable conceptual considerations on technology and its interface with human rights;

Presumption against the neutrality and objectivity of technology

The presumption establishes the responsibility to overcome the understanding that technology is inherently neutral and objective. The inherent discriminatory nature of technology leads to the burden on all actors involved in the making, proposing, use, application, and defense of technologies. Further, the making of technology is shaped by the world's political, economic, and social systems.

In the context of Artificial Intelligence (A.I.), Gurumurthy and Chami write,

> "The search is for the right combination of legal-regulatory, ethical, and technological approaches that constitute effective A.I. governance. Mainstream debates on A.I. governance note violations of the human rights considerations of privacy, equality and non-discrimination, uncertain futures of work, and erosion of democracy in the emerging A.I. paradigm. However, they do not fully address the entanglement of A.I. in neoliberal capitalism and what this means for the life chances of individuals and communities. Because of this, A.I. governance debates tend to carry critical blind spots".[14]

In other words, "AI is increasingly being used to organize data, predict outcomes, and manage social worlds. Deeply intertwined

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[14] Anita Gurumurthy, Nandini Chami, "Radicalising the AI governance agenda", in Global Information Society Watch, Artificial intelligence: Human rights, social justice and development (2019), at 37.

with society, such systems are what science and technology studies scholars call *sociotechnical*, a term that calls attention to how values, institutional practices, and inequalities are embedded in AI's code, design, and use"[15]

Emerging technologies exacerbate existing inequalities

The use of technology to "target" or "exclude" certain groups is subject to challenges in different parts of the world. The discriminatory challenges posed by technology usage have led to the insecurity of several groups, including refugees, immigrants, peaceful protestors, etc.[16] The principle of non-discrimination, in this regard, lies at the heart of most human rights interventions.

The Digital divide amongst countries

It is a global challenge to bridge the inequalities amongst countries. In the context of technologies, the U.N. has spoken of "harnessing the potential of new technologies fully for the least developed countries and preventing a deepening of the technological divide".[17] According to Beduschi,technologies (particularly A.I.) profoundly impact states' and international organizations' relationships at the international level. If international organizations

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[15] Kelly Joyce and others, "Toward a Sociology of Artificial Intelligence: A Call for Research on Inequalities and Structural Change", Vol. 7 *Socius: Sociological Research for a Dynamic World* (2021).

[16] See PPR Project, Submission to Submission to UN Special Rapporteur on Extreme Poverty: Thematic Report on Digital Technology, Social Protection and Human Rights (2019). Available at https://www.ohchr.org/_layouts/ 15/WopiFrame.aspx?sourcedoc=/Documents/Issues/Poverty/Digital Technology/ Participation Practice Rights. docx & action= default & DefaultItem Open=1

[17] Human Rights Council, Right to development Report of the Secretary-General and the United Nations High Commissioner for Human Rights (2020). Available at https://undocs.org/A/HRC/45/21

focus on strengthening the technological capacity of the less AI-capable states, international organizations may be able to alleviate the harmful effects of an impending divide. Further, international organizations will conceivably continue to play a crucial role in assisting less AI-capable states in keeping up with the technological advances, thus contributing to bridging the divide.[18] The responsibility of international organizations towards "technology transfer" and "assistance" has been much emphasized within the international human rights framework. International organizations have a crucial role to play in the endorsement of human rights standards and objectives.

The Emergence of New Rights

A vocabulary of new rights embodying the human rights and technology interface has emerged within the human rights framework. Here, reference to the right against algorithm bias[19], neuro rights[20], right to technology[21], right to access benefits from scientific and technological advancements[22] etc., can be made. While the new rights

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[18] Ana Beduschi, "International Migration Governance in the Age of Artificial intelligence", Vol. 9:3 *Migration Studies* (2021). Available at https://academic.oup.com/migration/article/9/3/576/5732839?login=true#323605057

[19] See Raenette Gottardo, Building Global Algorithmic Accountability Regimes: A Future-focused Human Rights Agenda Beyond Measurement, Peace Human Rights Governance (2021) Available at http://phrg.padovauniversitypress.it/system/files/papers/PHRG-2021-1-03.pdf

[20] See Deepa Kansra, "Neuro Rights, the New Human Rights", Rights Compass Blog (2021). Available at https://www.betheclassroomseries.com/post/neuro-rights-the-new-human-rights

[21] Haochen Sun, "Reinvigorating the Human Right to Technology", 41 *Michigan Journal of International Law* (2020).

[22] See Deepa Kansra, Advancing the Human Right to Science under the International Covenant on Economic, Social and Cultural Rights, 11 *RMLNLU Law Journal* (2020). Available at https://rmlnlulawreview.com/rmlnlu-law-review-volume-11/

are significant to the extent of standing in the way of technology-based human rights abuses, they still are at a nascent stage in terms of conceptual and legal existence. A few have gained more meaningful content, and a few are still in the process of becoming fully active.

The above-mentioned conceptual considerations underlie the various responses to technology-based human rights challenges. In addition to the above-mentioned conceptual considerations, there are key institutional considerations that emphasize addressing institutional behavior, gaps, and responsibilities;

1. Human Rights standards apply to the design, making, and application of technologies.
2. Duties
3. Neo-liberal Technologies
4. The use of prohibitions and remedies

The Institutional Considerations
Several human rights and other experts have emphasized institutional designs and models to minimize the adverse effects of technologies. According to Franklin,

> "a next generation of legal instruments that can articulate more clearly how existing human rights, such as freedom of expression or privacy, should be guaranteed if both state surveillance measures, and commercial forms of monitoring, data-collection, and retention continue along their current trajectories, are in their infancy. And that technical standard-setters, engineers, software developers, and corporate strategists have to confront the ethical and legal demands that rights-based sensibilities bring to their de-facto authority as technical experts and proprietors in

the global business of internet-based products and services."[23]

The following are the key institutional considerations making rules and institutional behavior a central feature in responding to the technology-based human rights challenges.

Human Rights standards apply to the design, making, and application of technologies

A rights-based assessment of technologies has led to models and standards for application across fields. With advanced technologies like A.I., challenges also arise regarding its potential for its usage for multiple purposes. According to Stahl et al., even if a technology is designed for a particular purpose, it isn't easy to foresee whether and to what degree it will be used for this purpose. Further,

> "intentions behind promoting AI are important to understand and evaluate perceptions of ethics and possible governance mechanisms employed to address ethical issues. These intentions do not develop in isolation but form part of a larger socio-economic, cultural and political context that influences the way a 'good society' is perceived and the role AI can play in it".[24]

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[23]   M.I. Franklin, Human rights futures for the internet, in Ben Wagner, Matthias C. Kettemann, Kilian Vieth (eds.), Research Handbook on Human Rights and Digital Technology: Global Politics, Law and International Relations (Edward Elgar, 2019), at 8.

[24] B.C. Stahl and Others, Artificial Intelligence for Human Flourishing- Beyond Principles for Machine Learning, Vol. 124 Journal for Business Research (2021). *Available at:* https://www.sciencedirect.com/science/article/pii/S0148296320307839

The making of governance mechanisms for regulating technologies, including A.I., clearly needs a multidimensional approach that considers the making and the end-use of the technology.

Duties

It is the duty of states, the international community, international organizations, and private enterprises. Part of the duty is to declare the unconstitutionality of technologies by national institutions, including by domestic courts. Technology can be adverse to human rights, making a solid case for states to be responsible for its regulation. Over the years, other actors have become an integral part of the human rights project. Such involvement makes them the drivers for human rights protection and fulfillment. Many have reported a lack of uniformity across countries regarding regulation and redressal, which is seen as a significant challenge for advancing a rights-based approach to technology.

In 2019, raising several institutional challenges, Access Now submitted a report on using private surveillance technology by states. It states,

> "despite the fact that most countries have laws and regulations governing communications surveillance, we are aware of very few affected groups or individuals who have achieved meaningful legal redress in practice for the illicit use of private surveillance technology by states. Lawsuits have been filed in various national courts, and some continue while others have been dismissed. Uncertain jurisdiction, corporate liability shields, sovereign immunity, lack of technical evidence, restrictive contracts, and official impunity all frustrate legal remedy. With some exceptions, the rule remains that

> courts do not provide relief for victims of the illicit
> use of private surveillance technology".[25]

The global appeal for better institutional governance mechanism comes also as a response to lack of reforms, legislative interventions and other deficits as mentioned above.

Neo-liberal Technologies

A human rights analysis warrants a look at the what or who controls technology. A crucial understanding is the assessment of technology through the prism of neo-liberalism. Whether involving the use of A.I. technology, education technologies, etc., when studied in light of the neoliberal order of things, raise serious concerns.[26] This understanding further re-enforces the importance of an equality-based approach to technology.

The Use of Prohibitions and Remedies

Human rights instruments mandate the use of the existing human rights framework for ensuring effective remedies are available. The existing human rights framework on remedies and reparations also applies to private actors. To strengthen the existing models, the newly proposed international treaty on business and human rights incorporates provisions on the liability of corporations and remedies. Under the Revised Draft on Legally Binding Instrument To Regulate,

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[25] Access Now, Submission: Surveillance Industry and Human Rights, https:/ /www.ohchr.org/_layouts/15/WopiFrame.aspx?sourcedoc=/Documents/ Issues/Opinion/Surveillance/ACCESS%20NOW.docx&action= default&DefaultItem Open=1www.accessnow.org

[26] See Michael Lightfoot, *Education Technology Policies in the Middle East: Globalization, Neoliberalism and the Knowledge Economy* (Macmilan 2016); Byung Chul-Han, *Psychopolitics: Neoliberalism and New technologies of Power* (Verso 2017);

In International Human Rights Law, The Activities of Transnational Corporations And Other Business Enterprises (2021), the Preamble provides (selective text),

> "Underlining that business enterprises, regardless of their size, sector, location, operational context, ownership and structure have the obligation to respect internationally recognized human rights, including by avoiding causing or contributing to human rights abuses through their own activities and addressing such abuses when they occur, as well as by preventing or mitigating human rights abuses that are directly linked to their operations, products or services by their business relationships;
>
> Recognizing the distinctive and disproportionate impact of business-related human rights abuses on women and girls, children, indigenous peoples, persons with disabilities, people of African descent, older persons, migrants and refugees, and other persons in vulnerable situation, as well as the need for a business and human rights perspective that takes into account specific circumstances and vulnerabilities of different rights-holders and the structural obstacles for obtaining remedies for these persons…"

Section 8 of the Draft Article provides;

> "8.1 States Parties shall ensure that their domestic law provides for a comprehensive and adequate system of legal liability of legal and natural persons conducting business activities, within their territory, jurisdiction, or otherwise under their control, for

human rights abuses that may arise from their own business activities, including those of transnational character, or from their business relationships.

8.2. State Parties shall ensure that their domestic liability regime provides for liability of legal persons without prejudice to the liability of natural persons, and does not make civil liability contingent upon finding of criminal liability or its equivalent for the same acts.

8.3 States Parties shall adopt legal and other measures necessary to ensure that their domestic jurisdiction provides for effective, proportionate, and dissuasive criminal, civil and/or administrative sanctions where legal or natural persons conducting business activities have caused or contributed to human rights abuses.

8.4. States Parties shall adopt measures necessary to ensure that their domestic law provides for adequate, prompt, effective, gender and age responsive reparations to the victims of human rights abuses in the context of business activities, including those of a transnational character, in line with applicable international standards for reparations to the victims of human rights violations…"[27]

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[27] Draft on Legally Binding Instrument To Regulate, In International Human Rights Law, The Activities Of Transnational Corporations And Other Business Enterprises (2021) Available at https://www.ohchr.org/Documents/HRBodies/HRCouncil/WGTransCorp/Session6/LBI3rdDRAFT.pdf

While the above draft treaty framework aims to create robust mechanisms to address human rights corporate abuses, several questions are raised about its content and implementation (when in force). On the Draft Treaty, Bernaz adopts an analytical framework to discuss the key agendas around six questions;

> To who is to be held to account? Accountable to whom? What is the expected behavior? What is the standard's legal force? What is the process by which to assess if standards are being met? What remedial processes are in place?[28]

The questions and the concerns mentioned above speak of the legal, social, political, and ethical challenges a rights-based approach to technology exposes. These considerations are at the heart of the various responses developed so far and continue to drive the various legal and other interventions in different parts of the world.

Conclusion

Human rights principles and objectives continue to shape the domain of rulemaking and governance of technologies. A closer look at the various studies on the subject reveals a set of common underlying arguments and justifications in favour of or against specific technologies. Yet, several questions linger, including what amounts to human rights violations in technological applications? Is the international mandate for technology transfer and sharing backed by consensus? What are the enforcement mechanisms for universally agreed responsibilities? How are the ethical, legal, and institutional deficits overcome?

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[28] Nadia Bernaz, "Conceptualizing Corporate Accountability in International Law: Models for a Business and Human Rights Treaty", 22 *Human Rights Review* (2020).

An appraisal of the available literature also sheds light on some complex issues which have wider political and economic ramifications like the use of less-lethal weapons by States[29], the lack of enforcement mechanisms against the omissions of the international community, and human rights abuses by the private players.

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[29] See UN Guidelines on Less-Lethal Weapons in Law Enforcement (2020), *Available at:*https://www.ohchr.org/Documents/HRBodies/CCPR/ LLW_Guidance.pdf.