Intermediary Report - a Project Liberty Institute & Global Solutions Initiative Multistakeholder and Research Initiative

Digital Infrastructure Solutions to Advance Data Agency in the Age of Artificial Intelligence

How can governments catalyze positive digital infrastructure innovation?

December 2024

Project Liberty Institute //

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This report is based on a multistakeholder consultation that took place on November 12th, 2024, on the sidelines of the Paris Peace Forum and on the road towards the AI Action Summit. It summarises the key issues vis a vis digital infrastructure development and deployment, made more urgent with the rapid advancement of AI and sets the directions for the final outcome of this initiative. While every effort has been made to faithfully reflect all input received, it should be noted that the views expressed herein are those of the Project Liberty Institute and the Global Solutions Initiative, they may not necessarily align with the individual positions of the organizations with which participants of the first consultation are affiliated.

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About Project Liberty Institute

Project Liberty Institute is a 501(c)(3) organization that serves as an international meeting ground for technologists, policymakers, entrepreneurs, investors, academics, civil society, and governance experts. Its mission is to advance responsible governance and evidence-based innovation across entrepreneurship, infrastructure, and capital allocation, shaping frameworks for how we design, invest in, deploy, and govern new technologies. The Institute supports timely, actionable research on digital technology and responsible innovation. Its academic partners include Stanford University, Georgetown University, Harvard, MIT and other leading institutions.

Central to Project Liberty Institute's mission is the stewardship of the Decentralized Social Networking Protocol (DSNP), a public- interest infrastructure protocol available as a public utility. DSNP supports a new era of innovation that empowers people over platforms and serves the common good.

Through its multifaceted approach, Project Liberty builds solutions to help people reclaim control of their digital lives, fostering voice, choice, and stake in a better internet.

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About Global Solutions Initiative

The Global Solutions Initiative (GSI) is an independent, non-profit platform bringing together international think tanks, civil society organizations, researchers, policymakers, and business leaders to develop evidence-based solutions to global challenges. Founded during Germany's G20 Presidency in 2017, GSI leverages its networks and regional hubs to foster dialogue and collaboration in support of the G7, G20, and other multilateral processes.

A key focus of GSI's work is the transformative potential of digital technologies and AI. GSI addresses critical challenges such as inequitable digital governance, lack of data privacy, and the risks posed by advanced AI systems, while exploring opportunities for human-centered innovation. Together with key stakeholders, GSI works to develop frameworks for responsible AI, empower users with greater control over their data, and design inclusive digital infrastructure to drive equitable social and economic progress.

Authors

Project Liberty Institute

Jeb Bell
Head of Strategic Insights

Sarah Nicole
Senior Policy & Research Associate

Paul Fehlinger
Director of Policy, Governance Innovation & Impact

Global Solutions Initiative

Christian Kastrop
CEO & Partner

Vidisha Mishra
Director, Global Outreach & Policy

Mateo Rodriguez
Assistant to the CEO & Strategic Outreach Manager

Expert Contributors to the Initiative

Paul Ash
Chief Executive, Christchurch Call Foundation

Amir Banifatemi
Director, AI Commons

Jeb Bell
Head of Strategic Insights, Project Liberty Institute

Renato Berrino
Research Manager, Open Data Charter

Matthias De Bievre
President, Prometheus-X

Constance Bommelaer de Leusse
Executive Director Technology & Global Affairs Innovation Hub Sciences Po Member of the 2025 AI Action Summit Steering Committee

Luzius Cameron
CEO, SCION Association

Siméon Campos
Executive Director, Safer AI

Duncan Cass-Beggs
Executive Director of Global AI Risks Initiative, Centre for International Governance Innovation

Benjamin Derothe
Parliamentary Assistant, French Senate

Gilles Fayad
Expert, GPAI/OECD

Paul Fehlinger
Director of Policy, Governance Innovation & Impact, Project Liberty Institute

Emma Ghariani
Head of the Open Source and Digital Commons Division, French Interministerial Digital Directorate

Julie Inman Grant
eSafety Commissioner, Australian eSafety Commissioner

Konstantinos Karachalios
Former Executive, IEEE

Christian Kastrop
CEO & Partner, Global Solutions Initiative

Innar Liiv
Professor of Big Data & Member of Senate, Tallinn University of Technology

Nicole Manger
Lead - Global AI Governance & Digital Cooperation, Federal Foreign Office of Germany Fellow of Practice, TUM Think Tank - Technical University of Munich

Gilles Mentré
Co-founder, Electis

Vidisha Mishra
Director of Global Outreach & Policy, Global Solutions Initiative

Francesca Musiani
Research Professor - Co-Founder & Deputy Director Center Internet and Society, CNRS

Sarah Nicole
Senior Policy & Research Associate, Project Liberty Institute

Helge Sigurd Næss-Schmidt
Director, Næss-Schmidt Advisory Fellow, Global Solutions Initiative

Corinne Narassiguin
Senator, French Senate

Kasia Odrozek
Director, Insights, Mozilla

Gabriela Ramos
Assistant Director-General for Social and Human Sciences, UNESCO

Ellen Read
Chief Engagement Officer, Christchurch Call Foundation

Mateo Rodriguez
Assistant to the CEO & Strategic Outreach Manager, Global Solutions Initiative

Mercedes de los Santos
Project Director, Open Data Charter

Dr. Mehdi Snene
Senior Advisor on AI, UN Office of the Secretary-General's Envoy on Technology

Foreword

The promise of the digital age was one of opportunity, empowerment, and democratization of information. Yet, in reality, we have seen the concentration of power and data in the hands of a few, leaving the majority of digital citizens without true agency over their own digital lives. At the heart of this challenge is the need to shift the balance — to place control back into the hands of individuals and communities, ensuring that they have a say in how their data, identities, and digital futures are shaped.

While important work is underway to address these issues[1] much of the digital infrastructure is still largely controlled by a small number of dominant players. Digital infrastructure serves as the foundation upon which data is collected, shared, and utilized. By addressing the structure and control of this infrastructure, we can help reduce the concentration of power, increase competitiveness and innovation, and enable individuals to have more control and agency over their own data for a fairer data economy. The report delves into the current state of digital infrastructure solutions, examining the barriers and opportunities for change. It explores the challenges faced by governments and other key actors as they try to restore balance and empower citizens in the age of digital transformation.

Governments have a crucial role to play in this evolution. They must move beyond regulation to become market shapers, guiding the development of policies and infrastructure that prioritize citizens' rights, privacy, and opportunities for participation. Only by addressing the systemic power imbalances in the digital economy can we hope to restore autonomy to individuals and ensure that technological progress serves the public good.

The upcoming toolkit will not only provide actionable recommendations but will serve as a guiding compass for navigating the complexities of digital infrastructure. It will support governments in crafting policies that champion fairness, transparency, and accountability—policies that put people at the center of the digital transformation by driving economic incentives such as fostering competition, spurring innovation, and enabling sustainable growth in the digital economy. Through this effort, we aim to inspire a future where citizens are empowered to have a voice, choice and stake in their digital lives.

1. See works cited in the annex

Defining Key Concepts: Core and Relevant Terms for This Report

Disclaimer: The terms below are our operative definitions to limit the scope of this multistakeholder and research initiative.

Core Terms in Our Framework

Data Agency // The ability of citizens to have control over their personal data, including how it is used, shared and monetized, ensuring they have true voice, choice and stake.

Fair Data Economy (FDE) // An economic model where citizens have control over their data, platforms are interoperable, and value is equitably distributed, fostering innovation and sustainable growth.

Digital Infrastructure Solutions // A mix of private, public and civic technological systems and services that enable connectivity, communication, and innovation across economies and societies. It encompasses but is not limited to advanced digital identification systems, advanced data architectures, and next generation protocols. This concept is central to driving our work.

Relevant Terms Outside Our Framework

Data Sovereignty // Principle that data is subject to the laws and governance of the state in which it is collected. It reflects a state's right to control data flows and content dissemination within its borders. This term is also used in the context of cultural heritage e.g. data sovereignty of Indigenous communities - although this aspect has not been covered within this report.

Digital Public Infrastructure // There are multiple, often competing definitions of this concept, with no globally agreed-upon framework, as discussed below.

Digital Civic Infrastructure // A promising new vision for digital infrastructure that aims to be more encompassing than digital public infrastructure.

Executive Summary

Data drives economic and social power in the digital age, intertwining with personhood and shaping who benefits from technological progress. Digital infrastructure—comprising identity systems, payments, and data exchanges—has the potential to address global challenges such as inequality, health, and climate change, etc, given its ability to enhance accessibility, improve efficiency, and enable data-driven solutions across sectors. However, market concentration among dominant tech platforms raises concerns about competition, data control, and individual agency. Varied global regulatory approaches highlight the need for frameworks that balance innovation, privacy, and equity. To ensure inclusive growth, digital infrastructure must prioritize empowering individuals while promoting transparency and sustainable development.

Governments, as regulators and most importantly market shapers, are uniquely positioned to drive a fair digital economy. By establishing technical standards, investing in infrastructure, and opening public data under robust governance frameworks, they can catalyze innovation, foster public trust, and curb the current monopolies stifling innovation. Shifting from extractive to decentralized models focused on transparency, inclusion, and sustainability is key to achieving this vision.

The UN's Global Digital Compact, the G20's Digital Public Infrastructure framework and many other foundational documents provide a solid foundation but face challenges in harmonizing definitions, enabling interoperability, and aligning regional approaches. Moving forward, clarifying taxonomies, distinguishing data types, and balancing digital sovereignty narratives with openness will be critical. This is more urgent than ever as AI systems are already a critical component of modern digital infrastructure. They can enhance functionality, efficiency, and scalability including through models for predictive analytics, scalable cloud and edge computing, smart networks that optimise traffic, and by better connecting API-driven architecture.

To build a digital ecosystem centered around people, governments must act with vision and commitment, using digital infrastructure to empower underserved communities, enable transformative AI services, and ensure equitable value distribution across economies. This collective effort will lay the groundwork for a sustainable and inclusive digital future.

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Reshaping the Global Data Landscape to Foster a More Equitable Data Economy

Addressing Power Imbalances in Data-Driven Economies

In digital economies, data is not just a byproduct of activity but a fundamental source of economic, social, and political power. In a world where our digital and physical identities are intertwined – data is inextricably linked to personhood. Consequently, the agency or capacity of individuals and communities to control their own data, including how it is collected, shared, and utilized determines who holds influence, creates value, and benefits from technological progress. The rapid deployment of data-driven Artificial Intelligence (AI) systems into all domains of social and economic activity including public services further creates urgency to build ecosystems where digital infrastructure solutions drive innovation and economic growth by empowering people, not exploiting them. Ensuring that these emerging tech systems prioritise transparency, inclusion, and accountability is vital to building public trust and unlocking the full potential of the digital and AI transformation.

However, there are clear power asymmetries between individuals (digital citizens) and a handful of big tech platforms. Urgently addressing these power imbalances requires a shared positive vision for a fair data economy (FDE), globally coherent ethical foundational principles, thoughtful regulation that does not stifle innovation, and global multistakeholder collaboration for effective execution. In recent years, the concept of digital public infrastructure has gained significant attention in global fora such as the United Nations, G20, and G7. Across the globe, innovative digital infrastructure solutions are emerging, including systems for digital identity, electronic payments, and secure data exchange layers that enable seamless collaboration between public and private entities. At the same time, there remains conceptual ambiguity around the key components of digital public infrastructure.

Catalyzing Fair Data Economy Solutions through Multistakeholder Collaboration

In this context, Project Liberty Institute (PLI) and the Global Solutions Initiative (GSI) launched a multistakeholder and research initiative to reshape the global data landscape. This initiative seeks to explore the pivotal role of digital infrastructure technologies in fostering a more distributed and equitable data economy. Building on GSI's work on the Global Initiative for Digital Empowerment and PLI's Task Force for a Fair Data Economy, the initiative addresses key issues such as governance, economic models, and empowering individuals with greater control over their data.

The initiative aims to identify innovative strategies for stimulating infrastructure solutions that enhance data agency for users worldwide by examining best practices in digital infrastructure solutions from trailblazing countries by engaging a vibrant community of policymakers, practitioners, and researchers dedicated to this cause. It further unpacks the vision, design, governance, and economic models behind digital infrastructure solutions such as IndiaStack, Solid, DSNP, etc., which demonstrate promising practices in empowering individuals with unprecedented control over their data.

The initiative includes two high-level multi-stakeholder consultations, gathering over 60 experts. On 12 November 2024, the first of these consultations took place on the sidelines of the **Paris Peace Forum 2024** and framed the conversation on the road to the Government of France first **AI Action Summit** to be held in 2025. The consultation brought together over 30 stakeholders including government representatives of European member states, the Office of the UN Tech Envoy, UNESCO, as well as leading civil society, academic, and industry voices.

The second will occur in Washington, D.C., alongside the Decentralized Tech Summit and will incorporate a transatlantic focus. These consultations engage high-level stakeholders, including policymakers, academics, civil society representatives, and private sector leaders to identify actionable recommendations.

Paving the Way for a Future Where Data Agency Drives Technological Innovation and Governance

While the consultations will be held under Chatham House Rule, key takeaways will be shared with stakeholders. The two consultations will culminate into a **Toolkit for Catalyzing Digital Infrastructure Solutions for Data Agency,** which will provide actionable recommendations for governments, civil society, and digital service providers. This toolkit will propose actionable strategies for fostering more equitable digital infrastructure ecosystems. The findings will be unveiled at the **Global Solutions Summit** in May 2025 in Berlin, with the aim of advancing policy discussions at global fora such as the **G7 and G20** under their respective Canadian and South African Presidencies.

Unpacking Digital Infrastructure Solutions – Foundations, Challenges, and Opportunities

Physical Infrastructure—comprised of examples like transportation networks, electrical grids, and telecommunications systems—has inarguably been critical to economic and societal advancement. Unlike these systems, which are mostly owned by governments and provide free or equitable access to citizens, digital infrastructure operates under a different model. While the impact of digital technologies and AI on infrastructure is evident, what qualifies as infrastructure in the digital age is evolving. While definitions vary and there is no single codified, globally accepted statement, digital infrastructure refers to the technological systems and services that enable connectivity, communication, and digital innovation across economies and societies.

UN	The UN refers to digital infrastructure as the **"digital backbone for sustainable development"**, emphasizing its role in achieving the UN Sustainable Development Goals (SDGs). This includes connectivity, cloud computing, and ICT infrastructure critical for global equity and development.
World Bank	Digital infrastructure is defined as the **"foundational physical and organizational structures"** needed to deliver digital services to populations, including telecommunications networks and cloud platforms. The World Bank focuses on expanding access in underserved regions to bridge the digital divide.
OECD	Digital infrastructure is seen as the **essential systems and services that enable the digital economy,** focusing on both public and private sector investments in areas like broadband, cloud computing, and cybersecurity.
ITU	ITU emphasizes the **telecommunications aspect,** defining digital infrastructure as the networks, devices, and services that provide internet connectivity and enable the global flow of information and communication
G20	G20 views digital infrastructure as a **critical enabler of economic growth and social inclusion,** highlighting broadband expansion, data centers, and smart technologies as key components.

Despite definitional ambiguities, there is consensus on the key components of digital infrastructure: identity, payments, data exchanges. If expanded and made more accessible, inclusive, and distributed, it can help promote economic growth, reduce inequalities, and advance the UN Sustainable Development Goals (SDGs). Simply put, digital infrastructure

comprising identity, payments, and data exchange can scale solutions in agriculture, health, poverty, climate, and other pressing challenges. Naturally, emerging economies of the G20 such as India and Brazil have been trailblazers in deploying digital infrastructure solutions including Digital Public Infrastructure (DPI) models of India Stack and Brazil's Pix.

Going forward, an ever more and wider array of industries will look to employ newer technologies. A non-exhaustive list will include road transportation, process industries, pharma, energy supply and production, and financial services: these industries have already begun the journey, though at highly divergent speeds across different segments of markets within the industries and between different countries and regions across the globe.

Market Concentration: From Big Tech Interests to Shared Digital Prosperity

Further, certain platform models (including e-commerce and social media) are benefiting from significant network and scale economics. That creates benefits, but potentially also a challenge for competition as it will tend to produce markets where relatively few players account for the bulk of the economic activities. Already, a few dominant players in the tech industry control nearly two-thirds of the cloud infrastructure market. The vast amount of data these companies hold could have tremendous value for the public good but can also lead to a lack of competition, stifling innovation and limiting choices for governments and citizens.

When public services rely heavily on these private entities, it creates a dependency that can undermine the autonomy of public institutions. Further, if tech monopolies continue to dominate digital infrastructure markets, their influence can shape the direction of public services and data governance in ways that may not align with public interests.

Data Agency at the Core of Digital Infrastructure

On the one hand, data can fuel innovation. Industries are likely to explore ways to integrate user experiences and feedback in the way products and services are being developed and used by them. Data – including personal data – is also foundational to AI innovation. As AI continues to evolve, its demand for data will grow, particularly from the vast amount of information individuals generate while conducting their activities online. The need to distinguish between different types of data is also recognised.

For instance, the rise in the importance of (sensitive) user-based digital data for a still wider array of industries has triggered a debate on data agency: who controls the data -- individuals or data processors? Under what conditions can user-based data be sold to third parties with or without the consent of users? The aforementioned DPI models, for instance, have faced controversies – for instance, privacy issues pertaining to India's Aadhar. A recent Project Liberty Institute survey report found that worries about personal data are particularly pronounced in India (93%) and Brazil (89%), which also happen to be countries with the most developed and adoption rates in digital infrastructure solutions. This includes approximately half or more in each

country who say they are very concerned about the amount of data collected by social media and other online companies. Data agency, therefore, must be at the heart of resilient digital infrastructure solutions.

Differing Regulatory Approaches in a Divided Geopolitical Context

Arguably, the EU has been at the forefront of developing a policy response in terms of regulating markets that are highly dependent on user-generated data. The regulation has typically focused on the following aspects: allowing consumers some discretion as to how data is being used and initiatives to increase scope for competition and innovative use of data through hubs etc. The question is whether this industry-by-industry, use-case-by-use-case approach to regulating ownership of and access to the commercial use of user-derived digital data is the best way going forward. Equally, it is essential to acknowledge the cases where regulation impacts competitiveness and stifles innovation. For instance, the EU AI Act has been flagged for its potential to cause high compliance costs to smaller industries and act as an innovation deterrence for big industries.

The EU, US, China, and Australia all have fundamentally different approaches to regulating data, reflecting distinct views on how citizens should own and manage their information in relation to the state and private sector. All three digital empires see the digital ecosystem as a driver of economic progress and opportunity. However, the approaches differ in the role of the state, the focus on security and conceptions of privacy. This creates one of the most significant public policy challenges of our time. Governments must play an active role in helping citizens understand the implications of their data use—something they have not adequately done before.

The differing approaches amidst an increasingly geo-politicised global tech arena presents a leadership opportunity to like-minded stakeholders to articulate and champion a common vision and design for resilient digital infrastructure ecosystems based on openness, human rights and redistribution of power.

Use-Case Example: India Stack

The India Stack - India's DPI model – has garnered a lot of attention since the country's G20 Presidency in 2023. Its Unified Payments Interface (UPI) system presents a use case on how regulatory frameworks can balance innovation, security, and financial inclusion. The UPI aims to facilitate real-time digital payments while ensuring user protection, system security, and financial stability through regulations including National Payments Corporation of India (NPCI), Interoperability Mandate (it is designed to be interoperable across all participating banks and payment service providers including Google Pay, PhonePe, Paytm), user Protection and fraud prevention measures (including 2FA, real-time alerts, and grievance redressal mechanisms), and data privacy (through consent-based frameworks).

India Stack has faced challenges and controversies, including doubts about the utility of accounts due to India's high account inactivity rates. Concerns over Aadhaar's (which is linked to UPI) security have also intensified following several high-profile data breaches but also because of abuse of privacy potential, as well as some concerns about market dynamics. While it is promising, the system's dependence on the NCPI and limitations in the face of accessibility challenges (such as physical hardware, connectivity, and digital literacy), and failure to facilitate cross-border transactions indicate the need for further and wider debate. In the following sections, we will explore potential solutions to address some of these challenges and discuss steps towards enhancing digital infrastructure solutions' accessibility and interoperability.

Reclaiming Digital Infrastructure for a Better Future

With much at stake, the future of effective multilateralism is contingent on formulating coherent AI governance strategies, and hence, these topics have grown in prominence at multilateral fora. "AI for good" cannot be realised without effective AI governance – which in turn cannot be siloed from issues of data governance, DPI, human rights trust and safety online, meaningful connectivity and infrastructure. Despite clear interlinkages, data is often overlooked in global conversations about the transformative power of technology.

The UN's Global Digital Compact (GDC) — a comprehensive framework for global governance of digital technology and artificial intelligence, adopted by UN members states in September 2024 — has a section on digital public infrastructure (DPI) - recognising "resilient, safe, inclusive and interoperable" DPI as the driver of inclusive digital transformation and innovation for the achievement of the SDGs. It further underscores the need for "user-centred safeguards" to promote public trust and use of digital services. Advancing "responsible, equitable and interoperable data governance approaches" is a dedicated objective in the GDC and it underscores the need to "draw on existing international and regional guidelines on the protection of privacy in the development of data governance frameworks."

Definitional and Conceptual Ambiguities: Aligning Visions for Digital Public Infrastructure

The GDC builds on the G20 India (2023) definition of Digital Public Infrastructure and makes only one mention of "digital infrastructure" in the context of sustainable development and efforts to eradicate poverty. The concept of digital infrastructure remains fluid, with key questions surrounding its definition and scope. There is ambiguity in whether it refers to top-down government-led initiatives, bottom-up community-driven solutions, or hybrid models that blend public, private, and civic contributions. The lack of consensus extends to understanding its core components, governance structures, and the interplay between physical systems, platforms, and data frameworks. In addition, "Interoperability" also remains narrowly and ambiguously defined in the digital public infrastructure (DPI) context, resulting in limited articulation of how it needs to be effectively operationalised.

In addition to differing visions, the divergence in definitions at the multilateral level could be due to the prevalence of legal actors and perspectives that vary significantly across jurisdictions and evolve over time, leading to disagreements. In contrast, globally standardised economic definitions present a viable solution. The UN's national accounts framework, with over a century of established global standards, offers a practical model for consistency. National statistics offices, which are already engaged in data-related issues, could play a key role in aligning definitions with these standards, fostering coherence and facilitating actionable policy outcomes across member states.

Further, in the digital economy, individuals are often positioned as consumers, customers, and citizens simultaneously. This ambiguity—especially in strategies like digital sovereignty—needs clarification. Governments must decide whether the primacy of the citizen as an individual should take precedence. Establishing digital public infrastructure with a clear citizen-centered paradigm could help prevent these systems from embedding or exacerbating inequalities, ensuring they mitigate them instead.

Another key factor in advancing data agency is the limited understanding of the concept among governments themselves. Many ministers, elected officials, and public servants lack foundational literacy on data governance and its implications. This gap hinders the creation of effective policies to empower citizens in managing their data. Initiatives such as the Internet Society's (ISOC) collaboration with the Internet Engineering Task Force (IETF), which educates policymakers on internet functionality, provide valuable starting points. However, these efforts need to be significantly scaled up and institutionalized to build the capacity required for informed and impactful decision-making in the digital era.

Differing visions: G7 and G20 Approaches to Digital Infrastructure

The G7 and the G20 also have differing visions on the scope and purpose of DPI reflecting context-specific priorities. The G7 emphasizes a focused approach, positioning DPI as a tool to improve government-delivered public services. In contrast, the G20 envisions a broader role for DPI, aiming to facilitate equitable access to both public and private services, positioning DPI as a transformative mechanism for reshaping markets and advancing policy goals.

The G20's perspective suggests that DPI can act as a market orchestrator, enabling governments to influence market structures and dynamics. This could include setting technical standards for private service providers to ensure interoperability, capping market shares to promote competition, and regulating pricing or business strategies through system design and governance. Such a market-shaping paradigm challenges traditional market-led models, proposing a proactive role for states in structuring markets to align with societal and policy objectives. This evolving concept highlights the contested nature of DPI and its potential to redefine the digital economy.

Design Principles: Foundations for a Fair and Sustainable Digital Era

The G20's DPI framework and the GDC's objectives on DPI strongly advocate for the use of open software, open standards, and open APIs to promote accessibility and interoperability. Notably, the G20 language incorporates flexibility – stating DPI be developed using "open source, proprietary solutions, or a combination of both." On the other hand, the G7 Ministerial statements (April 2024) does not explicitly mention open source or open standards, but it strongly advocates for the private sector's role in developing interoperable elements of DPI – indicating the need for harmonisation of global standards.

Building resilient digital ecosystems will depend on embedding metadata layers that encode preferences/consent, define terms, conditions, that can be used and ideally updated as circumstances evolve. It grants autonomy and flexibility for future scenarios we cannot predict. The design must be future-proof, with frameworks— open-source, interoperable—to ensure universal access.

A potential solution to managing data in dynamic systems could be the establishment of a data exchange platform to allow anonymized data to be shared with government entities and accessed by authorized parties. This platform would create opportunities for competitive services without relying on emerging technologies like regenerative AI. Building it would require strong anonymization regulations, APIs for seamless access, and a governance framework to ensure innovation and fairness. However, open source alone isn't a panacea; hard-coded governance frameworks will always need to complement open-source efforts.

Governments, on the other hand, often focus on frameworks, systems, and processes when considering digital infrastructure, but fail to proactively integrate protections like consent, intellectual property, safety, and privacy. Instead of retrofitting safeguards, these principles—safety-by-design and privacy-by-design—should be embedded into every stage of the design process from the outset, using existing frameworks applied thoughtfully. This is impossible without an agile, multidisciplinary and adaptable multistakeholder approach.

Fragmented Data Governance Landscape: Addressing the Power Structures in the Digital Economy

The digital and data governance landscape is marked by siloed initiatives and inadequate funding. This impedes the development of an inclusive, responsible, and sustainable data future. For example, the AI Act outlines obligations for data transfer, use, and transparency, while the Data Governance Act introduces neutral players to manage data exchange. Aligning these frameworks could link the AI Act's obligations with the Data Governance Act's mechanisms for better coherence and efficiency.

Notably, data governance conversations require an intersectional lens. While all individuals are disadvantaged by the power imbalance vis a vis Big Tech, the ability to exercise data rights is equally influenced by factors such as gender, age, education, socio-economic status, and ethnicity. Those in low-literacy, low-income contexts are especially vulnerable to data domination. For instance, children should not be treated like adults -- the best approach to data agency in this context -- is to avoid collecting unnecessary data. This principle is increasingly enshrined in global laws, regulations, and standards. However, despite its leadership role, the European Union has been slow to act. This is beginning to change with the Digital Services Act (DSA) and related guidelines.

Data is power. Legislations like the General Data Protection Regulation (GDPR) were ineffective in safeguarding data agency due to the limitations of consent-based frameworks and their inability to challenge the extant fundamental power dynamics. The current model of the global digital economy is woefully inadequate to redistribute power and needs to be redesigned. The challenge is to turn the conversation away from purely technological solutions and towards creating the right structure of incentives. How can governments and the private sector reshape markets to deliver better outcomes? Governments have tools like public procurement, taxes, and subsidies, while the private sector has its own incentive structures. The question is, how do we transform these structures to create a more balanced and inclusive system? What are the new types of business models to complement the market to make that happen?

Future Policy Pathways – Promising Practices and Gaps

A "people-first" digital ecosystem necessitates re-designing prevailing extractive economic business models into decentralised and distributed models where data and digital infrastructure are designed to serve the public and planetary interest. Our focus must be on making technology more inclusive, human rights-driven, and aligned with sustainability. It is not just about profit-making—it is about ensuring AI and digital infrastructure address the real challenges and work for underserved communities.

With the rapid proliferation of AI systems, the next phase of the digital economy would require interconnecting diverse players – for instance, AI agents to have rights to access data and the technical infrastructure to share it. Digital infrastructure will be central to enabling this, and governments are uniquely positioned to shape it. While private companies hold and control a significant portion of global data, governments manage critical datasets—such as census, geospatial, and public health data—and are accountable to the public. Their role in ensuring equitable and inclusive digital ecosystems is vital, particularly in areas where private interests may not align with the broader public good.

Shaping Markets for Fair and Inclusive Digital Infrastructure Solutions: Rethinking the Role of Government

In this context, governments must rethink their role—not just as regulators but as market shapers. Regulation is one piece, but governments can also influence markets through technical standards, investment and entrepreneurship incentives, procurement policies, and directing resources towards better outcomes. Additionally, it is clear that current business models and incentives that drive them need a radical transformation. This is complex work, but it is essential to address power imbalances and ensure fair distribution of benefits.

Creating the right incentives is key to fostering the emergence, scalability, and sustainability of digital infrastructure. Governments and stakeholders must encourage and incentivise business models that not only ensure economic viability but also make an equitable digital infrastructure an exciting prospect for businesses. By offering compelling alternatives to the current monopolies, such models could empower companies to build and innovate on this foundation, unlocking the next stage of data economies' growth.

Further, the problem is not just the absence of infrastructure; it is also the lack of compelling services that utilize this infrastructure effectively. To move forward, we need better services built on top of these rules and infrastructure, alongside commitments from major players to scale these solutions. The frameworks exist; what we lack is the commitment and vision to implement them at scale. For instance, governments hold vast amounts of data in areas like health or education, particularly in countries where the public sector is a major player, such as France. By opening up this data under appropriate governance frameworks, governments could enable the creation of new AI-driven services, such as adaptive learning tools. These innovations, based on public data, could far surpass what private players can achieve alone.

The public sector currently lacks a clear strategic vision and coherence. Governments must invest in digital infrastructure, set an example, and use regulations and public markets to encourage adoption. While the public sector could be the leader in this effort, it currently lacks the necessary strategy and commitment to make it a reality. The future of digital economies hinges on the infrastructure that supports multi-trillion-dollar markets. How value is distributed across the economy is largely influenced by this infrastructure and the role governments play in shaping it.

Next steps for Positive Digital Infrastructure Innovation

To conclude this first phase of our work, we have established an important starting point for future dialogue, one that acknowledges the complexity of the challenges ahead. The insights gathered will serve as the foundation for a broader, more inclusive conversation, as we aim to develop the strategies and frameworks necessary for an equitable and sustainable digital future.

The need to develop a common taxonomy/vocabularies across sectors is clear. Equally, it is important to distinguish between different kinds of data—personal data that can be anonymized and standardized for innovation, non-personal data, and sensitive data requiring stricter controls. We need to articulate exactly how multilateral fora can facilitate greater harmonisation across definitions, global standards, and governance approaches to address current ambiguities. Countries from both the Global North and South are shaping digital infrastructure to suit their respective context, with developing nations often building innovative local systems - we need to identify use cases across sectors to illustrate how these abstract principles can be applied practically, making data governance frameworks more tangible and actionable. This requires a collaborative approach, emphasizing the roles and cooperation of public, private, and civic infrastructure approaches in shaping inclusive and effective and comprehensive digital infrastructure solutions.

With much of the technological development already underway, there needs to be stronger political and economic motivation to push for digital infrastructure for data agency, recognizing its role in fostering growth, jobs, and competition. However, its development will not go without technical and political tradeoffs. The question of digital sovereignty - which reflects a state's right to control data flows and content dissemination within its borders - intersects with democratic governance—specifically, having greater control over data and infrastructure. But this raises a dilemma: how do we balance enhanced control and security with the interoperability and openness we value? This will be a crucial discussion point going forward.

Further, AI is a critical component of modern digital infrastructure and will only grow in significance. For instance, AI can enhance cloud services, network security and enhance interoperability, allowing legacy systems to integrate with modern platforms. However, the AI governance landscape is as fragmented as the data governance landscape - the links between the two are crucial and must be enhanced.

The next consultation in Washington DC will build on the above points and assess the synergies, and differences in transatlantic approaches with a view to articulate scenarios/employ use cases and offer actionable steps for a new and fair digital economy.

This initial report lays the foundation for our ultimate goal: a comprehensive toolkit for governments to inform their approach to designing and implementing digital infrastructure solutions. Scheduled for publication in May 2025, this actionable report will serve as a compass for governments at a crucial time when most digital infrastructure is owned by a handful of actors, leaving them in need of alternatives.

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