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Task Force 05

INCLUSIVE DIGITAL TRANSFORMATION

# Enacting a solidarity-based approach to AI and data governance

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## Abstract

As the use of Big Data and AI continues to accelerate, governance systems are struggling to steward responsible digital transformations that contribute to societal good and sustainable development. A unified position on data governance is increasingly important as the G20 strives to tackle the challenges of managing data privacy, building trust and maximizing the benefits of digital transformations for all.

In this brief, authors outline the diverse approaches to AI and data governance emerging around the world and argue that a common ethos is required ensure that different governance pathways address the power asymmetries and lack of trust that currently exist between individuals and corporate or state actors, and to strengthen collective control over data and AI. A solidarity-based approach, based on assessing the public value of data uses, is proposed as a model for G20 countries to adopt as they implement previous recommendations on data and AI governance. Inclusive data and AI governance approaches should be initially rolled out within a priority sector such as health in order to test their benefits and better understand the nuances of applying broad governance principles and approaches in different contexts.


**Keywords:** AI; Data; Governance; Solidarity

## Diagnosis of the Issue

Within and beyond the G20, governance systems are striving to tackle the challenges of managing data privacy while building trust and maximizing the benefits of digital transformations for societal good. A strong foundation of data governance is vital as countries deploy more data-driven and AI-based tools to improve the accessibility and quality of essential public services, including healthcare.

This brief outlines diverse data and AI governance approaches emerging around the world and argues for a common underlying ethos to ensure that different governance pathways build trust and collective control. A solidarity-based approach to data governance is proposed as a model that would enable G20 countries to implement previous recommendations and maximize public value from data and AI. The brief concludes by proposing that governance processes should become more inclusive and initially be rolled out within a priority sector such as health to test their benefits.

### Big Data and Artificial Intelligence: Governance Lags Technological Advance

As Artificial Intelligence (AI) and the innovative use of Big Data underlying it advance, governance systems struggle to catch up. This is both true for national governance efforts and for the regional and global governance processes to which governments contribute.

The G20 is a prime example of where new governance instruments are being developed at pace in response to the unprecedented adoption of Big Data and AI across society. References to digital transformations and data were absent from G20 Leaders' Declarations and other outcome statements until around a decade ago. Rapid advances in

digital technologies have more recently led to a series of focused G20 discussions and processes. G20 Digital Ministers met for the first time in April 2017 under the German Presidency and created a roadmap for digitalization. (G20 Digital Economy Ministers 2017) During 2019, the Japanese Presidency resulted in a Ministerial Statement on Trade and Digital Economy, which recommended a "human-centred approach" to AI and spawned the concept of "data free flow with trust". That same year, G20 leaders also issued a set of "G20 Artificial Intelligence Principles". (G20 Trade and Digital Economy Ministers 2019)

Several G20 outcome documents recognise the importance of data for economic growth and development and reiterate the need to address privacy and personal data protection. Under the Indonesian Presidency in 2022, Digital Economy Ministers discussed the need for greater convergence between data governance approaches and instruments to improve data sharing. (G20 Digital Economy Ministers 2022) However, the G20 has not yet provided guidance on how its members should design data governance frameworks to build trust and balance the benefits and risks of data practices. A common position on data governance would also form an important foundation for any G20 approach to AI governance. In the absence of an agreed stance on data governance, countries have pursued different paths.

**Diverse Approaches to AI Governance**

The rapid and accelerating arrival of AI in day-to-day operations has resulted in the onset of AI-specific legislation that broadly tracks the situation with data governance. The overall picture of data and AI governance is one of experimentation with differing approaches—if not outright polarization—but also significant gaps in coverage, and with

it a risk of either over- or under-regulation of a fast-moving general-purpose technology. This has resulted in a greatly fragmented global space with many data silos.

Approaches to data and AI governance vary, but fundamentally the aim is to strike a balance between potential gains and losses. Policymakers and societies place varying importance to different facets such as promotion of the innovation sector; personal and national security; privacy and human rights; and ultimately at the existential level, singularity—the (so far) hypothetical point where the technology becomes uncontrollable and irreversible. To date, three major approaches have emerged, exemplified by China, the United States and the European Union.

China is most advanced in rolling out a set of laws and regulations governing AI. (Sheehan 2023) Starting with its regulation on recommendation algorithms which came into force in March 2022, the country has since unveiled rules for the management of deep synthesis and generative AI. Unlike legislation in Western countries, China's legislative framework is built around type of AI technology rather than cross-cutting risks. Public security concerns and the role of the state are fundamental and underlie all the regulations, and each has specific language to safeguard against discrimination and the spread of negative information. (Latham and Watkins 2023)

The European Union's AI Act has been termed "visionary" and a "world's first" not because it is literally either, but because it aims to cover all aspects of AI in a single piece of legislation and also serve as a template for a global model of governance for the technology. (Delegation to Australia 2023) Rather than be organized by the specific technologies that comprise AI, the legislation classifies risks into four categories: minimal or no risks; limited risks; high risks; and unacceptable risks.

Like the EU's approach, the US approach is also risk-based but varies by sector and is distributed across several federal agencies, with no overarching ethos around managing

risks or the industry. Guidance issued by the White House reiterates risk-based and sector-based governance, but implementation is fragmented across the federal government. (US President 2019; The White House 2022)

The state-centric China zone and the business-centric US zone are mirror images of each other: in neither case do people have strong control over their data. The EU's General Data Protection Regulation offers a higher degree of control to individuals on questions of privacy and the use of their data, (Medhora and Samson 2022) but it leaves several more structural issues untouched. (Prainsack et al. 2022b) The US approach provides for more flexibility across sectors while the EU's and China's comprehensive approaches are likely to encourage certainty, consistency and stability in governance. On balance, the EU puts a premium on precaution, favouring regulation over promoting innovation at all costs, while the Chinese and US approaches tilt towards the other side.

Other countries are either playing catch up or choosing to not explicitly regulate AI. AI governance elsewhere tends to be aspirational guidance and at very early stages of implementation. The UK government, for example, presented a Policy Paper in 2023 that proposes a risk-based, "pro-innovation approach to AI regulation" that is likely to be a light touch on most of the spectrum of AI use. (Great Britain Department of Science, Innovation and Technology 2023) In April 2023, India's Ministry of Electronics and IT said that it does not intend to introduce legislation to regulate the growth of AI but will implement necessary policies and infrastructure to cultivate a robust AI sector. (Singh 2023 and NITI Aayog 2021)

Such approaches may be seen as a plus, particularly for countries intending to nurture a high-tech innovation sector or those with limited capacity to develop policies and enforce them—if regulations are not baked in, there is room to leave spaces for innovation and flexibility. Yet, there needs to be a common underlying ethos about data—why we

collect them, how they are organized and stored, to what uses they are put, how and for whose benefit, questions that are central to the roll out of AI. This is where the concept of data solidarity comes into play.

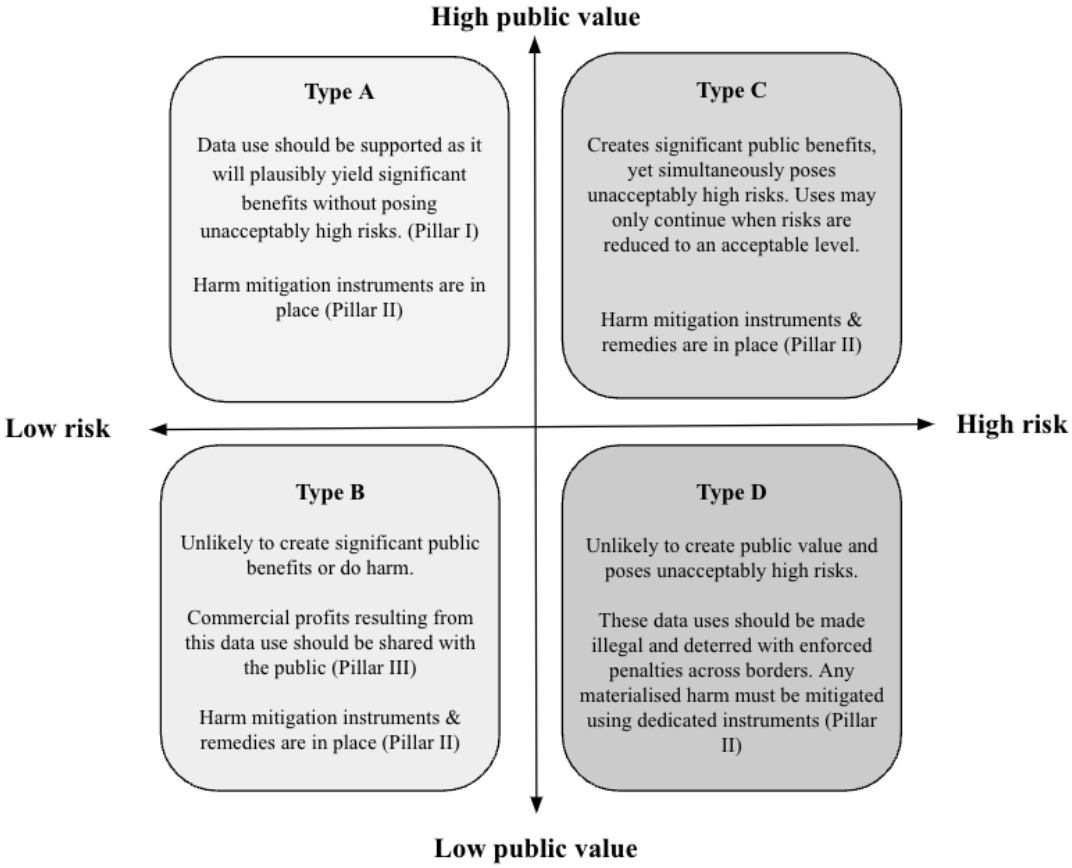
**Data Solidarity**

The purpose of solidarity-based data governance (in short: data solidarity) is to ensure the equitable sharing of benefits and harms emerging from digital practices across and within societies. (Prainsack et al 2022b) It proposes concrete actions for preventing and mitigating harms and maximizing benefits for people and communities. Enacting a solidarity-based approach to data and AI governance supports implementation of the G20's AI principles through stewarding fairer and more trustworthy data practices that generate public value. It also helps to reduce harmful data practices that undermine beneficial outcomes that the G20 is pursuing for people and the planet.

Most existing regulatory regimes focus on data type and neglect the importance of context and purpose of data use. Data solidarity adjusts governance instruments towards different data uses. It asks for which purpose data is used, who likely reaps the benefits and who 'picks up the bill'. Distilled into one question: Does a given data use create significant public value? Since October 2023, an online tool, the Public Value Assessment Tool (PLUTO) has been available online. (El-Sayed et al. 2023)

Data solidarity distinguishes between four kinds of data use (see Chart 1 below):

**Chart 1: Types of data use**




## Maximizing the Public Value of AI and Data: Proposals for the G20

We propose three ways for the G20 to implement previous recommendations on data and AI governance and further maximize the benefits of digital transformations for all.

1. **Introduce policy instruments to realize data solidarity.** Data governance and AI governance must be developed in tandem and grounded in the same agreed principles. A solidarity-based approach can similarly be applied to AI governance and offers a framework for accountability based on potential uses of AI. Such an approach aligns with the G20's commitment to equitably share the benefits of AI and mitigate their risks. (G20 Leaders 2023) A solidarity-based approach, based on assessing the public value of

specific instances of data use, offers the G20 a common conceptual model for international governance, as well as a framework for countries to fairly balance the opportunities and hazards of digital transformations.

**Table 1: The three pillars of data solidarity**

| Pillar I | Pillar II | Pillar III |
|---|---|---|
| Facilitate data use that has high public value | Prevent and mitigate harm | Ensure that commercial profiles are fairly shared with people and communities |

To realize data solidarity, G20 members would require a range of policy instruments to complement existing laws and policies. These instruments fall under three pillars (see Table 1). Pillar I comprises instruments and measures that support and facilitate data use that is likely to create significant public value. This includes exemptions from certain regulatory requirements for data use with high public value, or public funding or hands-on support for such data use. Pillar II focuses on outlawing digital practices that do not create significant public value and pose unacceptable risks, such as surveillance advertising or certain kinds of social scoring. For the purpose of harm mitigation, countries could introduce Harm Mitigation Bodies which people can turn to if they have been harmed by data use. (McMahon et al 2019) Pillar III aims to ensure that some of the profits that emerge from commercial data use come back to the public domain, which has enabled the data use via the data work of individuals and public infrastructures. This could be done via effective taxation, or via benefit sharing agreements. Further details on the proposed policy instruments are outlined in a White Paper (Prainsack et al. 2022b).

2. **Apply new governance approaches to priority sectors such as health.** AI and data governance recommendations to date have generally focused on their general purpose nature and not distinguished between various uses or sectors. The health sector is a good example of one where the potential gains from the proper use of Big Data and AI are high, as are the potential risks to personal and public safety, privacy and human rights. (Kickbusch et al. 2021) AI is already being used in many settings to improve the availability, accessibility and quality of health services without robust governance structures in place. Due to the scale of potential opportunities and risks arising from the application of data and AI—both within health systems and society as a whole—health should be among the first sectors in which G20 governance recommendations should be taken forward.

A sector by sector approach would allow governments to translate broad intentions into a viable way forward and test the benefits of generic principles in different contexts and for different population groups. Existing G20 initiatives such as the Global Initiative on Digital Health and Digital Public Infrastructure track can be leveraged to implement a cross-country pilot initiative for strengthening data and AI governance for health.

3. **Support greater participation in governance mechanisms.** Under a solidarity-based approach, data use should be supported when it creates significant public value, meaning that it will bring clear benefits either for many people, for society as a whole or for future generations, and that no person or group is likely to experience undue harm. Conversely, data uses that are likely to harm different groups are to be prevented. It is therefore important for policymakers and technology developers to have a deep understanding of which groups are at greatest risk from different forms of data use including AI.

For instance, young people are particularly at risk of harm in the context of their ability to manage privacy, commercial targeting, reinforcement of harmful norms and stereotypes, and abuse in online environments'. (Kickbusch et al. 2021) Unlike previous generations, data is being collected on children and youth from birth. The long-term impacts of data practices and AI on young people's health, well-being and rights are largely unknown.

Involving young people and other at-risk groups in governance is a critical way of mitigating harms, building trust and ensuring that digital transformations create the greatest public value. The G20 can advance more inclusive governance by recommending that its members increase investments in digital literacy and digital citizenship education and establish mechanisms for involving diverse stakeholders, including youth, in the development, implementation and monitoring of data and AI governance processes.

## Conclusion

During previous summits, the G20 has outlined many opportunities and risks of data and AI. G20 leaders have also recognised the need for greater convergence in governance approaches to ensure that digital practices support, and do not undermine, sustainable development. Under Brazil's presidency, the G20 can take these discussions forward significantly by establishing a common position on data governance and adopting a framework for weighing up the potential benefits and harms of data uses, including AI.

To enable the maximum possible public value to be derived from digital transformations, governance instruments should be developed, implemented and monitored through inclusive and participatory processes. A phased roll out of new

governance approaches—starting with sectors such as health—will help to test their benefits in specific contexts, minimize potential harms and build public trust.

The G20 has a collective responsibility to ensure that digital practices improve the lives of all people, and that harms are prevented more effectively. Data solidarity provides a blueprint of how to make this happen and offers a framework to align diverse governance approaches towards a common goal. (Prainsack et al. 2022a) A set of proposed policy instruments for realizing data solidarity, as well as a tool for assessing the public value of data uses, have been developed and could be readily implemented across all G20 countries.

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