

Task Force 05

**INCLUSIVE DIGITAL TRANSFORMATION**

## Towards a coordinated decentralized governance in digital development

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## Abstract

Digital transformation can potentially solve chronic societal problems, but the direction of the transformation is not neutral. Effective governance and government capabilities are thus required to guarantee that the direction is set to foster inclusion and social benefits while preventing harm. However, some challenges must be addressed: the speed of technological changes, limitations of their social impact, deficits in the institutional capacities of public organizations to innovate and ensure the development of digital transformation processes that fully connect with their purposes and nature; and the digital divide inherited social inequalities. To address these challenges, the report outlines strategic guidelines for G20 countries that prioritize inclusive policies and regulations, instill trust, ensure equitable access for citizens, and foster innovation. For each of the recommendations, examples were used that offer tangible evidence of the guidelines in dynamic action. Most examples are still less frequent than they should be, and we used some conclusions and evidence from the United Nations and the World Bank to show that. This report advocates for actionable steps for G20 nations toward a coordinated decentralized governance in digital development.

**Keywords:** collaborative governance, mission-oriented governance, digital transformation, dynamic capabilities, digital governance, digital access, digital gap.

## Diagnosis of the issue

In an era when the paper was the means of functioning for governments, accountability, and oversight were predominantly achieved by siloed, vertical hierarchical structures. Since the early 2000s and the advances of the Internet, public services have started being digitized, but the underlying structures of most governments have not significantly changed.

The siloed and hierarchical ICT development and governance create barriers to developing effective e-government solutions (Cordella and Iannacci 2010), which poses several constraints to digital transformation in the public sector and the most important one is a struggle to deliver effective policy responses.

There is a growing recognition that 21st-century challenges are increasingly *entrenched, multi-causal, and multifaceted*. Think about climate change, pandemics, slower economic growth, and the challenges of industrial policy, for example. Therefore policy challenges involve a *high level of uncertainty*.

Traditional plan and control modes of governing are no longer effective in an interconnected world where political, technological, and social norms change fast, and citizens' expectations quickly evolves influenced by social media. Moreover, the inability to solve public problems may increase distrust in governments' capacity, threatening democracy.

A siloed ICT governance prevents directing the bureaucratic machinery toward solving shared challenges, because the government in these circumstances becomes a vast and resolvable principal-agent problem, which is the main reason why, in a governance context, states need to “learn the appropriate operating code which challenges past hierarchical modes of thinking” (Stoker 1998).

As a response to these challenges, “since the 2000s some entrepreneurial states have sought to rebuild capacities and capabilities for innovation through societal challenge-driven entrepreneurial discovery and mission-oriented policy efforts that try to regain legitimacy for government risk-taking and directionality, while also providing contextual feedback linkages with the private and societal spheres for dynamic capabilities.” (Kattel, Drechsler, and Karo 2022)

Unlike the centralized, hierarchical way of governing, this new paradigm requires a coordinated decentralization setting a direction with intentionality, creating an ecosystem in which diverse members of society, not just public agencies, can collaborate, and create mechanisms for institutional learning toward the problems.

In other words, it requires dynamic capabilities, such as (1) a reflective improvement capability; (2) a collaborative capability; and (3) other capabilities, like a data-analytic and digital mindset capability. “Successful innovation bureaucracies need to have long-term policy and implementation capacities and dynamic exploration and learning capabilities to successfully organize their policy actions related to the uncertain processes of innovation” (Kattel, Drechsler, and Karo 2022). These processes require and produce new ways of thinking, planning, and acting to initiate system-wide and coordinated (top-down and bottom-up) movement.

According to the OECD, “becoming a digitally mature government requires good governance as a foundation (...) governance is particularly critical to ensure that the decisions taken by the government are coherent, consistent and coordinated across policy areas and levels of government” (OECD 2021). However, the siloed and hierarchical digital governance paradigm is not aligned with the development of dynamic capabilities, because “centralized administrations are good at mastering resources to combat problems,

but they are poor at rejuvenating what might be called socio-political resources for change” (Kattel, Drechsler, and Karo 2022)

The question then becomes: How can digital transformation be governed to guarantee inclusive, engaging, and dynamic accountability? What are the governance requirements for a more effective digital transformation? In the next section, we will explore strategies for broadening the boundaries of dynamic governance by leveraging digital capabilities.

## **Recommendations**

Several organizations and scholars have been developing conceptual frameworks for understanding which dynamic capabilities are needed for government digital transformation governance. Although they slightly differ, they are mostly focused on “three capabilities as providing the structural conditions for problem-oriented governance: namely, a reflective-improvement capability, a collaborative capability, and a data-analytic capability.” (Mayne, de Jong, and Fernandez-Monge 2020) or respectively, "seeing the system", "building collective will to transform", and "generating new possibilities" (UNDP 2022). Based on the three pillars, this paper provides recommendations for digital transformation to secure dynamic governance.

### **1. Reflective Capacity - "Seeing the System."**

#### **1.1 Create and invest in the sensemaking and learning function of institutions.**

Technologies and changes happen fast, and not all government agencies can follow with proper resilient, and transformative policies and regulations. Building solid

institutional capacity in government agencies and other relevant institutions is crucial for driving successful digital transformation initiatives.

Anticipatory and foresight capabilities powered by large amounts of data must be achieved by governments and ecosystems. “As the provision of public services gets increasingly data-driven, governments can garner a granular understanding of the changes in the needs of citizens, allowing for a highly individualized and targeted delivery of services.” (World Bank Group 2018)

To do so, governments need to acquire the ability to understand and assess the potential and risks of fast technological changes, like AI. This includes developing expertise in emerging technologies, data governance, digital policy development, and investing in documenting institutional learning and making learning transparent.

#### *Examples of investments in learning function of institutions*

The Korean government is using public big data analysis to create policies and provide effective public services that meet the various needs of the public. The data-driven work approach has enhanced the efficiency of administrative affairs, and also provided support to make reasonable decisions by utilizing on the data analysis model. (Ministry of Interior and Safety 2021)

## **2. Collaborative Capacity - Building Collective Will to Transform.**

### **2.1 Fund the development and implementation of shared digital infrastructure.**

Providing digital public services without guaranteeing social participation, public access to digital means, and public engagement can deepen the digital gap and make digital transformation selective and ineffective. Shared digital infrastructure and digital

public goods, such as data, are required to reduce duplicated investments (fiscal benefits) and enable data exchange and innovations to emerge on top of shared resources.

In summary, a “common IT standards across Government and modular infrastructure - a set of stable components and another set of components - (Baldwin and Woodard 2008) could help governments to avoid future rework costs associated with interoperability problems when joining up systems.” (Brown et al. 2017). Being more flexible and adaptative, the results are public services that better meet citizens' needs and expectations that continuously change.

What is being proposed is not a centralizing approach. It is about centralizing in a coordinated manner the minimum set of resources that enable further decentralization and innovation.

*Example of Interoperability:*

In some regions the interoperation is overcoming national boundaries. That is the case of Australia, New Zealand, and Japan which are creating intra-region integration of the public cloud infrastructure and other digital services. (World Bank Group 2018).

## **2.2 Foster participatory policymaking and governance in digital initiatives**

Involving multiple stakeholders in the policymaking process ensures that digital transformation strategies are inclusive and address the needs of all segments of society. Reducing the “new face of inequality” (the digital) requires an equalizer role of governments (United Nations 2022).

Adopting an approach that fosters collaboration and integration across different government agencies, the private sector, and citizens, is as important as a strategy to foster participation and engagement, creating an efficient digital government ecosystem that

delivers coherent and coordinated services. An effective governance multi-stakeholder governance can “jointly produce a “win/win” collective policy (Maulana & Dečman, 2023). Despite the inclusion of vulnerable groups themselves in designing the projects and solutions that serve their communities, “unfortunately, in the great majority of the countries this has yet to become a dominant trend” (United Nations 2022).

*Examples of fostering participatory policymaking:*

India has created a "MyGov" platform that promotes and supports public engagement in decision-making processes. It has 24.5 million registered users and offers many e-participation tools to facilitate the formation of online groups and thematic discussions, polls, surveys, blogs, and talks. (United Nations 2022).

### **3. Generating New Possibilities**

#### **3.1 Open data, open innovation, and digital mindset**

Promoting the development and adoption of digital public goods, such as open-source software and digital platforms, can drive innovation and collaboration. The free flow of data and knowledge can lead to faster development and implementation of inclusive digital solutions, reducing the costs associated with software procurement and building capacity within the country.

Meanwhile providing flexibility and customization, open and free data flow promotes transparency and trust, and fosters collaboration and a sense of community in support to local innovation. “The use of open application program interfaces (APIs) to enable easy access to different data repositories would, for instance, allow a deeper and richer understanding of the individual context.” (World Bank Group 2018)



However, “too many countries still have poor data, data arrives too late, and too many issues are still barely covered by existing data.” (United Nations 2014)

*Examples of open initiatives:*

In Japan, governments use open dialogue platforms developed by the national Government and operated by private companies, most of them are open-source software. Moreover, while president of G20, Japan launched the Global Smart Cities Alliance to highlight the importance of open, interoperable, standards-based digital urban platforms. (United Nations 2022)

### **3.2 Legal and Regulatory Solutions**

Creating legal and regulatory solutions to enable local and national companies to develop demand-oriented innovation by the governments is a crucial tool to foster innovation ecosystems.

World-leading countries have legislation about digital procurement, identity, and digital signatures, as well as data sharing across public agencies. However, there is considerable variation between countries on open government data. (United Nations 2022)

*Example of Regulatory Frameworks*

Brazil published in 2021 the “Legal Framework for Startups” to promote open innovation, improving the business environment for companies focused on innovative entrepreneurship and strengthening the relationship between this type of company and the government (Brazil 2021)

### 3.3 Citizen-centric design

The citizen-centric design and the digital mindset capacity can foster a more tailored, responsive, and citizen-centric digital public services, contributing to a trustable and inclusive digital transformation. Therefore, the governance principles should highlight a citizen-centric and collaborative approach. A recent survey conducted among citizens of 13 countries, 7 G20 members, indicates the need to segment citizens according to their digital literacy or trust in digital government technologies. (Barroca et al. 2024)

United Nations points out that, despite important advances in e-government, inclusive design has not received sufficient attention. And suggests as an important first step “recognizing that exclusion exists” substituting biases by objective, data-driven evidence.” (United Nations 2022).

#### *Example of Citizen-Centric design*

“The United Kingdom’s has created the Digital Inclusion Evaluation Toolkit, a collection of resources designed to help any organization assess the impact of digital inclusion. The toolkit aims to enable teams to provide evidence on how successful a project has been at implementing change.” (United Nations 2022)

## Scenario of outcomes

Embracing the recommendations could lead to several potential outcomes, significantly accelerating citizens engagement in and effectiveness of collaborative digital transformation processes. Implementing the proposals involves managing complexity and dealing with multiple and interrelated challenges. This scenario requires clear principles, coordination between the initiatives, and priorities on dynamic capabilities to be developed.

Stimulating shared infrastructure and implementing a participatory digital transformation policymaking and governance can save expenditures and efforts, especially when government expenditure falls, and a trade-off is needed. Public expenditure fell from 9.3% in 2007 to 8.1% in 2019 and to 7.4% in 2021, on average. (OECD 2021)

Constraints posed by siloed and hierarchical ICT development and governance, such as the fiscal and environmental, should be overcome, being possible changes in the status quo way of building digital solutions, and saving energy on computing processing.

Good monitoring and sharing of collaborative experiences between the G20 nations are essential to demonstrating results and supporting the allocation of resources, contributing to expanded governance capable of considering the specificities, complexities, and challenges of each nation while considering common bottlenecks.

Within countries, governments that establish collaborative governance will be able to assess and adjust the advances and risks inherent in the growth of their digital participation, both in terms of increasing the supply of services to the population and entrepreneurs and in their regulatory activity routinely and quickly. Aiming to tackle one of the main challenges for the progress of digital transformation in G20, which is the

engagement of beneficiaries, it is hoped to increase not only the number of users and their participation in the development of solutions but also citizen service with a greater level of personalization.

The advance of digital transformation into the various aspects of the lives of governments, citizens, and companies implies increased availability of services at speed and quality. However, it could inadvertently widen the digital divide if not all citizens access digital technologies and infrastructure equally.

If G20 nations understand the technology limits, they can make better choices and balance the increase in the supply of digital services with the relentless pursuit of improving the conditions of sharing digital infrastructure, access to equipment, and digital literacy, among the many conditions for reducing the digital divide.

To accelerate collaborative governance and inclusiveness, cross-cutting policies between government departments, such as education, telecommunications, science, and technology is essential, but not enough. Acting globally is crucial!

G 20 countries should lead the effort for setting global interoperability for sharing data and infrastructure through new institutions and initiatives. One simple example is the common rethink of the ICT development and innovation indexes to incorporate shared infra and dynamic capabilities.

These scenarios underscore the need for dynamic planning, continuous monitoring, and flexible political design when implementing the recommendations. The potential effects of the constraints could diminish the digital transformation's potential to solve complex socio-economic problems. It is, therefore, crucial that policymakers take these trade-offs and contradictions into account when adopting the recommendations.

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