



## Comparing Models of Artificial Intelligence Governance: The Role of International Cooperation on Responsible AI and the EU AI Act in the Age of Generative AI

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## **ABSTRACT**

This thesis undertakes an analysis of a selection of current national and international cooperation frameworks for AI governance, including measures taken to address generative AI. On an international level, it focuses on the OECD Recommendation on Artificial Intelligence; on a national level, it focuses on the EU AI Act. The research illustrates that the OECD Recommendation is and will be a crucial framework for international-level AI governance. At the same time, while the EU AI Act plays an important role now, its future success will depend on its enforcement, resilience, and the EU regulatory cooperation efforts. The analysis also suggests that generative AI has reignited the discourse on responsible AI, prompted special regulatory measures, and directed the policymakers' attention towards a focus on the risks it poses. Additionally, the research offers ten recommendations for future efforts on international cooperation on AI governance.

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## INTRODUCTION

The growing significance of AI for the economy and society as well as its ubiquitous use across various sectors has led to an urgent need for regulation. Different countries have taken distinct approaches and have adopted hard and soft law on a national level as well as local level, e.g., AI-related bills in different states<sup>1</sup> in the United States. As a result, the regulatory landscape for AI has become complex, with a patchwork of regulatory frameworks and guidelines gradually emerging up to this day.

At the same time, due to the border-transcending nature of AI, international cooperation has become essential. Numerous organisations have set to create non-binding frameworks that would become a polar star for countries' cooperative endeavours. Those frameworks underline the importance of *responsible AI* (also known as trustworthy or human-centric AI), and, although there is no single definition, it generally denotes a transparent, fair, secure, and accountable Artificial Intelligence system.

The emergence of generative AI, exemplified by ChatGPT, has highlighted the risks associated with AI and accelerated the pace of regulation. Responsible AI has become a central topic in discussions among academics, NGOs and policymakers on local, national and international levels, making it one of the most important topics in transnational governance currently.

This thesis aims to explore the field of AI governance by analysing current trends and exploring potential future developments on two levels of analysis: state<sup>2</sup> and system level. It has several objectives, including providing an overview of international cooperation efforts, identifying values and principles guiding AI governance, outlining approaches of different countries to AI regulation, assessing the significance of the OECD Recommendation on AI and the EU AI Act, examining

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<sup>1</sup> Sharon Goldman, "AI regulation: A state-by-state roundup of AI bills", *VentureBeat*, August 8, 2022 <https://venturebeat.com/ai/ai-regulation-a-state-by-state-roundup-of-ai-bills/>

<sup>2</sup> With EU being considered a state for simplification purposes. Its efforts for AI regulation will be referred to as national throughout the research project.

the impact of generative AI on regulation, and offering evidence-based policy recommendations.

The main research question of the project is: **“What is the role of the OECD Recommendation on AI and the EU AI Act in the broader AI governance landscape?”**

Technology policy is a fast-paced area with new developments every week, thus, this paper attempts to synthesise important measures that took place until the middle of May 2023. The focus on recent developments is particularly relevant because of the rise of the prominence of generative AI – systems trained on large quantities of data that can generate content. This paper will take into consideration the case of generative AI systems in the analysis to draw conclusions on the future of AI governance.

The author argues that the OECD Recommendation on AI and the EU AI Act do and potentially will play a crucial role in the field of AI governance. While the OECD Recommendation on AI leads and is likely to continue leading AI governance efforts on an international level, it is unclear how likely the EU AI Act is to set a precedent for other countries to follow suit with similar regulation.

The project begins with the explanation of the methodology, then moves onto the literature review, which in this case is divided in two parts: international and national measures. After that, the paper moves onto the case study of generative AI and its impact on the AI governance measures. Next, the findings are analysed and a set of recommendations for next steps in international cooperation is presented. Finally, conclusions are drawn based on the research conducted.

## METHODOLOGY

This thesis is a pragmatic and deductive research project. It undertakes research that is qualitative and cross-sectional in nature. It adopts an empirical approach, considering recent developments up to May 15, 2023. Drawing on latent level thematic analysis, it analyses the efforts made by the international organisations, namely the OECD, UNESCO, G7, G20, GPAI, the Council of Europe, and the EU-U.S. Trade and Technology Council; as well as main national efforts of the EU, U.S., China, Canada, the UK, Brazil, and Japan for AI governance: national strategies, legal instruments, research and development initiatives. Given that the countries' approaches differ, and so does the landscape of their efforts, the project provides outlines of the measures taken to present a general summary for the reader.

With national authorities realising the importance of international cooperation in the field of AI, and with international organisations promoting initiatives that different countries with different legal systems and approaches would support, the AI governance measures on the national and international levels have become closely intertwined. That is the reason this project combines the two levels of analysis to elicit findings. The starting point of the research was the formulation of the following hypotheses about the current and future state of AI governance.

- 1) The OECD Recommendation on AI is a leading framework on the international level;
- 2) The OECD Recommendation will continue leading the international cooperation efforts on AI;
- 3) The EU AI Act is setting a trend for a risk-based approach to AI governance;
- 4) The EU AI Act's approach will continue to have an impact on governance trends.

### *Selection of Frameworks*

The choice of international frameworks was dictated by the prominence and the number of countries that adhere to said frameworks. The OECD's Recommendation on Artificial Intelligence (AI) is the first intergovernmental standard for AI governance and has over 50 adherents all over the world. The UNESCO Recommendation on AI

Ethics was adopted by all 193 Member States of UNESCO. The Council of Europe's Convention on AI systems, if adopted, will be adhered to by CoE's 46 Member States. The EU-U.S. Trade and Technology Council (TTC) serves as an example of a fairly successful bilateral agreement.

For the selection of national frameworks, countries leading in the domain of AI policy setting were chosen for analysis. That includes the G7 countries with Germany, Italy, and France counted as part of the EU<sup>3</sup> despite having their own AI governance initiatives, the United States, the United Kingdom, Japan, and Canada. China is not a part of G7 but has made significant progress, including towards regulating generative AI. Brazil is one of the few countries from the Global South that actively participates in the efforts for international cooperation on AI, which is an important aspect of the current international cooperation landscape, that is why it is also included in the research.

### *Scope and Limitations*

Different sources list numerous tools and frameworks for AI development and use. Some sources count close to 100 frameworks for responsible AI<sup>4</sup>, while others state there are over 150 guidelines for ethical AI<sup>5</sup>. In such a short qualitative research project as this one, it is impossible to cover all of the guidelines, thus, the scope is limited to only a few of them. The majority of responsible/ethical AI guidelines not covered in this paper are not as widely recognised, some of them are guidebooks of private actors for their own use, which is why this limitation is not crucial.

In a similar manner, with tens of governments introducing AI regulation, a small-n research project with limited word count can only address a few of the countries' models. Having said that, this thesis does not dive too deep into the legislation,

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<sup>3</sup> The author acknowledges that the EU is not a country but a "*sui generis*". Given that the EU is working on a common regulation for AI, for the sake of simplicity, in this paper, it is referred to as a country, its efforts are referred to as national.

<sup>4</sup> Global Index on Responsible AI, "Frameworks and Tools on Responsible AI", Accessed May 15, 2023, <https://www.responsibleaiindex.org/frameworks-and-tools/>

<sup>5</sup> Algorithm Watch, "AI Ethics Guidelines Global Inventory", Accessed May 15, 2023, <https://inventory.algorithmwatch.org/>



opting for a latent-level thematic analysis approach rather than a semantic-level content analysis for the following reasons: 1) the countries covered in the thesis have already enacted or are in the process of numerous soft and hard law regulations related to AI to different extents and covering all of them would be a lengthy process and arguably counterproductive; 2) conducting an automated content analysis based on keywords and their frequency in an environment where different pieces of legislation are not aligned with one another as well as there are no common definitions for shared terms was also deemed counterproductive and possibly resulting in misleading conclusions.

Another limitation of this project is the absence of discourse on the definitions. While particularly important cases are mentioned, and recommendations include establishing shared definitions for all relevant terms, the discussion of what AI is or what it should be as well as in-depth analysis of meanings behind responsible/trustworthy/human-centric AI are beyond the scope of this paper.

Moreover, this project focuses on the civilian side of AI governance. Taking into the account the Russian invasion in Ukraine as well as rising tensions between the United States and China over Taiwan, a research project with a similar research design focusing on the military side of AI governance could be interesting. Military uses of AI, the regulation associated with it as well as international efforts carried out by NATO, OSCE, CSTO, and the likes all fall outside of the scope of this project.



## I. THE EFFORTS FOR INTERNATIONAL COOPERATION ON AI

Several international organisations have made attempts to create frameworks and recommendations to guide the efforts on AI governance. International cooperation on AI regulation can reduce regulatory burdens and trade barriers, incentivize the development of AI, and increase global market competition<sup>6</sup>. However, differences in legal traditions, economic structures, and regulatory systems make complete regulatory convergence difficult, if not impossible. National AI policies reflect these differences; however, the regulatory efforts are in comparatively early stages worldwide. That is why, at the moment, establishing and maintaining international collaboration can help align AI policies and regulations.

Realising how risk-prone AI is, these organisations have pushed towards frameworks that are centred on values and principles that promote the development and deployment of, broadly speaking, responsible AI. Depending on the framework, as with the national policies, exact terminology changes, however, the overall idea is present in all of the frameworks to be discussed in this chapter. Similar to the national efforts, a more comprehensive approach on the transnational level is required,

### *OECD – The Organisation for Economic Co-operation and Development*

The Organisation for Economic Co-operation and Development (OECD) has been one of the organisations leading in the efforts in guiding the path for AI governance. With a goal to “shape policies that foster prosperity, equality, opportunity and well-being for all”, it works alongside governments, citizens and policymakers to solve economic, environmental, and social issues<sup>7</sup>. OECD’s main activities include international standard-setting, research and analysis, and exchange of best practices<sup>8</sup>. Comprised mostly of economically prosperous countries, the OECD

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<sup>6</sup> Cameron F. Kerry et al., *Strengthening International Cooperation on AI* (Brookings), October 2021, 4.

<sup>7</sup> OECD, *About*, Accessed on May 15, 2023, <https://www.oecd.org/about/>

<sup>8</sup> Ibid.

currently has 38 members and multiple regional initiatives all over the world.

OECD has multiple initiatives that influence the international discourse regarding AI governance and policy, led by the Committee on Digital Economy Policy (CDEP). These include the OECD Working Party on Artificial Intelligence Governance (AIGO), OECD.AI Network of Experts and the OECD.AI Policy Observatory (OECD.AI). Launched in February 2020 and centered around multidisciplinary, evidence-based analysis, and global multi-stakeholder partnerships, OECD.AI provides policy analysis in the areas impacted by AI<sup>9</sup>. Aside from that, the Observatory website contains a database of national AI-related policies and trends<sup>10</sup>. Additionally, the OECD convenes a multi-stakeholder expert group that consists of 100-150 representatives from various sectors such as think tanks, businesses, civil society, labor associations, and other international organizations. The plenary of the OECD's multi-stakeholder expert group generates annual reports and recommendations that are based on applied AI project work conducted in the working groups<sup>11</sup>.

OECD is involved in formulating principles for competitive, trustworthy, and internationally inclusive AI development, taking into account the transformative impact of AI on society, economy, and policy. On May 22, 2019, the Committee on Digital Economy Policy (CDEP) proposed the Recommendation on Artificial Intelligence (AI), first intergovernmental standard on AI, to the OECD Council at Ministerial level<sup>12</sup>. Its objective is promoting innovation and trust in AI by encouraging responsible stewardship of trustworthy AI while upholding democratic values and human rights. It complements existing OECD standards in areas such as privacy (OECD Privacy Guidelines), digital security risk management, and responsible business conduct, and focuses specifically on AI-related issues. The standard is flexible and adaptable enough to withstand the rapidly evolving AI landscape<sup>13</sup>.

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<sup>9</sup> OECD, *About*, Accessed on May 15, 2023, <https://oecd.ai/en/about>

<sup>10</sup> OECD, *National AI policies & strategies*, Accessed on May 15, 2023, <https://oecd.ai/en/dashboards/overview>

<sup>11</sup> Cameron F. Kerry et al., *Strengthening International Cooperation on AI* (Brookings), October 2021.

<sup>12</sup> OECD Legal Instruments, "*Recommendation of the Council on Artificial Intelligence*," May 22, 2019, Accessed on May 15, 2023, <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449>

<sup>13</sup> OECD.AI Policy Observatory, "*OECD AI Principles overview*", Accessed on May 15, 2023, <https://oecd.ai/en/ai-principles>

The Recommendation on Artificial Intelligence establishes five value-based principles for the responsible stewardship of trustworthy AI. AI actors are urged to promote and implement the following principles:

- inclusive growth, sustainable development and well-being;
- human-centered values and fairness;
- transparency and explainability;
- robustness, security, and safety;
- accountability.

In addition to these principles, the Recommendation also provides policymakers with five recommendations for the development of national policies and international cooperation in the area of trustworthy AI. These include:

- investing in AI research and development;
- fostering a digital ecosystem for AI;
- providing an enabling policy environment for AI;
- building human capacity and preparing for labour market transition;
- international co-operation for trustworthy AI.

The recommendation also calls for the development of metrics to measure AI research, development, and deployment. These metrics will help build an evidence base to assess progress in implementing the recommendation<sup>14</sup>.

OECD highlights that the Recommendation is open to adherence by non-OECD members, thus echoing the calls for international co-operation on AI. So far, aside from OECD members, Argentina, Brazil, Egypt, Malta, Peru, Romania, Singapore, and Ukraine have adhered to the Recommendation as well<sup>15</sup>.

The OECD's CDEP has a Working Party on Artificial Intelligence Governance (AIGO), which is mainly made up of national officials responsible for AI policies in

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<sup>14</sup> OECD Legal Instruments, "*Recommendation of the Council on Artificial Intelligence*," May 22, 2019, Accessed on May 15, 2023, <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449>

<sup>15</sup> Ibid.

their respective countries<sup>16</sup>. The working party provides direction to the CDEP work programme on AI policy and governance, including analysis of the design, implementation, monitoring and evaluation of AI policies, impact assessment, measurement and data efforts, and foresight work on AI and related technologies. AIGO supports the implementation of OECD standards relating to AI, develops tools and guidance for the responsible stewardship of trustworthy AI, and supports collaboration between governments and stakeholders. The working party focuses on the practical implementation of the OECD AI Principles throughout the policy cycle, including design, implementation, intelligence, and coordination. Its work builds on the OECD.AI expert group on national AI Policies and its report on emerging trends in AI policy.

The OECD also hosts an OECD.AI Network of Experts – an informal group of AI experts from various sectors who provide policy advice for the OECD's work on AI policy and contribute to the OECD Policy Observatory on AI<sup>17</sup>. Consisting of AI policy and technical experts from national governments, international organizations, private sector, as well as experts in AI-related legal and ethical issues, the network provides the OECD with an "on the ground" perspective on AI and is a forum for discussing shared AI policy challenges and opportunities.

### *G20 – The Group of Twenty*

The Group of Twenty – G20 – is a forum for international economic cooperation<sup>18</sup>. Founded in 1999, it serves a crucial role in shaping and strengthening global governance on major international economic issues. In 2019, the G20 countries met in Tsukuba, Japan, where they discussed the use of digital technologies on a pathway towards a sustainable and innovative global society. Taking into consideration the economic opportunities as well as challenges associated with innovative digital technologies, they issued a Ministerial Statement on Trade and

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<sup>16</sup> OECD, Working Party on Artificial Intelligence Governance (AIGO), Accessed on May 15, 2023, <https://oecdgroups.oecd.org/Bodies/ShowBodyView.aspx?BodyID=7755&BodyPID=13964&Book=False>

<sup>17</sup> OECD.AI, "Network of Experts", Accessed on May 15, 2023, <https://oecd.ai/en/network-of-experts>

<sup>18</sup> G20, About, Accessed on May 15, 2023, <https://www.g20.org/en/about-g20/>

Digital Economy, where they addressed the different aspects of digital economy. One of them was human-centered AI.

The G20 acknowledged the efforts of stakeholders (governments, organizations, academia, civil society, and the private sector) in promoting human-centered AI that benefits society. Recognising that responsible development and use of AI can drive inclusive economic growth and promote sustainable development while mitigating risks, they also acknowledged that AI may present challenges, including transitions in the labour market, privacy, security, ethical issues, new digital divides, and the need for capacity building. To foster public trust and confidence in AI, the G20 expressed commitment to a human-centred approach guided by non-binding G20 AI Principles which are based on the OECD AI Principles<sup>19</sup>. OECD's 5 recommendations for the development of national policies are said to be taken note of<sup>20</sup>. Promoting the protection of privacy and personal data, AI capacity building and skills development, international cooperation, and inclusion of developing countries and underrepresented populations were all listed as aims for G20 members.

Thus, since the G20 principles were drawn from the OECD Recommendation, aside from the aforementioned countries, China, India, Indonesia, South Africa, Saudi Arabia, Russia, and South Korea have also expressed support for the OECD principles for responsible stewardship of trustworthy AI on the basis of G20 membership. Since the European Union is a part of the G20 and not all of its Member States participate in the OECD, the G20 has also extended the principles to the following countries: Bulgaria, Croatia, and Cyprus.

### *G7 – The Group of Seven*

G7 – The Group of Seven – is an informal intergovernmental political forum that consists of the United States, the United Kingdom, Japan, Canada, France, Italy, Germany, and the European Union as a non-enumerated member. These countries constitute the world's most advanced democratic economies, maintain close

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<sup>19</sup> OECD, G20 AI Principles, Accessed on May 15, 2023, <https://wp.oecd.ai/app/uploads/2021/06/G20-AI-Principles.pdf>

<sup>20</sup> Ibid.

relations in economic and political domains. The members' heads of government attend annual summits to review important issues. In the recent years, Artificial Intelligence has been one of the topics actively discussed during those annual summits.

Prior to the 2016 G7 summit in Japan, then Prime Minister Shinzo Abe called for the development of policies for AI that could serve as a global standard. Japan's Communications Minister later proposed eight basic principles for AI that are similar to those adopted by the OECD and the G20<sup>21</sup>. At the 2018 G7 summit, France and Canada announced the joint initiative to create an International Panel on Artificial Intelligence (IPAI) which will then transform into the Global Partnership on AI (GPAI), which aims to guide the responsible adoption of AI<sup>22</sup>. The following year, at the 2019 G7 summit hosted by France, leaders of scientific societies issued a declaration on AI and Society, which acknowledged the benefits and potential risks of AI, outlining several AI-related recommendations which policy makers should encourage and scientists should commit to<sup>23</sup>. In 2021, the G7 summit was hosted by the UK, where the leaders committed to a human-centric approach to AI, building on the work of the Global Partnership for Artificial Intelligence (GPAI), and called for a "values-driven digital ecosystem" that is human-centric, sustainable, transparent, and inclusive<sup>24</sup>. The G7 privacy officials also issued a statement on Data Free Flows with Trust, emphasising the need for human dignity, transparency, and data protection principles in AI design and calling for "red lines" for AI systems that are not compatible with fundamental rights<sup>25</sup>.

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<sup>21</sup> Japan Times, "*Japan pushes for basic AI rules at G-7 tech meeting*", Accessed on May 15, 2023, <https://www.japantimes.co.jp/news/2016/04/29/national/japan-pushes-basic-ai-rules-g-7-tech-meeting/>

<sup>22</sup> Prime Minister of Canada, "*Mandate for the International Panel on Artificial Intelligence*", December 6, 2018, <https://pm.gc.ca/en/news/backgrounders/2018/12/06/mandate-international-panel-artificial-intelligence>

<sup>23</sup> Royal Society, "*Artificial intelligence and society*", Accessed on May 15, 2023, <https://royalsociety.org/-/media/about-us/international/g-science-statements/2019-g7-declaration-artificial-intelligence-and-society.pdf>

<sup>24</sup> The White House, "*CARBIS BAY G7 SUMMIT COMMUNIQUÉ*", June 13, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/13/carbis-bay-g7-summit-communique/>

<sup>25</sup> G7, "*Data Free Flow with Trust*", Accessed on May 15, 2023, <https://www.caiddp.org/app/download/8342900463/g7-attachment-202109.pdf>



This year, the 49<sup>th</sup> G7 summit will take place in Japan again, this time in Hiroshima, from 19 to 21 May 2023<sup>26</sup>. The upcoming summit will also discuss the rapid advancements in artificial intelligence (AI). This year's chair of the G7 for 2023, the current Japanese Prime Minister Fumio Kishida has expressed Japan's desire to take the lead in developing regulations for AI<sup>27</sup>. Kishida reportedly emphasised the potential benefits of AI for the economy and society, while acknowledging the associated risks.

During the Digital and Tech ministers' meeting in April, the G7 agreed to implement AI policies that prioritize human-centered and risk-based approaches. They reasserted the importance of risk-based policies and announced future G7 discussions on generative AI<sup>28</sup>. They acknowledged that the Members have different regulatory approaches and recognised the importance of seeking interoperability. Moreover, the G7 Science and Technology Ministers have issued a communique where, among other things, they assert that the development and governance of emerging and revolutionary technologies are crucial in addressing social issues and promoting social progress. AI, they argue, is one of the technologies that are essential to both digital and green transformations, as well as economic and national security<sup>29</sup>.

Aside from the leaders of the G7 members (including EU), the 2023 G7 Hiroshima Summit will host the leaders of Australia, Brazil, Comoros, Cook Islands, India, Indonesia, South Korea, and Vietnam. Invited international organisations include the United Nations, International Energy Agency, International Monetary Fund, OECD, the World Bank, the World Health Organization, and the World Trade Organization<sup>30</sup>. Given the progress G7 has made so far in the domain of AI, as well as the

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<sup>26</sup> G7, 2023 Summit in Hiroshima, Members, Accessed on May 15, 2023, <https://www.g7hiroshima.go.jp/en/>

<sup>27</sup> Chad De Guzman, "The G7 Summit in Hiroshima Is a Test of Japan's Peace-Brokering Power", *TIME*, May 12, 2023, <https://time.com/6279372/g7-hiroshima-japan-summit-2023/>

<sup>28</sup> G7, Ministerial Declaration. The G7 Digital and Tech Ministers' Meeting, 30 April 2023, [https://g7digital-tech-2023.go.jp/topics/pdf/pdf\\_20230430/ministerial\\_declaration\\_dtmm.pdf](https://g7digital-tech-2023.go.jp/topics/pdf/pdf_20230430/ministerial_declaration_dtmm.pdf)

<sup>29</sup> G7, Communique by the Science and Technology Ministers, 2 [https://www8.cao.go.jp/cstp/kokusaiteki/g7\\_2023/230513\\_g7\\_communique.pdf](https://www8.cao.go.jp/cstp/kokusaiteki/g7_2023/230513_g7_communique.pdf)

<sup>30</sup> G7, 2023 Summit in Hiroshima, Members, Accessed on May 15, 2023, <https://www.g7hiroshima.go.jp/en/summit/members/>

multitudinous attendance of this year's summit by important guests, the Group has high chances of continuing to impact the trends of AI governance.

### *GPAI – The Global Partnership on Artificial Intelligence*

Developed within the G7, the Global Partnership on Artificial Intelligence is a multi-stakeholder initiative that supports cutting-edge AI-related research and activities with the aim to bridge the gap between theory and practice<sup>31</sup>. Created around the OECD Recommendation on Artificial Intelligence with the goal to foster international cooperation, it brings together governments, international organisations, scientists, civil society, and industry experts<sup>32</sup>. GPAI was comprised of 15 members when it was launched in 2020, while at present it has 29. Members include Senegal and Serbia, which are not a part of other previously mentioned frameworks, thus expanding the list of adherents to the OECD Recommendation.

The GPAI Secretariat is hosted by the Organisation for Economic Co-operation and Development (OECD) in Paris. It assists the GPAI Council and Steering Committee, liaises with the Centres of Expertise, and fosters strong synergies between GPAI's scientific and technical work and the OECD's international AI policy leadership. When operating at full capacity, the Secretariat provides updates and reports on policy analysis domestically and internationally, while also promoting and maintaining cooperation with other relevant initiatives<sup>33</sup>.

GPAI has two Centres of Expertise, located in Montreal and Paris, that aid working groups and coordinate the annual Multi-stakeholder Experts Group Plenary. The International Centre of Expertise of Montreal for the Advancement of Artificial Intelligence (ICEMIA) supports the working groups on responsible AI, including a subgroup on AI and pandemic response, as well as data governance. The Paris Centre, led by INRIA, assists the working groups on the future of work and innovation and commercialization<sup>34</sup>.

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<sup>31</sup> GPAI, Main page, Accessed on May 15, 2023, <https://gpai.ai/>

<sup>32</sup> GPAI, Main page, Accessed on May 15, 2023, <https://gpai.ai/>

<sup>33</sup> GPAI, Community, Accessed on May 15, 2023, <https://www.gpai.ai/community/>

<sup>34</sup> Ibid.

The Working Group on Responsible AI (RAI) is guided by a vision of human-centred, fair, inclusive and equitable AI that respects human rights and democracy<sup>35</sup>. RAI's objectives are aligned with GPAI's mission, aiming to promote responsible development, use, and governance of human-centered AI systems in line with the UN Sustainable Development Goals (SDGs). RAI operates in collaboration with other GPAI Working Groups, avoiding working in isolation. For instance, RAI collaborates with the Data Governance Working Group when their respective initiatives overlap. Some of the activities of RAI include current projects on Responsible AI Strategy for the Environment and a Sandbox for Responsible AI as well as numerous expert reports<sup>36</sup>.

### *UN – United Nations*

The work of the United Nations on Artificial Intelligence governance began in 2015<sup>37</sup> with a Side-event titled “Chemical, biological, radiological and nuclear (CBRN) National Action Plans: Rising to the Challenges of International Security and the Emergence of Artificial Intelligence” which featured a briefing addressed at awareness-raising about then present and future potential of AI<sup>38</sup>. Since then, the UN Secretary-General has touched upon the issue of AI governance on numerous occasions, calling for promotion of AI regulation that is aligned with shared global values<sup>39</sup>.

Other initiatives include “The AI for Good Global Summit” organised by the ITU annually to promote AI that advances global development priorities<sup>40</sup>. The United Nations Secretary-General António Guterres has an Envoy on Technology, with

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<sup>35</sup> GPAI, Responsible AI, Accessed on May 15, 2023, <https://www.gpai.ai/projects/responsible-ai/>

<sup>36</sup> GPAI, Responsible AI, Accessed on May 15, 2023, <https://www.gpai.ai/projects/responsible-ai/>

<sup>37</sup> Center for AI and Digital Policy, *Artificial Intelligence and Democratic Values Index*, April 2023, 37.

<sup>38</sup> UNICRI, “*CBRN National Action Plans: Rising to the Challenges of International Security and the Emergence of Artificial Intelligence*”, October 7, 2015, [https://unicri.it/news/article/cbrn\\_artificial\\_intelligence](https://unicri.it/news/article/cbrn_artificial_intelligence)

<sup>39</sup> UN Secretary General, Report: Our Common Agenda (2021), [https://www.un.org/en/content/common-agendareport/assets/pdf/Common\\_Agenda\\_Report\\_English.pdf](https://www.un.org/en/content/common-agendareport/assets/pdf/Common_Agenda_Report_English.pdf)

<sup>40</sup> ITU, AI for Good Global Summit, Accessed on May 15, 2023, <https://aiforgood.itu.int/summit23/>

Amandeep Singh Gill of India currently holding the title<sup>41</sup>. The Envoy coordinates the implementation of the Secretary-General's Roadmap on Digital Cooperation. Working closely with Member States, private companies, the technology industry, civil society, and other stakeholders to Office of the Secretary-General's Envoy on Technology promotes the Global Digital Compact proposed in the Common Agenda<sup>42</sup>. In addition, the UN High Commissioner for Human Rights released a statement on the ban of AI that poses serious risks to human rights<sup>43</sup>.

### *UNESCO Recommendation on AI Ethics*

UNESCO's Director-General, Audrey Azoulay, led the effort to develop an international framework for AI technology development and usage, in accordance with the mandate from Member States<sup>44</sup>. Following a two-year process of global consultation involving experts, developers, and other stakeholders worldwide, the Recommendation on the Ethics of Artificial Intelligence was adopted unanimously by all 193 Member States at UNESCO's General Conference in November 2021. This instrument is the most comprehensive of its kind, reflecting a significant milestone in the development of ethical guidelines for AI<sup>45</sup>.

The Recommendation is centred around four core values:

- Respect, protection and promotion of human rights and fundamental freedoms and human dignity;
- Environment and ecosystem flourishing;
- Ensuring diversity and inclusiveness;
- Living in peaceful, just and interconnected societies.

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<sup>41</sup> United Nations Secretary-General, "Amandeep Singh Gill, Secretary-General's Envoy on Technology", Accessed on May 15, 2023, <https://www.un.org/sg/en/content/profiles/amandeep-gill>

<sup>42</sup> United Nations, Office of the Secretary-General's Envoy on Technology, Accessed on May 15, 2023, <https://www.un.org/techenvoy/>

<sup>43</sup> UN Human Rights, Office of the High Commissioner, Artificial intelligence risks to privacy demand urgent action – Bachelet (Sept. 15, 2021), <https://www.ohchr.org/en/2021/09/artificial-intelligence-risks-privacy-demand-urgent-action-bachelet>

<sup>44</sup> UNESCO, *Artificial Intelligence*, Accessed on May 15, 2023, <https://www.unesco.org/en/artificial-intelligence>

<sup>45</sup> UNESCO, *Artificial Intelligence*, Accessed on May 15, 2023, <https://www.unesco.org/en/artificial-intelligence>

It also outlines 10 principles that reflect a human rights approach to AI:

- Proportionality and Do No Harm;
- Safety and Security;
- Fairness and Non-discrimination;
- Sustainability;
- Right to Privacy, and Data Protection;
- Human Oversight and Determination;
- Transparency and Explainability;
- Responsibility and Accountability;
- Multi-stakeholder and Adaptive Governance & Collaboration;
- Awareness & Literacy.

Furthermore, the Recommendation lists 11 areas of policy action: ethical impact assessment, ethical governance and stewardship, data policy, development and international cooperation, environment and ecosystems, gender, culture, education and research, communication and information, economy and labour, and health and social well-being. These policy areas operationalise the values and principles and urges the Member States to put effective measures in place<sup>46</sup>.

### *Council of Europe*

The Council of Europe consists of 46 Member States, of which 27 are the EU Member States, and the rest are non-EU countries located in Europe. It observes the activities of the OECD's Working Party on Artificial Intelligence Governance (WPAIGO)<sup>47</sup>. The CoE's Committee on Artificial Intelligence (CAI) has drafted a "Convention on the design, development, and application of artificial intelligence systems" based on the Council of Europe's standards on human rights, democracy

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<sup>46</sup> UNESCO, Recommendation on AI Ethics, Accessed on May 15, 2023, <https://unesdoc.unesco.org/ark:/48223/pf0000380455>

<sup>47</sup> OECD's Working Party on Artificial Intelligence Governance (WPAIGO), Accessed on May 15, 2023, <https://oecdgroups.oecd.org/Bodies/ShowBodyView.aspx?BodyID=7755&BodyPID=13964&Book=False>

and the rule of law, and conducive to innovation, in accordance with the relevant decisions of the Committee of Ministers.

The revised zero draft outlines the following principles:

- Principle of Equality and Anti-discrimination;
- Principle of Privacy and Personal Data Protection;
- Principle of Accountability, Responsibility and Legal Liability;
- Principle of Transparency and Oversight;
- Principle of Safety;
- Principle of Safe Innovation.

### *TTC – EU-U.S. Trade and Technology Council*

The EU-U.S. Trade and Technology Council (TTC) is a transatlantic forum based on shared democratic values that promotes cooperation in trade and technology-related domains, including Artificial Intelligence. In December 2022, the United States and the European Union, under the framework of the TTC, have unveiled the TTC Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management<sup>48</sup>. The United States and European Union aim to provide science-based methods for responsible, equitable, and beneficial approaches to AI that serve all people. They recognize the power of AI to address the world's challenges, but also acknowledge the risk it entails. A joint roadmap aims to guide the development of tools, methodologies, and approaches to AI risk management and trustworthy AI by the EU and the US. The Joint Roadmap suggests activities aimed at aligning EU and US risk-based approaches, such as advancing shared terminologies and taxonomies, leadership and cooperation in international technical standards development, and monitoring and measuring existing and emerging AI risks.

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<sup>48</sup> *TTC Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management*. December 1, 2022.

## II. NATIONAL AI GOVERNANCE EFFORTS

This chapter will provide an overview of the regulation efforts made by the EU, US, China, Canada, the UK, Brazil, and Japan.

### *European Union*

The EU's strategy for artificial intelligence is focused on promoting excellence and trust. The aim is to enhance research and industrial capacity while ensuring that fundamental rights and safety are not compromised. Building a resilient Europe for the Digital Decade requires people and businesses to enjoy the benefits of AI in a safe and secure manner. The European AI Strategy aims to make the EU a world-class hub for AI by prioritizing human-centric and trustworthy AI. This objective is achieved through the implementation of concrete rules and actions.

In April 2021, the Commission presented its AI package, which included a Communication on fostering a European approach to AI, a review of the Coordinated Plan on Artificial Intelligence, and a proposal for a regulation laying down harmonized rules on AI, called the EU AI Act, along with relevant Impact assessment. The AI Act's risk-based approach that is designed to govern AI system based on the potential risks they pose has become a distinct feature of the EU AI regulation. The EU's human-centric approach involves ongoing assessment of the progress and benefits of AI against potential risks to individuals and society, guided by fundamental rights enshrined in the Treaties of the European Union and its Charter of Fundamental Rights.

Coordinated Plan on AI. The Coordinated Plan on AI aims to support innovation and enable conditions for the development and deployment of trustworthy AI solutions in the EU. The updated Coordinated Plan of 2021 translates strategy into action by accelerating investment, acting on AI strategies, and aligning AI policy. It also sets 4 policy objectives: establishing favourable conditions for AI development and adoption, creating an environment that facilitates excellence, ensuring benefit to

people, building strategic leadership<sup>49</sup>.

The EU AI Act. The proposed AI Act is notable for being the first of its kind introduced by a major regulatory body. The Act categorizes AI applications into four groups based on their level of risk. The first group includes applications and systems that present an unacceptable risk, like the government-operated social scoring system implemented in China, and these are prohibited. The second group includes high-risk applications, such as a CV-scanning tool that ranks job applicants, which are subject to specific legal requirements.

To ensure the safety and compliance of high-risk AI systems, strict obligations must be met before they can be introduced to the market. These obligations include conducting thorough risk assessments, utilizing high-quality datasets to minimize risks and discriminatory outcomes, maintaining activity logs for result traceability, providing detailed documentation for regulatory assessment, offering clear and adequate user information, implementing human oversight measures, and ensuring a high level of robustness, security, and accuracy.

EU Digital Services Act and Digital Markets Act. The European Union has a number of other regulatory initiatives concerning Artificial Intelligence, including the so-called DSA and DMA, aimed at creating a safe digital space, protecting rights of users, and creating a fair market for businesses<sup>50</sup>.

Other important measures worth mentioning are the EU Member States' own AI regulation efforts and strategies, which are relevant since the EU AI Act has not been passed into law yet; and the recently opened European Centre for Algorithmic Transparency (ECAT). Hosted by the Joint Research Centre (JRC), the ECAT will contribute to the European Commission's activities with scientific and technical

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<sup>49</sup> "Coordinated Plan on Artificial Intelligence", European Commission, Accessed on May 15, 2023, <https://digital-strategy.ec.europa.eu/en/policies/plan-ai#:~:text=The%20key%20aims%20of%20the,AI%20policy%20to%20avoid%20fragmentation.&text=The%20Coordinated%20Plan%20on%20Artificial%20Intelligence%202021%20Review%20is%20the,global%20leadership%20in%20trustworthy%20AI>.

<sup>50</sup> European Commission, *The Digital Services Act package*, Accessed on May 15, 2023, <https://digital-strategy.ec.europa.eu/en/policies/digital-services-act-package>



expertise<sup>51</sup>.

### *United States*

NIST AI Risk Management Framework. The NIST (National Institute of Standards and Technology) AI Risk Management Framework is an adaptable voluntary framework designed to address unique challenges posed by AI systems and to enable AI stakeholders to manage risks proactively and purposefully. The framework is intended to manage both enterprise and societal risks related to AI by providing a flexible, structured, and measurable process throughout the AI lifecycle. The AI RMF is not a compliance mechanism or a checklist and is intended to support organizations' abilities to operate under applicable domestic and international legal or regulatory regimes. It comes with a “playbook” that allows to seek additional suggestions<sup>52</sup>.

The Blueprint for an AI Bill of Rights. The Blueprint for an AI Bill of Rights is a set of five principles and associated practices developed through public consultation to guide the design, use, and deployment of automated systems in the US. The principles include safe and effective systems, algorithmic discrimination protections, data privacy, notice and explanation, and human alternatives, consideration, and fallback. The blueprint aims to protect civil rights and democratic values by offering concrete steps that can be taken by governments, companies, and communities to ensure that automated systems work in ways that protect human rights and democratic values. The focus is on all automated systems that have the potential to meaningfully impact individuals' or communities' rights, opportunities, or access<sup>53</sup>.

States' AI Regulation. Certain US states have passed local bills regarding AI and

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<sup>51</sup> European Commission, European Centre for Algorithmic Transparency, Accessed on May 15, 2023, [https://algorithmic-transparency.ec.europa.eu/index\\_en](https://algorithmic-transparency.ec.europa.eu/index_en)

<sup>52</sup> Cameron F. Kerry, “NIST’s AI Risk Management Framework plants a flag in the AI debate”, *Brookings*, February 15, 2023, <https://www.brookings.edu/blog/techtank/2023/02/15/nists-ai-risk-management-framework-plants-a-flag-in-the-ai-debate/>

<sup>53</sup> The White House, *Blueprint for an AI Bill of Rights. Making Automated Systems Work for the American People*, October, 2022.

algorithms in various sectors or establish advisory boards. The states span from California to New York, with District of Columbia, Connecticut, Kentucky, Vermont, Washington, and Indiana requiring impact assessments of AI tools<sup>54</sup>.

## *China*

National New Generation AI Plan. China does not have a comprehensive horizontal legal instrument for AI governance nor does it have an official AI definition, however, there is a three-part strategy that sets goals until 2030. By 2020, China aims to have one of the world's most advanced levels of AI technology, with AI becoming a key driver of economic growth. By 2025, China aims to become the world leader in some sets of AI technologies and their applications, and make major breakthroughs in fundamental AI theories. By 2030, China aims to be the world leader in all AI theories, technologies, and applications, and become the global center for AI technology and economy. The strategy sets clear goals and focuses on the principles of safety and security.

Internet Information Service Algorithmic Recommendation Management Provisions, introduced in 2022, have a broad scope and apply to personalised recommendations in mobile applications – algorithms that provide users with information, make recommendations, rank information, and filter content<sup>55</sup>. The Provisions require that recommendation services uphold user rights.

Provinces' AI Regulation. China has two notable provincial regulations: the Shanghai Regulations on Promoting the Development of the AI Industry and the Regulations on Promoting Artificial Intelligence Industry in Shenzhen Special Economic Zone. They adopt a risk-based approach and are consistent with the OECD principles.

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<sup>54</sup> Sorelle Friedler, Suresh Venkatasubramanian, Alex Engler. "How California and other states are tackling AI legislation," *Brookings*, March 22, 2023, <https://www.brookings.edu/blog/techtank/2023/03/22/how-california-and-other-states-are-tackling-ai-legislation/>

<sup>55</sup> Peter Schildkraut and Hazel Zhang. "What To Know About China's New AI Regulations", *Arnold Porter*, April 19, 2023, <https://www.arnoldporter.com/-/media/files/perspectives/publications/2023/04/what-to-know-about-chinas-new-ai-regulations.pdf?rev=d872d730384040619c1301e098cd90ee>

## Canada

The government of Canada is committed to the responsible use of Artificial Intelligence. There are 5 principles guiding the effective and ethical use of AI: understanding and measuring the impact of AI, transparency, meaningful explanations of AI decision making, openness, and sufficient training<sup>56</sup>.

AIDA. The Canadian Government introduced the Artificial Intelligence and Data Act (AIDA) in June 2022, as part of Bill C-27. The Act upholds the Canadian values that state that AI systems' design, development, and use must be safe. It was adopted and referred to the Standing Committee on Industry and Technology in a second reading on April 24, 2023<sup>57</sup>.

Directive on Automated Decision-Making. The Treasury Board Secretariat (TBS) of the Government of Canada has introduced a Directive on Automated Decision-making. The purpose of this directive is to guarantee that the implementation of automated decision systems minimises risks to clients, federal institutions, and Canadian society. This initiative applies to any system utilised in administrative decision-making and applies to systems in production. It aims to ensure that administrative decisions align with fundamental principles of administrative law, including transparency, accountability, legality, and procedural fairness<sup>58</sup>.

## United Kingdom

The DCMS, Department for Business, Energy & Industrial Strategy, and Office for Artificial Intelligence jointly released a policy paper on 18 July 2022 titled

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<sup>56</sup> Government of Canada, "Responsible use of artificial intelligence (AI)", Accessed on May 15, 2019, <https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai.html>

<sup>57</sup> House of Commons of Canada, *Vote No. 301*, April 24, 2023, <https://www.ourcommons.ca/Members/en/votes/44/1/301>

<sup>58</sup> Government of Canada, *Directive on Automated Decision-Making*, May. 2, 2019, <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32592>

“Establishing a pro-innovation approach to regulating AI”, which stated that the UK will be taking a contrasting approach to that of the EU, favouring less regulation to promote innovation.

On 29 March 2023, the Department for Science, Innovation and Technology released a white paper titled "AI Regulation: A Pro-Innovation Approach," outlining the UK Government's proposed regulations for artificial intelligence (AI)<sup>59</sup>. It's a part of the UK's broader national AI strategy that builds around investing in the long term needs of the AI ecosystem, ensuring AI benefits all sectors and regions, and governing AI effectively<sup>60</sup>.

The proposed regulatory framework aims to be proportionate, trustworthy, adaptable, and clear. It is built upon five guiding principles for addressing AI risks:

- Safety, security, and robustness;
- Appropriate transparency and explainability;
- Fairness;
- Accountability and governance;
- Contestability and redress.

The UK Government intends to avoid excessive legislation that could stifle innovation and hinder responsiveness to technological advancements. Instead, they seek an adaptable approach, allowing regulators in different sectors to tailor the implementation of principles to suit the unique context of AI. Ongoing evaluation will ensure effective application and identify any barriers.

### *Brazil*

Brazilian AI Strategy. The government of Brazil adopted a national AI strategy in

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<sup>59</sup> Department of Science, Innovation and Technology and The Rt Hon Michelle Donelan MP, “UK unveils world leading approach to innovation in first artificial intelligence white paper to turbocharge growth”, GOV.UK, March 29, 2023, <https://www.gov.uk/government/news/uk-unveils-world-leading-approach-to-innovation-in-first-artificial-intelligence-white-paper-to-turbocharge-growth>

<sup>60</sup> HM Government, *National AI Strategy*, Accessed on May 15, 2023, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1020402/National\\_AI\\_Strategy\\_-\\_PDF\\_version.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1020402/National_AI_Strategy_-_PDF_version.pdf)

April 2021. Based on the OECD principles, it is centred around six objectives: ethical principles for responsible AI, removing innovation barriers, promoting technology investment, AI skills development, fostering collaboration, and advancing Brazilian innovation at the international level<sup>61</sup>.

Brazilian Artificial Intelligence Bill, N. 21/2020. Approved by the House of Representatives in September 2021, the draft Bill aims to establish a legal framework for AI development and use to promote innovation. It installs obligations on AI agents developing, deploying, and using the systems<sup>62</sup>. The Bill has received significant criticism for its vague language. In May 2023, a new Bill was proposed, that focuses on a risk-based approach to AI regulation, classifying AI systems as being of high or excessive risk, and promotes ethical and responsible AI<sup>63</sup>.

### *Japan*

During the G7 meeting in Italy in 2017, the Japanese government presented the AI R&D Guidelines that outline 9 principles for artificial intelligence research and development. Those are: collaboration, transparency, controllability, safety, security, privacy, ethics, and user assistance<sup>64</sup>.

In 2019, the Japanese government introduced the Social Principles of Human-Centric AI, emphasising human dignity, diversity and inclusion, and sustainability as three guiding philosophies for AI implementation. These principles aim to realize

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<sup>61</sup> Brazilian AI Strategy. OECD.AI, Accessed on May 15, 2023, <https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27104>

<sup>62</sup> BRAZILIAN AI BILL, N. 21/2020, OECD.AI, Accessed on May 15, 2023, <https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27207>

<sup>63</sup> Access Partnership, “Access Alert | Brazil’s New AI Bill: A Comprehensive Framework for Ethical and Responsible Use of AI Systems”, May 5, 2023, <https://accesspartnership.com/access-alert-brazils-new-ai-bill-a-comprehensive-framework-for-ethical-and-responsible-use-of-ai-systems/>

<sup>64</sup> Draft AI R&D GUIDELINES for International Discussions, 2017 [https://www.soumu.go.jp/main\\_content/000507517.pdf](https://www.soumu.go.jp/main_content/000507517.pdf)

these values through AI rather than restrict its use<sup>65</sup>. This aligns the Japanese approach with the OECD's first principle on achieving "inclusive growth, sustainable development, and well-being" through AI.

These seven Social Principles constitute the basis for Japan's AI regulatory policy: human-centric AI; education/literacy; fairness, accountability and transparency; innovation; security; privacy protection; and fair competition. Rather than imposing binding regulations, Japan adopts a risk-based and soft-law approach to AI regulation. Japan's approach to AI regulation focuses on voluntary compliance, agile governance, and collaborative efforts between government, businesses, and research institutions to ensure responsible and ethical AI implementation.

While there are no direct prohibitions on the use of AI in Japan, cases have emerged where projects were abandoned due to societal criticism. To support companies in implementing appropriate AI governance measures, the government provides various tools and guidelines. METI's Governance Guidelines for Implementation of AI Principles outlines targets and examples for implementing the Social Principles<sup>66</sup>. Guidelines on privacy, data utilization, and fair contracts for AI development have been published, and private companies and research institutions have also developed their own tools and initiatives to promote AI governance.

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<sup>65</sup> Hiroki Habuka, "Japan's Approach to AI regulation and Its Impact on G7 Presidency", Center for Strategic and International Studies, February 14, 2023, <https://www.csis.org/analysis/japans-approach-ai-regulation-and-its-impact-2023-g7-presidency>

<sup>66</sup> Expert Group on How AI Principles Should be Implemented. AI Governance Guidelines WG, *Governance Guidelines for Implementation of AI Principles, Ver. 1.1*, January 28, 2022, [https://www.meti.go.jp/shingikai/mono\\_info\\_service/ai\\_shakai\\_jisso/pdf/20220128\\_2.pdf](https://www.meti.go.jp/shingikai/mono_info_service/ai_shakai_jisso/pdf/20220128_2.pdf)

### III. CASE STUDY: GENERATIVE ARTIFICIAL INTELLIGENCE

Generative Artificial Intelligence refers to a type of AI “capable of generating new content such as code, images, music, text, simulations, 3D objects, videos, and so on. It is considered an important part of AI research and development, as it has the potential to revolutionize many industries, including entertainment, art, and design”<sup>67</sup>.

A noteworthy generative AI solution currently capturing significant attention is ChatGPT. Launched in November 2022, ChatGPT is a sophisticated chatbot developed by OpenAI with the capability of generating various types of text based on user prompts. It can answer questions, write code, and even compose poems in an advanced manner. Trained on an enormous amount of text from the Internet, with some overseeing from people, it simply infers which word is statistically most probable to follow the previous one. Its accessibility and versatility have attracted more than 1 million users in the first week and more than 100 million monthly active users in January making it the “fastest-growing consumer application ever launched”<sup>68</sup>.

At the same time, the likes of ChatGPT raise concerns about the risks associated with generative AI. Being trained on the data from the Internet, some of which copyrighted, without the permission of the owners; concerns about privacy and ways how data is handled and stored; the ability to create misinformation, disinformation, and deepfakes that look extremely convincing at scale. For instance, in March 2023, a bug in ChatGPT resulted in payment-related information and messages from one user’s conversations were visible to other users who were active at the same time<sup>69</sup>. Moreover, with the spreading of generative AI systems, a new set of risks has

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<sup>67</sup> Arham Islam, “A History of Generative AI: From GAN to GPT-4,” *Marktechpost*, March 21, 2023, <https://www.marktechpost.com/2023/03/21/a-history-of-generative-ai-from-gan-to-gpt-4/>

<sup>68</sup> Krystal Hu, “ChatGPT sets record for fastest-growing user base - analyst note”, Reuters, February 2, 2023, <https://www.reuters.com/technology/chatgpt-sets-record-fastest-growing-user-base-analyst-note-2023-02-01/>

<sup>69</sup> OpenAI, “March 20 ChatGPT outage: Here’s what happened”, March 24, 2023, <https://openai.com/blog/march-20-chatgpt-outage>

emerged<sup>70</sup>. All of those risks have put to test the existing AI governance frameworks. While some countries started consultation processes regarding generative AI systems, others have already embedded them in the regulation.

### *European Union*

In the EU AI Act, generative AI is considered a part of the broader category of general-purpose AI (GPAI) systems – systems without one specific purpose. On May 11, 2023, the Parliament’s Civil Liberties and Internal Market committees jointly adopted the Act, moving it ahead in the legislative process. Under the new approach, the models are classified according to the tiered approach which relies on the application of the model. GPAI providers will be required to support compliance efforts of downstream operators by providing relevant information and documentation regarding their AI model.

Stricter requirements are proposed for foundation models, which are powerful, general-purpose AI systems, i.e., Stable Diffusion that can be used to power other AI applications. These requirements encompass risk management, data governance, and the level of robustness of the foundation model. The EU AIA mandates that independent experts will be involved in the assessment of these aspects.

The highest tier is reserved for generative AI models like ChatGPT. These models will have to clearly disclose when a text is AI-generated and provide a comprehensive summary of the training data that may be subject to copyright law<sup>71</sup>.

In the meantime, EU Member States have taken or are planning to take their own temporary measures regarding the likes of ChatGPT. The most prominent example is Italy’s ban of the chatbot over data privacy concerns, which was already lifted.

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<sup>70</sup> Abhishek Gupta, François Cadelon, Steven D. Mills, Leonid Zhukov. “What ChatGPT Reveals About the Urgent Need for Responsible AI,” *BCG Henderson Institute*, January 19, 2023, <https://bcghendersoninstitute.com/what-chatgpt-reveals-about-the-urgent-need-for-responsible-ai/>

<sup>71</sup> Luca Bertuzzi, “AI Act moves ahead in EU Parliament with key committee vote”, *Euractiv*, May 11, 2023, <https://www.euractiv.com/section/artificial-intelligence/news/ai-act-moves-ahead-in-eu-parliament-with-key-committee-vote/>



## *United States*

President Biden's administration considers introducing regulation for generative AI systems, like ChatGPT<sup>72</sup>. Moreover, the President's Council of Advisors on Science and Technology (PCAST) has created a working group specifically for generative AI<sup>73</sup>. The working group will work on examining the opportunities and risks of the systems and has announced the call for public input on the matter.

## *China*

With generative AI systems seemingly penetrating all fields and updates prevailing in the news, China has taken quick steps to regulating.

China's Deep Synthesis Provisions. China's Deep Synthesis Provisions came into effect on 10 January 2023 as part of the government's efforts to regulate deep synthesis technologies and services. The provisions apply to both providers and users of deep synthesis and define it as "technology utilizing generative and/or synthetic algorithms, such as deep learning and virtual reality, to produce text, graphics, audio, video, or virtual scenes<sup>74</sup>."

The regulation is based on 4 key pillars:

- Data security and personal information protection – put in place and maintain management systems for training, algorithm review, etc.;
- Transparency – establish guidelines for identifying false information;
- Content management & labelling – dispelling fake news;
- Technical security – improve users' safety.

The provisions call for the service providers and supporters to respect the laws and

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<sup>72</sup> Ryan Tracy, "Biden Administration Weighs Possible Rules for AI Tools Like ChatGPT", *The Wall Street Journal*, April 11, 2023, <https://www.wsj.com/articles/biden-administration-weighs-possible-rules-for-ai-tools-like-chatgpt-46f8257b>

<sup>73</sup> The White House, "PCAST Working Group on Generative AI Invites Public Input", May 13, 2023, <https://www.whitehouse.gov/pcast/briefing-room/2023/05/13/pcast-working-group-on-generative-ai-invites-public-input/>

<sup>74</sup> Holistic AI, *The State of Global AI Regulations in 2023* (Holistic AI E-Book), January 2023, 2.

regulation in those 4 areas. Moreover, in April 2023, China proposed additional measures for generative AI services management, i.e., the content of the generative AI systems has to be in line with the country's values. The measures introduce responsibility for training data, require users to disclose their identities, and include legal measures for non-compliance<sup>75</sup>.

### *United Kingdom*

UK's Competition and Markets Authority has announced the launch of the initial review on May 4, 2023, of the AI foundation models<sup>76</sup>. With the plans to publish the review results in September, the Authority aims to understand how the development and deployment of those models can best be supported with a view of the five principles outlined in the white paper, that was released in March this year.

### *Brazil*

The research has shown that no measures were taken to address generative AI specifically.

### *Japan*

Japan's Strategy Council on Artificial Intelligence has met on Thursday, May 11, 2023, to discuss the possibility of creating a policy framework for development of generative AI. Prime Minister Fumio Kishida has stated that while AI has potential for positive change of Japan's economic society, it also bears risks. The government is set to address privacy concerns associated with generative AI while fostering domestic innovation<sup>77</sup>.

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<sup>75</sup> Josh Ye, "China proposes measures to manage generative AI services", *Reuters*, April 11, 2023, <https://www.reuters.com/technology/china-releases-draft-measures-managing-generative-artificial-intelligence-2023-04-11/>

<sup>76</sup> Competition and Markets Authority, "AI Foundation Models: initial review", GOV.UK, May 4, 2023, <https://www.gov.uk/cma-cases/ai-foundation-models-initial-review>

<sup>77</sup> Kana Baba, "Japan takes step toward setting generative AI guidelines", *Nikkei Asia*, May 12, 2023, <https://asia.nikkei.com/Business/Technology/Japan-takes-step-toward-setting-generative-AI-guidelines>

## IV. ANALYSIS

### *International Cooperation*

Outreach. The Council of Europe's Committee on Artificial Intelligence plans to expand the outreach of the Framework Convention on Artificial Intelligence, Human Rights, Democracy and the Rule of Law, once approved, beyond its 46 members<sup>78</sup>. The OECD has already successfully done that through collaboration with G7, G20, and the GPAI. At the same time, a large share of those over 50 countries that endorsed the OECD Recommendation participate in the Council of Europe. Those are mostly wealthy countries from the Global North. In the meantime, UNESCO remains the most inclusive out of the three with 193 members. In the context of the countries analysed in this paper, all 7 of them have expressed their commitment only to the OECD Recommendation (see Annex I).

Principles. There is a significant overlap not only in the three organisations' participating states, but also in the values and principles inside their frameworks (see Annex II). It signifies that, generally speaking, almost 200 countries have expressed their commitment to similar principles on AI use and development, which is a positive sign for future prospects in international cooperation. At the same time, while each of the organisations wants to lead in the field, since they are all leading their efforts in the same direction, being open to cooperation between themselves seems to be a rational opportunity. The efficient utilisation of the resources could help advance the research and development of the AI systems that are aligned to their shared principles.

The role of the OECD and its Recommendation on AI. From the literature review, it seems that out of the three institutions, the OECD has made the most effort in promoting its standards around the world. From creating a policy observatory to appointing a special Working Party to hosting a OECD.AI Network of Experts, the OECD has taken on a comprehensive approach to fostering international cooperation on AI governance.

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<sup>78</sup> Council of Europe, *CAI - Committee on Artificial Intelligence*, Accessed on May 15, 2023, <https://www.coe.int/en/web/artificial-intelligence/cai>

Even though the OECD is usually being criticised for being a club for rich countries, its close collaboration with G7 and G20 has led to the creation of the GPAI which can serve as a platform for cooperation that invites countries from outside the OECD Member States. At the same time, to join GPAI, countries need to undergo a membership process where they have to already have proof of commitment to the OECD values and responsible AI advancement, as well as experts in the domain<sup>79</sup>. It is unclear whether this will incentivise other countries to invest in the field of responsible AI. Less wealthy countries that lack expertise and are unable to dedicate parts of their budget to advance responsible AI are at risk of lagging behind without benefitting from having access to the platforms and learning about best practices.

The trend for the uptake of the OECD Recommendation is likely to continue, and OECD is likely to keep promoting its principles outside of its members, including via G7, G20, and GPAI, which then would lead to the gradual adherence of countries habitually underrepresented in such frameworks.

Generative AI. The discourse regarding responsible AI has been on the agenda even before generative AI came under the spotlight. The rapid proliferation of large language models and generative AI systems has forced national authorities to consider policy measures to handle the consequences. Authorities have called for greater efforts towards responsible AI. With the topic on the agenda of G7, among others, and given that the G7 Digital and Technology ministers reinstated their support of the OECD Recommendation, it is likely that generative AI will serve as another driving force for the promotion and support of the OECD Recommendation.

### *The EU AI Act and the Brussels Effect*

The EU AI Act has been under close inspection, even scrutiny, by policymakers, academics, and industry leaders. First of its kind, the ‘landmark’ regulation is seen a brave attempt to regulate an ever-evolving technology. Taking into the consideration

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<sup>79</sup> The Global Partnership on Artificial Intelligence, “What is the membership process to join GPAI?”, Accessed on May 15, 2023, <https://gpai.ai/community/membership-process/>

that EU's another bold regulatory instrument, GDPR, has previously triggered the Brussels effect with Brazil, India, and Japan emulating the regulation<sup>80</sup>, a question arises, whether the EU AI Act will have the same effect?

Among the countries discussed in this project, the UK, the US, China, and Japan have taken decentralised approaches to regulating AI. Moreover, the US, the UK, and Japan have given preference to soft law. The most similar approach is being followed by Canada and Brazil, however, in case of Canada, its Artificial Intelligence and Data Act leaves plenty of room for elaboration in future regulation.

Growing concerns of policymakers worldwide about the risks associated with generative AI are playing an important role in the matter. It is unclear to what extent Brazil's recently proposed Bill that, similarly to the EU AI Act, undertakes a risk-based approach towards AI regulation was influenced by generative AI, however, the Bill illustrates that some countries are willing to follow the EU's lead in drafting legislation that applies different measures to AI systems based on the risks they pose.

The US, Japan, and the UK are all in the process of assessing the risks generative AI poses. It is still unclear what measures are going to be taken to address those risks. These countries might draw some lessons from the EU AI Act; however, it is unlikely that they will emulate the regulation.

Regulatory competition is not the only mode for the diffusion of rules, international standards and regulatory cooperation can also play a role<sup>81</sup>. With that in mind, the EU could potentially utilise its active participation in intergovernmental groups and international organisations to seek partial conversion and cooperation on regulation. This can also be done bilaterally, with the EU-U.S. TTC and EU-India TTC being potential platforms.

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<sup>80</sup> Andrea Renda, "Beyond the Brussels Effect. Leveraging Digital Regulation for Strategic Autonomy", *Foundation for European Progressive Studies*, March 2022, 4.

<sup>81</sup> *Ibid*, 10.

The EU has a close relationship with both the OECD and UNESCO. In the OECD, the EU enjoys a special participant status and actively engages in various technical committees. While the EU does not have voting rights, it contributes significantly to the OECD budget through voluntary funding, with EU funds representing a third of all voluntary contributions in 2020. Similarly, with UNESCO, the EU has an observer status and has been supporting the organization since its establishment. The EU and UNESCO signed a Memorandum of Understanding to enhance dialogue and cooperation. The EU is the second-largest extra-budgetary funding source for UNESCO, providing significant voluntary contributions<sup>82</sup>. Such prominent presence would allow the EU to promote its regulatory approach via those organisations.

It is important to note that the EU AI Act also has the potential to trigger the *de facto* Brussels Effect<sup>83</sup> – with, for instance, the US AI companies having to adhere to the EU regulations to operate on the Union’s territory.

The EU AI Act has not come into force yet and many countries are only in the development stages of their policies, thus, it is too early to draw final conclusions. The Act’s enforcement and its resilience against new types and forms of Artificial Intelligence will be crucial for the subject matter. The fact that the Act has managed to accommodate generative AI and successfully move ahead in the recent European Parliament vote is a positive sign as is the proposal of Brazil’s new AI bill.

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<sup>82</sup> EU Delegation to the OECD and UNESCO, “Relations with OECD and UNESCO”, September 7, 2021, [https://www.eeas.europa.eu/paris-oecd-unesco/relations-oecd-and-unesco\\_en?s=64](https://www.eeas.europa.eu/paris-oecd-unesco/relations-oecd-and-unesco_en?s=64)

<sup>83</sup> Charlotte Siegmann and Markus Anderljung, “The Brussels Effect and Artificial Intelligence,” Centre for the Governance of AI, August 16, 2022, <https://www.governance.ai/research-paper/brussels-effect-ai>

## V. RECOMMENDATIONS FOR THE ADVANCEMENT OF INTERNATIONAL COOPERATION

The research and analysis carried out in this paper illustrates how different approaches to AI governance are, how complex the policy landscape is, and how vast the field of AI policy is. Keeping in mind that the cases discussed, while remaining some of the most prominent ones, only constitute a minor share of all the regulations and policies, it becomes evident that there is a long way ahead in terms of achieving even partial convergence on some ground rules.

Having said that, the governments and other interested entities should not be discouraged from pursuing convergence on the matter. While incidents like the swift spreading of generative AI systems are arguably inevitable, calling for urgent response, it is also crucial to build a long-term plan for creating and maintaining shared guidelines pertaining to AI governance.

The current state of affairs on policy development might seem like ‘baby steps’ compared to the rate of AI innovation; however, with the right approach and enough attention paid to the matter, the speed of policy development can catch up and overtake the speed of innovation, and the EU AI Act might very well become an example of such a phenomenon.

In the meantime, based on the research findings and with the aim to bridge the gap between academic research and policy practice, this chapter provides a set of actionable recommendations for governments worldwide as well as relevant international organisations to consider for further advancement of international cooperation.

### *1) Common definition of Artificial Intelligence*

First and foremost, it is recommended for the countries and international organisations to agree on a common understanding of what Artificial Intelligence is. Establishing a shared idea is a crucial first step to international cooperation on AI. With some countries not having an official definition, such as China, it presents an

obstacle to agreeing on tangible cooperation measures.

Preference should be given to a broad, technology neutral definition that would prevent actors from employing different development methods to bypass regulation. Drawing on the OECD definition, which is said to undergo minor changes<sup>84</sup>, could bring the actors on the same page without the risk of certain types of AI systems staying under the radar.

## *2) Draw the 'red lines'*

As important as it is to have a shared understanding of what Artificial Intelligence is, it is vital to draw the lines of what AI should *not* be. As with G7 officials and their statement on the Data Free Flows with Trust, the global arena should have a common picture of unacceptable AI use cases.

## *3) Establish ground rules*

Both UNESCO and OECD have common recommendations and together cover most of the world, which could be a starting point for creating a set of recommendations, values, and principles that would lay the groundwork for future development, deployment, and governance of AI.

## *4) Constant and meaningful dialogue*

All of the recommendations previously mentioned and to be listed afterwards are impossible to act upon without a constant dialogue between the countries but also between the policy makers, academics, scientists, civil society, NGOs, and developers.

Meaningful dialogue will enhance understanding of the challenges different groups of people face with development and utilisation of AI and will help align the initiatives

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<sup>84</sup> Luca Bertuzzi, "AI Act moves ahead in EU Parliament with key committee vote", *Euractiv*, May 11, 2023, <https://www.euractiv.com/section/artificial-intelligence/news/ai-act-moves-ahead-in-eu-parliament-with-key-committee-vote/>



with the actual needs.

#### *5) Coordination between the initiatives*

While each of the cases discussed aims at becoming a leader in AI governance, innovation, research and development, etc.; OECD, UNESCO, the Council of Europe, G7, G20, and other international organisations working on AI not analysed in this paper, such as the World Bank and the World Trade Organization, as well as relevant national authorities should make more effort on coordinating their initiatives to ensure efficient utilisation of resources, be it time, money, or expertise. It will ensure the fastest rate of progression in research and cooperation instead of the abundance of almost identical parallel initiatives.

The TTC is an example of a forum for bilateral cooperation where both sides align on certain aspects and share efforts on AI-related research, development, and trade while they continue advancing their unique approaches to AI governance. Moreover, creating a dedicated platform where all initiatives and different groupings are brought together to collaborate, including with entities outside of their members, could also be a solution.

#### *6) Inclusiveness*

While the OECD has achieved tremendous results, and its Recommendation was supported by many countries, partially owing to the existence and activities of the Group of Seven or the Group of Twenty, these institutions remain exclusive.

Most platforms are euro-centric and are comprised of the same wealthy countries of the Global North. While UNESCO serves as a platform for AI cooperation between 193 countries, other organisations should also include underrepresented countries in the dialogue and debate and promote the uptake of commitment to responsible AI across the world. It will help to achieve a harmonised approach, foster trade, and boost innovation.

In the meantime, UNESCO and other UN agencies should ensure that the members

are advancing in their promotion of the AI ethics. It would also be beneficial if UNESCO and the United States improved their interrelations and the US returned to UNESCO. Then, it could truly become the most inclusive platform for cooperation.

#### *7) Comprehensive efforts*

In line with the OECD Recommendations, both national authorities and international organisations should continue to promote a comprehensive approach to dealing with AI governance. That includes investing into research and development, expanding a digital ecosystem, and creating dedicated initiatives, such as the European Centre for Algorithmic Transparency (ECAT).

#### *8) Sector-specific cooperation*

After laying down the groundwork, the countries could cooperate more thoroughly on sector-specific issues related to AI. That could include fields where specific expertise is needed or where the risks associated with AI are particularly high.

#### *9) AI standards*

Developing standards for AI development and deployment would act as preventive measures against exposing people to the risks of AI and potentially allow to avoid situations such as the current one with generative AI.

#### *10) Data flows*

Since data is crucial for AI training and functioning, cooperation on data flow frameworks consistent with OECD values are another beneficial avenue for collaboration.

## CONCLUSION

The analysis presented in this paper highlights the importance of international cooperation in the field of AI governance. While different organizations have made efforts to promote responsible AI practices, there is still a need for greater convergence and coordination among countries and international organizations.

Coming back to the main research question, “What is the role of the OECD Recommendation on AI and the EU AI Act in the broader AI governance landscape?”, and the hypotheses, the analysis illustrates that the OECD Recommendation on AI is a leading framework on the international level, taking into the consideration the comprehensive approach and extensive effort to promoting the principles. Even though UNESCO has more countries that expressed adherence to its principles, its lack of other initiatives positions it behind OECD. With the current rate of OECD Recommendation adoption, it is likely that OECD, in tandem with G7, G20, and GPAI, will continue to lead international cooperation efforts in the future.

The analysis also suggests that the EU AI Act, as a first-of-its-kind regulation, is an important piece of legislation for the European Union and outside of it. That being said, it is unclear whether it will invoke the Brussels effect. Brazil’s newly proposed AI Bill seems to be emulating the EU’s approach, but a longitudinal analysis is required to follow the developments of the bill. As for the future, the success of the EU AI Act will depend on its implementation and enforcement, its flexibility in the face of new AI systems, and the efforts by the EU on regulatory cooperation.

The ten policy recommendations outlined should serve as a solid set of next steps in the domain of cooperation on AI governance. The efforts are manageable in size and scope and should in principle gain approval from interested parties.

It is important to note that more time is required to provide more specific answers. With AI governance still in its early stages both nationally and internationally and with the fast rate of AI innovation, there is a significant lack of certainty about the future of the governance of Artificial Intelligence.

## ANNEX I: PARTICIPATION IN INTERNATIONAL AI GOVERNANCE FRAMEWORKS

	<b>EU</b>	<b>US</b>	<b>China</b>	<b>Canada</b>	<b>UK</b>	<b>Brazil</b>	<b>Japan</b>
<b>OECD Recommendation on Artificial Intelligence</b>	The EU takes part in the work of the OECD. 22 of the EU Member States are part of the OECD and therefore adhere to the principles. The EU adheres based on G7 membership.	OECD member, adheres to the principles.	Adheres to the principles based on G20 membership.	OECD member, adheres to the principles.	OECD member, adheres to the principles.	Adheres to the principles based on G20 membership.	OECD member, adheres to the principles.
<b>UNESCO Recommendation on AI Ethics</b>	Member states participate in UNESCO and have signed the Recommendations.	Not a member of UNESCO	Member of UNESCO, adheres to the principles	Member of UNESCO, adheres to the principles	Member of UNESCO, adheres to the principles	Member of UNESCO, adheres to the principles	Member of UNESCO, adheres to the principles
<b>Council of Europe Convention on AI, Human Rights, Democracy and the Rule of Law</b>	Member states participate, EU closely cooperates with the CoE.	Observer	Does not participate	Observer	Member of CoE	Does not participate	Observer

## ANNEX II: VALUES AND PRINCIPLES IN THE FRAMEWORKS FOR AI

OECD Recommendation on AI	UNESCO Recommendation on AI Ethics	Council of Europe Convention on AI
Transparency and Explainability	Transparency and Explainability; Human Oversight	Transparency and Oversight
Robustness, Security, and Safety	Safety and Security	Safety
Accountability	Responsibility and Accountability	Accountability, Responsibility, Legal Liability
Inclusive Growth; Human-centred Values	Diversity and Inclusion	
Fairness	Fairness and Non-Discrimination	Equality and Anti-Discrimination
Sustainable Development	Sustainability	
	Right to Privacy and Data Protection	Privacy and Personal Data Protection

## BIBLIOGRAPHY

- Access Partnership. "Access Alert | Brazil's New AI Bill: A Comprehensive Framework for Ethical and Responsible Use of AI Systems". May 5, 2023. <https://accesspartnership.com/access-alert-brazils-new-ai-bill-a-comprehensive-framework-for-ethical-and-responsible-use-of-ai-systems/>
- Algorithm Watch. "AI Ethics Guidelines Global Inventory." Accessed May 15, 2023. <https://inventory.algorithmwatch.org/>
- Anyoha, Rockwell. "The History of Artificial Intelligence." *Harvard University, The Graduate School of Arts and Sciences*. August 28, 2017. <https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/>
- Baba, Kana. "Japan takes step toward setting generative AI guidelines". *Nikkei Asia*. May 12, 2023. <https://asia.nikkei.com/Business/Technology/Japan-takes-step-toward-setting-generative-AI-guidelines>
- Bertuzzi, Luca. "AI Act moves ahead in EU Parliament with key committee vote", *Euractiv*, May 11, 2023, <https://www.euractiv.com/section/artificial-intelligence/news/ai-act-moves-ahead-in-eu-parliament-with-key-committee-vote/>
- Bradford, Anu. "The Brussels Effect." *Northwestern University Law Review*. 2012.
- Bradford, Anu. *The Brussels Effect. How the European Union Rules the World*. Oxford: Oxford University Press. 2020.
- BRAZILIAN AI BILL, N. 21/2020, OECD.AI, Accessed on May 15, 2023, <https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faiipo.oecd.org%2F2021-data-policyInitiatives-27207>
- Brazilian AI Strategy. OECD.AI, Accessed on May 15, 2023, <https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faiipo.oecd.org%2F2021-data-policyInitiatives-27104>
- CEIMIA. *A Comparative Framework for AI Regulatory Policy*. February 2023.
- Center for AI and Digital Policy. *Artificial Intelligence and Democratic Values Index*. April 2023.
- Competition and Markets Authority. "AI Foundation Models: initial review". *GOV.UK*. May 4, 2023. <https://www.gov.uk/cma-cases/ai-foundation-models-initial-review>
- Council of Europe. *CAI - Committee on Artificial Intelligence*. Accessed on May 15, 2023. <https://www.coe.int/en/web/artificial-intelligence/cai>
- De Guzman, Chad. "The G7 Summit in Hiroshima Is a Test of Japan's Peace-Brokering Power", *TIME*, May 12, 2023, <https://time.com/6279372/g7-hiroshima-japan-summit-2023/>

Department of Science, Innovation and Technology and The Rt Hon Michelle Donelan MP, “UK unveils world leading approach to innovation in first artificial intelligence white paper to turbocharge growth”, GOV.UK, March 29, 2023, <https://www.gov.uk/government/news/uk-unveils-world-leading-approach-to-innovation-in-first-artificial-intelligence-white-paper-to-turbocharge-growth>

Draft AI R&D GUIDELINES for International Discussions, 2017  
[https://www.soumu.go.jp/main\\_content/000507517.pdf](https://www.soumu.go.jp/main_content/000507517.pdf)

El Atillah, Imane. “Man ends his life after an AI chatbot 'encouraged' him to sacrifice himself to stop climate change.” *Euronews*. March 31, 2023.  
<https://www.euronews.com/next/2023/03/31/man-ends-his-life-after-an-ai-chatbot-encouraged-him-to-sacrifice-himself-to-stop-climate->

EU Delegation to the OECD and UNESCO. *Relations with OECD and UNESCO*. September 7, 2021. [https://www.eeas.europa.eu/paris-oecd-unesco/relations-oecd-and-unesco\\_en?s=64](https://www.eeas.europa.eu/paris-oecd-unesco/relations-oecd-and-unesco_en?s=64)

European Commission. *Coordinated Plan on Artificial Intelligence*. Accessed on May 15, 2023. <https://digital-strategy.ec.europa.eu/en/policies/plan-ai#:~:text=The%20key%20aims%20of%20the,AI%20policy%20to%20avoid%20fragmentation.&text=The%20Coordinated%20Plan%20on%20Artificial%20Intelligence%202021%20Review%20is%20the,global%20leadership%20in%20trustworthy%20AI.>

European Commission. *European Centre for Algorithmic Transparency*, Accessed on May 15, 2023, [https://algorithmic-transparency.ec.europa.eu/index\\_en](https://algorithmic-transparency.ec.europa.eu/index_en)

European Commission. *The Digital Services Act package*. Accessed on May 15, 2023. <https://digital-strategy.ec.europa.eu/en/policies/digital-services-act-package>

Expert Group on How AI Principles Should be Implemented. *AI Governance Guidelines WG. Governance Guidelines for Implementation of AI Principles, Ver. 1.1*. January 28, 2022. [https://www.meti.go.jp/shingikai/mono\\_info\\_service/ai\\_shakai\\_jisso/pdf/20220128\\_2.pdf](https://www.meti.go.jp/shingikai/mono_info_service/ai_shakai_jisso/pdf/20220128_2.pdf)

Friedler, Sorelle, Suresh Venkatasubramanian, Alex Engler. “How California and other states are tackling AI legislation.” *Brookings*. March 22, 2023. <https://www.brookings.edu/blog/techtank/2023/03/22/how-california-and-other-states-are-tackling-ai-legislation/>

G7, “Data Free Flow with Trust”, Accessed on May 15, 2023, <https://www.caidp.org/app/download/8342900463/g7-attachment-202109.pdf>

G7. *2023 Summit in Hiroshima, Members*. Accessed on May 15, 2023. <https://www.g7hiroshima.go.jp/en/summit/members/>

G7. *Ministerial Declaration. The G7 Digital and Tech Ministers’ Meeting*. 30 April 2023. Accessed on May 15, 2023. [https://g7digital-tech-2023.go.jp/topics/pdf/pdf\\_20230430/ministerial\\_declaration\\_dtmm.pdf](https://g7digital-tech-2023.go.jp/topics/pdf/pdf_20230430/ministerial_declaration_dtmm.pdf)

G7. *G7 Science and Technology Ministers' Communique*. May 12-14, 2023. Accessed on May 15, 2023.

[https://www8.cao.go.jp/cstp/kokusaiteki/g7\\_2023/230513\\_g7\\_communique.pdf](https://www8.cao.go.jp/cstp/kokusaiteki/g7_2023/230513_g7_communique.pdf)

Global Index on Responsible AI. "Frameworks and Tools on Responsible AI". Accessed on May 15, 2023. <https://www.responsibleaiindex.org/frameworks-and-tools/>

Goldman, Sharon. "AI regulation: A state-by-state roundup of AI bills." *VentureBeat*. August 8, 2022. <https://venturebeat.com/ai/ai-regulation-a-state-by-state-roundup-of-ai-bills/>

Government of Canada, *Directive on Automated Decision-Making*, May. 2, 2019, <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32592>

Government of Canada, "*Responsible use of artificial intelligence (AI)*", Accessed on May 15, 2019, <https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai.html>

GPAI, Community, Accessed on May 15, 2023, <https://www.gpai.ai/community/>

GPAI, Main page, Accessed on May 15, 2023, <https://gpai.ai/>

GPAI, Responsible AI, Accessed on May 15, 2023, <https://www.gpai.ai/projects/responsible-ai/>

Gupta, Abhishek, François Cadelon, Steven D. Mills, Leonid Zhukov. "What ChatGPT Reveals About the Urgent Need for Responsible AI." *BCG Henderson Institute*. January 19, 2023. <https://bcghendersoninstitute.com/what-chatgpt-reveals-about-the-urgent-need-for-responsible-ai/>

Habuka, Hiroki. "Japan's Approach to AI regulation and Its Impact on G7 Presidency", Center for Strategic and International Studies, February 14, 2023, <https://www.csis.org/analysis/japans-approach-ai-regulation-and-its-impact-2023-g7-presidency>

Holistic AI. *The State of Global AI Regulations in 2023*. Holistic AI E-Book. January 2023.

HM Government, *National AI Strategy*, Accessed on May 15, 2023, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1020402/National\\_AI\\_Strategy\\_-\\_PDF\\_version.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1020402/National_AI_Strategy_-_PDF_version.pdf)

House of Commons of Canada, *Vote No. 301*, April 24, 2023, <https://www.ourcommons.ca/Members/en/votes/44/1/301>

Hu, Krystal. "ChatGPT sets record for fastest-growing user base - analyst note." Reuters, February 2, 2023. <https://www.reuters.com/technology/chatgpt-sets-record-fastest-growing-user-base-analyst-note-2023-02-01/>



Islam, Arham. "A History of Generative AI: From GAN to GPT-4." *Marktechpost*, March 21, 2023. <https://www.marktechpost.com/2023/03/21/a-history-of-generative-ai-from-gan-to-gpt-4/>

ITU, AI for Good Global Summit, Accessed on May 15, 2023, <https://aiforgood.itu.int/summit23/>

Japan Times. "Japan pushes for basic AI rules at G-7 tech meeting." Accessed on May 15, 2023. <https://www.japantimes.co.jp/news/2016/04/29/national/japan-pushes-basic-ai-rules-g-7-tech-meeting/>

Kerry, Cameron F. "NIST's AI Risk Management Framework plants a flag in the AI debate." *Brookings*. February 15, 2023. <https://www.brookings.edu/blog/techtank/2023/02/15/nists-ai-risk-management-framework-plants-a-flag-in-the-ai-debate/>

Kerry, Cameron F., Joshua P. Meltzer, Andrea Renda, Alex C. Engler, Rosanna Fanni. *Strengthening International Cooperation on AI*. *Brookings*. October 2021.

N/A. *TTC Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management*. December 1, 2022.

National Institute of Standards and Technology. U.S. Department of Commerce. *Glossary*. Accessed on May 15, 2023. [https://airc.nist.gov/AI\\_RM\\_Knowledge\\_Base/Glossary](https://airc.nist.gov/AI_RM_Knowledge_Base/Glossary)

National Security Commission on Artificial Intelligence. *National Security Commission on Artificial Intelligence: The Final Report*. 2021. <https://www.nsc.ai.gov/2021-final-report/>

OECD. *About*. Accessed on May 15, 2023. <https://www.oecd.org/about/>

OECD. G20 AI Principles. Accessed on May 15, 2023. <https://wp.oecd.ai/app/uploads/2021/06/G20-AI-Principles.pdf>

OECD. *National AI policies & strategies*. Accessed on May 15, 2023. <https://oecd.ai/en/dashboards/overview>

OECD.AI. BRAZILIAN AI BILL, N. 21/2020. Accessed on May 15, 2023, <https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27207>

OECD.AI. Brazilian AI Strategy. Accessed on May 15, 2023. <https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27104>

OECD.AI. "Network of Experts". Accessed on May 15, 2023. <https://oecd.ai/en/network-of-experts>

OECD.AI Policy Observatory. "OECD AI Principles overview." Accessed on May 15, 2023. <https://oecd.ai/en/ai-principles>

OECD Legal Instruments. “*Recommendation of the Council on Artificial Intelligence.*” May 22, 2019. Accessed on May 15, 2023. <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449>

OECD’s Working Party on Artificial Intelligence Governance (WPAIGO), Accessed on May 15, 2023, <https://oecdgroups.oecd.org/Bodies/ShowBodyView.aspx?BodyID=7755&BodyPID=13964&Book=False>

OpenAI. “March 20 ChatGPT outage: Here’s what happened.” March 24, 2023. <https://openai.com/blog/march-20-chatgpt-outage>

Prime Minister of Canada, “*Mandate for the International Panel on Artificial Intelligence*”, December 6, 2018, <https://pm.gc.ca/en/news/backgrounders/2018/12/06/mandate-international-panel-artificial-intelligence>

Renda, Andrea. “Beyond the Brussels Effect. Leveraging Digital Regulation for Strategic Autonomy.” *Foundation for European Progressive Studies*, March 2022.

Royal Society, “*Artificial intelligence and society*”, Accessed on May 15, 2023, <https://royalsociety.org/-/media/about-us/international/g-science-statements/2019-g7-declaration-artificial-intelligence-and-society.pdf>

Schildkraut, Peter and Hazel Zhang. “What To Know About China's New AI Regulations.” *Arnold Porter*. April 19, 2023. <https://www.arnoldporter.com/-/media/files/perspectives/publications/2023/04/what-to-know-about-chinas-new-ai-regulations.pdf?rev=d872d730384040619c1301e098cd90ee>

Shanghai Regulations Translation, CSET, <https://cset.georgetown.edu/publication/regulations-for-the-promotion-of-the-development-of-the-artificial-intelligence-industry-in-shanghai-municipality/>

Shenzhen Regulations Translation, CSET, <https://cset.georgetown.edu/publication/regulations-for-the-promotion-of-the-artificial-intelligence-industry-in-shenzhen-special-economic-zone/>

Siegmann, Charlotte and Markus Anderljung. “The Brussels Effect and Artificial Intelligence.” Centre for the Governance of AI. August 16, 2022. <https://www.governance.ai/research-paper/brussels-effect-ai>

The Global Partnership on Artificial Intelligence, “What is the membership process to join GPAI?”, Accessed on May 15, 2023, <https://gpai.ai/community/membership-process/>

The White House. *Blueprint for an AI Bill of Rights. Making Automated Systems Work for the American People.* October, 2022.

The White House, “*CARBIS BAY G7 SUMMIT COMMUNIQUÉ*”, June 13, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/13/carbis-bay-g7-summit-communique/>

The White House. "PCAST Working Group on Generative AI Invites Public Input". May 13, 2023. <https://www.whitehouse.gov/pcast/briefing-room/2023/05/13/pcast-working-group-on-generative-ai-invites-public-input/>

Tracy, Ryan. "Biden Administration Weighs Possible Rules for AI Tools Like ChatGPT". *The Wall Street Journal*. April 11, 2023. <https://www.wsj.com/articles/biden-administration-weighs-possible-rules-for-ai-tools-like-chatgpt-46f8257b>

*TTC Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management*. December 1, 2022.

UN Human Rights, Office of the High Commissioner, Artificial intelligence risks to privacy demand urgent action – Bachelet (Sept. 15, 2021), <https://www.ohchr.org/en/2021/09/artificial-intelligence-risks-privacy-demand-urgent-action-bachelet>

UN Secretary General, Report: Our Common Agenda (2021), [https://www.un.org/en/content/common-agendareport/assets/pdf/Common\\_Agenda\\_Report\\_English.pdf](https://www.un.org/en/content/common-agendareport/assets/pdf/Common_Agenda_Report_English.pdf)

UNESCO, *Artificial Intelligence*, Accessed on May 15, 2023, <https://www.unesco.org/en/artificial-intelligence>

UNESCO, Recommendation on AI Ethics, Accessed on May 15, 2023, <https://unesdoc.unesco.org/ark:/48223/pf0000380455>

UNICRI, "*CBRN National Action Plans: Rising to the Challenges of International Security and the Emergence of Artificial Intelligence*", October 7, 2015, [https://unicri.it/news/article/cbrn\\_artificial\\_intelligence](https://unicri.it/news/article/cbrn_artificial_intelligence)

United Nations, Office of the Secretary-General's Envoy on Technology, Accessed on May 15, 2023, <https://www.un.org/techenvoy/>

United Nations Secretary-General, "*Amandeep Singh Gill, Secretary-General's Envoy on Technology*", Accessed on May 15, 2023, <https://www.un.org/sq/en/content/profiles/amandeep-gill>

Ye, Josh. "China proposes measures to manage generative AI services." *Reuters*. April 11, 2023. <https://www.reuters.com/technology/china-releases-draft-measures-managing-generative-artificial-intelligence-2023-04-11/>