Special Report from the Global Data Governance Mapping Project, December 22, 2022

FOR THE PEOPLE BUT NOT BY THE PEOPLE: PUBLIC ENGAGEMENT IN NATIONAL AI STRATEGIES

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Digital Trade and Data Governance Hub

Table of Contents

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Report # 3 from the Global Data Governance Mapping Project at the Digital Trade and Data Governance Hub, December 22, 2022

Executive summary

Governance requires trust. If policymakers inform, consult, and involve citizens in decisions, policymakers are likely to build trust in their efforts. Public participation is particularly important as policymakers seek to govern data driven technologies such as artificial intelligence. Although many users rely on artificial intelligence systems, they don't understand how these systems use their data to make predictions and recommendations that can affect their daily lives. Over time, if they see their data being misused, users may learn to distrust both the system and how policymakers regulate them. Hence, it seems logical that policymakers would make an extra effort to inform and consult their citizens about how to govern AI systems.

Herein we examined if officials informed and consulted their citizens as they developed a key aspect of AI policy, national AI strategies. According to the OECD, such strategies articulate how the government sees the role of AI in the country and its contribution to the country's social and economic development. They also set priorities for public investment in AI and delineate research and innovation priorities. Most high-middle-income and high-income nations have drafted such strategies. Building on a data set of 68 countries and the EU, we used qualitative methods to examine whether, how and when governments engaged with their citizens on their AI strategies and whether they were responsive to public comment.

We did not find a model of deliberative democratic decision-making. As of October 2022, some 43 of our 68 nation and EU sample had an AI strategy, but only18 attempted to engage their citizens in the strategy's development. Moreover, only 13 of these nations issued an open invitation for public comment. Only 4 provided evidence that public inputs helped shape the final text. Although some acknowledged the comments, most governments did not make changes in response to the comments that they received. The number of people commenting on the strategy was generally small, comprised of individuals and organizations that are knowledgeable about AI and willing and able to articulate their concerns. Thus, AI governance may be for the people, but it is not by the people.

We are well aware that most people do not get involved in the development of tech policies or public policies writ large. Yet without the input of a wide swathe of their citizenry, policymakers may struggle to anticipate future problems related to AI, and over time, to sustain trust in AI systems.

For the People but not By the People: Public Involvement in National AI Strategies
By Adam Zable and Susan Ariel Aaronson[1]

Introduction

We are at a crossroads for artificial intelligence (hereafter AI). We define AI as a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. [2] AI systems are often global and demand is growing.[3]

AI systems hold great potential to enhance human capacity, increase productivity, catalyze innovation and help mitigate complex problems. Yet, public concern about AI systems is on the rise.[4] AI systems are often designed and deployed in an opaque manner that many users cannot see. Moreover, individuals may struggle to understand how these systems make decisions and thus, they are unlikely to trust these processes. If policymakers want to encourage continued development and use of these systems, these same officials have a responsibility to inform, consult and involve their citizens about how AI is designed, developed, and deployed.

Trust is situational and relational and not easy to define. Scholars generally agree that trust underpins all human contacts and institutional interactions. Moreover, they note that once trust is lost or eroded, it is not easy to regain or sustain.[5] Hence, AI deployers, like AI policymakers, have a stake in ensuring that AI is trustworthy.[6]

In this paper, we examine if governments inform and involve their citizens as they develop a key aspect of AI policy, national AI strategies. Although the OECD tracks such strategies as part of its efforts to encourage trustworthy AI, the OECD does not explicitly define what constitutes an AI

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[2] We use the OECD's definition because it is internationally accepted. OECD, "Recommendation of the Council on Artificial Intelligence" (2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449

[3] According to Fortune Business Insights, the global AI market size is projected to grow from USD 387.45 billion in 2022 to USD 1394.30 billion in 2029. https://www.globenewswire.com/en/news-release/2022/09/13/2514767/0/en/AI-Market-Size-to-Reach-USD-1394-30-Billion-by-2029.html

[4] As an example of public concerns, see https://www.pewresearch.org/internet/2022/03/17/how-americans-think-about-artificial-intelligence/; while few experts see ethical AI adoption as a comprehensive solution, https://www.pewresearch.org/internet/2021/06/16/experts-doubt-ethical-ai-design-will-be-broadly-adopted-as-the-norm-within-the-next-decade/

[5] OECD: 2022 and https://openknowledge.worldbank.org/bitstream/handle/10986/33346/Building-Trust-in-Government-through-Citizen-Engagement.pdf

[6] The Future Society and EY, Bridging AI's trust gaps: Aligning policymakers and companies, July 22, 2020, https://thefuturesociety.org/2020/07/22/report-launch-bridging-ais-trust-gaps-aligning-policymakers-and-companies/

strategy. But the OECD does delineate the objective of such strategies. On its website OECD.AI, it notes such strategies articulate the government's vision regarding AI's contribution to the country's social and economic development. These strategies set priorities for public investment, identify what research taxpayers should fund and what regulatory steps policymakers should take.[7]

The OECD notes that governments often involve their stakeholders to obtain input on the design of their national AI policies and strategies. "Public consultations leverage different tools including interviews, surveys, online discussion fora and events such as hearings, workshops, seminars, focus groups and conferences….Expert consultations usually help define the issues, formulate policy objectives and, in some cases, assess policy effectiveness. In addition to expert consultations, countries such as Canada or Chile engage citizens to ensure that a diverse range of perspectives is considered." (Galindo et al: 2021, p. 7). Consequently, government AI strategies are multidimensional and reflect compromise among a wide range of actors inside and outside government (Osborne and Plastrik: 1997).

Nations take different approaches to these strategies, as shown by various attempts to map and compare them.[8] For example, Singapore's AI strategy aims to "identify areas to focus attention and resources on at a national level; set out how the Government, companies and researchers can work together to realize the positive impact from AI, and address areas where attention is needed to manage change and/or manage new forms of risks that emerge when AI becomes more pervasive."[9] In contrast, the UK's AI strategy aims to "1. Invest and plan for the long-term needs of the AI ecosystem to continue our leadership as a science and AI superpower; 2. Support the transition to an AI-enabled economy, capturing the benefits of innovation in the UK, and ensuring AI benefits all sectors and regions; and 3. Ensure the UK gets the national and international governance of AI technologies right to encourage innovation, investment, and protect the public and our fundamental values"[10]

In 2021, the authors, as staff at the Digital Trade and Data Governance Hub, developed a metric of data governance around the world. The metric (as of December 2022) covers 68 countries and the

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[7] https://oecd.ai/en/dashboards/policy-instruments/National_strategies_agendas_and_plans
[8] Tim Dutton, An Overview of National AI Strategies, Medium, https://medium.com/politics-ai/an-overview-of-national-ai-strategies-2a70ec6edfd; Thomas Struett, G20 AI Strategies on Data Governance, https://cpb-us-e1.wpmucdn.com/blogs.gwu.edu/dist/c/3127/files/2019/09/g20-national-ai-strategies-data-governance.pdf ; Thomas Struett, G20 AI Strategies Overview, 1/20/2020, https://cpb-us-e1.wpmucdn.com/blogs.gwu.edu/dist/c/3127/files/2020/01/g20-national-ai-strategies-overview; Saran, S., Natarajan, N. and Srikumar, M. (2018). In Pursuit of Autonomy: AI and National Strategies. https://www.orfonline.org/wp-content/uploads/2018/11/Ai_Book.pdf; Tortoise Media, The Global AI Index, https://www.tortoisemedia.com/intelligence/global-ai/; Jessica Fjeld and Adam Nagy, Principled Artificial Intelligence, https://cyber.harvard.edu/publication/2020/principled-ai; and Stanford Artificial Intelligence Index Report 2021, Chapter 7, p. 5, https://aiindex.stanford.edu/wp-content/uploads/2021/03/2021-AI-Index-Report-_Chapter-7.pdf
[9] https://www.smartnation.gov.sg/initiatives/artificial-intelligence/
[10] https://www.gov.uk/government/publications/national-ai-strategy/national-ai-strategy-html-version

EU and examines how nations govern various types of data. AI strategies are one of our 26 indicators of data governance. In describing this indicator, the Hub noted "AI strategies outline a national vision for how a nation can build and/or maintain its ability to create and utilize AI for commercial as well as societal use. They often provide guidance to government agencies, discuss investments in AI research and development, and discuss the role of government in developing standards and the rule of law for this emerging technology."[11]

Building on our previous efforts to map data, we sought to understand whether, when and how governments engaged their publics in the development of AI strategies, and then to identify which citizens participated. We also examined whether governments developed inclusive processes to seek public comment, and if governments responded to citizen concerns.

As of October 2022, some 43 of our 68 nation and EU sample had an AI strategy. However, only 18 attempted to engage their citizens in the strategy's development. Only 13 of these nations issued an open invitation for public comment. Moreover, only 4 nations provided evidence that public inputs helped shape the final text. Most governments did not make changes to their AI strategies in response to public concerns. The number of people commenting on the strategy was generally small, comprised of individuals and organizations that are knowledgeable about AI and willing and able to articulate their concerns. Without the input of a wide swathe of their citizenry, policymakers may struggle to anticipate future problems related to AI, and over time, to sustain trust in AI systems. Hence AI governance may be for the people, but it is not by the people.

We note that policymakers' failure to create this feedback loop does not only cause problems for their constituents. Because AI is global, everyone has a stake in how AI is governed. At the same time, however, there are no shared international and binding rules governing the use of AI. Moreover, most people lack the ability, information, and resources to participate meaningfully in AI governance at the national and international levels. Democracies should do more to make AI governance a deliberative and consultative process.

AI, Trust and Governance

AI has become a part of daily life for many users. They interact with artificial intelligence systems as they work, shop, learn, and seek companionship. In recent years, AI systems have become so humanlike that in many instances, users don't know if they are interacting with an AI such as a bot.[12] Even the people who design AI systems may not understand how that algorithm makes

[11] Adam Zable, Thomas Struett, and Susan Ariel Aaronson, Global Data Governance Mapping Project Year Two Report Annex, July 2022, p. 4, https://docs.google.com/document/d/1D_vw6FKBJE-1x4K72O8cmY8tOtR05c8BOrPYmg2ObfQ/edit#heading=h.9lso5fhjpktm

[12] Pega, What Consumers Really Think of AI,2017, https://www.pega.com/ai-survey

predictions, recommendations, or decisions,[13] because AI is developed using algorithms that create an opaque decision tree.[14] Not surprisingly, AI may seem untrustworthy to members of the general public.

Although AI can augment human abilities and help individuals make more statistically informed decisions, these systems cannot effectively consider ethical, moral factors as they make predictions, recommendations, or decisions.[15] Although these systems are designed by humans, most of us can't see the normative judgements built into them. Moreover, Consequently, for society to accept AI over the long-term, designers, deployers and end users must develop ways to show the public that their systems are reliable, accountable and trustworthy, and the system must exhibit and sustain trustworthy behavior. At the same time, the designers, developers and deployers must accept democratically determined governance of AI. As part of that governance, public involvement is essential to give citizens a voice and a measure of control over AI systems. Without such a feedback loop, society is unlikely to accept AI (Stanton and Jenson: 2021).

Meanwhile, citizens expect government officials to design public policies that allow society to reap the benefits of AI while simultaneously protecting users from harm.[16] In recent years, policymakers have created a diverse set of national and international initiatives to ensure trustworthy AI, ranging from shared principles to regulations.[17]

Policymakers are responding to these concerns about trust and AI for many reasons. First, they understand that AI systems are now essential to national security[18] and economic development, key responsibilities for all governments.[19] Secondly, they see its economic benefits. AI underpins other emergent technologies such as virtual reality, while firm investments in AI can improve productivity and innovation.[20] Policymakers also recognize that AI also holds great promise to

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[13] Lee Rainie et al., How Americans Think About Artificial Intelligence, March 17, 2022, Pew Research Center, https://www.pewresearch.org/internet/2022/03/17/how-americans-think-about-artificial-intelligence/; https://www2.deloitte.com/us/en/pages/deloitte-analytics/solutions/ethics-of-ai-framework.html; NIST: 2018; and https://arxiv.org/abs/2110.01167;

[14] Rudin, C., & Radin, J. (2019). Why Are We Using Black Box Models in AI When We Don't Need To? A Lesson From an Explainable AI Competition. *Harvard Data Science Review*, *1*(2). https://doi.org/10.1162/99608f92.5a8a3a3d

[15] https://hbr.org/2022/09/ai-isnt-ready-to-make-unsupervised-decisions

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

[17] https://www.brookings.edu/blog/techtank/2022/05/17/the-u-s-can-improve-its-ai-governance-strategy-by-addressing-online-biases/ and Christian Djeffal, The Regulation of Artificial Intelligence in the EU, Heinrich Boll Stiftung, 12/30/2021, https://il.boell.org/en/2021/12/24/regulation-artificial-intelligence-eu

[18] It is so important to the members of NATO that they too created a strategy for AI, which they call autonomous systems. https://www.nato.int/cps/en/natohq/official_texts_208376.htm?

[19] ITU, Assessing the Economic Impact of Artificial Intelligence, 2018, https://www.itu.int/pub/S-GEN-ISSUEPAPER-2018-1

[20] Chih-Hai Yang,, How Artificial Intelligence Technology Affects Productivity and Employment: Firm-level Evidence from Taiwan, Research Policy, Volume 51, Issue 6,2022, https://doi.org/10.1016/j.respol.2022.104536 and Iain M. Cockburn, Rebecca Henderson, and Scott Stern, " The Impact of Artificial Intelligence on

help mitigate wicked problems such as climate change.[21] But policymakers' actions to promote AI can also undermine AI and trust.

Governments that misuse or allow firms to misuse these systems can, with or without intent, undermine human rights, particularly those of marginalized individuals and communities.[22] Researchers have found that these groups often face disproportionate harms and discrimination from AI systems.[23] In addition, the public is increasingly aware of incidents where firms or governments used AI in ways that led to discrimination or created inequities, which in turn appears to have reduced trust in AI. Not surprisingly, influential groups in business, government, and civil society are demanding policymakers take steps to build and sustain trust in AI. [24]

Policymakers can build trust by working with their own constituents on solutions or mitigating strategies to the many problems they confront. But citizen engagement is not easy. In democracies, citizens are simultaneously economic, political and social actors, and as such tend to focus politically—to use their limited time, energy and voice-- on a small range of issues they care about.[25] AI may not be one of those issues, because of its complexity and opaque nature. However, policymakers in democracies need the blessing of these undermotivated citizens to remain legitimate, which can lead to a catch-22. As the World Bank notes, "Without citizens' trust in government, formal citizen engagement is unlikely. Without citizens' participation, government's performance will be poor, and trust in government will fall." (Kumagai and Iorio, 2020: p. 14).

Finally, we note that there are many additional benefits to public consultation on complicated issues such as AI. First, the broader public often see issues from a different angle and may provide new insights to policymakers. Moreover, by consulting a broad swathe of its citizenry, the nation may increase regulatory literacy which in turn may yield greater compliance with regulations. Finally, the feedback loop may ensure that as societal needs and the public interest evolves over time, policy will evolve too (OECD: 2011, 9).

Innovation: An Exploratory Analysis, NBER Working Paper, March 2018, http://www.nber.org/papers/w24449

[21] https://thehill.com/opinion/technology/506695-why-we-need-a-wicked-problems-agency/

[22] https://www.politico.eu/article/dutch-scandal-serves-as-a-warning-for-europe-over-risks-of-using-algorithms/

[23] See, for example, Abeba Birhane, Elayne Ruane, Thomas Laurent, Matthew S. Brown, Johnathan Flowers, Anthony Ventresque, and Christopher L. Dancy. 2022. The Forgotten Margins of AI Ethics. In *2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22), June 21–24, 2022, Seoul, Republic of Korea.* ACM, New York, NY, USA 11 Pages. **https://doi.org/10.1145/3531146.3533157**; also Frederik Zuiderveen Borgesius, Discrimination, artificial intelligence, and algorithmic decision-making. Council of Europe, Directorate General of Democracy, 2018. https://rm.coe.int/discrimination-artificial-intelligence-and-algorithmic-decisionmaking/1680925d73

[24] Jake Porway, A Taxonomy for AI Data for Good, https://data.org/news/a-taxonomy-for-ai-data-for-good/ and Charting the Data for Good Landscape, https://data.org/news/charting-the-data-for-good-landscape/#responsible-ai-advocates

[25] Mancur Olson, The Logic of Collective Action: Public Goods and the Theory of Groups, Second Printing with a New Preface and Appendix, Harvard University Press, 1971.

Methodology

The Hub sought to examine whether, how and when nations informed and consulted with their citizens about their AI strategies prior to their release. We built our research strategy on a dataset developed by George Washington University's Digital Trade and Data Governance Hub mentioned above. The Hub maps the governance of data for 68 countries and the EU. We have developed 26 indicators of data governance, one of which delineates whether or not a nation has developed and adopted an AI strategy. These 69 data points formed the set used for the present research. The 69 governments in our sample represent a mix of income and region based on the World Bank's categorizations.[26] While the Hub's mapping does not cover every country with an AI strategy, we cover many of the ones listed at the OECD (62) and a preponderance of those with AI strategies in the world. We acknowledge it is not a representative sample of the world's countries.

We are not the first scholars to examine the role of the public in developing AI strategies. In 2022, researchers at Derechos Digitales focused on the process in Brazil, Chile, Colombia and Uruguay, and found governments tended to rely on online platforms and email to seek out public opinion. They concluded that the consultative processes they reviewed were inadequate because they were not inclusive towards women, historically marginalized or geographically remote communities, citizens with disabilities or those lacking Internet access or other resource. Furthermore the processes were not collaborative, because officials only asked for public input at a late stage of strategy development. Finally, they noted that most of these Latin American countries were unable to promote informed engagement or follow up (Hernandez et al, 2022). UNICEF, in contrast, examined whether and why AI strategies ignore the needs of children. UNICEF researchers used a literature review to explain this gap, but they did not examine whether advocates of children or children were consulted (Penagos et al, ND). Finally, Wong et al. explored the use of AI by public administration. The authors worry that without participatory governance, AI systems can easily be misused and consequently, these systems may fail the people they were supposed to serve, (Wong et al: 2022).

As these works illuminate, officials that attempt to organize public consultations can face obstacles. It is not always easy to motivate people to participate in consultations which may seem far removed from their day-to-day problems. Culver and Howe (2003) note that government officials may not have reasonable expectations of public opinion and may lack the will to incorporate the results into workable policies.

Like Derechos Digitales, we wanted to examine the process of consultation. We based our methodology on norms and levels of consultation articulated by the International Association for

[26] Our dataset is at https://datagovhub.elliott.gwu.edu/research/. The World Bank's regional and income characterization is at https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

Political Participation (IAP2). The IAP2 asserts that democracies have shared norms ('values') for citizen involvement in democratic decision-making. Citizens have a right to be involved in the decision-making process; the public's contribution will influence the decision that is made. Moreover, the process should recognize and communicate the needs and interests of participants, including decision makers. Policymakers should seek out the public to comment and offer several or different avenues for participation. Participants should have the information they need to participate in a meaningful way. Finally, policymakers should communicate to the participants how their input affected the decision.[27] The IAP2 has also created a model of levels of participation which range from informing the public to collaborating and empowering them.

We began our investigation by reviewing the literature and delineating our research questions. For each stage of this research we utilized a qualitative approach based primarily on publicly available information found online.

One of our top priorities was to describe which members of the public participate in government consultations on AI. We distinguish between the organized and unorganized publics, following the work of Mancur Olson (Olson: 1982). Olson notes that most of the time, most citizens do not participate directly in governance because they believe their individual decisions and votes can have little influence, so they 'are rationally ignorant' about public affairs.
But the same individual who is not generally motivated may join a union, civil society group, or a professional association to influence government on a particular issue of great concern to their ethics or economic situation. This individual is now also a member of the organized public—a group that works to provide its members with important information about issues that can enable the group and its members to thrive (Olson: 1982, 26). The organized public includes civil society associations such as Human Rights Watch[28] and the Internet Society, professional associations such as the International Association of Electrical and Electronic Engineers[29] or business associations such as the Computer and Communications Industry Association.[30] Some call these groups 'special interests.'

Special interests are not alike—some are grassroots organizations, driven by members and reflective of activist member opinion, while others are more staff driven. Yet they play a major role in public policy in democracies (Olson: 1982). First, they often hire lobbyists to ensure their interests are heard. Secondly, representatives of unions, firms and professional associations are asked to testify or to join advisory bodies. In so doing, they can develop relationships with parliamentary or legislative staff who often move on to lobbying or policy jobs in such

[27] The IAP2 aims to advance and extend the practice of public participation through professional development, certification, standards of practice, core values, advocacy and key initiatives with strategic partners around the world. IAP2, Core Values, Ethics, Spectrum – The 3 Pillars of Public Participation, https://www.iap2.org/page/corevalues
[28] https://www.hrw.org/
[29] https://www.ieee.org/about/ieee-history.html
[30] https://www.ccianet.org/2022/10/ccia-details-digital-trade-barriers-in-foreign-markets-to-ustr/

organizations.[31]. But in general these organizations are listened to and have more opportunities to be heard by policymakers.[32] In contrast, the unorganized public only has this opportunity when asked.

Hence, we looked at consultations involving both the organized public and the unorganized public, and not those open solely to experts. However, it is difficult to distinguish why a person participated and under what identity because individuals are multidimensional. Person A can simultaneously be an expert on AI as well as a citizen who may not care to comment on the governance of AI. In contrast, Person B may be a member of Human Rights Watch who is also an expert on big data and who actively comments on AI governance. We relied on the stated affiliation of the commentator.

Next we delineated what we defined as an AI strategy—a national statement of the country's vision for AI. We decided that we would count only those strategies embodied in a single, authoritative document. For example, Colombia produced multiple documents and initiatives, rather than relying on one unifying document for its national AI strategy. Thus, we did not count Columbia in our analysis.[33]

We note that AI strategies are living documents and governments at times update such strategies. When a nation did so, we counted the newest version as the strategy. We included only those governments which held consultations to directly inform the authoritative strategy document. Once we had determined which documents we included as AI strategies and which countries had public consultations, [34] we next focused on research questions (see Box 1 below).

[31] https://www.americanprogress.org/article/fighting-special-interest-lobbyist-power-public-policy/
[32] Joel Anderson, "Special Interests" and the Common Good: The Construction of an Opposition, in published in *A Cultural Lexicon: Words in the Social (CIRA Working Papers Series No. 2*), ed. D. Moore, K. Olson, J. Stoeckler (Evanston: Center for Interdisciplinary Research in the Arts, 1991), 91-102. https://www.phil.uu.nl/~joel/research/publications/specialinterests.htm
[33] Republica de Colombia Departamento Nacional de Planeación, Politica National Para La Transformación Digital e Inteligencia Artificial, 2019. https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/3975.pdf
[34] Australia, Brazil, Chile, France, Germany, India, Indonesia, Ireland, Italy, Jordan, Malaysia, Norway, Peru, Poland, Turkey, the United Kingdom, and Uruguay

Box 1: Research Questions

1. How and when did the government engage with its citizens in the creation and adoption of the national AI strategy?
2. What materials did the government provide to prepare/enable the public to give informed advice on the AI strategy?
3. Did the government make efforts to ensure a broad cross-section of people knew about and could comment on the strategy?
4. Who participated in the engagement processes?
5. Did the government provide evidence it made use of the feedback it received?
6. Did any of the consultations achieve the IAP2 level of 'Involve'?

We then started gathering data on these 18 cases of national AI strategies that had a public consultation, developing 14 indicators to use to characterize answers to our six research questions (see Table 1).

Table 1: Indicators

Research Question	Indicator
1. How and when did the government engage with its citizens in the creation and adoption of the national AI strategy?"	Was there a formal government consultation, open to the unorganized public?
	Did the government consult a closed group of experts, at least one of whom was a representative of a civil society group?
	Did the government engage the public in settings outside the formal consultation, for example workshops or roundtables?
	Was there public input on the initial stage of the development of the AI strategy?
	Was there public engagement prior to the release of the final/official strategy?
	Were there multiple stages of public engagement, often resulting in the publication of interim or draft documents before the official strategy?
2. What materials did the government provide to prepare/enable the public to give informed advice on the AI strategy?	Did the government provide any relevant background documents in its formal consultation(s)?
	Did the government provide adequate information to participants of other engagement mechanisms?

3. Did the government make efforts to ensure a broad cross-section of people knew about and could comment on the strategy?	Were there both online and offline options for participation?
	Were there any efforts to promote the inclusion of communities facing specific difficulties, such as the disabled, or to promote the inclusion of historically marginalized groups?
4. Who participated in the engagement processes?	Are the comments available for viewing?
	Did the government release a summary or other report detailing the comments?
5. Did the government provide evidence it made use of the feedback it received?	Did the government acknowledge the comments it received, either in the strategy itself or elsewhere?
	Did the government explain how it incorporated comments into the strategy?

To supplement our data gathering we also reached out to the agencies and individuals responsible for the strategy development in each case in which we had outstanding questions. We revised and informed our analysis using the information obtained in this way. We acknowledge we may have incomplete information. However, most democracies view such consultations as essential and are likely to be proud of and willing to share information on such consultations.

Finally, we condensed the answers to the indicators for each case study nation into answers for each research question and synthesized that information into the case studies in the Annex. We did not assess whether these countries had an effective consultation. Our findings and background data will be available at the Digital Trade and Data Governance hub research website, under Public Participation in AI Strategies.

Findings

Our six research questions allowed us to assess whether, how, when, who, and to what extent nations consulted with their public on their AI strategy (see Box 1). In this section we summarize answers to each research question. For country-specific information, please see the Annex.

1. How and when did the government engage with its citizens in the creation and adoption of the national AI strategy?

We found significant variation in how and when nations engaged with their citizens on the AI strategy. Twelve nations from our sample of 18 adopted a similar process in developing their AI strategy. They began by convening experts from business, professional associations, government, and professional associations. Six of these nations (Chile, Indonesia, Italy, Peru, the UK, and Uruguay) convened a working group or expert committee while another six (Australia, Brazil,

France, Germany, Poland, and Turkey) consulted individual experts. They then expanded the circle of those consulted in the hope of receiving comments from a wide range of citizens (OECD: 2022). Following this expert input, Australia, Brazil, Chile, Germany, Italy, the United Kingdom, Uruguay, and Poland then produced a draft strategy or a discussion paper focused on what a strategy could include.

Six other nations took a different approach. Turkey consulted experts and then released the official strategy; India, Indonesia, Peru, and Jordan did release what they called a 'draft' strategy but which ultimately serves as their official strategy; and France, Ireland, Malaysia, and Norway did not produce a working document but held public consultations before releasing the official strategy.

A different set of thirteen governments among the 18 held formal public consultations at some point in the process of developing a strategy.[35] We found significant variation in how they sought public comment. Some obtained public input through a survey; others requested comments on the draft strategy or discussion paper produced by the expert group, others asked for comments on broad regulatory issues; or, in Norway's case, simply issued an open invitation to submit input.[36] Some of the 13 also organized workshops, focus groups, and roundtables. Seven of these governments claimed they held such additional events,[37] but in three cases (Ireland, Indonesia, Turkey) we could not find mention of them outside the strategy text. Malaysia held virtual town halls and virtual focus group discussions,[38] and Chile, in addition to its release of a tentative index for comment, held numerous regional and self-convened worktables around the country.[39] Some nations also held conferences (Australia, Malaysia, Poland), webinars (Chile, Poland), and other events with partners (the United Kingdom), to inform the general public about the AI strategy and its development. Norway followed its open call for comments from the public with a series of in-person meetings between the Minister of Digitization and various stakeholder groups. Italy held two public consultations, on separate draft strategies.[40] Uruguay asked for public comment on principles to guide the strategy, then on the draft strategy(Hernandez et al. 2022, 27).

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[35] Australia, Brazil, Chile, France, Ireland, Italy, Jordan, Norway, Peru, Poland, the United Kingdom, United States, Uruguay

[36] Kommunal- og moderniseringsdepartementet, Ber om innspill til strategi for kunstig intelligens, 2019. https://www.regjeringen.no/no/dokumentarkiv/regjeringen-solberg/aktuelt-regjeringen-solberg/kmd/pressemeldinger/2019/ber-om-innspill-til-strategi-for-kunstig-intelligens/id2642696/

[37] Australia, Chile, Ireland, Indonesia, Malaysia, Turkey, the United Kingdom

[38] Dr. Rossilah Jamil, AHIBS Experts Entrusted for AI Roadmap and Talent Development in Malaysia, 2021. https://news.utm.my/2021/07/ahibs-experts-entrusted-for-ai-roadmap-and-talent-development-in-malaysia/

[39] Ministerio de Ciencia, Tecnología, Conocimiento e Innovación, Politicas/Politica_Inteligencia_Artificial/Mesas_Regionales/. https://github.com/MinCiencia/Politicas/tree/main/Politica_Inteligencia_Artificial/Mesas_Regionales

[40] Franco Canna, Investimenti nella ricerca, sviluppo delle competenze e focus sulle applicazioni (manifattura in primis): l'Italia vara la sua Strategia sull'Intelligenza Artificiale, 2021. https://www.innovationpost.it/attualita/politica/investimenti-nella-ricerca-sviluppo-delle-competenze-e-focus-sulle-applicazioni-manifattura-in-primis-litalia-vara-la-sua-strategia-sullintelligenza-artificiale/

Several nations viewed obtaining public comments as an ongoing process. For example, Malaysia described its AI roadmap as a 'living document' that will be continually updated based on further feedback,[41] and Peru's strategy calls for updates every two years.[42] Malaysia's.[43] and Indonesia's strategies are hosted on webpages on which you can still (as of time of writing) comment on the strategy.[44] Germany and the United States have released updated strategies, and India and the United Kingdom have released implementation or guidance documents. All four nations that published additional documents after the release of the national strategy consulted the public in some form in advance of these updates (although Germany again only consulted organizations).

2. What materials did the government provide to prepare/enable the public to give informed advice on the AI strategy?

The governments in our sample provided several different types of documents to assist their constituents in providing comments on the AI strategy. Some countries gave their citizens a draft strategy or a preliminary document prepared by either the expert committee or the relevant government agency. Five nations provided a document delineating recommendation from experts.[45] Chile, Italy, Poland, and Uruguay provided respondents with a draft strategy developed for the purpose of the consultation. In contrast, India, Indonesia, Jordan, Peru released the official, final strategy and asked for public comment at that point, without an intervening document or additional information that could help citizens understand the relevant issues. Australia released a discussion paper, which calls for responses to questions rather than any preconceived recommendations.[46] Brazil presented its public with a description of predetermined thematic pillars based on OECD recommendations, around which the strategy would be designed, with discussion questions.[47] Similarly, France sought comments on briefly described thematic courses of actions, and also explicitly sought proposals for additional courses of action and discussion between commenters.[48] In contrast, the US revised its strategy twice, but did not

[41] Ministry of Science, Technology & Innovation, Malaysia National Artificial Intelligence Roadmap (AI-Rmap), 2021. https://airmap.my/wp-content/uploads/2022/08/AIR-Map-Playbook-final-s.pdf
[42] Secretariat of Government and Digital Transformation of the Presidency of the Council of Ministers, National Artificial Intelligence Strategy First Draft of Peruvian National AI Strategy, 2021. https://cdn.www.gob.pe/uploads/document/file/1909267/National%20Artificial%20Intelligence%20Strategy%20-%20Peru.pdf
[43] Sekretariat Nasional Kecerdasan Artifisial Indonesia, Strategi Nasional. https://ai-innovation.id/strategi
[44] Malaysia Artificial Intelligence (AI) Roadmap, https://airmap.my/
[45] Germany, Italy, Poland, the United Kingdom, Uruguay
[46] Australian Government Department of Industry, Science, Energy and Resources, An AI Action Plan for all Australians, A call for views Discussion Paper, 2020. https://storage.googleapis.com/converlens-au-industry/industry/p/prj1a47e48f09b98efbd2e34/public_assets/AI-Discussion-Paper.pdf
[47] Ministério da Ciência, Tecnologia, Inovações e Comunicações, Consulta Pública Estratégia Brasileira de Inteligência Artificial, 2019. https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosinteligenciaartificial/ebia-consulta-publica.pdf
[48] Cédric Villani, Consultation sur l'intelligence artificielle. https://purpoz.com/project/mettre-en-place-un-terreau-general-favorable-au-developpement-de-l-ia/consultation/consultation-32/consultations

provide additional material. Citizens could, however, review the 2016 strategy to provide comments on the 2019 revision and could review the 2019 revision to provide comments on the 2022 update for the AI strategy.[49] Finally, Ireland provided very little information to its public, including only short descriptions of the strategy's objectives.[50]

In sum, the governments that held formal public consultations provided background material on guiding principles, objectives and/or the strategy, these documents could not enable the broad public to give well-informed comments on AI. Many people don't understand when they are interacting with AI systems such as bots or spell-check. Most people need to understand more about AI systems and their risks and benefits to comment effectively. But few governments were willing to put in the effort to prepare their citizens.

3. Did the government make efforts to ensure a broad cross-section of people knew about and could comment on the strategy?

Government officials generally relied on government websites or emailed surveys to request public opinion. Thus to participate one needed internet access. Some governments took additional steps to broaden the circle of commenters. As example, Chile organized regional roundtables to get feedback from people throughout the country.[51]

We could not ascertain whether the governments were successful at attracting diverse comments. However, Table 2 reveals that few people actually participated in public consultations in most of our sample. Moreover, we could not determine if nations that made greater efforts received more comments. We found no information on the numbers from India, Italy, Peru, Poland, and Jordan, although Jordan's consultation was concluded as we were writing.

One can assess this question in two ways—did governments make the effort to receive public comments and did their constituents respond? The number of comments may reflect a lack of outreach efforts. Seven countries received fewer than 100 comments. However, France and Brazil received over 1,000 comments each but did not differentiate how many commentators. Most countries that sent out surveys as their form of consultation also received responses in the hundreds. While no consultation can directly be compared, the United States is a leading source and exporter of AI, yet the US Department of Commerce's consultation on AI standards received

[49] Office of Science and Technology Policy, Request for Information to the Update of the National Artificial Intelligence Research and Development Strategic Plan, 87 Fed. Reg. 5876, 2018. https://www.federalregister.gov/documents/2022/02/02/2022-02161/request-for-information-to-the-update-of-the-national-artificial-intelligence-research-and

[50] Department of Business Enterprise and Innovation, Public Consultation on the Development of a National Strategy on Artificial Intelligence, 2019. https://enterprise.gov.ie/en/consultations/public-consultation-development-of-a-national-strategy-on-artificial-intelligence.html

[51] Ministerio de Ciencia, Tecnología, Conocimiento e Innovación, Consulta Publica de Inteligencia Artificial, 2021. https://minciencia.gob.cl/uploads/filer_public/6c/c1/6cc17cd7-ae58-48f0-ada1-d33a3e6e8958/informe_consulta_publica_ia_1.pdf

109 comments,[52] and its consultation on export controls received 18.[53] As noted earlier, these consultations do not generally attract significant input.

Table 2: Total Number of Participants in Public Consultation

Australia	90
Brazil	31
Chile	209
France	1639
Germany	88
India	No information available.
Indonesia	57
Ireland	85
Italy	No information available.
Jordan	No information yet available.
Malaysia	173
Norway	51
Peru	None found for consultation survey. According to the announcement webinar, worktables took place with around 70-80 participants.
Poland	No information available.
Turkey	206 interviews, 108 workshops participants
United Kingdom	413
United States	46
Uruguay	28

4. Who participated in the engagement processes?

[52] https://www.regulations.gov/document/NIST-2019-0001-0001 and https://www.regulations.gov/docket/NIST-2019-0001/comments
[53] https://www.regulations.gov/docket/ITA-2022-0007/comments

Ten countries provided information that we could utilize to better understand who participated in these consultations.[54] Chile[55] and the UK[56] delineated their participants' gender, geographical region, and profession or association. Malaysia[57] and Turkey[58] described participants by the category of their professional institution (NGO/government/business/academia). Brazil,[59] Norway,[60] and the United States[61] maintain websites where the consultation was hosted and on which one can see both the comments and who commented, in a form that allows for subsequent analysis. Uruguay took its website down during the course of this research, but comments and commenters were previously viewable there.[62]

However, we found it difficult to compare information on participants among countries. In most instances, the government provided only a person's name or name and job. Thus, we were unable to categorize the participants as either members of the general (unorganized public) or organized public.

Moreover, Australia, France, India, Indonesia, Italy, Jordan, Peru, and Poland did not provide any information on who participated in their consultations. As example, Australia, gave the number of respondents with no further information,[63] while France and Indonesia provided comments and

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[54] Brazil, Chile, France, Germany, Indonesia, Ireland, Malaysia, Norway, Turkey, the United Kingdom, the United States, Uruguay

[55] Ministerio de Ciencia, Tecnología, Conocimiento e Innovación, Consulta Publica de Inteligencia Artificial. https://minciencia.gob.cl/uploads/filer_public/6c/c1/6cc17cd7-ae58-48f0-ada1-d33a3e6e8958/informe_consulta_publica_ia_1.pdf

[56] Alan Turing Institute, AI ecosystem survey Informing the National AI Strategy Summary report AI ecosystem survey Informing the National AI Strategy Summary report, 2021. https://www.turing.ac.uk/sites/default/files/2021-09/ai-strategy-survey_results_020921.pdf

[57] Ministry of Science, Technology & Innovation, Malaysia National Artificial Intelligence Roadmap (AI-Rmap), 2021. https://airmap.my/wp-content/uploads/2022/08/AIR-Map-Playbook-final-s.pdf

[58] Digital Transformation Office of the Presidency of the Republic of Türkiye and the Ministry of Industry and Technology, National Artificial Intelligence Strategy (NAIS) 2021-2025, 2021. https://cbddo.gov.tr/SharedFolderServer/Genel/File/TRNationalAIStrategy2021-2025.pdf

[59] Ministério da Ciência, Tecnologia, Inovações e Comunicações, Consulta Pública Estratégia Brasileira de Inteligência Artificial, 2019. https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosinteligenciaartificial/ebia-consulta-publica.pdf

[60] Kommunal- og distriktsdepartementet, Mottatte innspill til KI-strategien, 2019. https://www.regjeringen.no/no/tema/statlig-forvaltning/ikt-politikk/KI-strategi/mottatte-innspill-til-ki-strategien/id2640057/

[61] National Coordination Office of the Networking and Information Technology Research and Development, Comments Received in Response to: Request for Information on Update to the 2016 National Artificial Inteligence Research and Development Strategic Plan 2018. https://www.nitrd.gov/coordination-areas/ai/ai-rfi-responses-2018/

[62] Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento, Consulta Publica Propuesta de la Estrategia de Inteligencia Artificial para el Gobierno Digital, 2019, accessed October 2022. https://www.gub.uy/participacionciudadana/consultapublica/legislation_proposals/3-consulta-publica-propuesta-de-la-estrategia-de-inteligencia-artificial-para-el-gobierno-digital&cd=2&hl=en&ct=clnk&gl=nl

[63] Ministerio de Ciencia, Tecnología, Conocimiento e Innovación, Politica Nacional de Inteligencia Artificial. https://minciencia.gob.cl/uploads/filer_public/bc/38/bc389daf-4514-4306-867c-760ae7686e2c/documento_politica_ia_digital_.pdf

the names of the participant, which made it difficult to assess the background of the participant. Table 3 describes what we found for the 18 country sample.

However, we could examine the makeup of advisory or expert committees that many governments convened. In general, we found these committees were dominated by academia and business.

Italy convened two different groups at different times, set up by two different administrations. Italy's 2018 Committee of Experts was composed of 30 people: 11 from business; 12 from academia, science, and research; 3 from professional organizations, 3 from the nonprofit sector, and 1 lawyer.[64] Its 2021 Working Group, by contrast, was composed only of 9 people, all of them from academia, science, and research institutions.[65] Peru's expert committee contained 12 members, all from academia.[66] Chile's expert group was composed of 11 academics, one of whom was also the Director of an NGO.[67] The UK AI Council contains 20 members, 8 from academia, 7 from business or business associations, 3 from various government entities, and 2 from NGOs.[68] Turkey did not create an expert group but it consulted 103 "domain experts in different disciplines."[69]

Table 3: Breakdown of Who Commented on National AI Strategies

Australia	No information available.
Brazil	31 commenters: Private Sector\Professional Org 45% NGO/Third Sector 19% Government 3% Academia 19% Unaffiliated Individual 13%

[64] Gruppo di Esperti MISE, Proposte per una strategia italiana per l'intelligenza artificiale, 2019, page100. https://www.mise.gov.it/images/stories/documenti/Proposte-per-una-strategia-italiana-2019.pdf
[65] Dipartimento per la trasformazione digitale, Nasce il Gruppo di Lavoro sulla Strategia Nazionale per l'Intelligenza Artificiale, 2021. https://innovazione.gov.it/notizie/articoli/nasce-il-gruppo-di-lavoro-sulla-strategia-nazionale-per-l-intelligenza-artificial/
[66] Secretariat of Government and Digital Transformation of the Presidency of the Council of Ministers, National Artificial Intelligence Strategy First Draft of Peruvian National AI Strategy, 2021. https://cdn.www.gob.pe/uploads/document/file/1909267/National%20Artificial%20Intelligence%20Strategy%20-%20Peru.pdf
[67] Ministerio de Ciencia, Tecnología, Conocimiento e Innovación, POLÍTICA NACIONAL DE INTELIGENCIA ARTIFICIAL. https://minciencia.gob.cl/uploads/filer_public/bc/38/bc389daf-4514-4306-867c-760ae7686e2c/documento_politica_ia_digital_.pdf
[68] Government of the United Kingdom, AI Council. https://www.gov.uk/government/groups/ai-council
[69] Digital Transformation Office of the Presidency of the Republic of Türkiye and the Ministry of Industry and Technology, National Artificial Intelligence Strategy (NAIS) 2021-2025, 2021. https://cbddo.gov.tr/SharedFolderServer/Genel/File/TRNationalAIStrategy2021-2025.pdf

Chile	Results report breaks 209 participants down by age, country, gender, educational level, and geographical location within Chile, although not by professional sector. 86.31% were natural persons and 13.9% legal persons. There is a breakdown of the participants of the regional work tables by professional sector on the online platform hosting the consultation details.
France	Consultation summary report breaks down comments as so: 1,639 attendees ● 2,407 contributions While comments are available for viewing on the online platform, commenters' names were often not given in full, preventing us from assessing the makeup of respondents.
Germany	No members of the unorganized public were involved. Of the organizations, our analysis shows the following, for the 2018 consultation: 88 Commenters Private Sector- 52.2% Professional Org- 27.2% NGO- 11.3% Government- 3.7% Academia- 5.6%
India	No information available.
Indonesia	While comments are available for viewing on the online platform, commenters' names were all that was given, preventing us from assessing the makeup of the 57 respondents.
Ireland	Public Consultation Report breaks down the 85 commenters as so: 16% businesses 5% government 46% research/academia 7% representative body 12% anonymous 14% general public In addition, 7 primarily business groups provided written statements separately.
Italy	No information available.
Jordan	No information yet available.
Malaysia	According to the Roadmap, the government received 173 responses to the survey, which it breaks down as so: Industry/ Private / Companies 45% Government 38% Academia 14% Other 3%
Norway	According to our analysis of the 51 comments: Business/Business Association 20.7% Government 20.7%

	Academia 15% Professional Association 26.4% NGO/civil society/charity/third sector 13.5% Non-affiliated individual 3.7%
Peru	No information available.
Poland	No information available.
Turkey	According to the strategy, 36 interviews were held with government representatives, 38 with the private sector, 3 with NGOs, 26 with universities, and 103 with domain experts in different disciplines. The strategy also says that two workshops were held that were attended by 40 representatives from public institutions, 38 from private sector organizations, 26 from academia and 4 from NGOs.
United Kingdom	AI Ecosystem Survey Results Report breaks down the 413 respondents as so: industry (44%) and academia (32%), with a large minority from the public sector (15%). Further questions asked about professional background, geographical region of work, position at work, age, gender, and ethnic group.
United States	According to our analysis, of the 46 respondents: Business/Business association: 36.9% Government 0% Academia: 11% Professional Association: 30.1% NGO/civil society/charity/third sector: 13% Non-affiliated individual: 9%
Uruguay	Web page that hosted the consultations was taken down during the course of this research, preventing us from analyzing the 28 comments. According to Derechos Digitales, AI-powered narrative building for facilitating public participation and engagement

5. Did the government provide evidence it made use of the feedback it received?

Public feedback is an important element of good governance, and thus many governments seek comments to improve public policy and to be responsive to their citizens (OECD: 2011). Hence we examined if the government indicated whether, and if so how, it made use of the comments given during the course of the consultations. Only 4 countries provided concrete evidence that they incorporated such comments. In Chile, the government said it incorporated learnings from worktables,[70] and a post-consultation results report discussed how comments were incorporated

[70] Ministerio de Ciencia, Tecnología, Conocimiento e Innovación, POLÍTICA NACIONAL DE INTELIGENCIA ARTIFICIAL, BORRADOR / CONSULTA PÚBLICA, 2020. https://www.minciencia.gob.cl/legacy-files/borrador_politica_nacional_de_ia.pdf

into the strategy.[71] In the US, the government explained changes made based on comments received.[72] The German government did not explicitly say how it used comments. But Germany's strategy dedicated substantial space to summarizing and explaining the comments, thereby making it clear that the comments impacted the direction of the strategy. A Uruguayan official replied to each comment posted on the consultation portal with information about how it would be incorporated into the strategy.[73] In France and Malaysia, the strategy text summarized or gave reference to comments the organizers received but did not indicate how it responded to specific comments.

6. Did any of the consultations achieve the IAP2 level of 'Involve'?

As noted earlier, we utilized a widely accepted metric of public participation to assess whether any nation's engagement strategy for the development of their national AI strategy went beyond consulting the public, to more actively involving the public in the process. The International Association for Public Participation (IAP2)'s Spectrum of Political Participation (Figure 1) is designed to illustrate different modes of participation.[74]

[71] Ministerio de Ciencia, Tecnología, Conocimiento e Innovación, CONSULTA PÚBLICA DE INTELIGENCIA ARTIFICIAL, 2021. https://minciencia.gob.cl/uploads/filer_public/6c/c1/6cc17cd7-ae58-48f0-ada1-d33a3e6e8958/informe_consulta_publica_ia_1.pdf

[72] Select Committee on Artificial Intelligence, Update to the 2016 National Artificial Intelligence Research and Development Strategic Plan, 2019. https://www.nitrd.gov/pubs/National-AI-RD-Strategy-2019.pdf

[73] Agencia de Gobierno Electrónico y Sociedad de la Información y del Conocimiento, Consulta Publica Propuesta de la Estrategia de Inteligencia Artificial para el Gobierno Digital, 2019, accessed October 2022. https://www.gub.uy/participacionciudadana/consultapublica/legislation_proposals/3-consulta-publica-propuesta-de-la-estrategia-de-inteligencia-artificial-para-el-gobierno-digital&cd=2&hl=en&ct=clnk&gl=nl

[74] ©International Association for Public Participation www.iap2.org> We received permission to use this matrix.

Figure 1: the IAP2 Spectrum of Public Participation

IAP2 Spectrum of Public Participation

IAP2's Spectrum of Public Participation was designed to assist with the selection of the level of participation that defines the public's role in any public participation process. The Spectrum is used internationally, and it is found in public participation plans around the world.

INCREASING IMPACT ON THE DECISION

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

To make this useful for our categorization of public participation, we expanded the IAP2 categories into specific indicators.

1. Inform: Did the government provide the public with information to assist them in understanding the issue before the strategy was published?
2. Consult: Did the government ask for comment from the organized and unorganized publics?
3. Acknowledge: Did the government acknowledge public comment?
4. Respond: Did the government provide feedback on how public input influenced the final strategy?
5. Involve: Did the government work directly with the public throughout the process?
6. Collaborate: Did the government work with the public to develop the initial direction, and provide evidence that it incorporated public concerns into the decisions made?
7. Empower: Did the government place final decision-making authority in the hands of the public?

The results of our analysis can be seen in Table 4.

Table 4: Adapted IAP2 Spectrum

	Inform	Consult	Acknowledge	Respond	Involve	Collaborate	Empower
Australia	☑	☑	☑	☐	☐	☐	☐
Brazil	☑	☑	☑	☐	☐	☐	☐
Chile	☑	☑	☑	☑	☑	☐	☐
France	☑	☑	☑	☐	☐	☐	☐
Germany	☑	☐	☑	☑	☐	☐	☐
India	☐	☑	☐	☐	☐	☐	☐
Indonesia	☐	☑	☐	☐	☐	☐	☐
Ireland	☑	☑	☑	☐	☐	☐	☐
Italy	☑	☑	☐	☐	☐	☐	☐
Jordan	☐	☑	☐	☐	☐	☐	☐
Malaysia	☐	☑	☑	☐	☐	☐	☐
Norway	☐	☑	☑	☐	☐	☐	☐
Peru	☐	☑	☐	☐	☐	☐	☐
Poland	☑	☑	☐	☐	☐	☐	☐
Turkey	☐	☐	☑	☐	☐	☐	☐
United Kingdom	☑	☑	☑	☐	☐	☐	☐
United States	☑	☑	☑	☑	☐	☐	☐
Uruguay	☑	☑	☑	☑	☐	☐	☐

As the table shows, most of the countries that developed an AI strategy barely involved their citizens. In 6 out of the 18 cases we cannot even say that the government sufficiently informed the public of the situation and policy context before the strategy had been written inform. In India, Indonesia, Jordan, and Peru, the government asked for public comment only after the strategy was fully written and released. Norway provided no information when it asked for public comment, and we could not verify whether information had been provided prior to public engagement in Turkey and Malaysia.

We next examined if nations went beyond informing their citizens to consulting them. But consultations can vary in their degree of openness: they can be accessible to anyone who wants to comment or closed to only certain sectors of society (OECD: 2011). In the cases of Germany and Turkey, the government directed the consultation mechanisms at the *organized* public, meaning stakeholder organizations (including civil society organizations). However, they did not provide a means by which the *unorganized* public could comment.[75]

[75] Die Bundesregierung, Nationale Strategie fur Künstliche Intelligenz *AI Made in Germany*. https://www.ki-strategie-deutschland.de/

We then looked at if the government acknowledged the comments it received. We cannot assert that we have found every relevant document, but we believe six countries did not acknowledge receiving public comments. In some countries, such as India and Peru, the process is ongoing and these governments could acknowledge and incorporate comments received in past consultations in future updates. In contrast, at the time of this writing, Jordan recently finished its consultation and therefore presumably has not had time yet to process the comments received.[76]

We then investigated whether the government provided documentation that it heard public concerns and delineated how these concerns are reflected in the strategy text. However, only Chile, Germany, the United States, and Uruguay indicated how they changed their strategy in response to comments. France, Ireland, Malaysia, Turkey, and the United Kingdom summarized the comments they received in graphs, statistics, or text; included individual comments in the final strategy; and/or provided the comments themselves or the individuals and organizations who commented. However, such summaries and statistics are not evidence that the government was responsive and accountable to these commentors.

Finally, we concluded that among our cases only Chile reached the point of 'Involve'.[77] Chile's engagement strategy involved multiple stages of progressively widening participation by various publics, starting with a small group of experts, then engaging the wider public through the release of a preliminary index, which was followed by webinars, worktables, and a formal public consultation. Moreover, Chilean officials were responsive to public comment throughout the process. Chile also maintains perhaps the best record of these mechanisms, with a GitHub page that collects most of the relevant information; it is still accessible as of November 2022.[78] Taken in sum, while most governments informed and some consulted some of their constituents, we found no country that 'collaborated' with its citizens according to the IAP2 metric.

Conclusion

Most governments want to build trust in AI, given the importance of AI to their current and future economic growth. Yet their strategies to encourage AI are unlikely to build and sustain that

[76] Ministry of Digital Economy and Entrepreneurship, The Digital Economy presents the draft Jordanian strategy for artificial intelligence and the implementation plan (2023-2027) for public consultation, 2022. https://www.modee.gov.jo/AR/ListDetails/%D8%A7%D9%84%D8%A7%D8%B3%D8%AA%D8%B4%D8%A7%D8%B1%D8%A7%D8%AA_%D8%A7%D9%84%D8%B9%D8%A7%D9%85%D8%A9_%D9%88%D8%A7%D9%84%D8%A7%D8%B3%D8%AA%D8%A8%D9%8A%D8%A7%D9%86%D8%A7%D8%AA/15/68

[77] Ireland and Malaysia stated that they held workshops, roundtables, and other meetings, but we could not find evidence of these outreach efforts despite attempts to contact the responsible agencies.

[78] Ministerio de Ciencia, Tecnología, Conocimiento e Innovación, Politicas/Politica_Inteligencia_Artificial/Mesas_Regionales/. https://github.com/MinCiencia/Politicas/tree/main/Politica_Inteligencia_Artificial/Mesas_Regionales

trust because policymakers have not sought to inform, consult, involve, and collaborate in an inclusive manner with many of the same people who might be affected by the misuse of AI. We examined how and when governments sought public comments on their AI strategies, as well as who participated. Our sample included 68 countries and the EU. Of the 43 with AI strategies, 25 did not consult the public. To put it differently, these 25 nations missed an opportunity to build trust. Only 18 nations in our sample tried to obtain feedback from members of the public.

Many of our cases utilized a similar set of actions to obtain public comment. The process often began when policymakers set up an advisory group or consulted directly with experts from business and government These groups have the understanding and experience articulating their concerns and priorities towards AI. Next, the government built on the expert consultation to produce a draft AI strategy or other preliminary document. Often policymakers used that draft strategy to obtain comments. Then the government announced its AI strategy. However, most governments did not describe how they incorporated public comments.

Some governments created an ongoing consultative process, which was embedded within a more extensive (ongoing) agenda of AI governance. For example, Germany, the US, India, and the UK have released additional AI strategic governance documents, all of which contained some element of public input, and Peru and Malaysia intend to do the same. However, the process could be delayed or destabilized by a change in government, as happened in Italy.

Unfortunately most governments did little to facilitate informed comments by their citizens. They did not explain how AI might affect them in their daily lives or in their many roles as citizens, producers, consumers, and advocates. Moreover, they did not explain the benefits and risks of AI to individuals and society as a whole. We note as an example of what governments could do, Finland created a free online course to demystify AI.[79] Certainly democratic governments should do more and encourage their allies to broaden this discussion.

Governments also made little effort to get the word out to their constituents and to motivate them to participate in developing the strategies. In general, they used web sites and online platforms to inform their citizens about the consultation. But these policymakers could do more. The OECD noted that when governments seek consultation, they should use a wide range of outreach methods such as advertising, video primers, partnering with civil society groups or educational institutions etc. They could also provide economic incentives, as several surveyors or pollsters do (OECD: 2011, 29, 31). Policymakers' failure to do so raises the question as to whether they really wanted such comments.

Because they failed to attract significant public input, policymakers generally relied on the recommendations of experts to guide public input. While we were able to see who commented in twelve nations, very few governments provided detailed breakdowns of the participants.

[79] https://www.elementsofai.com/

Consequently, we cannot say whether the participants were truly representative of the unorganized public or mainly representatives of the organized public. Moreover, the numbers of people commenting were relatively small and may not be representative of the nation as a whole.

Most of our sample did little to involve historically marginalized groups that could be significantly affected by government and private sector use of AI systems (Hernandez et al: 2022, p. 27.) In their report, Derechos Digitales suggested that policymakers could broaden public participation by translating informational material into local languages and making special efforts to involve communities which lack internet access. Moreover, they could, for example, hold "in-person meetings for people with disabilities or geographically distant communities" (Hernandez et al. 2022, p. 12).

Most governments provide information in their national language and not in indigenous and foreign languages, which could make it harder for some of their citizens (or foreigners) to participate. Some nations, like Chile, hosted in-person events, but the vast majority of participatory mechanisms were online only, potentially precluding those with no internet access from commenting. As a final marker, we looked at the length of time governments gave for the public to comment in their formal consultations. In general, when they asked for online comments, the portal or website was left open for about a month on average. Although Brazil allowed comments for 3 months, some countries gave as little as two weeks, which could work to bring down the number of participants.

In conclusion, there is a mismatch between governance of AI at the national level and the reality of AI deployment. Everyone has a stake in how AI is governed because AI systems and the data that underpins them are global. But most people lack the ability, information and resources to participate meaningfully in AI governance. While most people have little incentive to provide comments, policymakers should provide the background information to inform, engage and collaborate with their citizens about AI governance. They should also find ways to incentivize broader participation. Without the input of a wide swathe of their citizenry, policymakers may struggle to anticipate future problems related to AI, and over time, to sustain trust in AI systems.

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