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G20 – T20 call

**<https://t20brasil.org/en/info/4/t20-brasil-call-for-policy-brief-abstracts-lets-rethink-the-world>
POLICY BRIEF**

ABSTRACT

The following proposal aims to address legal and digital issues from an interdisciplinary and holistic approach, focusing on the perspective of a more inclusive, decolonial, sustainable, and democratic A.I., while focusing on how to reduce the environmental impact of A.I., and what are the main challenges in Brazil, as a Global South country regarding the protection of fundamental rights of vulnerable populations (indigenous and Afro-descendants), how to promote social justice and social inclusion by combining "design justice," "algorithmic justice," "epistemic justice," "data justice," and "environmental justice." It searches alternatives to demonstrate how a governance alternative A.I. model can contribute to achieve new objective solutions, while aligning with innovation and technological development through the integration of innovation and ethics ("meta-innovation") and responsibility on how the concept of "human-centered A.I." and the presented framework for the protection of fundamental rights and its environmental impact can contribute to adequate environmental protection by moving away from an anthropocentric approach toward a more holistic and sustainable understanding.

POLICY BRIEF

PART I – MOTIVATION, FOUNDATION, FRAMEWORK

The problem to be addressed and the research evidence: how to reduce the environmental impact of AI, as every AI application affects the climate and the main challenges in Brazil as a Global South country regarding the protection of fundamental rights of vulnerable populations, with a focus on indigenous and afro-descendant communities; how to promote social justice and social inclusion through alternative A.I. governance models. How can such a governance model and the proposal of "fundamental rights by design" contribute to aligning economic and technological development and innovation with the adequate protection of fundamental rights, integrating innovation with ethics and responsibility? How will the concept of "life-centered AI," rather than just "human-centered A.I.," contribute to environmental protection by shifting from an anthropocentric to a holistic and sustainable perspective?

Research evidence: Algorithmic Impact Assessment (AIA) and a fundamental rights-based approach are recommended in various international documents, including the Directive from the Treasury Board of Canada (<https://www.tbs-sct.gc.ca/pol/docWeng.aspx?id=32590>); European Commission ("legal frameworks on fundamental rights"), Council of Europe ("Unboxing AI: 10 steps to protect Human Rights"), European Parliament ("Governing data and artificial intelligence for all - Models for sustainable and just data governance"); Federal Trade Commission (FTC), National Telecommunications and Information Administration (NTIA), Future of Privacy Forum, European Union Agency for Fundamental Rights (FRA), Dutch Data Protection Authority; Brazil's National Data Protection Authority (ANPD) (<https://www.gov.br/anpd/pt->

br/assuntos/noticias/anpd-publica-analise-preliminar-do-projeto-de-lei-no-2338-2023-que-dispoe-sobre-o-uso-da-inteligencia-artificial); Amnesty International and Access Now ("Toronto Declaration"); EU High-Level Expert Group on A.I. (AI HLEG – "Ethical Guidelines"); Australian Human Rights Commission (2018 Project); UNESCO ("Recommendation on the Ethics of Artificial Intelligence" - <https://en.unesco.org/artificial-intelligence/ethics>). Additionally, studies highlight the vulnerability of the Afro-descendant population regarding facial recognition and predictive policing, and the greater potential for harm to fundamental rights in contexts with a documented historical past of discrimination and by communities systematically denied various rights throughout their history ("A Fuster and others, 'Predictably Unequal? The Effects of Machine Learning on Credit Markets,' 2021. 77 (1) J Finance 4; Safiya Umoja Noble, 'Algorithms of Oppression: How Search Engines Reinforce Racism,' NYU Press, 2018), as well as the environmental impact and decolonial perspective and vulnerability aspects of the indigenous population:

Climate Change 2021: The Physical Science Basis, Intergovernmental Panel on Climate Change, Working Group I (2021);

Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence, Mohamed et al. (2020);

Ars Technica (<https://arstechnica.com/tech-policy/2020/06/police-arrested-wrong-man-based-on-facial-recognition-fail-aclu-says/>);

National Institute of Standards and Technology (NIST) (<https://learn.g2.com/ethics-of-facial-recognition>);

Access Now, Amnesty International, and others (<https://www.accessnow.org/wp-content/uploads/2021/06/BanBS-Portuguese.pdf>);

Co-designing Māori data governance, https://tengira.waikato.ac.nz/_data/assets/pdf_file/0008/973763/Maori_Data_Governance_Model.pdf).

The relevance of the topics for the G20 agenda and priorities: The proposal is connected to sustainability, inclusion, decolonization, and social justice, aligning with the G20 agenda and priorities, especially with the values and goals of the Sherpa tracks: the "digital economy" track (digital governance, information integrity, and AI), the development track (poverty reduction), and the "environmental and climate sustainability" track. It relates to the main objectives highlighted by the G20 Development Working Group during the Brazilian Presidency, namely, social inclusion and inequality reduction, corresponding to Sustainable Development Goal No. 10. The subject links to the central theme under the responsibilities and priorities of the Brazilian Presidency, namely, "building a fairer world and a sustainable planet," and focuses on task forces 1, 2, and 5. It considers the policy briefs of the previous T20 task forces, such as the 2015 Agenda objectives, focusing on sustainability and resilience enhancement with a focus on intercultural digital ethics, and the priorities of the G20 Presidency of Brazil, emphasizing inequality reduction and digital inclusion. It brings an innovative, policy-oriented approach, proposing alternative governance and a specific framework. The proposal has as its central axis the reduction of inequalities and inclusion in AI-related issues, linking to the UN Sustainable Development Goals 1, 8, 9, 10, 12, 13, and 16. Regarding task forces 1, 2, and 5, the proposal aligns with the following values and objectives:

TASK FORCE 1: combating social, racial, and digital inequality and discrimination, promoting social and digital inclusion, including horizontal inequalities such as environmental racism,

achieving Sustainable Development Goals (SDGs), sustainable environmental protection, and protection of vulnerable groups, sustainable and inclusive economic growth.

TASK FORCE 2: environmental impacts of AI, sustainable climate issues, inclusivity, social justice, and environmental justice, justice-oriented approach to ensure that the AI ecosystem and its better-distributed benefits in a more equitably environment, emphasizing the necessary transition to a Low Carbon Economy and Sustainable Consumption/Production, promoting inclusive economic growth and neo-sustainable industrialization.

TASK FORCE 5: inclusive digital transformation, ensuring that technological advances contribute positively to achieving SDGs, prioritizing inclusion, ethics, and responsible governance in the digital era, ensuring inclusion, responsibility, and ethical considerations in AI governance, considering the perspective, values, and rights of indigenous and Afro-descendant populations, linking to SDGs 3, 4, 8, 9, 10, 11, 12, 13, 16, and 17.

History of the research: parts of this study come from two international events and discussions on two research groups. The first occurred on September 25, 2021, when the Brazilian bill on artificial intelligence #21/20 came to debate. The objective of the "International Meeting: Brazil's AI Bill" was to carry out an international and multicultural analysis of the topic. The second event was "International Congress Between Brazil, Europe, And Latin America: Fundamental Rights And Updates On Procedure Law And Technologies," and its purpose was to discuss the judicial process in Brazil, European countries, and Latin American countries in the light of new technological challenges, especially those provided by artificial intelligence. It took place on May 6, 13, and 20, 2023. Events promoted by the CNPq Research Group Fundamental Rights, Environment, Society and Technology of the Catholic University of Santos (Brazil) and the Superior School of Advocacy, Nucleus Guarujá/SP (Brazil). Also supported the event by the Society and Technology Study Center (CEST) (Brazil), the International Group of Artificial Intelligence (IGOAI) (Bahrein/UK), the Global AI Ethics Institute (GAIEI) (Croatia) and EthikAI (Brazil). The topics were also research subjects in 2023 during internal meetings of the 2023 Research Group of Fundamental Rights, Environment, Society and Technologies and EthikAI internal circles.

PART II - EPISTEMOLOGICAL FOUNDATION

ALTERNATIVE AI GOVERNANCE, "FUNDAMENTAL RIGHTS BY DESIGN", "LIFE CENTERED AI" AND "SUSTENTABILITY BY DESIGN"

The main trends of our century are climate change and digital transformation, which must align with the preservation of social and democratic values, given the climate emergency (IPCC report - Sixth Assessment Report of the IPCC, the United Nations body of the world's leading climate scientists). Issues related to climate impacts involving the Global South are even more concerning (Global Partnership on AI (GPAI), "Climate change and AI: recommendations for government action"), relating to power shifts in digital transformation, loss of agency, control, and sovereignty. It is interesting to note that the bills aiming to regulate AI in Brazil (PL 2120/2338/23) do not provide any recommendations regarding the environmental impact of AI, similar to GDPR and the EU AI ACT (first edition).

The most recent version of the AI Act, dated June 14, 2023, introduces some more robust considerations regarding the environmental impact of AI. However, it relies on non-mandatory provisions, presenting flexible rules and vague principles, voluntary codes of conduct, and the proposal for a green label without addressing environmental sustainability comprehensively as an integral part of AI regulation. Environmental legislation, in turn, needs to be equipped to deal

with this issue. For instance, the EU Emissions Trading System (EU ETS) limits emissions for some specific sectors but does not address emissions related to AI. Similarly, while dealing with sustainable management of water resources, EU water regulation does not address the use of water by AI for cooling AI data centers.

The present proposal for Alternative AI Governance based on the research of Paola Cantarini, exposed in the books "AI and Law - fundamentals - vol. 5 - Epistemologies of the South" (Lumen Juris Direito, 2024), "AI Governance - a Decolonial and inclusive approach," (Lumen Juris Direito, 2024), developed during a postdoctoral program at the University of São Paulo, at the Institute of Advanced Studies, Oscar Sala Chair, under the supervision of Virgílio Almeida, between the years 2022 and 2023. It brings a modular-procedural approach, as outlined in PL 2338/2023, through four interconnected layers involving legal regulation, technical design, compliance, ethical-social arrangements, and public policies, with human dignity as the top layer, the essential core of any fundamental right. Respecting these rights for all population segments is essential for a Democratic Rule of Law from conception, i.e., from design and "compliance" instruments.

The proposal also involves specific framework to observe for the elaboration of AIA, focused on fundamental rights, involving new "fundamental rights by design" principles developed by Paola Cantarini, and for the socio-cultural characteristics of Brazil as a Global South country (Epistemologies of the South - Aníbal Quijano, Boaventura de Souza Santos), broadening the participation of vulnerable groups in the elaboration and review of AIA, and participation in the benefits of the data and AI ecosystem. The study aligns innovation with ethics and responsibility, betting on "meta-innovation" instead of "permissionless innovation," emphasizing "responsibility for innovation" or "innovation forcing." Therefore, it considers the greater vulnerability of Brazil as a Global South country (institutional and democratic fragility, recent colonial and dictatorial past), such as the genocide in Myanmar, and the existence of vulnerable segments of the population (specific vulnerabilities), such as indigenous people and Afro-descendants. In these cases, AI would violate the principles of Justice and Equity in cases of discrimination, racism, and compromise of linguistic diversity.

Within the proposed framework, all potentially affected fundamental rights are taken into account, based on the principles of "fundamental rights by design," in line with "privacy by design" and "privacy by default" by Ann Cavoukian (Canada's ANPD).

The prior preparation of the AIA requires an additional burden of argumentation in favor of the affected fundamental rights since AI systems exacerbate structured power imbalances, affecting the most marginalized in society.

The proposal also takes into consideration the concept of "life-centered AI" or "planet-centered AI" (<https://medium.com/dataseries/planet-centered-artificial-intelligence-7a208c91663a>) because is broader than "human-centered AI," addressing the direct and indirect environmental impacts of AI, as essential to obtaining an AI "green seal," similar to the well-established ISO standard 14006 (2011) (<https://www.iso.org>). The "life-centered AI" approach considers the multidimensionality aspects of fundamental rights, i.e., their individual, collective, and social dimensions, establishing the obligation to adopt mitigating measures to ensure that technology benefits humanity as a whole, as pointed out by UNESCO (<https://www.unesco.org/en/artificial-intelligence/recommendation-ethics>) and in line with the "European Green Deal" (COM/2019/640), in favor of the "European ecological pact," focusing on the objectives of carbon neutrality by 2050, pointing to the role of design and prevention, taking into account the commitments of the UN 2030 Agenda for Sustainable Development.

FRAMEWORK AND PARAMETERS

By observing such a framework for AIA, it would be possible to obtain the "green seal" - "sustainability by design":

1. Ensure that cloud computing, if used, is included in carbon reporting and pricing policies;
2. Develop predictions about the use of energy, water, and other environmental impacts, and bring optimization strategies and possible use of renewable energy sources;
3. Prepare the AIA for environmental impact in advance - through an independent, multidisciplinary, and multiethnic team, with the participation of representatives of vulnerable groups, and publish the document on its website, containing the following steps:
 - a. Check the level and scope of direct and indirect environmental impacts;
 - b. Demonstrate why AI usage, pointing out its benefits and environmental and other fundamental rights harms;
 - c. Conduct a balancing procedure between conflicting fundamental rights;
 - d. Identify gaps and future improvements; e. Adopt the following damage mitigation or compensatory measures proportionally, depending on the level, severity, and extent of the damage:
 - d.1. facilitate the creation of open data standards on AI-related environmental aspects and create an open platform to enable easy access and sharing of data;
 - d.2. contribute to financing the development of an international catalog of data relevant to the environment and open-source models and software;
 - d.3. support accessible cloud storage systems for academic researchers, civil society, small and medium enterprises, and startups;
 - d.4. support AI applications for the environment;
 - d.5. finance interdisciplinary research on innovation and environmental protection;
 - d.6. finance literacy programs and "reskilling" of AI, digital transformation, environmental impacts, and fundamental rights;
 - d.7. Implement restrictions on AI training and consumption limits, depending on the social utility of the AI model on the one hand and its more utilitarian and exclusively economically oriented vision on the other.

ROADMAP – "FUNDAMENTAL RIGHTS BY DESIGN" PRINCIPLES – "EQUITY LABEL":

1. "Fundamental rights by design": be proactive and not reactive, preventive, not corrective - prior and mandatory preparation of AIA and adoption of measures in the design focused on protecting fundamental rights;
2. Be "beneficence, non-maleficence," respect human dignity and algorithmic justice, environmental justice, and epistemic justice and fundamental rights, and act responsibly, carefully, transparently, and ethically;
3. "Fundamental rights by default" – protection of fundamental rights as a standard, automatically, from design and "compliance" documents, without requiring active intervention by third parties;
4. Total functionality – positive-sum, not zero-sum: align innovation with ethics and responsibility; promote innovation and adequate protection of rights;
5. Security and responsibility: protection of fundamental rights throughout the life cycle of AI application – prove the adoption of security measures and damage mitigation through reliable documentation;

6. Trust, transparency, and explainability: disclose the AIA on its website, in an easily accessible location; keep constant updating;

7. Respect for the principles of human-centered AI (human control of technology and respect for human values) and planet-centered AI (respect for the environment);

8. Prepare the AIA, indicating the risks and benefits of AI and its potential to violate fundamental rights, bringing mitigation/compensation measures, and identifying gaps and future improvements. Observe the legitimacy of AIA development:

independence/autonomy/interdisciplinarity/multi-ethnicity/epistemic diversity/lack of conflicts of interest of the team, with active participation of representatives from vulnerable groups;

9. Plan and conduct human review of automated decisions affecting such groups;

10. Have an independent, autonomous, and legitimate "Oversight";

11. A constitutional amendment to ensure Fundamental Rights from the indiscriminately use of AI by the State, guaranteeing the right of one to know:

11.1 - and to decide whether to be judged by an artificial intelligence tool or equivalent automated process, or by a human judge";

11.2 - and to decide whether an administrative demand will be decided by an artificial intelligence tool or equivalent automated process or by a civilian human public servant;

11.3- if one interacts with an artificial intelligence tool or equivalent in an automated process.