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A Missed Opportunity to Further Build Trust in AI: A Landscape Analysis of OECD.AI IIEP-WP-2022-10

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A Missed Opportunity to Further Build Trust in AI

A Landscape Analysis of OECD.AI

Susan Ariel Aaronson.¹

Overview

My neighbors are probably a lot like yours; they are increasingly dependent on services built on artificial intelligence (AI). For example, they rely on digital assistants to check their schedules, and utilize AI to help them avoid traffic jams. When they get home they check Netflix's algorithms to search for their next must watch tv show. My neighbors recognize that firms and governments utilize AI to make decisions for and about them, but they don't understand how AI might affect their future.²

My neighbors tend to distrust AI because also don't understand the processes and technologies that underpin it (Hoff and Bashir, 2006; Rainie et al: 2022). But they expect government officials to design public policies that allow society to reap the benefits and minimize the costs of AI deployment. They also want to know if programs designed to do so are effective.³

My neighbors are not alone--the world needs a better understanding of how policymakers can effectively encourage AI innovation and adoption, while mitigating potential AI risks (Litman et al: 2021). Some governments are starting to develop guidelines for regulating various AI sectors (as example the US) while others such as the EU and Canada are debating regulation of risky types of AI.⁴ Meanwhile, various think tanks and scholars have published reports or assessments of government programs or overall efforts. For example, the Center for Security and Emerging Technology examined comparative advantage in AI. The authors compared AI capabilities (the state of AI research, large data pools, semi-conductor capacity and

¹ Emily Tyler, a GWU senior, helped with the background research and did the tables for this analysis. ² These benefits include breakthrough research and economic efficiency, while the costs may include social and income inequality, greater exclusion and marginalization of minorities, expanded social control through surveillance, and increased risks to democracy, human rights, and individual autonomy. Global AI deployment could also hasten national security threats, exacerbate economic vulnerability, and further geopolitical conflict autonomy (Acemoglu: 2021; Shaffer: 2021: European Parliament: 2021).

³ https://www.womeninai.co/post/trustworthy-ai-can-laws-build-trust-in-ai

⁴. For the US, <u>https://www.whitehouse.gov/wp-content/uploads/2020/01/Draft-OMB-Memo-on-Regulation-of-Al-1-7-19.pdf</u>; for the EU, A European Approach to Artificial Intelligence, <u>https://digital-</u>

strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence; and for Canada, BillC-27, which aims to mitigate risks of harm and discrimination related to AI use and development. The Act also establishes prohibitions related to the possession or use of illegally obtained personal information for the purpose of designing, developing, using or making available for use an artificial intelligence system and to the making available for use of an artificial intelligence system if its use causes serious harm to individuals. . <u>https://www.parl.ca/DocumentViewer/en/44-1/bill/C-27/first-reading</u>,

enablers (such as workforce development and research funding) in China and the US (Imbrie et al. 2020) CSET has also examined responsible and ethical military AI, comparing government actions and policies (Stanley-Lockman: 2021The Center for Data Innovation has issued a report card for US AI Policies (Omaar: 2022a).

The members of the Organization for Economic Co-operation and Development (OECD) decided they could help bridge this knowledge gap. The OECD is essentially a think and do tank for governments and their constituents⁵ To that end, it publishes cutting edge research reports and engages with a wide range of stakeholders online and in person to improve governance.

In 2018-2019, representatives from 37 OECD member countries agreed to create a set of principles to govern the creation and dissemination of what it called "trustworthy AI. " The OECD defines trustworthy AI as AI systems that respect human rights and privacy; are fair, transparent, explainable, robust, secure and safe; and the actors involved in their development and use remain accountable (OECD: 2021b, pp.6-7). Trustworthy AI systems are supposed to build trust in both in AI systems and in government efforts to govern such systems

The OECD Secretariat worked with member states to draft the OECD AI principles, the first AI standard at the intergovernmental level. The Principles were adopted in May 2019 by the 37 OECD member countries and five non-member countries, and later on endorsed by the members of the world's 20 largest economies—the G20 in June 2019 (OECD 2021a and b pp. 6-7). The OECD AI Principles do not solely focus on efforts to build trust in AI and on strategies to create trustworthy AI systems. They also contain five recommendations for national policies and international cooperation including: 1) investing in AI research and development; 2) fostering a digital ecosystem for AI; 3) shaping an enabling policy environment for AI; 4) building human capacity and preparing for labor market transformation; and 5) international co-operation for trustworthy AI (OECD 2021b. p.7).

As these principles gained traction, the OECD began to help policymakers and other stakeholders implement these Principles in practice. The OECD convened a Network of Experts, which in turn set up a working group on national AI policies in June 2020. The working group discussed case studies at some ten meetings and gave practice advice for implementing the OECD AI principles (OECD: 2021a, p.9).

The OECD also created a website with dedicated staff called OECD.AI. According to the website, "OECD.AI combines resources from across the OECD, its partners and all stakeholder groups. OECD.AI facilitates dialogue between stakeholders while providing multidisciplinary, evidence-based policy analysis in the areas where AI has the most impact." ⁶ The website also shares the latest information and insights on tools and methods for implementing trustworthy AI (OECD: 2021, p.7). OECD.AI contains "an interactive database of AI policies and initiatives from countries, territories and other

⁵ Who we are, <u>https://www.oecd.org/about/</u>

⁶ About OECD AI, <u>https://oecd.ai/en/about</u>

stakeholders to facilitate international co-operation, benchmarking and help develop best practices."⁷ In so doing the OECD stated it could identify best practices and ascertain how limited taxpayer funds could achieve better outcomes as society increasingly turns to AI.⁸

The web site is the world's best source for information on public policies dedicated to AI, trustworthy AI and international efforts to advance cooperation in AI. However, the web site is also a missed opportunity to ascertain best practice and to build trust in AI not just for citizens of reporting nations but for the world.

The author came to that conclusion after examining the documentation that nations placed online at OECD.AI. website. She utilized a landscape analysis to group these policies reported to the OECD by country and type, whether the initiative was evaluated or reported on, and whether it provided new insights about best practice trust, in AI, and/or trustworthy AI.

Some 61 countries and the EU reported to the OECD on their AI initiatives (for a total of 62).⁹ Although the members of the OECD are generally high and high-middle income nations, the 62 governments providing information to OECD.AI represent a mix of AI capacity, income level, economic system, and location.¹⁰ Some 814 initiatives placed on the website as of August 2022, but 4 were duplicative and some 30 were blank, leaving 780. Of these, countries claimed that 48 of these initiatives were evaluated. However, we actually found only four evaluations (and one in progress) with a clear evaluative methodology Two initiatives were labeled evaluations but did not include a methodology. Many of the other 42 were reports rather than evaluations. In addition, only a small percentage (41 initiatives or 5% of all initiatives,) were designed to build trust in AI or to create trustworthy AI systems.

National policymakers and not the OECD Secretariat decide what each of the 62 governments choose to put on the site. These officials don't list every initiative their country implements to foster AI. But their choices reveal their priorities. Most of the documentation focuses on what they are doing to build domestic AI capacity and a supportive governance context for AI.¹¹ We also found relatively few efforts to build

⁷ About OECD AI, <u>https://oecd.ai/en/about</u>

⁸ <u>https://www.oecd.org/digital/artificial-intelligence/</u>

⁹ Although Russia has supposedly endorsed the OECD AI Principles through the G-20, it has not reported any programs to the OECD. Our analysis is current as of July 31, 2022.

¹⁰ https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

¹¹ See as example, the UK. <u>https://oecd.ai/en/dashboards/policy-</u>

initiatives?conceptUris=http:%2F%2Fkim.oecd.org%2FTaxonomy%2FGeographicalAreas%23UnitedKing dom or Brazil, https://oecd.ai/en/dashboards/policy-

initiatives?conceptUris=http:%2F%2Fkim.oecd.org%2FTaxonomy%2FGeographicalAreas%23Brazil

international cooperation on AI, or to strengthen other countries' AI capacity. Taken in sum, these efforts are important but reveal little effort to build international trust in AI.

Wat is the Relationship between Trust and AI?

Al can be opaque, complex and unpredictable, and most individuals may find Al hard to understand¹². To convince Al users that Al is safe and predictable, creators and deployers of Al and Al creators must find ways to engender trust (Stanton and Jensen: 2021). However, computer scientist Joana Bryson argues that no one should trust Al. "Trust is a relationship between peers in which the trusting party, while not knowing for certain what the trusted party will do, believes any promises being made. Al is a set of system development techniques that allow machines to compute actions or knowledge from a set of data. Only other software development techniques can be peers with Al, and since these do not "trust", no one actually *can* trust Al." (Bryson: 2018)

Despite these difference in opinion about whether we can create trustworthy AI, a wide range of policymakers have decided that they need to build trust in AI by designing initiatives for ethical, responsible, human centric and/or trustworthy AI. Officials have turned to both soft (standards and principles) and hard law (laws, regulations, and directives) to ensure that the design and deployment of AI is responsible, ethical and trustworthy (Diwivedi et al. 2019; UNESCO: 2021; Shang and Du: 2021). Yet these initiatives are relatively new and no one knows if they really establish or sustain trust.

What is the relationship between data governance, trust and AI?

Data is the essential element for A!. For an AI system to learn and produce the desired outputs; it must first organize, categorize, and learn from a lot of data. The World Bank defines data governance as "creating an environment of...norms, infrastructure policies and technical mechanisms, laws and regulations for data, related economic policies, and institutions that can effectively enable the safe, trustworthy use" of various types of data. "Effective data governance "can strengthen trust in the data system, thereby incentivizing the use of data-driven products and services, increasing their value, and ensuring a more equitable distribution of benefits. In effect, data governance enforces the social contract around data, by applying the principles of trust, value, and equity" (World Bank: 2021, 38). Thus, how nations govern data tells us something about whether and how they are trying to build trust in AI. One key mechanism for building trust is to act in a responsible accountable manner. Policymakers use evaluations to signal such accountability.

Why are Evaluations Important for Government AI Efforts?

Many of the world's people are experiencing high inflation and money is tight for consumers and many governments (Gourinchas: 2022). Taxpayers want and deserve to know that their taxes are going to programs that are effective (Pew: 2022; Burstein:

¹² <u>https://www2.deloitte.com/us/en/pages/deloitte-analytics/solutions/ethics-of-ai-framework.html</u>; NIST: 2018; and https://arxiv.org/abs/2110.01167

2003). Officials conduct reports, assessment and evaluations to provide taxpayers with further information about what the government is doing and how it is doing it. (Dube: 2018 and Katz: 2021). Policymakers use reports to gain greater understanding of a situation, problem or initiative. ¹³ In contrast, they use evaluations to examine if a program has attained its objectives.¹⁴

The OECD defines evaluation as the systematic and objective assessment of an ongoing or completed project, programme or policy, its design, implementation and results. Evaluations are designed to determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact and sustainability. Evaluations should also provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process.¹⁵

Policymakers and citizens rely on evaluations for learning, improvement and , as well as accountability purposes.¹⁶ According to a recent study of evaluations, evidence can shed light on the causal pathways through which a policy or program affects outcomes. This information helps generate hypotheses and inform decisions about adjustments, improvements, and future implementation strategies. As a complement, impact evaluation detects whether a specific policy or program leads to an observable change in outcomes and if it works better than an alternative approach or counterfactual." (Kaufman et al. 2022, p.1)

Some governments have also begun to evaluate their strategies for AI. Canada was the first nation (in 2017) to develop a strategy for Ai as well as the first government to evaluate its strategy in 2020 (Accenture and CIFAR: 2020). But while Canada has joined many efforts to ensure that AI is responsible and trusted, we don't know if its strategy is actually building trust in Canadian AI.¹⁷

Evaluations may be particularly useful in building trust in policymaker actions related to AI.

1. There are many different types of AI as well as uses As example AI can performs tasks replacing or supplementing human analysis. Policymakers could

¹³ https://www.merriam-webster.com/dictionary/report

¹⁴ <u>https://icc.edu/faculty-staff/files/Difference-between-Assessment-and-Evaluation.pdf;</u> Patricia Rogers, Week 19: Ways of framing the difference between research and evaluation, May 9, 2014,

https://www.betterevaluation.org/en/blog/framing the difference between research and evaluation; http://www.differencebetween.net/business/planning-activities/difference-between-analyzing-and-evaluating/

¹⁵ OECD, SECO/WE, p. 4, https://www.oecd.org/dac/evaluation/seco_guidelines.pdf.

¹⁶ Executive Office of the President, Office of Management and Budget, Phase 4 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Program Evaluation Standards and Practices, March 4, 2020, appendix p. 8,

¹⁷ Accenture, Pan-Canadian AI strategy: Shaping the AI ecosystem, May 18, 2021,

https://www.accenture.com/ca-en/insights/artificial-intelligence/pan-canadian-ai-strategy

use evaluations to show that certain types of evaluations are effective for particular types of programs.¹⁸

- 2. Although market actors are increasingly relying on Al to make decisions, in many countries, individuals are leery of the growing use of Al. In 2019, IPSOS surveyed 20,107 adults from 2017 countries and found that 41% agree that they are worried about the use of Al, while 27% disagree and 32% neither agree nor disagree.¹⁹, in 2021, Pew polled a random sample of 10, 260 US adults on Al. Some 37% said they are more concerned than excited by the increased use of Al in daily life, while 45% say they are equally concerned and excited. Only 18% are more excited than concerned. Those who expressed concern cited worries about potential loss of jobs, privacy considerations and the prospect that Al's ascent might surpass human skills. (Rainie et al, 2022). With evaluations, policymakers can directly address if these concerns are based in fact.
- 3. Some people are particularly concerned about policymakers using AI to provide services or to regulate. In 2019, the Boston Consulting Group surveyed more than 14,000 internet users around the world as part of its biannual Digital Government Benchmarking study. It found that citizens were most supportive of using AI for tasks such as transport and traffic optimization, predictive maintenance of public infrastructure, and customer service activities. The majority did not support AI for sensitive decisions associated with the justice system, such as parole board and sentencing recommendations (Carasco et al: 2019). Evaluations of AI might help users feel more comfortable with government use of AI.
- 4. No one really knows how to govern Al. National and international policies designed to govern Al are relatively new (OECD: 2021). However, policymakers cannot govern Al in a hands-off fashion, waiting for problems to develop and then trying to fix them after the fact. Instead regulators should make governance fit the rapidly changing nature of Al (MacCarthy: 2020). As the Alan Turing Institute, a leading British think tank on Al, recently noted, "Regulators need to understand the nature and implications of Al uses that fall within their regulatory remit and to assess the adequacy of regulatory arrangements in relation to Al." (Atkin et al:

¹⁸ As example of the many different types of AI, Section 238(g) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115232, 132 Stat. 1636, 1695 (Aug. 13, 2018) (codified at 10 U.S.C. § 2358, note), defined AI to include the following:

⁽¹⁾Any artificial system that performs tasks under varying and unpredictable circumstances without significant human oversight, or that can learn from experience and improve performance when exposed to data sets. (2)An artificial system developed in computer software, physical hardware, or another context that solves tasks requiring human-like perception, cognition, planning, learning, communication, or physical action. (3)An artificial system designed to think or act like a human, including cognitive architectures and neural networks (4)A set of techniques, including machine learning, that is designed to approximate a cognitive task. (5)An artificial system designed to act rationally, including an intelligent software agent or embodied robot that achieves goals using perception, planning, reasoning, learning, communicating, decision-making, and acting.

¹⁹ https://www.ipsos.com/sites/default/files/ct/news/documents/2019-07/wef-ai-ipsos-press-release-jul-2019.pdf

2022) But without evaluations, we don't know if regulation can mitigate the problems directly or indirectly associated with the use of AI? We also don't know how to design these regulations and to ensure that one country's regulations do not undermine another country's approach to AI governance (Fletcher: 2022)

5. These evaluations can help policymakers build trust in their efforts to govern AI. Policymakers can utilize these evaluations to show their results are consistent, predictable and reduce opportunistic behavior (Cerna: 2014). These evaluations can demonstrate that policymakers are competent at governing AI and finally, they signal that the government cares about its constituents (Eggers et al: 2021).

Given these insights, we set out to examine what the 62 nations posted on OECD.AI and what it said about their priorities.

Methodology

With the help of research assistant Emily Tyler, the author used a landscape analysis grouping policies reported to the OECD by country and type. Table 1 delineates all of the reported policies.

Table 1 Initiatives by 62 Governments at the OECD.AI Website

Total Number of Governments Reporting to the OECD: ²⁰	62
Total Number of Initiatives in OECD AI Policy Observatory	814
Number of Recorded Initiatives ²¹	780
Number of Initiatives Left Completely Blank	30
Number of Double- Counted Initiatives ²²	4

Table by Emily Tyler, Research Assistant at the George Washington University

The researchers next created out own typology to characterize the government programs. We wanted to see if policymakers focused on direct funding of AI such as investments in research to bolster AI, building human capacity to work with or create AI, AI governance, or complementary initiatives (infrastructure such as cloud resources or data sharing platforms that could facilitate AI). We also wanted to see if governments created new structures (agencies or divisions) to address questions of AI.

Text Box 1: Types of Initiatives Reported to the OECD- as of July 31, 2022

²⁰ As of July 31, 2022, the site includes information from Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Ireland, Israel, Italy, Japan, Kazakhstan, Kenya, Latvia, Lithuania, Luxembourg, Malta, Mexico, Morocco, Netherlands, New Zealand, Norway, Peru, Poland, Portugal, Romania, Saudi Arabia, Serbia, Singapore, Slovak Republic, Slovenia, South Africa, Korea, Spain, Sweden, Switzerland, Thailand, Tunisia, Turkey, United Arab Emirates, United Kingdom, United States, Uruguay, Vietnam, and the European Union

²¹ Recorded initiatives are those that were not blank or double-counted.

²² Double-counted initiatives were those that were duplicated within the same country. This includes: Argentina's <u>Artificial Intelligence National Plan</u> and their <u>Artificial Intelligence National Plan</u>, Germany's <u>Competence Centers for AI Research</u> and their <u>Competence Centers for AI Research</u>, Australia's <u>Artificial Intelligence Technology Roadmap</u> and their <u>AI Technology Roadmap</u>, and Australia's <u>AI PHD</u> <u>Scholarships</u> and their <u>Artificial Intelligence PHD Scholarships</u>. The first two sets of initiatives had the exact same descriptions and titles. The third set of initiatives, on the other hand, had differing titles but the same descriptions. The last set of initiatives had different titles and descriptions but talked about the same program.

Blank Initiatives: The website provided no detail on the initiative **Double Counted Initiatives**: The initiative had more than one web link. **Regulations and Legislation**: Laws and regulations regulating AI or the data underpinning it. **Reports:** Publications produced by government entities. **Dialogues:** Government initiative listed as a dialogue between stakeholders. **Strategies:** Planning documents produced by governmental entities **Funded Initiatives**: Grants or programs funded by taxpayers **Principles/Guidance:** Non-binding principles or guidance to AI deployers **Platforms/Infrastructure**—Taxpayer funded infrastructure that facilitates AI development, for example, a cloud contract **Regulatory Sandboxes:** published regulatory approach that allows live, time-bound testing of innovations under a regulator's oversight. **Advisory Bodies**-government created body that advises the government New Government Bodies-the government created a new structure to address AI **Miscellaneous** Did not fit in in any of the others, as example, data sharing incentives or other complementary policies. **Irrelevant**: Had little to do with AI as far as we could tell!

Our characterizations may be arbitrary, as many programs fit into two or more of the types mentioned above. Moreover, at times we found double reporting. For example, Australia has an excellent website summarizing the various types of initiatives it has developed both to nurture AI and to mitigate possible negative spillovers. On that website it lists one program for Artificial Intelligence Ph.D. Scholarships.²³ However, on the OECD website we found 2 initiatives sharing that name, the Artificial Intelligence Ph.D. Scholarships, which began in 2019 and end 2021,²⁴ and the AI Ph.D scholarships which end in 2022, but do not appear on the Australian Industry website. Poland also put forward two initiatives with the same name. The Policy for AI Development in Poland was published in Jan. 2021 with no end date. It is supervised by several ministries and the Prime Minister's Office. It is designed to "highlight the opportunities that AI offers to Poland's economy he policy also lays down the framework and basic principles for the deployment of AI technologies in Poland." it has no evaluation and no

policyInitiatives-24378 https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24378

 ²³ Government of Australia, Department of Industry, Science and Resources, "Government Initiatives," <u>https://www.industry.gov.au/data-and-publications/australias-tech-future/government-initiatives</u>
 ²⁴ <u>https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-</u>

end date²⁵The second Policy for AI Development in Poland from 2020 starts in 2020 and ends 2030, and it aims to support AI science and R and D., the AI ecosystem, Polish society and the Polish economy.²⁶. We were unable to review one link reported as evaluated from Japan.²⁷

Some of the initiatives listed on the web site include starting dates before AI was widely commercialized. Clearly, policymakers have revamped a wide range of existing government structures, policies, and programs to address AI. For example, Italy cited a program that began in 1969.²⁸ Moreover, Belgium listed IMEC, which in 1984 began s world-leading research in the field of nano-electronics and nano-technology. This research includes digital components, organic electronics or scaling-driven nano-electronics and is applied in healthcare, smart electronics, sustainable energy and transport²⁹. Belgium also listed an R and D research program begun in 1986, which aims to produce research that can be commercialized.³⁰ Australia listed an initiative that began in 1991providing financial support for collaborations between researchers and industry in specific fields.³¹.

Findings

²⁵ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24268

²⁶ Among its goals, this initiative aims to: 1) create a culture of cooperation between the public and private sector in the area of innovation;

²⁾ providing conditions for the development of citizens creativity by strengthening the labour market;3) support and promotion of AI solutions created by Polish companies;

⁴⁾ creating an effective and agile central mechanism for coordinating public initiatives in the field of Artificial Intelligence and modern technologies;

⁵⁾ supporting cooperation between academic centers and business entities;

⁶⁾ development of digital competencies and skills. The website for the initiative at the OECD is: <u>https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-</u> 26494

²⁷ We were unable to translate the information on Japan's Advanced Integrated Platform Project. Since it is a scanned PDF, it is not compatible with Google Translate. <u>https://www.mext.go.jp/content/20200729-</u> <u>mxt_jyohoka01-00009044_02.pdf</u>. The project promotes unique research activities leading to new innovations in bit data, cybersecurity, and IoT, utilizing the framework of Japan's Strategic Basic Research Programs.

²⁸ The initiative with the earliest origin date was Italy's <u>Cineca Supercomputing Centre</u>. Although the research consortium began in 1969, the supercomputing center likely did not.

https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26826

²⁹ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-15194

³⁰ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-25360

³¹ <u>https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-3720</u>

Table 2 delineates the number and diversity of initiatives reported at the OECD.AI site. The largest group were strategies, followed by funded initiatives, new governance bodies, platforms and infrastructure, and principles/guidance.

Initiative Type	Number of Initiatives	Described as Evaluated with no Link	Described as Evaluated with Link
Blank Initiatives	30	0	0
Double-Counted Initiatives	4	0	0
Regulations and Legislation	56	2	2
Reports	31	0	0
Dialogues	1	0	0
Strategies	174	6	7
Funded Initiatives	134	14	5
Principles/Guidance	73	1	3
Platforms and Infrastructure	79	2	1
Regulatory Sandboxes	11	0	0
Advisory Bodies	31	0	0
New Government Bodies	82	0	2
Standards	7	0	0
Miscellaneous	100	3	0
Irrelevant ³²	1	0	0
TOTALS:	814	28	20

Table by Emily Tyler, Research Assistant at the George Washington University

Figure 1 illuminates the countries reporting the most activity, excluding initiatives that were blank or double-counted. Most of these countries (and the EU) are highly competitive in producing AI research and services-Turkey and Colombia are exceptions.³³.

³² Irrelevant initiatives were those that had nothing to do with artificial intelligence and did not fit within any existing category. We could not figure out how iSIMPLEX was related to AI. It is a program that attempts to facilitate administrative procedures through increased use of ICT...but we saw no mention of AI per se. <u>https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-25703</u> and the Portuguese site: <u>https://www.simplex.gov.pt/</u>

³³ <u>https://aiindex.stanford.edu/vibrancy/;</u> https://www.nature.com/articles/d41586-020-03409-8;; https://macropolo.org/digital-projects/the-global-ai-talent-tracker/;

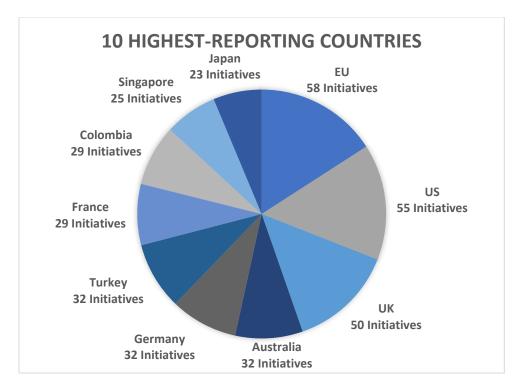


Fig 1 The Countries Reporting the Most Initiatives to the OECD

Table 3 below focuses on initiatives posted on the site where trust, responsible, inclusive and/or ethical were part of a title and likely a key objective. Only 5%, or 41 initiatives mentioned these descriptors despite their emphasis in the OECD AI principles. ³⁴ Most of the initiatives listed are domestic, but Egypt listed its participation in UNESCO's efforts to develop an agreement on ethical AI, were international. We note this listing does not cover all such initiatives. For example, the US put forward guidance on products or services with surveillance capabilities, an initiative designed to encourage responsible behavior,³⁵ and Australia listed a human rights discussion paper, key to ethical practice.³⁶

Table 3: Initiatives Using Trust, Responsible, Inclusive or Ethical in their Title

TRUSTWORTHY/TRUST

- 1. <u>Report on Addressing Trust in Public Sector Data Use</u> (UK)
- 2. <u>Trustworthy Facial Recognition Applications and Protections Plan</u> (China)

³⁴ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24955

³⁵ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26986

³⁶ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26833

- 3. Towards Trustworthy AI: Malta's Ethical AI Framework 2019 (Malta)
- 4. <u>Executive Order on Promoting the Use of Trustworthy AI in Federal</u> <u>Government (US)</u>
- 5. <u>Trustworthy AI Stamp</u> (Turkey)
- 6. <u>Policy and Investment Recommendations for Trustworthy Artificial Intelligence</u> (EU)
- 7. Implementation Strategy for Trustworthy Al (Korea)
- 8. Whitepaper on Trustworthy AI (China)
- 9. <u>Guidelines for the Implementation of Data Trust and Data Commons Models</u> (Colombia)

RESPONSIBLE

- 1. <u>Australian Code for the Responsible Conduct of Research (Australia)</u>
- 2. <u>Governance Principles for New Generation AI Developing Responsible AI</u> (China)
- 3. <u>Approach Document for India: Part 1 Principles for Responsible AI (India)</u>
- 4. National Programme for Government Schools: Responsible AI for Youth (India)
- 5. <u>Approach Document for India: Part 2 Operationalizing Principles for</u> <u>Responsible AI (India)</u>

INCLUSIVE

1. <u>Standards for the Implementation of Inclusive AI Systems (In Progress)</u> (Colombia)

ETHICAL

- 1. Towards Trustworthy AI: Malta's Ethical AI Framework 2019 (Malta)
- 2. <u>Ethics Guidelines on Artificial Intelligence (EU)</u>
- 3. <u>Human-Centered National Guidelines for Al Ethics</u> (Korea)
- 4. Danish Data Ethics Council (Denmark)
- 5. <u>Framework on Ethical Guidelines (</u>Belgium)
- 6. National Consultative Committee on Ethics for Artificial Intelligence (France)
- 7. Dashboard for the Implementation of AI Ethical Principles (Colombia)
- 8. Consensus Study on the Ethical, Legal, and Social Implications (South Africa)
- 9. Data Ethics Commission (Germany)
- 10. Ethical Norms for New Generation Al (China)
- 11. Participation in UNESCO Initiatives for Ethical Standards (Egypt)
- 12. <u>Guiding Opinions on Strengthening Ethical Governance of Science and</u> <u>Technology</u> (China)
- 13. Ethical Framework for Artificial Intelligence in Colombia (Colombia)
- 14. Advisory Council on the Ethical Use of Al and Data (Singapore)
- 15. Ethical Guidelines for Self-Driving Cars (Germany)
- 16. <u>Al Ethical Guidelines (</u>Hungary)
- 17. European Group on Ethics in Science and New Technologies (EU)
- 18. <u>National Ethical Guidelines for Biomedical and Health Research Involving</u> <u>Human Participants (India)</u>
- 19. Ethics Guidelines for Intelligent Information Society (Korea)
- 20. Lithuanian Bioethics Committee (Lithuania)

- 21. <u>Framework of Ethical Aspects of Artificial Intelligence, Robots and Related</u> <u>Technologies (EU)</u>
- 22. AI Ethics and Governance Body of Knowledge (Singapore)
- 23. Data Ethics and Al Guidance Landscape (UK)
- 24. National Ethics Committee of Science and Technology (Thailand)
- 25. <u>AI Principles and Ethics for the Emirate of Dubai</u> (UAE)
- 26. <u>Centre for Data Ethics and Innovation (UK)</u>

Next we turned to initiatives focusing on international cooperation, key to ensuring that trust in AI is global. We found significantly fewer initiatives than we anticipated. As example, only 2 nations, Egypt and Argentina listed their participation in efforts at UNESCO to create an agreement on ethical AI. ³⁷ We also found efforts to build shared standards on AI., such as the Quad Principles (Australia, India, Japan, and the US)³⁸ Canada's involvement in the Global Partnership on AI, the US/UK Declaration of Cooperation in AI R and D, ³⁹and the Declaration on AI in the Nordic-Baltic Region listed by Denmark,⁴⁰ Germany listed cooperative AI research with France, and its EU wide cloud platform GAIA-X.⁴¹ Many other countries participate in these activities, but they did not include them at OECD. AI.

The author found it surprising that only Chile listed their involvement in trade agreements with language governing AI and one other nation, the US, listed export controls on geospatial technologies.⁴² Trade agreements are an essential element of data governance and recent agreements include provisions that can facilitate international cooperation, trust in AI, data-sharing or bolster trustworthy AI. As example, the UK-Singapore Digital Economy Agreement has language encouraging cooperation on standards and it also discusses cooperation on data mobility and data

initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26894 and Egypt,

https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26897. The agreement is at https://www.unesco.org/en/articles/unesco-member-states-adopt-first-everglobal-agreement-ethics-artificial-intelligence

³⁷ As example, Argentina <u>https://oecd.ai/en/dashboards/policy-</u>

³⁸ <u>QUAD PRINCIPLES ON TECHNOLOGY DESIGN, DEVELOPMENT, GOVERNANCE, AND USE</u> ³⁹ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-

policyInitiatives-26717

⁴⁰ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24254

⁴¹ On research, <u>https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26502</u> and on GAIA-X, https://oecd.ai/en/dashboards/policy-

initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26762

⁴² the Export Administration Regulations (EAR) to make certain items subject to the EAR and to impose a license requirement for the export and re-export of those items to all destinations, except Canada. https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27241

trusts.⁴³ Recent US digital trade agreements include language encouraging access to public data and making such data easily downloadable for analysis.⁴⁴ However, only Chile posted its involvement in the Digital Economy Partnership Agreement.⁴⁵ Perhaps this is understandable because these agreements contain provisions that can build cooperation and trust in AI as well as provisions that may undermine trust in AI, such as those that bolster protection of algorithms and source code (irion: 2021 and Dorobantu et al: 2021).

Only two nations discussed their involvement in data governance or AI capacity building in the developing world. Australia developed a program to build Vietnamese capability in areas such as strategic foresight, scenario planning, commercialization and innovation policy.⁴⁶ Germany listed its efforts to link AI expertise, governance and understanding in the developing world—it's FAIR Forward – Artificial Intelligence for All" program.⁴⁷ Germany is working with six partner countries: Ghana, Rwanda, Kenya, South Africa, Uganda and India to share of open, non-discriminatory and inclusive training data, models and open-source AI applications; digital learning and training for the development and use of AI; and advocates for value-based AI that is rooted in human rights, international norms such as accountability, transparency of decision-making and privacy, and draws on European laws or proposals on AI and data governance regulation.⁴⁸

While some countries listed their data protection law and bodies, several countries provided extensive detail on the relationship between data governance and AI. The UK is among the most active, with initiatives on data governance and AI guidance⁴⁹ creation of a center advising the government on data ethics⁵⁰ a landscape analysis of data ethics

⁴³ https://www.gov.uk/government/publications/uk-singapore-digital-economy-agreement-explainer/uk-singapore-digital-economy-agreement-final-agreement-explainer

⁴⁴ <u>https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/Text/19-Digital-Trade.pdf</u>. It states, "to the extent that a Party chooses to make government information, including data, available to the public, it shall endeavor to ensure that the information is in a machine-readable and open format and can be searched, retrieved, used, reused, and redistributed."

⁴⁵ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26800

⁴⁶ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26842

⁴⁷ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26742

⁴⁸ https://www.bmz-digital.global/en/overview-of-initiatives/fair-forward/

⁴⁹ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-datapolicyInitiatives-26960

⁵⁰ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24196

guidance⁵¹ a meetup on natural language processing and data⁵²information on data trusts⁵³guidance on AI and data protection⁵⁴ Project Explain (explaining how algorithms work);⁵⁵ a report on addressing trust in public sector data reuse⁵⁶ and the national data strategy.⁵⁷

The OECD's Network of Experts had a slightly different impression of the initiatives described on the site. They too noted the diversity of programs and approaches, reflecting different phases of AI development and implementation (OECD: 2021a, 10). The Network of Experts also reported that complementary initiatives such as data sharing strategies , investments in high-performance computing and cloud computing infrastructure, were growing priorities. (OECD: 2022, 11-13). This project found quite a few complementary initiatives, but cannot address whether these initiatives are proliferating, because our research focused on only data on the site from April-August 2022. The researcher also could not corroborate the Network's assertion that governments were holding dialogues to encourage and build understanding of trustworthy AI. (OECD: 2021 a, p. 10) We did not find many initiatives describing such dialogues on the site, which is an important way to build trust . ⁵⁸

⁵¹ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26960

⁵² https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26974

⁵³ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24318

⁵⁴ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26821

⁵⁵ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27026

⁵⁶ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26713

⁵⁷ https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27018

⁵⁸ the Digital Trade and Data Governance Hub did two years of assessment of public participation in data governance including AI governance and found that in its sample of 68 countries and the EU, most countries seek public comment on proposed laws and regulations related to data, but the dialogue is generally confined to elites in academia, business, government and civil society. Moreover, dialogues have not progressed to consultations or collaborations, in short where policymakers showed they heard public concerns and revised their policies (Struett, Zable, and Aaronson, 2022, 4). Also see Aaronson, 2022.

Table 4 Evaluated Initiatives

	Number of Initiatives	Percentage out of 780 Recorded Initiatives
Total Number of Initiatives Labeled "Evaluated"	48	6.15%
Number of Initiatives Without Evaluation Links on OECD Website	28	3.59%
Number of Initiatives With Evaluation Links	20	2.56%
Number of Initiatives Whose Links Led to Evaluations	6 (of which we counted 4 as actual evaluations)	0.64%
Number of Initiatives Whose Links Led to Evaluations in Progress	1	0.13%
Initiatives Labeled Evaluations that were Reports	9	1.1%

Table by Emily Tyler, Research Assistant at the George Washington University

Eleven countries (Czech Republic, Canada, Germany, Denmark, India, Japan, Lithuania, Norway, Poland, Sweden, and Turkey) and the EU presented evaluation links. Of these 11, four countries, (Canada, the Czech Republic, Denmark, and Norway) put forward completed evaluations with a clear methodology. 1 of the links led to a document that we could not translate and hence review,⁵⁹

Canada provided two evaluations, one on the Pan-Canadian Artificial Intelligence Strategy and one on Genome Canada. In 2017 The Canadian Institute for Advanced Research, CIFAR, received \$125 million of federal funding to support the Pan-Canadian AI Strategy. The strategy aimed to further artificial intelligence research and training, increase productivity in AI academic research and enhance capacity to generate world-class research and innovation, increase collaboration across institutes and strengthen relationships with receptors of innovation across sectors; attract and retain AI talent in Canadian universities and industry and AI research capabilities through a palette of training opportunities; and translate AI research discoveries into applications for the public and private sectors leading to socioeconomic benefits.⁶⁰ In

⁵⁹ https://www.jst.go.jp/kisoken/aip/en/about/intro/index.html

⁶⁰ CIFAR and Accenture. "Pan-Canadian AI Strategy Impact Assessment Report." 2020. Quotes p, 5, p. 6. <u>https://cifar.ca/wp-content/uploads/2020/11/Pan-Canadian-AI-Strategy-Impact-Assessment-Report.pdf</u>.

2020 CIFAR worked with Accenture to use qualitative and quantitative methods to assess the impact of Canada's strategy. Accenture mapped the key objectives that CIFAR set out to achieve and conducted a quantitative and qualitative analysis. The evaluators used discovery sessions to identify key questions, which were shared in an appendix.⁶¹ The evaluators concluded ""thanks to the Strategy, AI centers across Canada have evolved into a coordinated and flourishing ecosystem. The ecosystem serves to translate AI research discoveries into applications for use in both the public and private sectors." But "there is still much work to be done. While other countries increasingly invest in both research and commercialization, Canada must continue to build on its strengths." ⁶²

Industry Canada's Audit and Evaluation Branch evaluated Genome Canada in 2015.63 Genome Canada is a not-for-profit organization, incorporated in 2000 under the Canada Corporations Act, with a mandate to develop and implement a national strategy in genomics research for the benefit of all Canadians. Industry Canada evaluated the program building on a 2014 evaluation by Science Metric, which reviewed Genome Canada's activities from 2009 to 2014. The evaluators used document, file and literature reviews; interviews with key stakeholders; a survey of the Canadian genomics research community, a bibliometric review, an international comparative review and case studies of eight projects. In addition, Industry Canada performed a further document review, literature review, and interviews with Industry Canada and Genome Canada representatives. ⁶⁴ The evaluation found "evidence suggests that Genome Canada is achieving its expected results. The organization has been successful in increasing the breadth and depth of knowledge in genomics, as well as knowledge specifically related to the ethical, environmental, economic, legal and social issues of genomics (GE3LS). The report suggested, Specific areas for improvement include the need for more coordinated communication efforts across the Genome Centers and between Genome Canada and Centers, as well as ongoing improvements in performance measurement.⁶⁵

Denmark submitted an evaluation on their Innovation Fund, which was done by an international peer review panel in March of 2019 under the aegis of the European Commission. It aimed to "examine the Danish knowledge-based innovation system as a whole, drawing upon the conclusions of the parallel evaluation of the Innovation Fund Denmark and the review of the universities' technology transfer activities – both of

⁶¹ Pan-Canadian AI Strategy, p. 30.

⁶² Ibid, p. 6.

 ⁶³, Industry Canada's Audit and Evaluation Branch. "Evaluation of Industry Canada's Contribution To Genome Canada." *Industry Canada*, March 2015, p. i, <u>https://www.ic.gc.ca/eic/site/ae-</u>
 <u>ve.nsf/vwapj/Genome Canada Final Report-eng.pdf/\$file/Genome Canada Final Report-eng.pdf</u> p. 4
 ⁶⁴ Industry Canada's Audit and Evaluation Branch. "Evaluation of Industry Canada's Contribution To Genome Canada." *Industry Canada*, March 2015, p.5i, <u>https://www.ic.gc.ca/eic/site/ae-</u>
 <u>ve.nsf/vwapj/Genome Canada Final Report-eng.pdf</u>, p.5i, <u>https://www.ic.gc.ca/eic/site/ae-</u>
 <u>ve.nsf/vwapj/Genome Canada Final Report-eng.pdf</u>, p.5i, <u>https://www.ic.gc.ca/eic/site/ae-</u>

⁶⁵ Evaluation of Industry Canada's p. 5-6

which are initiatives reflecting the government's research and innovation strategy."⁶⁶ The evaluators relied on data collected by the ministry, a self-assessment by Innovation Fund Denmark, and written contributions from stakeholders.⁶⁷ The evaluators found that the Innovation Fund had successfully created a well-functioning addition to the innovation system in Denmark that is fast, simple and unbureaucratic⁶⁸ However, the evaluators also recommended that the Innovation Fund should revise its strategy, operations, and communications to increase accountability, do more internationally and benchmark its efforts to other nations.⁶⁹

Norway provided an evaluation of the Norwegian Data Inspectorate that was conducted by Difi, the Norwegian Agency for Public Management and eGovernment, in October of 2011. The Data Inspectorate protects the privacy of Norwegian citizens under the aegis of the Personal Data Act of 2000. The evaluators examined whether the Agency had the staff and expertise to fulfill its roles and tasks. The evaluators studied relevant bills, laws and regulations that regulate the Data Inspectorate's and the Privacy Board's activities, annual reports, allocation letters from FAD, the Privacy Commission's report) and internal documents," in addition to having informant interviews with the Director, other management figures, and select employees of the Danish Data Protection Agency. ⁷⁰. They found the agency at times overwhelmed and lagged in meeting its responsibilities.⁷¹

We also found one evaluation in progress. Turkey put forward an evaluation of their Safe Schooling and Distance Education Project conducted by the World Bank, which utilized project development indicators and intermediate results indicators to measure the project's progress, but it has not yet been evaluated by an independent evaluation.

The Czech Republic, EU, Germany, Japan, India, Lithuania, and Poland, also said they provided links to evaluations. Both the Czech Republic and Lithuania provided formal evaluations, but we could not count them as they did not delineate clear methodologies

⁶⁶ https://ec.europa.eu/research-and-

innovation/sites/default/files/rio/report/PR%2520Denmark%2520Factsheet%2520.pdf; and https://ufm.dk/en/newsroom/news/2018/open-call-for-written-contributions-to-the-evaluation-of-theinnovation-fund-denmark

⁶⁷ "Innovation Fund Denmark – Report of the International Evaluation Panel 2019." *Ministry of Higher Education and Science*, March 2019, p. 13, <u>https://ufm.dk/publikationer/2019/innovation-fund-denmark-report-of-the-international-evaluation-panel-2019</u>.

⁶⁸ Ibid, pp. 28-30, <u>https://ufm.dk/publikationer/2019/innovation-fund-denmark-report-of-the-international-evaluation-panel-2019</u>.

⁶⁹ Ibid, 36-40,, 50-52.

⁷⁰ "Evaluation of Datatilsynet." *Difi*, October 2011, pp1, . 7-8, <u>http://docplayer.me/14669553-Evaluering-av-datatilsynet-rapport-2011-8-issn-1890-6583.html</u>.

 ⁷¹ https://docplayer.me/14669553-Evaluering-av-datatilsynet-rapport-2011-8-issn-1890-6583.html
 ⁷² "Safe Schooling and Distance Education Project." World Bank,

https://projects.worldbank.org/en/projects-operations/project-detail/P173997.

and so we counted them as reports.⁷³ We briefly discuss these because reports can also provide insights into best practice.

The Czech Republic listed an evaluation of its Digital Education Strategy, which aims to implement digital education. Digital education includees education that effectively uses digital technologies to support teaching and learning, and education that develops students' digital literacy and prepares them for employment in society and the labor market,⁷⁴ The document had no description of evaluation methodology and the government admitted in the document that several aspects of the program were not evaluated. Nonetheless, the authors concluded that the program significantly contributed to the development of digital education in the Czech Republic, even though all measures and activities were not always implemented smoothly and consistently."⁷⁵

The Czech Republic's report on the Digital Czech Republic described the state of the digital single market in the EU, goals and visions for the Czech Republic in digital Europe. It The document briefly mention the Czech Republic's adherence to some of the goals regarding "Institutional Provision of Implementation Coordination" and "Ensuring Communication on Current Topics and Opportunities in the EU Digital Agenda," but that adherence was not evaluated.⁷⁶

The EU's report on its General Data Protection Regulation (GDPR) describes the rationale and status of the GDPR and acknowledges its limitations. The report does not contain a thorough and independent evaluation of the GDPR's impact.⁷⁷

https://www.msmt.cz/vzdelavani/skolstvi-v-cr/postup-realizace-strategie.

⁷³ The reports include the Czech Republic's <u>Digital Czech Republic</u>, the UK's <u>General Data Protection</u> <u>Regulation</u>, Germany's <u>Artificial Intelligence Strategy</u>, Japan's <u>Al Strategy</u>, India's <u>Biological Data Storage</u> <u>Policy</u>, India's <u>Gene Therapy</u>, <u>Product Development and Clinical Trials</u>, and Poland's <u>Policy for the</u> <u>Development of Al in Poland from 2020</u>.

⁷⁴ The Introduction states (per Google Translate)- The material is divided into several parts. The first part is devoted to basic information about SDV and presents its goals and seven directions of intervention. The second part is devoted to the evaluation of individual directions of intervention and areas. A basic description of the measures is always given, and the progress that has been achieved in each area is also briefly presented. A summary of progress and a proposal for next steps are then given foreach direction of intervention. "Evaluation of the Digital Education Strategy Until 2020." *The Ministry of Education, Youth and Sports,* May 2021, pp. 2, 4,

⁷⁵ "Evaluation of the Digital Education Strategy Until 2020." *The Ministry of Education, Youth and Sports,* May 2021, pg. 2-30, quote from page 30, <u>https://www.msmt.cz/vzdelavani/skolstvi-v-cr/postup-realizace-strategie</u>.

⁷⁶ Vladimir Dzurilla. "The Czechia in Digital Europe." The Department of European Digital Agenda of the Central Office of the Czech Republic, May 2020, p. 4-6, <u>Koncepce_Cesko_v_digitalni_Evrope_-</u> _20200619 (1).pdf.

⁷⁷ Kritikos, Mihalis. "The impact of the General Data Protection Regulation (GDPR) on artificial intelligence." *European Union*, June 2020,

https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU(2020)641530.

Germany's report on its Artificial Intelligence Strategy includes a two-page "Progress to Date Section" that summarizes various measures that have been established to foster AI since the strategy's implementation and several indicators that were created to monitor the German, European and international AI landscape.⁷⁸

Japan's report on its AI Strategy includes a background on this strategy and future standards. The report identifies strategic goals and notes that Japan has met some of them, but it provides little insights into how Japanese officials came to that conclusion.⁷⁹

India provided two reports. The Biological Data Storage Policy defined "guidelines for sharing of data generated by scientists in India using modern biotechnological tools and methods."⁸⁰ The Gene Therapy, Product Development and Clinical Trials initiative is a guide to the regulatory requirements for research and development of gene therapy products in India, as well as to establish guidelines for safe, humanitarian research.⁸¹

Lithuania's report on Fostering AI and the Creation of Lithuanian Language Technological Resources for AI⁸² was described as an evaluation, but it did not clearly delineate the methodology for the evaluation or who ordered it. The document assessed the initiative's compliance with general requirements and its financial and economic sustainability. Although two individuals signed the document, it did not state their titles and affiliations, which meant we could not assess the independence of the analysis.⁸³

Poland provided a link to its Policy for the Development of Artificial Intelligence in Poland from 2020..⁸⁴ The report contained some information about Poland's Al achievements and a strategy, but it is not a report, an assessment or an evaluation.⁸⁵

⁷⁸ "Artificial Intelligence Strategy of the German Federal Government." *The Federal Government of Germany*, December 2020, pp. 4-6, <u>ki-strategie-deutschland.de</u>.

⁷⁹ "AI Strategy 2021." *Integrated Innovation Strategy Promotion Council*, June 2020, pp. 6-9, <u>https://www8.cao.go.jp/cstp/ai/aistrategy2021_honbun.pdf</u>. Also reference: https://www8.cao.go.jp/cstp/ai/aistrategy2021_gaiyo.pdf.

⁸⁰ "Biological Data Storage, Access, and Sharing Policy of India." *Department of Biotechnology and the Ministry of Science & Technology Government of India*, pg. 3, 2019,

https://www.nhp.gov.in/NHPfiles/Draft1-Biological_Data_Policy.pdf

⁸¹ "National Guidelines for Gene Therapy Product Development and & Clinical Trials." *Department of Biotechnology and the Ministry of Science & Technology*, pg. 7, 2019, https://www.nhp.gov.in/NHPfiles/guidelines_GTP.pdf.

⁸² Neliupšytė, Laura and Egidijus Šerkšnas. "Enabling Human Machine Interface." *Central Project Management Agency*.

https://finmin.lrv.lt/uploads/fimin/documents/files/LT_ver/DNR%20plano%20dokumentai/ISVADOS/40_%2 01%C5%A1vada%20S%C4%85saja%20%C5%BDmogus-Ma%C5%A1ina_final(1).docx. The authors signed the assessment.

⁸³ The only information about the creation of the report were the digital signatures of the experts that conducted the evaluation on page 7.

⁸⁴ "Policy for the Development of Artificial Intelligence in Poland from 2020." Dec. 28. 2020, pp. 4-5, https://wp.oecd.ai/app/uploads/2021/12/Poland Policy for Artificial Intelligence Development in Polan <u>d from 2020 2020.pdf</u>.

⁸⁵ Ibid., pp. 11-12.

India provided a link to its National Strategy on Artificial Intelligence but did not provide a report, evaluation or assessment. ⁸⁶ India also linked to a bill focused on India's DNA Technology (Use and Application) Regulation. ⁸⁷

Some of the evaluation links on the OECD.AI did not work. Norway's Horizon 2020,⁸⁸ Sweden's Government Offices for Digitization,⁸⁹ and India's National Ethical Guidelines for Biomedical and Healthcare Research Involving Human Participants all led to error pages.⁹⁰

Conclusion

The OECD. All web site is the world's best source for information on public policies dedicated to AI, trustworthy AI and international efforts to advance cooperation in AI. However, the web site is a lost opportunity to ascertain best practice, build trust in AI and in trustworthy AI.

The site reveals that the 62 nations are doing a lot to govern AI. Most of the documentation focuses on what they are doing to build domestic AI capacity and a supportive governance context for AI. However, few of these initiatives were evaluated or reported on. Moreover, only a small percentage of initiatives listed by governments were developed to build trust in AI or build trustworthy AI globally. We also found relatively few efforts to build international cooperation on AI, or help other nations build capacity in AI.

Given the global nature of AI, the OECD Secretariat could encourage participating countries to do more to build AI understanding and capacity in the developing world. Moreover, the OECD could encourage more reporting of what member states are actually doing, not just regarding principles and guidelines, but in capacity building, foreign aid, and trade agreements, Such actions would signal inclusivity and could yield trust. .

In addition, the OECD could encourage peer review of major programs such as AI strategies or trustworthy AI initiatives. The OECD uses peer reviews to analyze development assistance programs—it could adopt a similar tactic regarding AI

⁸⁸ Evaluation link for Horizon 2020: <u>https://www.forskningsradet.no/indikatorrapporten/indikatorrapporten-indikatorrapporten</u>

https://www.icmr.gov.in/sites/default/files/guidelines/ICMR_Ethical_Guidelines_2017.pdf

⁸⁶ Link for National Strategy on Artificial Intelligence: <u>https://www.niti.gov.in/</u>. We found the strategy at <u>https://indiaai.gov.in/research-reports/national-strategy-for-artificial-intelligence</u> but no evidence of an evaluation.

⁸⁷ "DNA Profiling Bill." *Ministry of Science and Technology, Government of India*, Feb. 2019, <u>https://dbtindia.gov.in/regulations-guidelines/regulations/dna-profiling-bill</u>.

⁸⁹ Evaluation Link for Government Offices for Digitization: <u>https://oecd.ai/en/riksdagen.se</u>

⁹⁰ Evaluation Link for National Ethical Guidelines for Biomedical and Healthcare Research Involving Human Participants:

initiatives.⁹¹ Alternatively, member states could agree to adopt a strategy required under US law, The Foundations for Evidence-Based Policymaking Act of 2018 ("Evidence Act")⁹² emphasizes collaboration and coordination to advance data and evidence-building functions in the US Government. The Act requires that Federal Agencies appoint evaluation, statistical, and chief data officers, and develop an evidence-building plan, more commonly known as a Learning Agenda, every four years as well as an Annual Evaluation plan. These officers must engage with and be responsive to stakeholders.⁹³ The OECD could encourage the nations reporting these policies to set up similar Learning and Annual Evaluation plans, an important complement to the Networks of Experts work on best practices.

Finally, the OECD could ask members to produce evaluations of various types of programs (as example investments in shared platforms such as clouds or research programs), which could reassure their constituents that government efforts to promote and govern AI are effective and over time could build and sustain trust in AI.⁹⁴ These evaluations would focus on their corporate and individual citizens, but the OECD should also ask about direct and indirect effects on society as a whole. Nations that conduct evaluations of AI efforts are likely to build trust in both AI and in AI governance. These nations are signaling that policymakers are competent ,accountable, and care about their fellow citizens –your neighbors and mine (Eggers et al: 2021).

Appendix

The data analyzing the initiatives on the OECD website will be placed in an open and accessible appendix.

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- ⁹¹ OECD, What is a Peer Review, OECD, https://www.oecd.org/dac/peer-reviews/whatisapeerreview.htm
- ⁹² https://www.congress.gov/115/plaws/publ435/PLAW-115publ435.pdf
 ⁹³ https://www.justice.gov/open/roles-and-responsibilities-under-foundations-evidence-based-policymaking-act
 and ⁹³ https://www.congress.gov/115/plaws/publ435/PLAW-115publ435.pdf
 ^{(§} 312. Agency evidence-building plan, c (3) Consultation, § 315. Advisory Committee on Data for Evidence Building must include stakeholders etc..

⁹⁴ Theordorus Evgeniou and Nicole Primmer, "Lessons for businesses and regulators on implementing trustworthy AI," August 19, 2022, <u>https://oecd.ai/en/wonk/lessons-from-business-trustworthy-ai</u>

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