OPPORTUNITIES IN DATA GOVERNANCE: CREATING A G20 DATA SPACE

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Abstract
A mid today’s digital order, polarised by technological competition and geopolitics, this policy brief identifies three challenges in data governance—rent captors/producers vs. users/consumers of the digital economy, public vs. private sector competition, and divergent views on international data free flow with trust (DFFT). The focus is on the challenges and opportunities in operationalising DFFT in the G20. Material interests are camouflaged as normative divergences, hampering consensus-building in defining shared principles in data governance. Since 2016, the G20 has focused on digital connectivity as a driver for economic prosperity. As such, it is uniquely placed to consider digital transformation, digital inclusion, and DFFT. This brief proposes four recommendations towards creating a G20 Data Space: to clarify the definition of DFFT; to de-dogmatise and be pragmatic; to ensure fair and equitable data access and sharing; and to initiate ‘Create and Reform’ processes towards consolidating a G20 digital agenda.

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a The research and views shared in this paper are solely the authors’ and not of any organisation with which they are affiliated.
The Challenge
This policy brief outlines the G20’s challenges with data standardisation and the interoperability of digital governance. In addition, the brief proposes concrete recommendations based on an interdisciplinary methodology that brings together academic discussions and debates in international relations, politics, and governance.

Data has become increasingly important given that cloud computing, data analytics, smartphones, and online platforms create value for data. This results in fierce competition in a data-based economy. Data governance is one of the top policy priorities that governments must address.\(^1\)\(^2\) G20 member states too must maximise the benefits of data access and sharing, while focussing upon related risks and challenges. The heterogeneity of data domains, access mechanisms, and views on data sharing show the need for interoperable approaches, which ensure that data can flow across borders with trust.\(^3\)

Data governance cuts across domestic, regional, and global realms. Our focus is not on the intra-state level but on finding common ground for states with varying approaches. This has proven to be challenging given the increasing instrumentalisation of norms towards fulfilling material interests. Underlying digital governance are also the intersections of geopolitical and geoeconomic aspects that link technical standards to an ever-tightening technology-security nexus.\(^4\) This is not conducive for building consensus on data governance in a multiplex world order.\(^5\)

The digital realm has presented opportunities but also challenges to security and the economy. Ciuriak (2022) calls this “the age of technologies built on the nexus of big data, machine learning and AI — the data-driven

\(^1\) According to the OECD, data governance ‘refers to diverse arrangements, including technical, policy, regulatory or institutional provisions, that affect data and their cycle (creation, collection, storage, use, protection, access, sharing and deletion) across policy domains and organisational and national borders.’

\(^2\) Our focus is on nation-state approaches to data flows.
Data has come with new opportunities, particularly those that are linked to massive supplies of data. However, data is a double-edged sword; an opportunity and an asset, but also creating vulnerabilities. An illustration of this is the widespread fear of growing disinformation and other problematic content on the internet with G20 members adopting varying stances on the issue.

There are numerable challenges to the digital realm, as a divided Internet, rather a ‘Splinternet’, shows. The Declaration for the Future of the Internet (2022), which was meant to set out the vision and principles of a trusted internet is a case in point. Key rising powers\(^d\) are not amongst the 70 signatories that subscribe to “a future for the Internet that is open, free, global, interoperable, reliable and secure,” affirming “their commitment to protecting and respecting human rights online and across the digital world.” \(^7\)

This brief has further identified the digital divide as an overarching challenge to the digital. Expectations of the potential benefits of engaging in the digital world vary along a spectrum between technologically-developed countries and technologically-emerging ones. The former sees it as a launching pad for increased interconnection, while the latter see it as a path towards development and potential leapfrogging. The divergent speeds of digital development lie along a continuum with differences among the Global South and the Global North. An example of this is how the BRICS Digital Economy Framework particularly refers to “overcoming the digital divides and ensuring shared benefits of digitalisation,” and links it to sustainable development.\(^8\)

This brief identifies an additional set of three broad-ranging challenges that are particularly pertinent to data governance.

**Rent captors/producers vs. users/consumers of the digital economy**

Countries can benefit from the data-driven economy as producers and as consumers. Producer countries can

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\(^d\) Brazil, China, India, Russia, and South Africa are not signatories to the Declaration.
establish data-driven companies which are able to operate both domestically and internationally, and can compete for international rents generated by the said economy. The less developed countries can benefit as consumers from free digital services. While they contribute to the development of global data assets, they do not benefit from their ownership and exploitation. In a world dominated by intangible assets, consumer-only countries therefore face a shrinking share of the global wealth.⁹

**The competition between public and private sector actors**

Public and private competition is embedded in a broader debate about the increasing fragility of nation-states, loss of authority, and quest for securitisation of the internet. The heavy reliance of states on the private sector for the provision of digital services has greatly empowered the Big Tech firms. Consequently, states have lost the lead, raising the debates on ownership and access to digital goods—including data—and infrastructure. This spills over into rent benefits stemming from both hard and soft digital infrastructure.

**Divergent views on international data free flow with trust (DFFT)**

The positioning on the topic lies along a continuum between free flow of international data and data localisation. Countries may choose to establish barriers to the free flow of international data based on mercantilist motivations, to mitigate privacy and cybersecurity concerns, or a combination of both. On the restrictive end of the spectrum, there are local data-residency requirements (data localisation)⁹ that confine data within a country’s borders.¹⁰ States approach this differently, depending on the value given to data. Data can be conceived as a commodity (pools of information that can be tapped), as a public good, or as an infrastructural resource. AI and machine learning have approached data as a new

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⁹ “Data localisation can exist as sector specific or blanket forms, and can cover specific sectors, e.g. personal, health, accounting, tax, gambling, financial, mapping, government, telecommunications, e-commerce, and online publishing data; or target specific processes or services, e.g. online publishing, online gambling, financial transaction processing, and apps.”
commodity, often referring to it as the ‘new oil’ that needs to be refined. Yet, if data is conceptualised as a global common, its governance involves treating it as a shared resource to avoid a scenario similar to the “tragedy of the commons” in ecology.¹¹ These different approaches come with an ideological baggage with competing metaphors such as “data as oil” vs. “data as sunshine”.¹²

In 2020, *The Economist* referred to how data is conceptualised like oil in the US, where ownership belongs to whoever extracts them. The same data is seen as a public good in China and as infrastructure in Europe.¹³ This further illustrates different takes related to data management and ownership, as well as diverging positions on data sharing with states that are more open to international free flow on one end versus those who rely on data localisation on the other.¹⁴
The G20’s Role
Digital connectivity has been recognised as a key driver for the international economy. The G20 was quick to catch on with the meeting in Hangzhou (China) in 2016, identifying the digital economy as “an important driver of development and growth”. At the G20 meeting in Osaka (2019) highlighted digitalisation, DFFT, and “preventing exploitation of the internet for terrorism and violent extremism conducive to terrorism” as key issues. It was then that the Osaka Declaration on the Digital Economy of 2019 came to be, which set up the concept of DFFT. The Declaration was signed by the leading powers, including China. It, however, excluded India, Indonesia, and South Africa, which opposed the Declaration on the right to development.

This emphasis on data continued under the Saudi presidency of the G20 in 2020 and the G20 Rome Leaders Declaration in 2021 further emphasised the importance of “secure, interoperable and trusted digital identity solutions that can provide better access to public and private sector services while promoting privacy and personal data protection”. With time, there has been an attempt at a functional-based pragmatic approach on digital issues as reflected in recent G20 outcomes and statements.

The Indonesian G20 presidency acknowledged the need to discuss the practical aspects of DFFT and cross-border data flows as a means to deepen the understanding of the commonalities in different regulatory approaches and instruments. Digital transformation or harnessing rapid digitalisation to secure prosperity in the global economy became a key priority at the Bali meeting. Consequently, the Digital Economy Task Force was upgraded to the Digital Economy Working Group (DEWG) and their

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f The Osaka Declaration was signed by Argentina, Australia, Brazil, Canada, China, the European Union, France, Germany, Italy, Japan, Mexico, Republic of Korea, Russian Federation, Saudi Arabia, Türkiye, the UK, the US, Spain, Chile, Netherlands, Senegal, Singapore, Thailand, and Vietnam.

g Although China endorsed the Declaration as it found it consistent with its advocacy of ‘safe and orderly flow of data’, in August 2022, it issued the ‘Guidelines for Data Export Security Assessment Declaration’, that restricts cross-border flows.
Bali Package identified DFFT and cross-border data flow as a priority issue, aside from digital connectivity and post-COVID-19 recovery, digital skills, and digital literacy. It further recognised the concerns regarding the digital divide referring to “the role of data and data flows as a key driver for economic growth and development, particularly for developing countries”. Under India’s presidency, the emphasis is on digital inclusion, with a further focus on cyber security in digital economy, digital skilling, and public digital platforms. Given the ongoing importance of data governance and DFFT for the G20, India’s presidency will be instrumental in implementing initiatives linked to the Digital Stack.

h The World Bank conceptualises ‘Digital Stack’ and their core layers—such as for identification (ID), payments and data exchange—as a means to facilitate societal functions at a societable scale, enabling better and more inclusive service delivery and innovation across multiple sectors.
Recommendations to the G20
Clarify the definition of DFFT

The G20’s focus on DFFT has evolved since the Osaka Declaration in 2019. The G20 brings together states, who identify themselves with the group and who adopt and enact practices that are aligned with the interests and identities of the group.26 Within the G20, data as a shared resource and more importantly, the need to agree on principles about data access and data sharing has been identified as a priority.

Yet, the definition of DFFT remains vague and ill-defined, illustrating the diverging state-based approaches on ‘free flow’ and ‘trust’, both of which are integral to DFFT. For pragmatic cooperation to exist in DFFT, the first step would be to accurately conceptualise it. In this respect, the dominant international relations (IR) frameworks of realism, liberal-institutionalism, and constructivism can be helpful in understanding the various policy debates around DFFT (see Table 1).27

Realism has a pessimistic worldview where states are in a constant competition for power and cooperation is only possible when there are no security concerns and when it is in a state’s interest. In contrast, liberal-institutionalism views cooperation and

<table>
<thead>
<tr>
<th>DFFT</th>
<th>Realism</th>
<th>Liberal Institutionalist</th>
<th>Constructivist</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Free Flow</strong></td>
<td>Security dilemma (data localisation); limited free flow and only when in its interest</td>
<td>Free flow with an overseeing institution</td>
<td>Free flow within like-minded states</td>
</tr>
<tr>
<td><strong>Trust</strong></td>
<td>No trust; only participate if it is in their interests</td>
<td>Trust in institutions; multilateral data governance</td>
<td>Trust in like-minded states</td>
</tr>
</tbody>
</table>

Source: Authors’ own
interdependence as beneficial. In this view, overlapping interests between states and an institutional structure can facilitate cooperation. According to constructivism, a state’s belief systems, be it cultural, historical, or ideological, are important for cooperation. When we apply these theories to data, it appears as follows:

According to Table 1, DFFT must satisfy the following criteria for all the diverging positions to come to a common denominator:

i. be in a state’s interest (realist)

ii. have a multilateral data governance structure (liberal-institutionalist)

iii. create like-minded principles in data which the participants subscribe to (constructivist)

Precedents of other intergovernmental arrangements arriving at regulatory and policy instruments towards facilitating cross-border DFFT include the Organisation for Economic Co-operation and Development (OECD) Policy Guidelines, the APEC Privacy Framework, the Convention 108+, and the ASEAN PDP Framework. This shows how the G20 could also contribute to building intergovernmental arrangements towards DFFT. Ideally, it could also come up with an initiative that would be in its member states’ interest, based on shared ideas, and act as the overseeing institution.

De-dogmatise and be pragmatic

The UK’s erstwhile Digital Minister Damian Collins commented on the G20 Digital Ministers’ Meeting in Bali, Indonesia (September 2022): “The diverse membership and collective economic power of the G20 makes it one of the most important international meetings where the challenges facing global digital economies are discussed. It is right that G20 Digital Ministers continue to work together to deliver solutions for the benefit of citizens around the world, based on democratic values and human rights (emphasis added) … Progress was made on shared priorities including digital connectivity, skills and literacy, and data free flow with trust…”

Whilst the progress in digital priorities is a welcome development, the underlining of democratic
values and human rights can be questioned. Moreover, the G20 Bali Package highlighted the need to move away from geopolitics in order to achieve connectivity: “some members denounce any attempt to completely or partially disrupt digital connectivity infrastructure, and the digital ecosystem, as well as peaceful international trade and commerce [referring to Ukraine] ... Some underscored that the DEWG is not mandated to discuss geopolitical issues...Members call for... collective efforts to promote connectivity and bridge digital divides, increased digital skills, and enable data-free flow with trust and cross-border data flows.”

Data can be classified as secure, commercial/industrial, and personal, and be attributed with different levels of sensitivity. For example, access to and sharing of secure and personal data has proven to be more controversial across states, particularly in the case of personal biometric data. Yet there is scope and the will to create a set of G20 principles on DFFT. Therefore, our recommendation would be to adopt a functional and pragmatic approach that focuses, at least to begin with, on commercial and industrial data. There are increased prospects of operationalising the G20 data space by functionally limiting it to the commercial/industrial data domain. This would hinder unnecessary dogmatism.

**Fair and equitable data access and sharing**

When it comes to DFFT, there is a divide between proponents of international data sharing, and those of data localisation spread across a spectrum. The motivations behind data sharing could be for commercial or economic reasons. On the other hand, the motives for data localisation may be related to national security, business, limiting data for development purposes or values-related concerns.

Amongst the proponents of data-localisation, countries such as India, Indonesia, and South Africa, opposed the Osaka Declaration on DFFT, choosing to limit data flow for developmental reasons. Countries such

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i  ‘Data space’ refers to a platform for sharing data.
as China however have already chosen and implemented data localisation. To overcome these challenges, the brief proposes a combination of functional and financial adjustments that can help operationalise DFFT to make the G20 data space attractive.

**Acknowledgement of divergent views:** Countries will have divergent perceptions of the benefits of data access and sharing, depending on whether they locate themselves as lagging behind or ahead in the digital divide. Digitalisation has the potential to allow states to leapfrog in development, based on their degree of technological development. This needs to be acknowledged and adequately integrated into debates by G20 members, that display a wide-ranging pace when it comes to technological development. The G20 has highlighted digital inclusion as a priority. However, rather than a reductionist approach based on a binary between the Global South and the Global North, a more nuanced one focussing on technologically-developed versus technologically-rising countries could help.

**Adjustment Mechanisms:** The proposal here is to include functional and financial adjustments that go beyond simplistic dichotomies, adopting mechanisms such as the intellectual property agreements in the World Trade Organisation (WTO) or the financing mechanisms in the United Nations Framework Convention on Climate Change (UNFCCC). These multilateral frameworks take into account the issue of inequality. Proposed below are functional and financial adjustment mechanisms to create a level playing field for data sharing between the advanced and the laggards in data literacy.

- **Functional adjustment:** Functional adjustment mechanisms can bring countries with different capabilities in data in line so that data access and sharing can be operationalised. Depending on the level of data literacy or data skills, a country will be given a

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Data literacy is the ‘ability to collect, manage, evaluate and apply data’.

This logic is similar to the handicap scores in golf and Igo (Japanese board game).
**G20 data literacy score** whereby the level of data access and flow will be adjusted accordingly. An idea similar to the “special and differential treatment” in the WTO\(^{35}\) and the “common but differentiated responsibilities” in UNFCCC\(^{36}\) could be adapted for data governance. The level of openness (access) of the country will be adjusted on the basis of their **data literacy score**, with a higher bar for data-advanced countries and a lower one for the laggards.\(^{37}\) The G20 **data literacy score** (levels 0-3) will be allocated according to the countries’ ability to collect, manage, evaluate, and apply data (see Table 2). Data sharing is a complex endeavour, so it would be invaluable to learn from the success and failures, and utilise theoretical logic to solve such governance issues.

- **Financial adjustment mechanisms:** The G20 should establish a **Data Adjustment Fund** to which its data literate member-states or those that possess data skills will contribute. The **Fund** will be used to facilitate development of **data literacy** in data laggard countries, similar to the Climate Financing Fund in the UNFCCC.\(^{39}\)\(^{40}\)

**Luring back countries away from data localisation:** An attractive G20 **data space** could eventually lure countries (even ones that have gone down the localisation route, such as China)

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**Table 2: Degree of data openness and access**

<table>
<thead>
<tr>
<th>Level of Openness</th>
<th>Level 0</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Closed; Access only by data controller</td>
<td>Discriminatory; Access by stakeholders</td>
<td>Access by community members</td>
<td>Open data; Access by the public</td>
</tr>
</tbody>
</table>

*Source: OECD 2020\(^{38}\)*

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\(^{1}\) These are transition periods given to developing countries in intellectual property agreements or schedule of commitments for trade in services in the WTO.
towards a G20 data sharing framework. Data works on a similar logic as access to markets; the bigger the data supply, the more attractive it becomes. Therefore, if the G20 data space were to become a vibrant one, it could even attract countries like China.

**Create & Reform G20’s processes**

The digital is not just goods or services. It is also a means and a resource that penetrates all aspects of society. This is reflected in other categories within the G20 Sherpa Track Working Groups. In light of the G20’s potential to become a *data space*, it is imperative that the digital is provided a Track of its own within the G20 Workstreams. Based on this, we propose the following ‘Create and Reform’ Initiative:

1. *Create* a new digital track within the G20 workstreams which reflects the cross-cutting nature of the digital

2. *Reform* the meeting format and institutionalise the G20 to optimise cross-fertilisation between the workstreams and ensure institutional memory

The brief proposes the elimination of the DEWG and the creation of a new Digital Track that is on par with the Finance Track. DEWG already exists in the Sherpa Track alongside other thematic\(^m\) categories.\(^41\) These work well for most working groups except for the one on Digital Economy. Moreover, instead of framing the negotiations along traditional categories in the Finance Track, Sherpa Track Working Groups, and the Engagement Groups\(^n\) respectively, the brief advocates restructuring of the Sherpa Track Working Groups to have the digital sector included in the other Working Groups.\(^o\) According to the OECD, “sharing lessons from public-private and multi-stakeholder collaborations [in the digital], supported by smart regulation that prioritises inclusion, are key to scaling up efforts.”\(^43\)

It would also be optimal to reform the *meeting format*\(^p\) for increased

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\(^m\) These are Agriculture, Anti-corruption, Culture, Disaster Risk Reduction, Development, Education, Employment, Environment and Climate Sustainability, Energy Transition and Health.

\(^n\) Engagement groups are non-government participants from G20 countries that provide recommendation.

\(^o\) The digital component is already embedded in certain Working Groups within the Sherpa Track.
engagement between Workstreams. While recognising that the UNFCCC and G20 are very different fora, the meeting format used for the UNFCCC’s Conference of Parties could be very helpful in creating opportunities for the Engagement Groups, Sherpa, and Finance Tracks to overlap with a newly-established Digital Track. Organising sequenced meetings in one venue, scheduled over a fortnight, with plenary sessions of the various tracks preceding the ministerial meeting towards the end of each country’s G20 presidency, could be helpful. This meeting format will also facilitate more input from the industrial and commercial sectors.

A G20 secretariat

A G20 secretariat should be established, such as that of the UNFCCC (Bonn), and the WTO (Geneva). This would facilitate and monitor both adjustment mechanisms, ensuring continuity and institutional memory, and encouraging G20 members to find common ground in data governance.

In conclusion, considering the broader challenges outlined above in the digital realm, and explicitly for the DFFT, the G20 can only benefit from our proposed initiatives towards creating its own data space.


p The UNFCCC has annual COPs which bring all plenary meetings, contact groups and closed negotiating sessions with Heads of State or Government Ministers, and high-ranking UN officials.
Endnotes


5 Amitav Acharya conceptualises a multiple complex world (Multiplex) order that is “dispersed and fragmented.” See Amitav Acharya, Constructing Global Order: Agency and Change in World Politics (Cambridge: Cambridge University Press, 2018).


9 Ciuriak, “Unfree Flow with No Trust.”


12 “Are Data more like Oil or Sunlight?,” The Economist, last modified February 20, 2020.

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