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Generative AI Governance:
Shaping a Collective Global Future

IN COLLABORATION
WITH ACCENTURE

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Contents

Executive summary

Shaping a prosperous and equitable global future with AI depends on international cooperation, jurisdictional interoperability and inclusive governance.

The global landscape for artificial intelligence (AI) governance is complex and rapidly evolving, given the speed and breadth of technological advancements, as well as social, economic and political influences. This paper examines various national governance responses to AI around the world and identifies two areas of comparison:

1. **Governance approach:** AI governance may be focused on risk, rules, principles or outcomes; and whether or not a national AI strategy has been outlined.

2. **Regulatory instruments:** AI governance may be based on existing regulations and authorities or on the development of new regulatory instruments.

Lending to the complexity of AI governance, the arrival of generative AI raises several governance debates, two of which are highlighted in this paper:

1. **How to prioritize addressing current harms and potential risks of AI.**

2. **How governance should consider AI technologies on a spectrum of open-to-closed access.**

International cooperation is critical for preventing a fracturing of the global AI governance environment into non-interoperable spheres with prohibitive complexity and compliance costs. Promoting international cooperation and jurisdictional interoperability requires:

- **International coordination:** To ensure legitimacy for governance approaches, a multistakeholder approach is needed that embraces perspectives from government, civil society, academia, industry and impacted communities and is grounded in collaborative assessments of the socioeconomic impacts of AI.

- **Compatible standards:** To prevent substantial divergence in standards, relevant national bodies should increase compatibility efforts and collaborate with international standardization programmes. For international standards to be widely adopted, they must reflect global participation and representation.

- **Flexible regulatory mechanisms:** To keep pace with AI's fast-evolving capabilities, investment in innovation and governance frameworks should be agile and adaptable.

Equitable access and inclusion of the Global South in all stages of AI development, deployment and governance is critical for innovation and for realizing the technology's socioeconomic benefits and mitigating harms globally.

- **Access to AI**: Access to AI innovations can empower jurisdictions to make progress on economic growth and development goals. Genuine access relies on overcoming structural inequalities that lead to power imbalances for the Global South, including in infrastructure, data, talent and governance.

- **Inclusion in AI**: To adequately address unique regional concerns and prevent a relegation of developing economies to mere endpoints in the AI value chain, there must be a reimagining of roles that ensure Global South actors can engage in AI innovation and governance.

The findings of this briefing paper are intended to inform actions by the different actors involved in AI governance and regulation. These findings will also serve as a basis for future work of the World Economic Forum and its AI Governance Alliance that will raise critical considerations for resilient governance and regulation, including international cooperation, interoperability, access and inclusion.

Introduction

Generative AI promises economic growth and social benefits but also poses challenges.

The rapid onset of generative artificial intelligence (AI) is promising socially and economically,[1] including the potential to raise global gross domestic product (GDP) by 7% over a 10-year period.[2] At the same time, a range of complex challenges has emerged, such as the impact on employment, education and the environment, as well as the potential amplification of online harms.[3] Additionally, there are increased demands for corporate transparency of AI systems[4] and for clarity on data provenance and ownership.[5] Governance authorities worldwide face the daunting task of developing policies that harness the benefits of AI while establishing guardrails to mitigate its risks. Additionally, they are attempting to reconcile AI governance approaches with existing legal structures such as privacy and data protection, human rights, including rights of the child, intellectual property and online safety.

1 Global developments in AI governance

The nascent and fragmented global AI governance landscape is further complicated by challenges posed by generative AI.

The complex and fast-evolving AI governance landscape is marked by diverse national responses: risk-based, rules-based, principles-based and outcomes-based, as delineated in Table 1. It is important to note the difficulty of neatly attributing singular approaches to individual jurisdictions, as elements of multiple approaches can complement each other and are likely to be incorporated into hybrid responses.[6]

TABLE 1 **Summary of AI governance approaches (not mutually exclusive)**

	Risk-based	Rules-based	Principles-based	Outcomes-based
Definition	Focuses on classifying and prioritizing risks in relation to the potential harm AI systems could cause	Lays out detailed and specific rules, standards and/or requirements for AI systems	Sets out fundamental principles or guidelines for AI systems, leaving the interpretation and exact details of implementation to organizations	Focuses on achieving measurable AI-related outcomes without defining specific processes or actions that must be followed for compliance
Benefits	– Tailored to application area – Proportional to risk profile – Flexible to changing risk levels	– Potential reduction of complexity – Consistent enforcement possible	– Intended to foster innovation – Adaptable to new developments – Can encourage sharing of best practices	– Can support efficiency – Flexible to change – Intended to foster innovation – Compliance can be cost-effective
Challenges	– Risk assessments can be complex – May create barriers to market entry in high-risk areas – Assessment and enforcement can be complex	– Rigidity can increase compliance costs – May be unreliable to enforce	– Potential inconsistencies with interpretation of principles – Unpredictable compliance and impractical enforcement – Potential for abuse by bad actors	– Scope of measurable outcomes can be vague – Potential for diffused accountability – Limited control over process and transparency
Example	**EU:** *Artificial Intelligence Act,* 2023 (provisional agreement)	**China:** *Interim Measures for the Management of Generative AI Services*, 2023	**Canada:** *Voluntary Code of Conduct for Artificial Intelligence*, 2023	**Japan:** *Governance Guidelines for Implementation of AI Principles Ver. 1.1*, 2022

The recent provisional agreement reached on the EU AI Act represents the world's first attempt at enacting comprehensive and binding AI regulation applicable to AI products and services within a risk-based and use case-driven structure.[7] Other AI-specific regulatory efforts are also under development in various jurisdictions, such as in Canada,[8] Brazil,[9] Chile[10] and the Philippines.[11] Meanwhile, the Indian government has weighed a non-regulatory approach, emphasizing the need to innovate, promote and adapt to the rapid advancement of AI technologies.[12] In direct response to the rapid progress and widespread use of generative AI foundation models, China enacted regulations related to the use of generative AI. The EU AI Act also incorporates specific obligations for foundation models underpinning general-purpose AI (GPAI) systems.[13]

Additional countries such as Singapore,[14] Malaysia,[15] Saudi Arabia,[16] Japan,[17] and Rwanda [18] are responding to the transformative potential of AI by developing national polices[19] that outline governance intentions and explore a range of regulatory instruments, ranging from hard laws and mandatory compliance rules to soft guidance and voluntary best practices. Lending to the intricacy of the governance landscape, regulatory responses are spread across a matrix of sector-specific considerations and cross-sectorial requirements. The recently issued US Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence directs federal agencies to develop new standards and includes sector-specific guidance driven by risk management.

In addition to government regulatory efforts, there is a growing awareness of the importance of industry-responsible AI governance practices[20] in safeguarding societal interests. For example, in response to the US Executive Order the National Institute of Standards and Technology (NIST) has established the AI Safety Consortium, which intends to collaborate closely with industry, among other stakeholders, to inform risk management best practices.[21]

1.1 Evolving AI governance tensions

The existence of a spectrum of AI governance approaches considers debates arising from new and amplified challenges[22] introduced by the scale, power and design of generative AI technologies. Table 2 provides a snapshot of two prominent debates taking place with a sample of divergent positions regarding the nature of risks and access to AI models. Other emerging tensions include how generative AI will impact employment,[23] its intersection with copyright protections,[24] data transparency requirements,[25] allocation of responsibility among actors within the generative AI life cycle[26] and addressing misinformation and disinformation concerns amplified by generative AI.[27]

Many of these emerging tensions have their roots in data governance issues,[28] such as privacy concerns, data protection, embedded biases,[29] identity and security challenges from the use of data to train generative AI systems, and the resultant data created by generative AI systems. There is a need to re-examine existing legal frameworks that provide legal assurance to the ownership of AI-generated digital identities.[30]

TABLE 2 | **Areas of debate in AI governance (non-exhaustive)**

Debate and context	Sample position	Policy arguments for	Policy arguments against
Policy focus on long-term existential risks[31] vs present AI harms.[32] AI poses present harms and a spectrum of potential near- to long-term risks. Diverse positions exist regarding how to identify and prioritize the harms and risks from AI as well as the timeframe over which risks should be considered.	Advanced autonomous AI systems pose an existential threat to humanity.[33]	– Without sufficient caution, humans could irreversibly lose control of autonomous AI systems.[34] – Starting with the biggest questions around existential risk supports the development of trustworthy AI and could prevent overregulation.[35]	– Existential risks are speculative and uncertain.[36] – Can redirect the flow of valuable resources from scientifically studied present harms.[37] – Misdirects regulatory attention.[38]
	Effective regulation of AI needs grounded science that investigates present harms.[39]	– In terms of urgency, there are immediate problems and emerging vulnerabilities with AI that disproportionately impact marginalized and vulnerable populations. – Contending with known harms will address long-term hypothetical risks.[40]	– Focus on known harms may lead to neglecting long-term risks not well considered by traditional policy goals.
Policy treatment of open-source vs closed-source AI.[41] Governance consideration is being given regarding where an AI technology may sit on a spectrum of open-to-closed access.[42]	Open-source AI is critical to AI adoption and mitigating current and future harms from AI systems.[43]	– Increased access to AI and democratization of its capabilities. – Spurs innovation and stimulates competition. – Enables study of risks that can reduce bias and disparate performance for marginalized populations.	– Increased access exposes AI models to greater malicious use and unintentional misuse. – Difficulties in patching vulnerabilities can leave the AI system unsecured.[44]
	Closed-source AI is necessary to protect against misuse of powerful AI technology.[45]	– Protects commercial intellectual property. – Safeguards against potentially harmful future capabilities. – Identified vulnerabilities can be fixed and safety features can be implemented.[46]	– Concentration of power and knowledge within high-resource organizations.[47] – Increased dependency on a few foundation model providers with the risk of monopoly-related consequences.

2 International cooperation and jurisdictional interoperability

International cooperation to facilitate jurisdictional interoperability is vital to ensure global cohesion and trust in AI.

International cooperation is critical to ensure societal trust in generative AI and to prevent a fracturing of the global AI governance environment into non-interoperable spheres with prohibitive complexity and compliance costs. Facilitating jurisdictional interoperability requires international coordination, compatible standards and flexible regulatory mechanisms. For example, the US has taken the initiative to enable cooperation with Europe through the US-EU Trade and Technology Council, while Chile, New Zealand and Singapore have signed a Digital Economy Partnership Agreement. Indicative of a growing consensus on the need for AI regulation, delegate nations at the 2023 UK AI Safety Summit signed the Bletchley Declaration with a commitment to establish a shared understanding of AI opportunities and risks.

2.1 International coordination and collaboration

To ensure enduring legitimacy for governance proposals, global regulatory interoperability must adopt a multistakeholder approach that embraces a diversity of perspectives from government, civil society, academia, industry and impacted communities. Effective grounding of efforts in a comprehensive assessment of the socioeconomic impacts of AI and the efficacy of regulatory responses demands collaboration in identifying and prioritizing critical issues. Examples of international coordination efforts in drafting AI policy guidance include UNICEF's 2021 Policy guidance on AI for children and INTERPOL's 2023 Toolkit for Responsible AI Innovation in Law Enforcement developed in collaboration with the United Nations Interregional Crime and Justice Research Institute (UNICRI).

Efforts like the Organisation for Economic Co-operation and Development's OECD.AI to map interoperability gaps between national governance frameworks[48] are crucial to reducing conflicting regulatory requirements and establishing predictability and clarity for companies and people. At the intergovernmental level, coordination efforts to address international AI governance matters are currently under way at the Council of Europe's Committee on AI, OECD's Working Party on Artificial Intelligence Governance, the African Union High-Level Panel on Emerging Technologies (APET), the Association of Southeast Asian Nations (ASEAN) workshops[49] and the Guide on AI Governance and Ethics,[50] the G7[51] and the G20, among others.[52] In May 2023, G7 leaders published a report on the Hiroshima Process on Generative AI to study the rapidly evolving technology and help guide discussions on common policy priorities related to generative AI.[53] Additionally, international efforts like the United Nations High-Level Advisory Body on AI and the World Economic Forum's AI Governance Alliance are playing a critical role in coordinating multistakeholder dialogue and knowledge sharing to inform governance interoperability conversations.

2.2 Compatible AI standards

Creating the capacity and space for broader participation in the AI standards-making process is needed.

Governing bodies around the world are turning to standards as a method for governing AI. The British Standards Institution launched an AI Standards Hub aimed at helping AI organizations in the UK understand, develop and benefit from international AI standards. The European Telecommunications Standards Institute (ETSI) and the European Committee for Electrotechnical Standardization (CENELEC) have published the European Standardization agenda that includes the adoption of external international standards already available or under development, in part stimulated by the proposed EU AI Regulation's framework for standards. In the US, NIST has developed an AI Risk Management Framework to support technical standards for trustworthy AI.[54]

Despite criticisms regarding the instrumentalization of standards to shift regulatory powers from governments to private actors,[55] they are increasingly recognized as an important tool in international trade, investment, competitive advantage and national values. There is concern that substantial divergences in approaches to setting AI standards threaten a further fragmentation of the international AI governance landscape, lending to downstream social, economic and political implications internationally.

International standardization programmes are being developed by the Joint Technical Committee of the International Organization for Standardization and the International Electrotechnical Commission (ISO/IEC JTC1/SC42)[56] as well as by the Institute of Electrical and Electronic Engineers Standards Association (IEEE SA). For their part, the US, EU and China, have signalled commitments to undertake best efforts to align with internationally recognized standardization efforts.[57] Despite these signals, there is no guarantee that every country will follow these standards, especially if there is concern that their development has not been inclusive of local interests. Creating the capacity and space for broader participation in the standards-making process is thus needed.

2.3 Flexible regulatory mechanisms

The fast-evolving capabilities of generative AI require investment in innovation and governance frameworks that are agile and adaptable. This includes ongoing assessment of opportunity and risk emanating from applied practice and feedback from those directly impacted by the technology. Flexible regulatory mechanisms, beyond statutory instruments, are needed to account for societal implications and regulatory challenges that will emerge as generative AI technologies continue to advance and be adopted across various cultures and sectors. For example, Singapore,[58] the United Arab Emirates,[59] Brazil,[60] the UK,[61] the EU,[62] and Mauritius[63] have pioneered "regulatory sandboxes" that allow organizations to test AI in a safe and controlled environment. Such policy innovations must be coupled with additional efforts to clarify regulatory intent and the associated requirements for compliance. For flexible mechanisms to scale, supervisory authorities will need to consider how they provide industry participants confidence to participate and help establish agile best practice approaches while addressing the fear of regulatory capture through participation.

3 Enabling equitable access and inclusive global AI governance

The Global South's role in AI development and governance is critical to shaping a responsible future.

The need for diversity and more equitably deployed generative AI systems is of significant global concern. Inclusive governance that consults with diverse stakeholders, including from developing countries, can help surface challenges, priorities and opportunities to make generative AI technologies work better for everyone[64] and address widening inequalities associated with the pre-existing digital divide. By ensuring the inclusion of underrepresented countries from Sub-Saharan Africa, the Caribbean and Latin America, the South Pacific, as well as some from Central and South Asia (collectively referred to as the Global South) in international discussions on AI governance, a more diverse and equitable deployment of generative AI systems and compatibility of governance regimes can be achieved.

3.1 Structural limitations and power imbalances

The Global South's priorities in areas such as healthcare, education or food security often force trade-offs, hampering investments in long-term digital infrastructure. However, access to AI innovations can empower countries to make progress on economic growth and development goals[65] where needs are greatest – transforming health services, improving education quality, increasing agricultural productivity, etc. to improve lives.[66] Successfully deploying generative AI solutions at scale relies on overcoming several structural inequalities lending to power imbalances as detailed in Table 3.

TABLE 3 | **Sources of global disparities and exclusion in generative AI (non-exhaustive)**

Dimension	Context	Governance considerations
Infrastructure Access to compute, cloud providers and energy resources	Training generative AI systems, supporting experimentation and solution development and maintaining physical data centres[67] requires extensive compute and cloud infrastructure that is financially and environmentally costly[68] and results in high energy intensity.[69]	The level of computing infrastructure required for research and development of generative AI models is primarily accessible to just a few industry laboratories with sufficient funding.[70] This puts at risk the participation of the vast majority in the development of these advanced models.
Data Low resource languages and representation	Generative AI's outputs inherently reflect the data and design of a model's training. Current major generative AI models are primarily developed in the US and China and trained on data from North America, Europe and China.	Active inclusion of developing nations and diverse voices in generative AI development and governance is critical to ensure global inclusion in a future influenced by generative AI.
Talent Access to education and technical expertise	Students from the Global South often do not have access to the education and mentorship required to develop emerging technologies, such as generative AI. This can contribute to a lack of global representation among generative AI researchers and engineers, with potential downstream effects of unintended algorithmic biases and discrimination in generative AI products.	Local access to high-quality education and generative AI expertise is key to creating a sustainable talent pipeline and widening the locations where generative AI research is done. Further, more researchers and engineers from the Global South will lead to more diversity in generative AI ideas, enhanced innovation and increased opportunities for local experts to build and wield generative AI with local issues in mind.
Governance Institutional capacity and policy development	Economically disadvantaged countries often lack the financial, political and technical resources needed to develop effective AI governance policies, and regulators within these jurisdictions remain severely underfunded. According to a 2023 study of 193 countries, 114 countries, almost exclusively from the Global South, lack any national AI strategy.[71]	Disparity in AI governance capabilities can reinforce existing power imbalances and hinder global participation in the benefits of generative AI. The absence of governance policies for data and AI can lead to privacy violations, potential misuse of AI and a missed opportunity to harness AI for positive socioeconomic development, among others. Further, underfunded regulatory institutions may be ill-equipped to address the ethical, legal and social implications of AI.

3.2 Inclusion of the Global South in AI governance

In addition to equitable access, inclusion of the Global South in all stages of the development and governance of AI is essential to prevent a reinforced power imbalance whereby developing economies are relegated to mere endpoints in the global generative AI value chain, either as extractive digital workers or as consumers of the technology. Though AI policy and governance frameworks are predominantly being developed in China, the EU and North America (46%), compared to 5.7% in Latin America and 2.4% in Africa,[72] it is important to recognize the significant activities of different national bodies such as Colombia,[73] Brazil,[74] Mauritius,[75] Rwanda,[76] Sierra Leone,[77] Viet Nam[78] and Indonesia,[79] the recently introduced Digital Forum of Small States (FOSS) chaired by Singapore, as well as the emergence of AI research and industry ecosystems out of the Global South.

The absence of historical and geopolitical contexts of power and exploitation from dominant AI governance debates underscores the necessity for diverse voices and multistakeholder perspectives. The significant differences between some concerns of the Global South and those elevated within more dominant discourses of AI risks[80] warrant a restructuring of AI governance processes, moving beyond current frameworks of inclusion.[81] To adequately address regional concerns there must be a reimagining of roles that ensure Global South actors can engage in co-governance.

Conclusion

The global governance landscape for AI is complex, fragmented and rapidly evolving, with new and amplified challenges presented by the advent of generative AI. To effectively harness the global opportunities of generative AI and address its associated risks, there is a critical need for international cooperation and jurisdictional interoperability. Coordinated multistakeholder efforts, including government, civil society, academia, industry and impacted communities, are essential.

As humans drive the development of this technology and policy, responses must be developed to increase equity and inclusion in the development of AI, including with the countries of the Global South. It is up to stakeholders to take concrete action on access and inclusion. The World Economic Forum and its AI Governance Alliance are committed to driving this change, using its unique platform as a catalyst to convene diverse voices from around the world and urge them to act on vital issues, promote shared learnings and advance novel solutions.

Contributors

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