AI20:
Artificial Intelligence in a Global Context

Summary

Introduction:

Artificial Intelligence (AI) is rapidly transforming our world, influencing industries, economies, and daily life in ways previously unimaginable. As we navigate this technological evolution, it becomes crucial to address the opportunities and challenges AI presents. The G20 summit provides a unique platform for the world's leading economies to collaborate on this vital issue.

To bring together global expertise on AI and discuss the risks and possibilities of this emerging technology and how the world should react to them, we launched the conference "AI20: Artificial Intelligence in a global context" in July 2024 in Rio de Janeiro.

We brought together scholars with many years of experience with AI from all different disciplines to write recommendations for the G20 as well as the subgroups dealing with issues of AI. The following recommendations consist of three parts that we see to be among the most pressing issues on AI in the context of G20: Regulatory Sandboxes, Public Interest AI, and Copyright and AI. With the multidisciplinary perspectives of experts from around the world, we ensured a comprehensive and well-rounded set of recommendations.

In short, these are:

1. A comprehensive overview of the challenges and opportunities of regulatory sandboxes as well as examples of their current applications.

2. The recommendation to understand AI to reach SDGs as Public Interest AI.

3. The recommendation to use AI to allow more inclusive communication between public institutions and members of the public by simplification and summarisation of state documents.

4. The call for a new global conference on Copyright in times of AI

5. The recommendation for G20 to agree upon that AI can neither be an author of a work nor hold any copyright of such.

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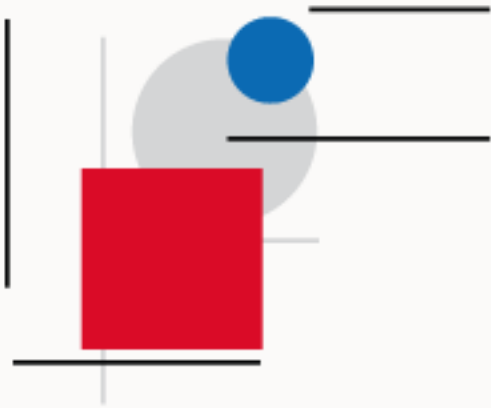
1. Ethical Regulatory Sandboxes of AI in the Public Interest

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For regulatory sandboxes to have positive outcomes, they must be designed from the start for the general interest and public benefit, mitigating against power asymmetries.

Introduction

Regulatory sandboxes are a new approach to developing regulation. <u>We see regulatory sandboxes as a form of experimental regulation in which innovations are tested in a controlled environment with a change in the regulatory framework to gain knowledge.</u> The sandbox learning can be regulation facing or product facing or both. Sandboxes require some form of cooperation between government agencies (regulators) and industry.

Given that AI is rapidly developing and regulation is behind the implementation and impact of the technology in many parts of the world, regulatory sandboxes may serve as a useful tool for its regulation. [This briefing by the European Parliament](#) calls for regulatory sandboxes for AI and [Article 57 of the EU AI Act](#) defines the EU approach. A broader overview of regulatory sandboxes broadly can be found in [this report from the World Bank](#).

While initially welcomed in the fintech industry, the current assessment of their outcomes is mixed. A [2023 report from the International Monetary Fund](#) questioned the need for the creation of new supervisory structures, stating that "existing (ones) will allow effective monitoring of new fintech developments and responding to challenges." The report also noted that sandboxes should not be used as a quick fix for other underlying problems. The sandbox systems in the tech industry were also widely discussed in light of the Privacy Sandbox initiative, which aims to change the current cookie-based tracking system. Critics argue that it will strengthen the largest companies and have [filed a complaint with the Austrian data protection authority](#).

Examples

Regulatory sandboxes cover a diversity of regulatory practices and are best understood as a spectrum. Sandboxes have been developed include:

- In France, despite criticisms from human rights groups, the Parliament passed a bill in 2023 allowing for the experimental use by the police of automated video-surveillance systems to detect "suspicious" events and trigger alerts, with the alleged goal of trialing technologies and testing a new, ad hoc legal framework. In what appears to be one of the very examples of sandboxes for AI, four French companies won the public tenders. The experiment will be conducted under the aegis of a "supervisory committee" for 18 months before the legal provision expires (in March 2025).

- In Rio, the municipality created a regulatory sandbox to test beverage delivery with drones. Two routes - previously determined by the Nacional Civil Aviation Agency - were being tested: one to deliver beverages from a distribution center to a supermarket and the other would fly over the sea to deliver from the distribution center to the kiosks located at the beach of Barra da Tijuca.

- The Polish government has shown openness to embracing the sandbox system for technical regulation and industries. The approaches differ by industry, leading to varying levels of access for the private sector. One example is the financial regulatory body, The Polish Financial Supervision Authority (KNF), which launched a completely virtual sandbox for safely testing services intended for the financial market, such as payment services, in a virtual environment. This represents a softer, pre-regulatory collaboration with no risk of spillover into real-world effects. A different approach was taken for the energy industry, where the Energy Law allows companies to apply for a three-year exemption from meeting full regulatory requirements and offers a more relaxed license if they are working on innovative projects. This integrates the sandbox approach into real-life scenarios.

- Multiple finance products were launched or are being studied by CVM in Brazil (DREX and Agro products tokenization). DREX is the Brazilian Digital Currency, controlled by the central bank and is currently being tested by approximately 700 companies, among banks and fintechs before its official launch and available for the general public.

Benefits

When established for the development of AI products, regulatory sandboxes may:

- Promote a good governance approach that enables transparent, and less tense collaboration between private and public actors.

- Allow the private sector to take responsibility for the outcomes of the regulatory process.

- Limit the costs of compliance for the private sector by improving legal certainty.

- Offer a way of mitigating risks before they spill over into society at large.

Risks

When established for the development of AI products, regulatory sandboxes may:

- Lead to the circumvention of important public interest safeguards, such as fundamental rights (e.g. data protection) or environmental protection.

- Lead to opaque consultation processes between regulatory agencies and the private actors they supervise, bearing the risk of untransparent and unaccountable policy-making or even regulatory capture.

- Obfuscate important policy decisions under the guise of fine-tuning allegedly technical regulatory frameworks, and prevent public participation in policy-making processes by relying on fast-track procedures.

- Remove or undermine legal liability for the harms that AI systems might cause, leading potential victims to being potentially left without any effective remedy for the prejudice they suffer.

- Provide unfair competitive advantage to companies taking part in the sandbox exercise (e.g. by training their models, influencing future regulation, etc.), and/or allow public authorities to pick market "winners".

- Lead to lock-in effects whereby national/local actors become dependent on one or several dominant providers of proprietary systems.

Implementation Steps

1. Develop a clear definition of the public interest goal a given sandbox is to serve.

2. Narrowly define the scope of the sandbox and the technologies to be tested (duration, affected regulatory provisions, geographic scope, etc.).

3. Provide clear indicators and methodology for evaluating the outcomes of the sandbox and designate an independent review team.

4. From the outset, define and advertise the moments and opportunities for public input. If trade secrets or other commercial considerations preclude transparency, provide mitigation mechanisms (e.g. by appointing a designated public advocate to the review team).

5. Identify the possible harms associated with the sandbox experiments and clarify applicable liability regimes and redress mechanisms.

6. Provide opportunities for all similar actors providing similar applications to join the sandbox.

7. Mitigate anti-competitive risks by opening up the improved technology/systems/models resulting from the sandbox experiment through ad hoc licenses.

8. At the end of the sandbox exercise, finalize the review, identify successes and failures, and make the assessment public.

Challenges and Solutions

- Careful consideration must be given to the transparency of what goes on in the sandbox. On the one hand, regulators and industry need protected spaces to build trust. On the other hand, it is important to provide information that allows everyone to learn from the results (not just industry and regulators but also civil society actors, academics, and educators), to ensure accountability and safeguard against regulatory capture. We recommend creating a structured concept for communication and participation at the beginning of each sandboxing process.

- Evaluations of sandboxes are key, ideally conducted by third parties given the potential impact of AI applications. This is not so much a tool for checking compliance but to make sure that all relevant stakeholders can learn from successes as well as from failures.

- Establishing "Ethical Regulatory Sandboxes of AI in the Public Interest" expands the set of requirements and is therefore fundamentally at odds with the idea of sandboxes, which entail simplifying the framework for experimentation. It is therefore particularly important in this field to learn from good practice and to standardize. The establishment of a best practice network should be explored.

- The fact that the EU has created a broad legal basis with Art. 57 of the AI Act can be helpful for non-EU states (e.g. the coordination of various regulators), even if this renewed "Brussels effect" can also be potentially problematic, particularly with regard to the requirements of the majority world countries. In any case, it makes sense to ask the EU member states (i.e. their competent regulators) to share their experiences with countries outside the EU and to participate in an international best practice network when fulfilling their obligations under Art. 57.

- There are sandboxes with varying forms and degrees of real-world impact. We recommend ensuring that the greater the impact on rights and interests, the higher the minimum standards, and the more tightly meshed the procedural safeguards are designed, again given the potential impact of AI applications.

- By their very nature, regulatory sandboxes are experiments. As with experiments in other areas, it should be ensured that the benefits and impacts on the interests and rights of minorities are adequately taken into account from the outset, e.g. by choosing diverse data sets and groups of participants and appropriate models.

2. Public Interest AI for reaching SDG16: Promoting transparency of and access to public information

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The G20 summit 2023 called for promoting responsible AI for achieving SDGs, what we understand to be **Public Interest AI.**[1] As one step of effectively implementing Public Interest AI, we propose applying AI tools to analyze, summarize, and simplify data from public authorities and institutions, making it accessible to a wider audience. This initiative will increase transparency, accountability, and citizen empowerment in government operations, supporting the work towards achieving SDG 16. Fostering such development could become part of a future Data20 subgroup as called for by T20.

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[1]   Para 61 III.

Introduction

Promoting increased transparency and access to public information is crucial for fostering accountability, trust, and efficiency within governmental systems. When citizens have access to comprehensive and clear data on how public funds are allocated and utilized, it enables them to make informed judgments, hold officials accountable for their actions, and actively participate in democratic processes.

Transparency also serves as a deterrent against corruption and mismanagement, encouraging responsible governance practices and contributing to the overall socioeconomic development of societies. By leveraging artificial intelligence and open data initiatives, governments can not only enhance transparency but also empower citizens to engage meaningfully in shaping policies that affect their lives. Additionally, AI can simplify legal and technical jargon into plain language, making documents more understandable for the general public.

Description

Artificial Intelligence can significantly enhance the accessibility, clarity, and transparency of governmental documents and public spending in several ways:

a) AI tools can convert written documents into spoken words, which is particularly beneficial for visually impaired individuals;

b) AI can improve the searchability of large volumes of documents through natural language processing and advanced search algorithms;

c) AI can summarize long and complex documents into concise and easily understandable summaries; and

d) IA can be applied for monitoring public spending and sharing information in a way accessible to everyone. The Serenata de Amor[2] project, and the ChatTCU[3] serve as notable examples of how AI can be harnessed for societal benefit. Databases for such services are likely to exist already, like the Brazilian government data source.[4]

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2   The Serenata de Amor project, available at https://serenata.ai/, focuses on using artificial intelligence to promote transparency in government spending, particularly in Brazil. The project utilizes machine learning algorithms to analyze public spending data, aiming to detect potential cases of misuse or inefficiency. Serenata de Amor aims to reduce corruption and increase accountability by scrutinizing large datasets of government expenses. It employs AI to flag suspicious transactions, which helps in directing audits and investigations efficiently. The project uses machine learning models to detect anomalies and patterns in spending data, providing insights into areas where further scrutiny may be required.

3   The Federal Audit Court (TCU) made significant advances in artificial intelligence initiatives and became one of the first bodies in Brazil to offer generative AI technology connected to various internal systems, for use by all servers and employees. ChatTCU assists with various tasks, such as document analysis, legal research, translation and administrative consultations, for example. See more in: https://portal.tcu.gov.br/imprensa/noticias/uso--de-inteligencia-artificial-aprimora-processos-internos-no-tcu.htm

4   Dataprev | Empresa de Tecnologia e Informações da Previdência

Benefits

Using public interest AI we may have the following benefits:

- Improved governmental accountability and access to information: Promoting increased transparency and access to information regarding public spending is directly related to Sustainable Development Goal 16 (SDG 16), which aims to promote peaceful and inclusive societies, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.

- Transparency as communication: Transparency is not only about making the information available but also about communicating this available information in a user-friendly way. When citizens have access to comprehensive and clear data on how public funds are allocated and utilized, for example, they can make informed judgments, hold officials accountable for their actions, and actively participate in democratic processes.

- Citizens' empowerment: Leveraging technologies like artificial intelligence and open data initiatives further enhances transparency and empowers citizens. AI technologies such as machine learning, blockchain, and data visualization significantly improve the accessibility and clarity of government information.

- Trustworthy AI system: Using a unique and centralized database, fed by public information powered by official institutions, will give more accurate and trustworthy outcome results, which will contribute to the fight against disinformation and improve the credibility of public institutions.

Risks

The following risks have to be considered for the application of such systems. The system itself may:

1. have issues with processing different languages and dialects

2. have issues understanding the cultural context

3. have restricted accuracy that may not be evident at first sight

4. have biases with respect to the training data.

Regarding the state in which such systems are applied:

1. Different understandings of transparency and public accountability in different countries may limit the application of such systems.

2. The system requires faithful information from the authorities but bears the risk of being misused to spread false information.

In general, the application of such systems is a continuous process that requires continuous monitoring and improvement.
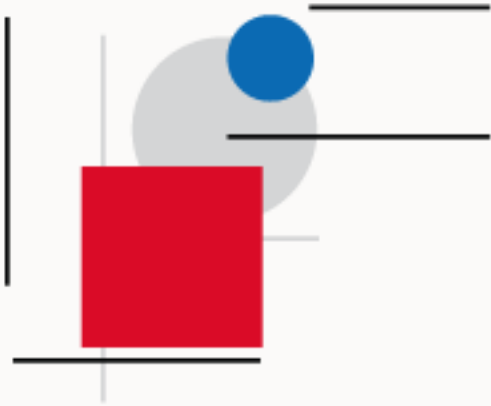
3. Rethinking Copyright for AI Research and Development

Collaborators: Florian Martin-Bariteau, Celina Bottino, Lívia Vabo, Julia Olival

The increased use and deployment of AI have raised several issues regarding copyright law and training data. The quick adoption of Generative AI multiplied the questions and the challenges, notably with respect to authorship and generated content. While the G20 may help mitigate some key challenges by recommending best practices, the G20 should call on WIPO to launch a new diplomatic conference to amend the Berne Convention for the Age of AI.
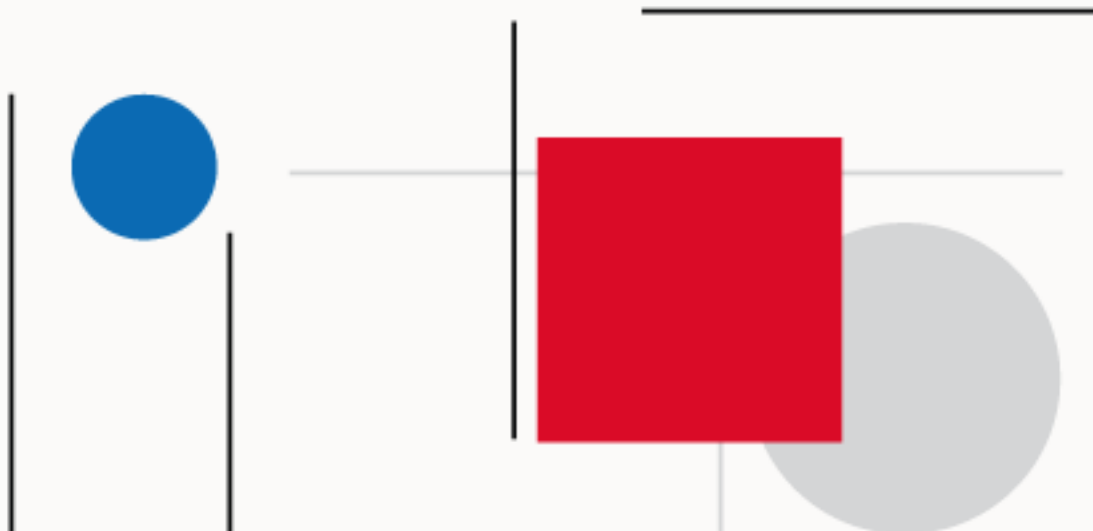
Access and Quality of Information

The quality of information is a cornerstone of responsible AI development. The G20 should promote the development of AI tools that are respectful of local context, cultural specificities, and linguistic diversity to not reproduce and amplify existing inequalities.

One of the critical issues in providing inclusive tools is access to diverse, high-quality information to allow for such representation in the training of robust AI models. The quality of information is also essential to reduce misinformation in generated content.

However, G20 should promote responsible practices regarding data collection and data mining that respect community traditional practices of knowledge sharing, and copyright laws. While copyright laws may at times conflict with access to quality information, a global conversation is needed to strike the right balance.

Promoting Adoption through Human Authorship

The question of authorship, and a potential AI authorship, has been raised by many in the industry; and clarity is needed to promote the use of AI and Gen AI tools.

The G20 should take an important stance to re-center human creativity as the foundation of copyright and **reject AI authorship**. In line with long-standing legal provisions and case law considering that only humans can be authors, machines – and AI systems – can not be recognized as authors, and hold any related rights.

Computer-assisted creation has been around for decades and copyright doctrine has been able to handle such creation. While AI systems and tools, or their developer, were never considered as authors or co-authors, the human leverage of such tools were recognized as authors within the limit of their contribution.

The same approach should be followed to protect work generated by or with the support of an AI system. Copyright protection should not be rejected simply because an AI was involved. Should a work be deemed original as per recognized copyright standards, the work should be subject to copyright protection within the limits of the human contribution. While the work generated from a simple prompt would not be protected, more complex creations would benefit from copyright protection.

Promoting Adoption through the Protection of Users

While generated outputs may raise several legal, ethical, and societal challenges, it is important to provide a safe harbor for users. Providers of AI tools should be held liable for damages to their products under the usual product liability framework as well as under copyright law.

Should an output be deemed infringing on copyrights, the provider of the tool should be held liable and not the user who unknowingly uses the output, except if they specifically instructed the tool to generate a work that would infringe on someone else's rights.

Protecting Authors and Creators

While data mining and AI training raise several unresolved questions, there is the question of the willingness of authors to have their works used by AI.

G20 should promote the development and deployment of tools allowing authors to opt-out of being included in training data. G20 should also call on providers of AI tools to respect technical protection measures put in place by authors and copyright holders.

Best practices should include watermarking in output that identifies the origin of the data used and allows audits to ensure that usage complies with licensing agreements.

Another cornerstone of copyright law is to ensure a fair remuneration of authors and the opacity of training and generation practices have presented challenges to ensure fair rewards for authors for the use of their work by AI.

Remuneration is closely tied to the identification of work used, their authors/creators, how they are used or reproduced, and the terms under which authors made their work available. Remuneration seems impossible under the current technological state and the opacity surrounding data sets and generating processes; but even if identification was possible, remuneration would be complex.

An international conversation is needed on the best way forward to ensure fair remuneration. It might be through the registration of authors with AI providers that would directly remunerate authors (on the model of the streaming platforms). Another proposed option is a global license remunerating authors, but both the inclusion or exclusion of authors and the global management of such a framework appear quite complex. The G20 should call on a multi-stakeholder conversation on this issue.

A New Diplomatic Conference for the Future of Copyright in the Age of AI

Most of the unresolved questions relating to infringement, mining, remuneration, etc. are contentious and require a global conversation. Copyright laws vary significantly across jurisdictions while AI is a global phenomenon that requires a global and uniformed approach, from the extent of the rights to potential remuneration models to avoid forum shopping or that smaller markets be put on the side by developers and service providers.

The international copyright systems have a rich history of international cooperation towards the design of an international binding framework to protect authors, users, heritage, and community while promoting economic and cultural development. Recently, WIPO led multi-stakeholder engagements that resulted in two major milestones: the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled, and the WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.

The time has come to develop harmonized international standards for AI and copyright through an international multi-stakeholder process.

The G20 should call on WIPO to launch a diplomatic conference to address these challenges and propose relevant amendments to the Berne Convention

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