

# Designing a Rights-Based Global Index on Responsible AI

- ❖ **The Global Index on Responsible AI**
- ❖ **Human Rights**
- ❖ **Why a human rights-based approach?**
- ❖ **Overcoming the limitations of human rights**
- ❖ **A human rights-based approach**
- ❖ **Defining “responsibility”**
- ❖ **Codifying rights-based responsible AI standards**
- ❖ **A human rights-based approach as methodology**
- ❖ **Getting involved**
- ❖

## Introduction

Artificial Intelligence (AI) is a wicked problem facing society globally. It is wicked because it is complex and hard to define as a policy concern. How is it being used, and who must – who can? – take responsibility for ensuring it is used to better society? As it increasingly moves to becoming a general purpose technology, it cannot be isolated from the social and economic conditions in which it is produced and used; in fact, it is changing the very nature of societies and economies, demanding new kinds of research and policy interventions in order to understand and manage its effects ([Coyle, 2021](#)). What makes AI more complex is the paradox it is bound up in: this technology that offers major transformative potential for societies in its capacity to compute great swathes of information, at an efficiency rate far greater than any human mind, comes with major risk to fundamental rights and values. Evidence has demonstrated that even the most legitimate uses of AI have caused harm to people and their societies and environments ([Pizzi, Romanoff & Engelhardt, 2021](#)). To add to this, we do not yet know the full implications or impacts that AI is having, or will have, on different societies around the world.

In response, frameworks have been developed that set out core ethical principles to be upheld as the technology is designed, developed, used, and evaluated. These ethical principles reflect some of the core values of human society considered to be threatened by AI, such as: who is to be held accountable for the harms it may cause, or how can we ensure we know enough about how an AI is working to be able to isolate the cause of its harmful effects? The [OECD's Principles on Artificial Intelligence](#), adopted in 2019, have been a particularly important framework in this regard. In late 2021, a major milestone for the international community was reached when the [UNESCO Recommendation on Ethics in AI](#) (UNESCO Recommendation) was unanimously adopted by all 193 member states. This constitutes a major breakthrough in AI ethics: the UNESCO Recommendation delivers a broad framework for how AI is to be developed and used in betterment of human society in different contexts around the world, offering the first global instrument of its kind and emphasizing the importance of diversity and cultural context in the application of its provisions.

As we move forward in deepening our collective understanding of how AI is reshaping our societies, and what policy models are required to best manage its effects in service of human and planetary wellbeing, information is needed on the global state of implementation of the UNESCO principles and the barriers countries are facing in protecting people from risks to human rights and democratic freedoms AI may bring.

This is the premise for the new Global Index on Responsible AI (Global Index).

## **The Global Index on Responsible AI**

The Global Index is a new rights-based tool being developed to support a broad range of actors in advancing responsible AI practices. It is intended to provide a comprehensive, reliable, independent, and comparative benchmark for assessing progress toward responsible AI world over. Ultimately, the Global Index will bolster the capacity of governments, civil society organizations, and other stakeholders in countries around the world to uphold rights-based responsible AI principles by providing research and data to foster accountability, develop more precise policy interventions, refine best practices, and encourage regional and international cooperation.

One of the key innovations of the Global Index is the development of a fully integrated human rights-based approach which will inform the comparative dimensions of the Index. This approach is innovative for two reasons. First, in codifying human rights obligations alongside accepted principles of AI ethics to establish concrete benchmarks for responsible AI based in existing human rights treaties and standards. And second, in developing an index – a research instrument designed to create a ranking system against the achievement of universally applicable benchmarks – that seeks to fairly assess a country's progress toward responsible AI with a methodology based around the human rights standards pertaining to the progressive realisation of socio-economic rights subject to available resources, in order to accommodate the diverse conditions within countries.

In this introductory piece to the Global Index project, I discuss these innovations in further detail in this blog, describing exactly what we mean by a rights-based Global Index, and why we believe this is important.

## Human Rights

Human rights comprise a widely agreed upon framework for the basic conditions of humanity codified in international, regional, and domestic law, with over 170 countries having ratified the international bill of rights (consisting of the Universal Declaration on Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Social, Economic and Cultural Rights). This includes rights: to participate in social, cultural, and political life; to have access to food, water healthcare and shelter to survive; to have social protection from the state when in need; to be equally subject to fair laws; to have freedom of thought; and to have these rights – and all other rights – realized and protected.

In the regional human rights systems that have been established, rights arising from historical contexts are emphasized. Within the canon of the Organization of American States, for example, the right to work and fair labour rights are key, while within the African human rights system, the right to be free from the bondage of domination and community rights have particular importance. The eradication of discrimination against women and the achievement of substantive gender equality is a priority universally, as expressed in the UN Sustainable Development Goals (SDGs).

AI poses a risk to the enjoyment and realization of human rights around the world. We know well of the infringements to the right to privacy involved in AI's heavy use of data and of the impacts on freedom of movement and association of AI-driven surveillance. Increasing evidence of the harmful discriminatory effects of AI on women, gender minorities, and people of colour – among many other groups rendered vulnerable within society – is prompting actors around the world to more urgently to consider the tools needed to address this problem and operationalize principles of responsible and ethical AI.

What has been rather less of a policy priority is the way in which AI is contributing to inequality between and within countries in the radically uneven distribution of its benefits and wealth. To address this concern requires international cooperation and solidarity on the beneficial use of AI for all people everywhere, and adherence to well-defined standards of responsible AI.

### **Why a human rights-based approach?**

A rights-based Global Index can help support the promotion and protection of human rights in the development and use of AI. This includes assisting: human rights duty-holders in understanding their responsibilities in relation to AI; governments in fulfilling their human rights obligations in a changing digital context; human rights defenders in monitoring and advocating for the protection of human rights at risk from AI; and rights holders in claiming their rights and accessing remedies and redress where rights have been violated.

Human rights constitute an enforceable framework for the protection of individuals and communities against the abuse of power. Discussed in more detail in the sections below, this means that our starting place for fairly measuring a country's progress in responsible AI is a set of norms and standards already agreed upon by the governments around the world and the international community.

In addition, a rights-based approach compels a particular design approach that centres: non-discrimination and substantive equality; inclusion and participation, particularly with affected communities; transparency and accessibility, such that the data we produce and the methodology we adopt can be used and understood by others; and fairness, such that the index fairly reflects local contexts and realities.

Human rights is not, however, without limitations and criticism, well expressed by academics and practitioners. Before I detail what we understand by a human rights-based approach, it is important to consider these concerns and their implications for designing an inclusive and impactful Global Index.

## Overcoming the limitations of human rights

### a) *Enforceability*

One key criticism of the human rights system is its lack of effectiveness in bringing about the radical change needed to realize a truly just and equal world due to their broad scope and soft-law, non-binding nature. This means that where international or regional human rights treaties have been signed, but not domesticated into national laws, enforcement mechanisms are oftentimes ineffectual.

These arguments are particularly important in the context of AI ethics where, to date, the space is largely characterized by non-binding ethical standards and self-regulatory measures. In this respect, there are lessons to be learned from the international human rights system about enforcement and oversight mechanisms, as well as the need to actively support national operationalization of AI ethics through capacity building of people, systems, and institutions, collaboration between nations and with international organizations, and transparency to allow for independent monitoring and reporting.

Perhaps more definitively, however, the human rights system developed over the past 70 years provides the basis to articulate and establish clear duties and responsibilities for actors involved in the development and use of AI, and therefore, give greater weight and content to ethical and responsible AI principles. In this way, the discourse and regulation surrounding responsible AI can draw on the experience and jurisprudence of the human rights system, giving content to rights, guidance on their enforcement and progressive realization, and precedence in balancing competing rights and interests.

### b) *Holding businesses to account for human rights violations*

Traditionally, human rights have placed an obligation on governments, as duty-holders, to protect or realize human rights for individuals and communities, as rights-holders. Corporate actors have historically not held specific and direct human rights responsibilities.

While the ultimate responsibility to protect and promote respect for human rights lies with governments, the lack of specific human rights-based responsibilities for corporations has posed a limitation on the enjoyment and realization of rights, particularly in contexts where governments do not – or are not able to – fulfil on their own human rights duties or hold businesses to account. This is exacerbated in low resources countries where multinational companies operating in the region wield significant power over local governments.

In the context of AI, corporate accountability for the use and development of AI is a critical component of responsible AI. This is, however, complicated by a lack of enforceable frameworks to compel businesses to act responsibly and respect human rights. This has proved to be particularly difficult for holding big tech and multinational AI companies to account for harms committed outside of the country in which they are based; for example, Facebook's role in the Myanmar genocide.

In this respect, much more needs to be done to compel AI companies to develop and use AI responsibly in ways that are not harmful to individuals or communities.

In 2011, Professor John Ruggie published the seminal UN Guiding Principles on Business and Human Rights, which set in motion broader discussions and commitments around how businesses should and could be held account for human rights-related responsibilities. The UN Guiding Principles includes provisions that will be particularly important for consideration in the Global Index, such as the responsibility for businesses to ensure respect for human rights across all business supply chains.

c) *Who is considered “human” in human rights and centering the Global South in AI debates?*

Another important critique of human rights comes from post-colonial and decolonial thought, which points out the distinctly Western history of rights and the notion that the provision of rights to humanity involves an *a priori* assumption of who is considered human and, therefore, worthy of rights.

This is also a particularly pertinent question in relation to the field of AI which seeks to mimic human intelligence and, ultimately, to reproduce the human in machine form (whether in

part or wholesale). Involved in this process are critical – and normative – assumptions about who and what the human is.<sup>1</sup>

At the announcement event of the Global Index which took place as a side event of the 2021 Summit for Democracy, Professor at Tecnológico de Monterrey, Mexico, and member of the Feminist AI Network, Paula Ricaurte spoke about the importance of addressing questions of violence and power asymmetries in the Global Index as a critical areas for feminist and decolonial AI work. This includes questioning: how AI technologies enable violence against women; what violence is suffered and by whom in the making of AI – such as being subject to unfair labour conditions as data labelers for distressing images to train AI; sexual or gender-based harassment as part of AI design teams; or the loss of a healthy environment from the unsustainable extraction of natural resources needed to power AI.

In developing the Global Index, these issues will be a central concern. We will undertake a series of consultation exercises with women’s rights groups, indigenous scholars of AI, human rights advocacy groups, and stakeholders from the Global South, in order to better understand the particular concerns being faced by different groups in different parts of the world in relation to AI, and in order to build an index which addresses the real challenges on the ground that can be used as a tool to support greater responsible AI advocacy efforts.

In addition, the Global Index is perhaps the first global AI tool being developed with leadership from the Global South as the initiative is led by Research ICT Africa with a team of AI experts from Africa, Asia, and South America. In the process of developing the Global Index, a particular emphasis will be placed on supporting the capacity of Global South AI researchers to participate – and lead – global debates on AI.

## A human rights-based approach

The elements of a human rights-based approach have been detailed under international human rights law and consist of the following five principles:

**Table 1: Principles of a human rights-based approach**

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<sup>1</sup> In relation to human rights, there are also important and emerging discussions around whether robots – once sentient – should have rights, similar to human rights. And, if a robot has agency, whether a robot should have human rights related responsibilities and obligations. These discussions fall outside of the current remit of the Global Index as they are – at this stage – conceptual concerns, and not immediately affecting the realization or enjoyment of human rights.

<i>Universality and inalienability</i>	everyone is entitled to all human rights, equally and without distinction
Indivisibility and interdependence	All rights are inherent to human dignity – the realisation and enjoyment of one right depends on the realisation of another right. This requires a holistic realisation of all rights, and no trade-off between rights.
Equality and non-discrimination	All human beings are equal by virtue of their inherent dignity. As such, all human beings are entitled to the equal enjoyment of their rights without discrimination
Participation and inclusion	Everyone is entitled to equal, free, and active meaningful participation in the implementation and enjoyment of all rights
Accountability and rule of law	All duty-bearers (both state and non-state) hold obligations with regard to the realisation of human rights. As such, they must comply with the legal norms and standards on human rights that have been set out at a national and international level. Where they fail to do so, aggrieved parties have the right to effective remedy or redress.
Sources: Adapted from Adams et al, <i>Human Rights and the Fourth industrial Revolution in South Africa</i> (2021), available open access <a href="#">here</a> .	

These principles will be adopted in the design of the methodology and conceptual framework of the Global Index, as discussed below. At a minimum, this includes specific attention to the following:

- emphasis on non-discrimination;
- emphasis on realising substantive equality and recognising the differential experience of enjoyment of, or access to, rights in the digital era;
- emphasis on meaningful public consultation, participation, and inclusion in the design, use and governance of AI;
- interference with rights by AI systems must be proportionate, legitimate, reasonable in a democratic society, and set out in law;
- beneficence and fair distribution of benefits of AI to protect against worsening inequality;



- draw on national, regional, and international jurisprudence on human rights in balancing competing rights and principles;
- require powerful non-state actors to take positive steps to realise and protect human rights affected by AI development and use;
- mechanisms for redress and remedy where violations occur as a result of the development and use of AI must be readily accessible;
- rights-holders must know and be able to claim and access their rights in the context of AI and the digitalisation of society;
- focus on creating inclusive futures through the inclusive design of inclusive technology; and
- develop regulation which takes into account the indivisibility and interdependence of rights such that, for example, the right to privacy is understood alongside dignity, freedom of movement, and non-discrimination, among others.

### Defining “responsibility”

In recent years, there has been somewhat of a shift in the discourse around the good governance of AI from ethical AI to responsible AI. While ethical AI retains its stronghold, together with trustworthy AI, and while there may be limited differentiation in practice between these terms, human rights provide a clear framework of responsibility that we find useful for defining responsible AI.

<b>Table 2: Human rights responsibility framework</b>				
<b>Promote rights</b>	<b>Protect rights</b>	<b>Respect rights</b>	<b>Monitor rights</b>	<b>Claim rights</b>
Governments; civil society and advocacy bodies; businesses	Governments (and businesses where fulfilling a government human rights duty)	Governments and business	Independent human rights bodies; civil society and advocacy groups; academics etc.	Individuals and communities

This translates into the following responsible AI framework:

### **AI and human rights responsibility framework**

<p><b><i>Government responsibility: to ensure the country conditions exist for the responsible use of AI</i></b></p>	<ul style="list-style-type: none"> <li>• Promote the responsible development of AI systems which respect rights, including establishing relevant legal and regulatory frameworks.</li> <li>• Monitor the human rights impact of AI and provide remedies for rights violations</li> </ul>
<p><b><i>Corporate responsibility: to promote and respect human rights in the development and use of AI</i></b></p>	<ul style="list-style-type: none"> <li>• Develop and use AI systems in ways that promote human rights and strengthen democracy</li> <li>• Respect human rights across all supply chains</li> </ul>
<p><b><i>Societal responsibility: to promote and monitor human rights by users and developers of AI</i></b></p>	<ul style="list-style-type: none"> <li>• Advocate respect for human rights in the use and development of AI</li> <li>• Monitor state and corporate use of AI and promote awareness of rights</li> </ul>

This framework of responsibility includes both non-interference with so-called negative duty rights, such as freedom of expression and the right to privacy, but also positive duty rights, such as the right to education or access to healthcare. This is important in the context of “responsible AI”, where we want to ensure that AI is not just used in an ethical way that does not infringe on human rights, but that its use contributes meaningfully to the progressive realization of positive duty rights and the Sustainable Development Goals.

### **Codifying rights-based responsible AI standards**

The Global Index will involve a process to codify human rights obligations and standards alongside broadly agreed-upon AI ethics principles. The UNESCO Recommendation constitutes an important starting point for our work, articulating the protection and promotion of human rights as one of its central tenets, alongside diversity and environmental sustainability. Other key frameworks include [The Toronto Declaration: Protecting the right to equality and non-discrimination in machine learning systems](#) (2018), the [Indigenous Protocol and Artificial Intelligence](#) (2020), and the [feminist principles of AI](#).

The UNESCO Recommendation was developed following an extensive 2-year consultation period with stakeholders from around the world and represents the most comprehensive and widely accepted framework on AI ethics to date.

The core methodology for measuring responsible AI will be based on the framework of values, principles and policy action areas set out in the UNESCO Recommendation that must be translated into a set of key human rights-based indicators to support measurement. (See the section below for more information on indicator development).

Our human rights focus encompasses not only civil and political rights, such as privacy, freedom of expression and association, that are well-recognized as being impacted by AI, but – drawing from the UNESCO Recommendation and inputs from consultation with Global south stakeholders – also includes social, economic, environmental and cultural rights, community rights, labour rights, and the rights of children. The eradication of discrimination against women and groups systemically disadvantaged by virtue of their sexual identification, together with the realization of substantive gender equality, will also constitute key focus areas of the Global Index.

### **A human rights-based approach as methodology**

One of the key design principles of the Global Index is fairness. That is, to fairly reflect local contexts and realities and measure a country's level of responsible AI in relation to available resources. This is not just important as we take into account the global inequality of AI capacity and resources between countries, but because fair and contextual results are far more informative and useful for countries and local stakeholders looking to advance their own progress toward responsible AI.

Incorporating fairness into the methodology of an index is not, however, straightforward. Indexes tend to use standard benchmarks to measure countries against universal criteria as the basis for ranking. Instead, the Global Index is looking to the human rights system for insight into the expected measures countries of different resource levels would be expected to take to protect and fulfil human rights. The International Covenant on Economic Social and Cultural Rights (ICESCR), ratified by over 140 countries, provides for the concept of the

progressive realisation of rights subject to maximum available resources. This means that governments are expected to take all steps possible using the maximum available resources to support the realisation of positive-duty socio-economic rights, such as water, housing, and social security. It recognizes that countries are at different stages in the realisation of socio-economic rights and do not all enjoy access to the same level and scale of resources necessary to fulfil the realisation of these rights. Available resources include both resources available within a country – public and private – and resources available through international assistance and cooperation.

The Global Index will draw on the concept of the progressive realisation of rights subject to maximum available resources in its methodology in two main ways. First, in developing a set of indicators that include indicators that measure process and capacity development, and not just outcomes. And second, in developing a criteria assessment framework that will measure a country's progress in achieving a responsible AI indicator against a tiered scale developed according to three levels of resources: low-resourced countries, middle-resourced countries, and high-resourced countries.

Indicators might include: “input” indicators, such as the ratification of key human rights instruments or the existence of a data protection law; “process” indicators, such as investment in data science programs for women; and “outcome” and “impact” indicators, such as the number of AI-related complaints lodged with an independent human rights protection body. Indicator development is, and will continue to be, undertaken in consultation with a broad range of stakeholders in the effort to address the full ambit of human rights challenges (and opportunities) associated with AI.

The Global Index will also take heed of the minimum core obligations set out under the ICESCR, which require that certain socio-economic human rights obligations of governments be immediately and always met – even at a basic standard. This includes access to work opportunities, particularly for disadvantaged communities, and access to a social security scheme to ensure basic needs, such as water, housing, and food. The Global Index will, therefore, include an assessment of whether AI is interfering with – or being effectively used to meet - a government's minimum core obligations.

## Getting involved

Over the next few months, we will be engaging in a broad consultative process with a diverse range of stakeholders to better understand how the Global Index can be of value on the ground for different groups in different parts of the world. This requires listening to differential experiences with AI in various contexts.

This engagement process will include:

- regional workshops;
- engagement with human rights organisations, women's rights groups, and marginalised communities; and
- policy-maker and user-group consultations.

This is not an exhaustive list, and we would love to hear from you about any upcoming forums we could participate in, or any ideas you may have for reaching communities not adequately represented in discussions around AI to date.

Please get in touch with us directly via email at [raii@d4d.net](mailto:raii@d4d.net).

Information about upcoming engagement events will be posted on [d4d.net](https://d4d.net) with regular updates on Twitter via:

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