Tech for Democracy

A SHARED VISION FOR TECHNOLOGY AND GOVERNANCE

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Acknowledgments

This knowledge product was made possible by funding from the Danish Ministry of Foreign Affairs under their Tech for Democracy initiative.

This report has been produced with the support of the UNDP Tech for Democracy programme team who provided insight and learning from the programme as well as support in the coordination and logistics involved in preparing this report; the UNDP Country Offices of India, China, Peru who provided extensive support in convening country level consultations with key stakeholders and researchers; and the UNDP Resident Representatives from over thirty countries and regions who participated in a consultative workshop.

Special thanks to UNDP colleagues: Sarah Rattray, Roqaya Dhaif, Alessandro Ercolani, Yolanda Jinxin Ma, Benjamin Bertelsen, Samuel Ng for review and comments.

This report was prepared for UNDP by Emrys Schoemaker (Caribou Digital), under the oversight of Sarah Lister, Head of Governance, UNDP.

Methodology and Purpose

This report aims to provide a vision for and a reflection of UNDP's work at the intersection of governance and digital technology. It builds on UNDP's Strategic Plan 2022 - 2025, the Digital Strategy 2022 - 2025, and the Governance for People and Planet Global Programme, taking their ecosystemic lens and commitment to inclusive, rights-protecting societies as a starting point.

Between October 2021 to March 2023, UNDP partnered with the Danish Ministry of Foreign Affairs as part of the Technology for Democracy Initiative, which was launched at the Technology for Democracy Conference in 2021. UNDP's work under the initiative focused on identifying and developing approaches to strengthen the role of technology in supporting democracy and rights-based governance, with a focus on insight and experiences from the global south.

This initiative involved research and consultation, multi-stakeholder pilot programming, and global multi-stakeholder engagement. The initiative explored two themes. Firstly, how digital technologies enhance democratic institutions, processes and practice, including through support to new forms of deliberative and participatory democratic mechanisms and their integration into established democratic processes. Secondly, how a multi-stakeholder approach could strengthen democratic norms in the digital era by identifying strategies to contribute to closing the digital divide (including inclusion and access), build digital capacities, ensure human rights and security online, and promote responsible digital technologies.

An important takeaway from discussions at the Technology for Democracy conference was the need to "define a shared democratic vision for technology". This report is part of that process and a response to that need. It aims to provide an overview of the key learnings from UNDP's work at the intersection of governance and digital technology, to draw some conclusions about the implications of emerging technologies for the future of governance, and to point in the direction of future work in this area. It draws on the insights and lessons learned from the pilots conducted as part of the Technology for Democracy project, on country consultations in India, China and Peru, as well as a virtual workshop with over 25 UNDP Resident Representatives from across all regions. In addition, the report is located in and informed by learnings from UNDP's broader portfolio of work at the intersection of governance and digital technology.

The report explores the implications of emerging technologies first for the *'governance of digitalisation'* - that is the governance arrangements required to ensure that digital transformation is rights-based, inclusive and supports the achievement of the SDGs - and secondly for the '*digitalisation for governance'* - the implications of digital technologies for accountable, inclusive and effective governance.

Introduction

Digitalisation is changing the practice and context of governance. Increasingly ubiquitous digital technologies are changing how societies organise the prioritisation and allocation of resources – transforming how goods and services are delivered, people's capacity as agents of change and the shape of the public sphere.[i] The digitalisation of services accelerated through COVID-19 responses, has enabled governments to reach more people more efficiently and more accurately targeted than ever before. Digital systems have enabled the inclusion of more people in policy-making than ever before. But digitalisation also introduces challenges for democratic principles and human rights, particularly for the public sphere, civic space and governance processes and outcomes such as elections, public debate and trust in institutions.

There is a growing need for governance of digitalisation that ensures digital transformation[ii] serves the public interest. Technologies such as digital platforms, systems and artificial intelligence (AI) penetrate ever deeper into the fabric of our lives, changing the architecture of services and the foundations of economies. Digital technologies often have both positive and negative implications, forcing consideration about how to ensure digital transformation is in the public interest and delivers public value[iii]. Digital technologies intended to strengthen the integrity of elections can be hacked, platforms that enable public debate can spread misleading information and AI technologies can introduce efficiencies while exacerbating discrimination and threatening entire professions and employment groups. As digital technologies become increasingly central to the architecture of society, the need to ensure they uphold rather than weaken human rights is ever more critical[iv].

These debates about the role of technology come at a time of global polycrises – environmental, economic, and social challenges, and a feeling that the current state of governance isn't working for everyone. These changes force a reconsidering of our conceptions of governance – the sovereignty of the state to govern global platforms within national borders; the reconfiguring of government and state authorities; trust between people and their government; the role of private actors in providing the public goods of civic space and an open, inclusive public sphere. A feature of the polycrisis is the additional challenge of governing not just individual crises but the colliding intersection of risk and challenge – creating ever more complex governance challenges. Digital technologies are a central feature of many of these challenges and create an urgent need to strengthen effective governance in order to realise their potential while mitigating their harms.

There are challenges to established models of digital governance. The US dominance of internet regulation is increasingly under question. [v] At the international level, internet governance has historically been dominated by the United States, with the Internet Corporation for Assigned Names and Numbers (ICANN), the main body that controls internet addresses, being an American non-profit corporation. It was only in 2016 that significant control passed from the US Department of Commerce to the ICANN-affiliated organisation Internet Assigned Numbers Authority (IANA).

Present multilateral mechanisms for governance of digital technologies are advisory and lack "teeth". The 2005 UN-sponsored World Summit on the Information Society (WSIS) established the Internet Governance Forum (IGF) to convene a non-binding, multilateral conversation around internet governance. This forum, bringing together government, the private sector and civil society, produced the dominant model of internet governance[vi]. This describes how governments are tasked with policy-making and oversight, the industry is expected to self-regulate and participate in the government policy-making process and civil society organisations raise awareness of key issues, mobilise citizens, and encourage social responsibility. There are efforts to strengthen the multilateral governance of digital technology – such as the Global Digital Compact, and of specific technologies, such as the UN's High-Level Advisory Body on AI'[vii] [viii].

The self-regulatory governance model is in tension with the exercise of digital sovereignty by states. Industry self-regulation has been the dominant model at a national level, too but is increasingly being tested as states seek to exercise greater authority over the digital technologies, content, and companies that operate within their jurisdiction. In the US, there are efforts around anti-trust; in the EU, there are established efforts to strengthen data protection and market regulation,[ix] and China exercises significant state control over private technology companies[x]. In Africa, regional competition bodies are launching probes into whether tech platforms are serving the public interest[xi]. There is also increasing recognition of a governance deficit across digital platforms, AI, content and cyber security[xii].

These are global concerns that require global responses - such as the establishment of 'digital public infrastructure'. Recognising that digital transformation is built on a foundation of core digital technologies, there are growing efforts and new mechanisms to establish digital technologies that serve the public interest - such as the Digital Public Goods Alliance[xiii], GovStack[xiv] and the Co-Develop fund[xv], which seek to develop digital public goods and infrastructure[xvi]. And governance is central to ensuring that these new technologies serve the public interest. UNDP has been the official knowledge partner on Digital Public Infrastructure (DPI) for India's G20 Presidency, as part of the Digital Economy Working Group. The outcome document of the Digital Economy Ministerial meeting that took place on the 19th of August 2023, acknowledges the need for a comprehensive, multistakeholder approach with coordinated and voluntary financing and technical assistance to facilitate DPI implementation[xvii]. As the UN Secretary General's Roadmap for Digital Cooperation notes, 'the world is at a critical inflection point for technology governance', and that 'central to the implementation of digital public goods are robust human rights and governance frameworks to enhance trust in technology and data use, while ensuring inclusion[xviii].

> "The broad-based prosperity of the past was not the result of any automatic, guaranteed gains of technological progress… Most people around the globe today are better off than our ancestors because citizens and workers in earlier industrial societies organised, challenged elite-dominated choices about technology and work conditions, and forced ways of sharing the gains from technical improvements more equitably." (Acemoglu & Robinson, 2022)

Technology is neither good nor bad, but never neutral[xix] – and the outcomes of digital transformation are not inevitable. Research suggests that the historical benefits of technology for prosperity and progress arise from the collective action of citizens and workers[xx]. Digitalisation introduces real opportunities for growth, inclusion and equity but can also complicate and challenge effective governance and successful development outcomes. As the OECD notes, 'digital investment, infrastructure, regulations, policy and capacity will either lock in digital divides for decades to come or lay the foundations for a future of shared prosperity and well-being.'[xxi] There is a huge demand from governments and civil society for support to direct the process of digital transformation. This report explores these issues and outlines steps to take to ensure that the arc of transformation bends to the good.

This report advocates for an approach to governance and digital technologies that goes beyond the state – and recognises the diversity of institutions and power structures that shape development trajectories. This means going beyond normative approaches to governance – such as instrumentalist and normative approaches, and concepts such as 'the social contract',[xxii] which reflect the state-dominated context in which they emerged. To really understand how new technologies are transforming governance requires **moving beyond a tendency to focus on the state-society dichotomy** and instead exploring the diversity and interactions of institutions and power structures affecting people's lives today. The constellation of institutions through which power is exercised includes private sector actors such as platform owners, technology vendors, as well as newly visible and vocal civil society actors. The focusing of attention on both institutions with power (rather than only the state) and

ongoing ways in which authority is managed[xxiii] acknowledges that governance is an ecosystemic, always evolving process. If technology is to advance rights-based, inclusive development, it is vital to understand the role of digital technology in shaping 'governance as it is experienced' rather than be trapped in debates about the types of regimes that technology drives.

The digitalisation of governance introduces change to services and the wider governance context and, as such, requires an ecosystemic response. Digital technologies are reshaping both the infrastructure through which the functions of government are delivered as well as the broader public sphere in which politics is practiced and through which power is exercised and reinforced. This demands an elevated and coherent approach – a 'whole of society' ecosystemic approach, as UNDP's new digital strategy outlines. A whole-of-society approach is critical if we are to understand and engage with the implications of existing digital technologies for governance and democracy.

"The governance of digital technologies is the need of the hour," UNDP resident representative, global consultation workshop, 2022

1. Governance of digitalisation

Effective governance of digitalisation and digital transformation is critical to ensuring that digital technologies contribute to inclusive, safe and equitable outcomes. The governance of digitalisation recognises that digital transformation is an ongoing process leading to change in all parts of our lives – and that this process requires active engagement to amplify inclusion and rights rather than patterns of exclusion and inequity.

National governments are increasingly focusing on the governance of digital technologies and systems, in addition to advancing digital access and infrastructural development. The increasing ubiquity of emerging technologies demands governance responses at both national and international levels. Critically, these governance responses need to emphasise rights, inclusion and protection – for example in the form of the United Nations Secretary General's Office of the Special Envoy on Technology (OSET) and UNDP's proposed Digital Public Infrastructure Safeguards Initiative.

The global nature of digital technology, companies, and content is a challenge to effective governance – a challenge amplified by inequalities of power, especially around global governance and taxation arrangements. Some mechanisms governing digital services, markets, and data are more influential than others - particularly governance instruments originating in the EU, US, and China, which have implications beyond their borders. This has forced Global South governments to be rule-takers in many contexts – to accept the regulatory implications of policies such as the EU's General Data Protection Regulation (GDPR) if they wish to trade with or provide services into EU markets. However, there are shared challenges – for example, taxing technology platforms is a global governance problem – resulting in a loss of up to $32 billion in taxes from the biggest global technology companies for the world's largest economies[xxiv]. Yet this challenge is unevenly spread. Although several Global South countries have attempted to introduce different forms of taxation on digital technologies and economies, these have been limited by concerns about potential retaliation from countries such as the US[xxv][xxvi].

The governance of digital platforms and content is not always in the public interest. Although the UN Human Rights Council and the General Assembly confirmed that "the same rights that people have offline must also be protected online"[xxvii], several governments have used concerns about inaccurate, inappropriate or misleading content to introduce laws and policies to limit online freedom of speech and expression, or even cutting access to specific platforms or the entire internet altogether.

Control over social media platforms as a political tool: In a global consultation, one UNDP resident representative described how some states see control over social platforms as 'vectors for stabilisation', tools to maintain political control and authority.

The governance of digital technologies is not just a matter for the state. Civil society and the private sector have important roles to play. For UNDP, support to both governance and digital transformation is approached through a holistic, ecosystemic lens, comprising not just regulatory and legal elements but also considering the roles of the private sector, public sphere and civil society. For example, in many contexts, civil society and the judiciary play critical roles in upholding human rights, with civil society articulating voice and exerting pressure while the courts uphold due process– particularly around digital access, data protection, privacy and legal rights.

1.1. Global governance of digitalisation

The challenges of governing today's digital technologies are not all new – there are lessons from efforts to govern the internet and other cross-border technologies. States are increasingly turning to existing governance instruments established to regulate for public interest, anti-monopoly and national security concerns.

Global governance architecture is analog and out of date with the digital economy. In contrast to the multilateral (if US-dominated) governance of the internet, the governance of digital technologies such as AI, platforms, quantum, cyber security and data is characterised by fragmentation[xxviii], regulatory competition, foreign policy concerns, and political sensitivity. These constraints have limited effective multi-stakeholder approaches to the governance of digital technologies[xxix]. In contrast to a global system built to govern the production, trade and consumption of tangible goods – the digital economy is characterised by intangible information where value lies in control over data and intellectual property rights (IP)[xxx] – control that depends on laws that protect against copyright infringement, enabling the profit in the form of 'economic rents'[xxxi]. The global governance order is out of date with this form of digital economy. The WTO and related Bretton Woods institutions were built around the win-win world of trade, not the win-lose world of economic rent-seeking[xxxii] - and the system now struggles to exercise authority over increasingly nationalist trade agreements and the rise of powerful technology companies.

To date, digitalisation has concentrated national governance in the hands of the few. This pattern of digital transformation has resulted in the emergence of three dominant centres of governance over digital technologies – China, the US and the EU – that present challenges to others seeking to assert their own national interest and exercise sovereignty over digital technologies. For example, China develops its own software to shield domestic technology companies while at the same time supporting the expansion of these companies abroad, including through the Belt and Road initiative. The US also supports its own technology companies – largely through shaping international regulations over data sharing and IP and a laissez-faire regulatory approach. The European Union, while it doesn't have globally significant digital technology companies, has been at the forefront of developing and asserting standards and regulations, data-rights regimes and competition policy.

New trends in the governance of privately owned technology are emerging, particularly to counter the power and dominance of technology companies, but these remain dominated by the US, EU and China. In the US, the trend is leaning towards strengthening anti-trust regulation even against its own companies while also continuing the current open market, self-regulation approach. China has adopted an anti-monopoly campaign that involves numerous new laws and policy directives aimed at reducing the monopoly of China's tech giants Baidu, Alibaba, and Tencent[xxxiii]. The European Union's approach seeks to establish itself in-between the US and China's approach by moving towards a more co-regulation approach[xxxivxxxv]. While there are critiques against both the US and Chinese approaches for insufficient consideration of individual rights, there is also a broader argument that instead of concentrated dominance of global technology governance, there should be a greater emphasis on regional or global frameworks to govern competition policy[xxxvi].

LMICs do not have the same authority or power as the US, EU or China, and are forced to negotiate and navigate governance arrangements established in the global north. Although these governance frameworks are developed for global north contexts, they are significant for the global south – the standard-setting role of GDPR has already demonstrated the so-called 'Brussels effect[xxxvii],

while other governance efforts have similar effects. They have important implications for transactions and trade with the EU as well as serving as a benchmark reference for domestic legislation. For example, many countries use GDPR as a benchmark when reviewing or establishing their own data protection legislation. Yet many countries – government, private sector and civil society – struggle to engage with, understand and apply these frameworks. The further fragmentation of standards, frameworks and values is a serious risk to countries that lack the capacity to engage coherently with these approaches, limiting their efforts to govern technology as part of a rights-based, inclusive approach to digital transformation.

However, many LMICs are also seeking to exercise authority over global digital platforms, particularly to increase value capture in the form of taxes. The cross-border movement of data is an important source of value creation but presents governance challenges, particularly around taxation – and government efforts tend to either be very domestic and motivated by political interests, or be mired in international negotiations. A report from UK NGO ActionAid states that 20 countries in the global south — including 12 countries in sub-Saharan Africa — could be missing out on up to $2.8 billion in tax revenue from Facebook, Microsoft, and Google's parent company, Alphabet, alone[xxxviii]. Global, multilateral efforts to govern taxation of digital platforms are clearly needed – yet international negotiations to establish global taxation regimes are mired in negotiation, and fear retaliation from countries such as the US[xxxix].

Emerging technologies such as cryptographic and quantum technologies challenge established governance frameworks and models of authority and accountability. For example, cryptographic and decentralised technologies that promise to decentralise decision-making and control may challenge established state-led and legal models of governance and accountability. The rise of distributed technologies, broadly characterised as Web 3, includes several innovations and use cases in which it is hard to identify authoritative and responsible actors. For example, new forms of organisation, such as Decentralised Autonomous Organisations (DAOs)[xl] that have a management structure with dispersed decision-making and no central authority, make it difficult to assign responsibility for actions taken by the DAO as a whole.[xli] While nascent, technologies such as DAO are beginning to be codified into law, despite concerns about how existing legislation would ensure accountability[xlii]. Quantum technologies – those that exploit the 'spooky'[xliii] physics of subatomic particles – promise capabilities to develop new materials, financial trading strategies and methods of communication[xliv]. But they are also predicted to present fundamental challenges to established cybersecurity technologies and practices. Although still unstable, the promise, and threat, of quantum computers is the ability to solve complex computations, such as the encryption models that underpin the security of digital data – and thus the basis of secure digital communication and content.

There are growing calls for global oversight even as governance of digital technology is increasingly fragmented[xlv]. There are a number of global governance efforts to oversee emerging technologies, particularly around AI. For example, the UN recently convened the High-Level Advisory Body on Artificial Intelligence to inform UN recommendations around global governance of AI, while the ITU spearheads the AI for Good programme, which is organised in partnership with 40 UN sister agencies[xlvi]. There are also initiatives from UNESCO (Ethics of Artificial Intelligence[xlvii]) and from the OECD (Principles on AI)[xlviii]. But national and regional efforts are more fragmented, and divergent. For example, the EU and US approaches to AI governance which share some foundational premises in relation to risk, trustworthiness and international standards, diverge significantly. The US has invested in a non-regulatory infrastructure, such as an AI Bill of Rights[xlix] and the NIST Risk Management Framework[l], as well as technology research and evaluation,[li] while the EU has adopted a more legislative approach tailored to specific contexts, such as the proposed EU AI Act[lii] that aims to promote ethical outcomes through protecting fundamental rights."[liii] China's strategy is characterised by its primary focus on fostering innovation and a more recent emphasis on "common prosperity," while India's approach to AI is driven by three initiatives that focus on building a digitally empowered knowledge economy, efforts to support Indian AI technology and building smart cities[liv].

There are also multi-stakeholder efforts to address the governance of digital platforms and content. In addition to the WSIS, IGF and related fora, there are a growing number of efforts to advance public interest and rights over digital platforms and wider digitalisation. For example, the Freedom Online Coalition is a grouping of governments which have committed to work together to support internet freedom and protect fundamental human rights[lv]. There are also efforts by civil society and advocacy organisations, such as the Forum on Information and Democracy, that was founded by eleven independent organisations from different backgrounds and regions to 'provide democratic safeguards to the global communication and information space'[lvi].

In May 2022, UNDP launched The Action Coalition on Information Integrity in Elections that brought together experts from the elections, technology, and media/communications fields to contribute expertise, guidance, and knowledge on effective responses to disinformation and hate speech in elections, including the role of digital technologies. This Action Coalition has produced a report[lvii] on their initial findings, outlining a range of programmatic options for promoting information integrity in future elections, with the aim to inform and strengthen global, regional, and national level mechanisms for fostering information integrity in elections.

The governance of digital technologies may require the adaptation of existing laws rather than the creation of new laws. The particular challenges of new technologies such as AI often prompt calls for and the development of new regulation and governance instruments – such as calls for new global governance bodies[lviii] and the EU's proposed AI Act[lix]. But others argue that all digital technologies 'consist of the same three building blocks – data, people and corporations – and all three are already subject to a broad array of existing laws and regulations'[lx]. Instead of introducing new governance instruments, and furthering the division between those able to introduce and apply them, existing frameworks should be used, and adapted if necessary[lxi]. For example, current regulatory approaches to AI often employ data protection laws[lxii] - yet data protection law is commonly oriented towards individual rights. In response, scholars and regulators urge the governance of AI to consider community and societal impact as well as individual.[lxiii][lxiv][lxv] Policymakers, lawmakers and civil society, particularly in the global south, already have limited capacity to understand technologies such as AI in all its applications and to anticipate future challenges. It is important to strengthen their capacity to engage with and govern emerging technologies – and to avoid increasing the governance divide by increasing the number of governance frameworks.

UNDP Data Protection Guidance[lxvi]: UNDP has developed guidance around the drafting and implementation of data protection legislation and frameworks.

The guidance analyses key themes and principles in data protection law and practice - contrasting the major themes in data protection and privacy law and institutional frameworks and how they are addressed in the major regional data protection and privacy frameworks around the world, including, among others, the AU, OAS, EU, CARICOM and ASEAN.

The governance of digital technologies can also constrain rights and advance individual or political interests. Governance efforts often reflect existing political trends, and there are concerns that regulation can be used to support censorship, freedom of speech and political repression. In turn, increased online censorship and surveillance can threaten "the realisation of the principles of transparency and accountability which are essential for the promotion and protection of all human rights, particularly in countries transitioning from autocracy to democracy"[lxvii][lxviii]. For example, in Uganda, the government introduced a daily tax on social media use which, while presented as a method to raise revenue to expand internet access in rural areas was interpreted as an act of digital repression[lxix]. A study of 47 African countries' approaches to dealing with disinformation concluded that the state remains

the dominant actor in digital regulation, but found systematic differences in terms of their approaches – with implications for free speech. They found that states with authoritarian tendencies but that also empower courts tend to highlight legal and regulatory means to enforce content control, while countries with less protection of media freedom tend to debate ways in which the state limits Internet access, such as, for example, Internet shutdowns[lxx]. In other words, the form of digital regulation is shaped by the political arrangements and culture rather than the specificities of technologies themselves.

Case study: Tsinghua University International AI Cooperation and Governance Forum

The Tsinghua University International AI Cooperation Governance Forum is an effort by a Chinese university with close relations to the government and international community to foster multi-stakeholder dialogue.

The Institute for AI International Governance of Tsinghua University (I-AIIG)), China, is a university-level research institute approved by Tsinghua University in April 2020. The AI Forum leverages Tsinghua 's existing resources and interdisciplinary advantages in AI and international governance; I-AIIG conducts research on major theoretical issues and policy needs of AI international governance, aims to enhance Tsinghua University's global academic influence and policy leadership in this field, and provides intellectual support for China's active participation in AI international governance.

The Forum was initiated in 2020 to be the leading platform to engage in a worldwide conversation on AI governance and international cooperation and was the first of its kind to be held in China. The Forum represents an example of the kind of debate and dialogue that are prerequisites for inclusive, thoughtful approaches to technology governance. Now in its third year, the Forum brings together high-level officials from governments and international organisations, prominent academics, and executives from the tech sector, in line with the goal, articulated in the United Nations Secretary-General's Roadmap for Digital Cooperation, to 'bring together all stakeholders to build a more open, free, and secure digital future for all.'

One of the consistent points of consensus throughout the last three years of discussion convened by the Forum has been the potential for AI to contribute to development as well as the wider risks and challenges that the technology introduces, and the need for an inclusive and international approach to AI governance. The two-day 2022 forum involved more than 100 experts from over 20 countries, while over 7 million tuned into the live broadcast of the forum.

Initiatives such as the AI Forum have important roles in contributing to legislative or policy discussions, with individuals leading the AI Forum also contributing to the Ministry of Science and Technology's (MOST) Expert Committee on AI Governance, of the three most significant state efforts to govern AI[lxxi]. This body, which focuses on ethical guidelines for AI, complements the Cyberspace Administration of China (CAC), the state regulator, and the China Academy of Information and Communications Technology (CAICT), which focuses on testing and certification, particularly around trustworthy AI. These bodies play an important role in facilitating the emergence of shared norms and proposals for dealing with emerging technologies.

These bodies have produced a number of significant documents around governing AI. In July 2021, the CAICT released the country's first whitepaper on 'trustworthy AI'[lxxii]. In October 2021 the National Expert Committee published a set of ethical norms for AI , and in April 2023 the CAC published the draft Administrative Measures for Generative AI for comment , which emphasised that AI providers bore responsibility to ensure the legitimacy of data used to train AI products, to prevent discrimination in software and to uphold the nation's socialist values.

Conclusions

Two divergent trends emerge in response to the challenges of governing digital technologies. The first trend is the strengthening of competing governance frameworks (such as the divergent approaches of the EU, US and China), a response to a fragmenting multilateralism[lxxv], as part of efforts to assert national sovereignty and control over digital technologies, processes of digitalisation and the outcomes of digital transformation. This is likely to lead to a further amplification of existing governance arrangements – a deepening of the role of the market in setting standards, the primacy of individual rights, or the assertion of the state as arbiter of the direction of digital transformation.

The second trend reflects the implications of these governance arrangements for LMICs and countries of the Global South. As US, EU and Chinese approaches to governance take clearer definition, their governance arrangements may have a 'ripple effect' on others, as the regulatory requirements of trade and travel demand alignment with these dominant regulatory frameworks. There are already examples of states adopting wholesale existing regulatory frameworks, such as the replication of GDPR into domestic legislation, with mixed outcomes[lxxvi]. There is an urgent need for countries beyond the current major players to develop their own capacity to navigate global digital governance arrangements and to develop laws, policies and institutional arrangements that meet their own sovereign needs and serve the interests of their people.

Recommendations

Digital transformation efforts should include efforts to strengthen LMIC's capacity to engage with and participate in governance frameworks such as those emerging out of the EU, China and the US. This should include support to parliamentarians and the judiciary, as well as non-state actors in Global South countries to understand and engage with global regulatory regimes and participate in decisions about how this affects them.

Efforts should include the establishment of a knowledge and capacity resource to support countries in understanding and engaging with global governance frameworks and international human rights standards. This could take the form of a global, trusted team of independent experts able to provide impartial expertise in response to the needs of partner governments, industry and civil society. As Ms. Ingabire, Minister of ICT and Innovation, Government of Rwanda, said at UNDP's convening around digital public goods, digital transformation 'r*equires experience sharing and work in particular areas, including payment infrastructure, digital ID, and harmonisation of laws and regulations to ensure harmonisation of platforms and systems'*[lxxvii].

Global South countries also need capacity to effectively govern national digital transformation that is rights-based and inclusive. They will need to strengthen their capacity to enforce their competition policies and ensure that individual interests and needs are prioritsed in governance approaches, also ensuring that diverse voices are included in and help shape the formulation of governance frameworks, regulation and policy. The Office of the Special Envoy on Technology and UNDP's proposed DPI Safeguards initiative is one example of how these global concerns can be translated into national capacity for governance and protection.

Strengthen state capacity to govern processes of digitalisation and transformation. Government ministries need strengthening to develop knowledge and capacity of digital technologies and processes of transformation – and championing of those demonstrating digital leadership. Importantly, this should extend beyond any Ministry formally leading on digital transformation to include the wider ministries affected by changes in administration and service delivery – ministries with responsibility for

welfare, health and education, for example. This also needs to cover the entire policy value chain from conception and design, procurement and implementation to management and oversight.

Strengthening the state beyond the executive to play its part in governing digitalisation. The judiciary, for example, require support to fully understand and engage with digital processes, while the establishment of bodies such as data protection authorities can strengthen oversight and protection. These measures can have real impact. For example, in Kenya, The High Court, by virtue of a judicial review application brought by a constitutional research, policy and litigation institute in Kenya, delivered a landmark judgment declaring the proposed national digital ID card (Huduma Card) unconstitutional in October 2021.

Looking beyond the state to govern everyday digital transformation. In places where institutions other than the state have the most authority, these should also be engaged to support their role in digital transformation that is inclusive, safe and equitable. The private sector has an important role to play in enabling access and inclusion – and can be important actors in ensuring that digital technologies and services uphold rights. Engaging with other forms of authority, such as religious institutions and non-state actors, who can play important roles in determining the path of digital transformation, can be an effective means of shaping people's everyday experience of and access to digital technologies.

Two recommendations to strengthen civil society's capacity to participate in governing digitalisation and transformation:

1. **Support Global South civil society to engage in national-level debates and processes around digital transformation.** The complexity of digital technologies and governance frameworks can make entry points to this challenging. However, there are examples of civil society engagement in policy and accountability efforts. One example is citizens' assemblies that represent the full diversity of a given population, and the provision of training by experts to them on the issues and considerations, so that assembly members can then articulate concerns to policymakers. The Ada Lovelace Institute's Biometrics Council (in the UK) provides a good example of this type of engagement and offers a blueprint for how policymakers elsewhere could more effectively solicit public opinion on AI governance."[lxxviii] The Open Government Partnership also suggests the constitution of 'Supreme Audit Partnerships' to enable civic oversight[lxxix].

2. **Support and empower civil society actors to advocate for greater consideration of human rights** by governments, the private sector and regional and global institutions which are making decisions about the development of digital technologies and governance frameworks. This is especially important concerning historically marginalised or underrepresented communities, who are often disproportionately affected by the risks and harms posed by digital and data-driven interventions. Specific elements could include strengthening the role of key institutions such as national human rights institutions, parliaments and civic assemblies. For example, national human rights institutions can undertake human rights impact assessments of new technologies and may play a role in facilitating multi-stakeholder engagement. Consideration would need to be given to how these stakeholder arrangements are constituted to ensure that they are representative and have influence.

1.2. Governing transformation in economies and labour markets

The global economy is characterised by a digital divide. The world's digital economy is dominated by China and US – between them they account for half the world's hyperscale data centres, 94 percent of all funding of AI start-ups in the past five years, and almost 90 percent of the market capitalisation of the world's largest digital platforms[lxxx]. This dominance reinforces the existing divisions and resulting inequalities in opportunity and the capacity for equitable capture of value.

Data is one of the main drivers of digital economies, but ensuring this creates public value is a sovereignty and governance challenge. The production, management and analysis of data is at the heart of digital economies, but there are high levels of inequity among and within countries over their capacity to harness, manage and retain the value created by data and emerging technologies. Exercising authority over transnational data flows is a challenge for all countries, and especially for LMICs. The right form of governance is critical to ensure that digitalisation generates public value. The ability of national governments to exercise authority over transnational companies is vital but an enduring challenge, and emphasises the importance of a global, multilateral approach to the governance of digital technologies and transformation. A transnational governance response is required to ensure that digital dividends are more evenly distributed. As part of India's Presidency of the G20, the Digital Economy Working Group has put particular emphasis on digital public infrastructure, supported by UNDP, as a critical enabler of inclusive digital economies.

Retaining value from global platforms is a governance challenge, especially for LMICs. Platformisation can transform economies, but these changes and the opportunity to capture value are largely outside the control of global south governments. For example, India's e-commerce sector, estimated at a modest $38bn in 2017 but projected to grow up to $200bn by 2027[lxxxi], was dominated by Amazon and Indian start-up Flipkart. Struggling to compete, Walmart paid $16bn for a majority stake in Flipkart, making this the world's largest ever e-commerce acquisition[lxxxii]. India's e-commerce sector is now dominated by two foreign e-commerce companies, further consolidating value extraction and challenging the Indian government's capacity to exercise control over the value of widespread digital transformation. In other words, in the global "data value chain", many countries may find themselves in positions where value and data are concentrated in a few global platforms and other leading multi-national enterprises (MNEs)."[lxxxiii]

Exercising sovereignty over digital transformation requires governance over the technologies involved – especially in the case of digital public infrastructure, such as digital cash. Several LMICs have sought to drive the digitalisation of cash to advance digital transformation but find that the form of digital cash has implications for national sovereignty. For example, the Nigerian government has been one of the continent's leaders in efforts around digital money. It was initially permissive of cryptocurrencies – in 2022, Nigeria was ranked number 1 for overall cryptocurrency adoption in Africa.[lxxxiv] However, the state's concerns around its inability to exercise authority over the technology led the government to initially ban and then, in 2023, explore regulating cryptocurrency[lxxxv]. In 2021 the government launched the e-Naira as the country's central bank-controlled digital currency, with the goal of strengthening economic growth, financial inclusion, and revenue collection[lxxxvi].

Governance arrangements mindful of emerging and future technologies are required to protect rights and ensure an equitable distribution of value. This is particularly the case in relation to generative artificial intelligence, which promises increased efficiency and value creation. Goldman Sachs research suggests generative AI could lead to a 7% increase in global GDP, equivalent to

almost $7 trillion in economic value[lxxxvii] - in part through the automation of many tasks and processes. However, there are already reports of generative AI technologies taking the jobs of video game illustrators' jobs in China[lxxxviii] and Kenyans who write essays for U.S. college students[lxxxix]. Thoughtful governance at the international and national levels, including issues of taxation and labour rights, is required to ensure that the huge potential of these emerging technologies is evenly distributed and does not simply hollow out already precarious labour markets.

Without appropriate governance arrangements, the digital transformation of labour will amplify existing patterns of inequity and discrimination. Widespread digitalisation has changed the structure of the labour market to introduce new opportunities, but there are also widening inequalities across countries, sectors and workers. [xc] Moreover, the risks of exclusion and harm are highest for those who are already excluded, discriminated and profiled in non-digital spaces. There have been extensive efforts to counter these challenges, from policies around quality of work, health and safety to skills training for particularly at-risk groups such as women, young people and marginalised social groups. A growing number of countries have introduced specific regulations around platform work to bring this new category and form of employment under existing employment law,[xci] but regulatory gaps such as in cross-border remote working, workers' rights and collective bargaining[xcii] remain. There is an urgent need for governments and authorities to strengthen the regulation of digital technologies to protect workers' rights and equity. UNDP's efforts to support the future of work emphasise the importance of action by national, local and private sector actors to close gender gaps and to improve the quality of jobs and working lives of men and women[xciii].

AI and automation technologies may threaten widespread 'white collar' employment and the 'business process outsourcing' industry. The industry of outsourcing core elements of business processing – from administration to call centres and customer support is a huge industry, projected to reach a market of $215.96 billion by 2026[xciv], and there are suggestions that generative AI will have a significant impact in helping companies redesign corporate process[xcv]. And in addition to the early examples of relatively niche and individually driven 'outsourcing' multi-national technology companies are also indicating they plan to reduce hiring for jobs that can be done by AI[xcvi]. The World Economic Forum and Goldman Sachs predict between 83 to 300 AI-related job losses[xcvii][xcviii] - though the WEF report also cautions that, to date, actual automation has fallen short of predictions. While private sector and industry representatives such as WEF argue that governments and businesses should invest in 'education, reskilling and social support structures' to support individuals, governments should also consider their role as regulators and governors of both economies and labour markets.

Digital transformation places increasing pressure on the capacity of the state to exercise authority over the digital economy, challenging the sovereignty and, thus, legitimacy of the state. The current trend towards widening inequalities and power imbalances[xcix] requires the adaptation of existing policies and regulations, and the establishment of new ones. Alone, states will continue to struggle to enforce national laws and regulations over cross-border trade in digital services and products – collective, multilateral action is required. These efforts should also include exploring new pathways for local value creation and capture, and further structural transformation through digitalisation."[c]

Case Study India: digitalisation, employment, platforms and the youth gender divide

India has undertaken one of the largest programmes of digital transformation, with extensive digitalisation across both state administration, services as well as both the broad economy and social life. Connectivity is a big part of this, and for example, the Digital India programme aims to get the entire country online, and enable digital banking, governance, education, and healthcare services. Analysts predict that this could boost India's GDP by US$1 trillion by 2025 while creating opportunities for marginalised people in rural communities. However, these opportunities are unevenly spread, particularly amongst women and minorities. As the UN Secretary General stated, centuries of patriarchy, discrimination and harmful stereotypes globally have created a huge gender gap in science and technology across countries and regions. (UN SG Remarks to CSW, March 2023)

Despite India's rapid economic growth, women's economic empowerment continues to lag. Before the onset of the COVID-19 pandemic, fewer than one in four women in India was estimated to participate in the labour force compared to more than three in four men. This stark gap was already amongst the highest in the world – and the impact of COVID-19 has only widened it further. In India, one study estimated that women were twice as likely as men to lose jobs and were far less likely to regain employment. At the same time, the pandemic has also seen an increase in the number of women seeking platform employment. In a roundtable organised by UNDP India that convened government, technology and civil society representatives, Natasha Jog, Head of Public Policy, Instagram India, stated that more than 60% of the women-led business accounts on Instagram and more than 50% of those on Facebook were registered post-pandemic.

The challenges faced by women are particularly the case for platform-based employment, which relies on access to digital technologies like smartphones and the internet – and where India faces challenges as women are less likely to own mobile devices, and to have access controlled by male household members. India's Fifth National Family Health Survey released in December 2020 reveals that only 43 percent of women have ever used the internet, and for rural women that figure drops to just 34 percent. Ms. Jog cited other research findings that suggested women are 15% less likely to own a phone while 33% are less likely to use the internet in India.

In the UNDP-convened roundtable, there was consensus around the need for greater female participation in policymaking to ensure that policies and programmes are more gender-responsive and accountable. Describing some of the efforts that have had an impact on addressing the barriers to women's access to and participation in the digital economy, Ms. Sona Mitra, Principal Economist, Initiative for What Works to Advance Women and Girls in the Economy (IWWAGE), described how training women to have greater confidence in accessing government services, particularly by focusing on efforts to reduce inhibitions around using the internet, and increasing access to government services, are interventions that can help reduce the gender digital divide.

Government has an important role to play, for example, in regulation to address the high levels of abusive content that many women experience online. In February 2021, the Government of India introduced new laws on internet freedom. Commonly known as the Information Technology Rules, the new regime targets social media companies, with the government careful to couch the laws as a means of protecting Indian citizens, especially women, over privacy fears and making platforms accountable for harmful content and fake news – though these have also been criticised for misuse around censorship. Governments also have an important role to play in the broader transformation of economic opportunity – beyond gig work that exploits women's domestic position to upholding or introducing legislation that guarantees international standards around labour rights, to increase women's access to meaningful, independent work. In the roundtable, Mr. Osama Manzar, CEO, Digital Empowerment

Foundation, highlighted the importance of designing policies with a feminist perspective to empower women and bridge the gender gap.

For UNDP, a key priority is expanding economic opportunities for underprivileged and marginalised women, including by investing in skilling programmes that increase digital literacy and familiarity with technological tools and platforms. Examples of this type of support include supporting a group of women entrepreneurs from Haryana to list their bangle-making business on Facebook, helping them to vastly expand their market, recover losses they incurred as a result of COVID-19, and increase their earnings by nearly 60 percent during the festive season. Ensuring that digital transformation addresses gender inequity and better distributes the digital dividend requires intentional efforts to counter longstanding patterns of patriarchy and work towards gender equity. In the roundtable, the participants agreed that women can be agents of change at the community level to ensure gender-inclusive implementation of policies, but that this has to be complemented with more women in the decision-making or policy-making ecosystem to ensure that policies themselves are gender inclusive.

Conclusions

There is increasing attention to the governance of digitalisation, but more needs to be done. **At the international level, the 'Global South' is currently excluded from many of the formative processes** that produce governance regimes that directly affect their politics, economy and rights. National sovereignty over regulatory regimes, taxation and the public sphere is critical if a multilateralism of equal parties is to be achieved.

At the national and sub-national level, authorities often have limited capacity to engage with, understand and manage the implications of how digital platforms are transforming the labour markets, as well as what is required to ensure that this transformation is rights-based, equitable and inclusive.

Digital technologies, especially decentralised, cryptographic and AI-based ones, present challenges to national sovereignty and governance. For example, cryptocurrencies present a threat to the sovereignty of the state, and its ability to exercise authority over the collection of revenue and value, while the rise of Central Bank Digital Currencies (CDBDCs) introduces new vectors of state control and surveillance over users of the currency. AI technologies present opportunities and challenges for labour markets.

The digital transformation of labour markets challenges governments' capacity to exercise authority over an increasingly significant site of employment. The legitimacy and public authority of the state may be challenged if it is perceived to be unable to exercise authority over the quality of work and employment, also ensuring that the internet is an inclusive space, especially for women. There are increasing examples of states regulating employment on digital platforms, but more needs to be done, especially to govern the impact of AI on labour markets.

Recommendations

Support governments in establishing inclusive, rights-protecting regulatory and governance mechanisms over digital platforms. It is critical to ensure that states can protect people and their rights in the digital realm, and increase their access to and participation in the economy. This is particularly important in the context of protecting women and increasing their participation in the digital

economy. Policymaking should proactively target existing patterns of exclusion to ensure that the outcomes of digital transformation are inclusive and rights-protecting, particularly in relation to trends around the exclusion of women and marginalised communities.

Support governments to establish governance and regulatory regimes over both central and decentralised digital currencies, and in ways that protect state sovereignty, individual autonomy, and privacy. This should include proactively sharing the research conclusions from many existing trials and pilots currently underway, with supporting analysis to explore the implications of their findings in the context of LMICS, for example, around identified governance and institutional dependencies.

Support governments to assess the implications of emerging technologies such as AI, and potential governance responses. Governments can best capture the potential and value of emerging technologies such as AI with support to assess the opportunities, and identify entry points. At the same time, countries need support to identify governance and regulatory responses to ensure they capture value and mitigate risk. A global 'trust team' of independent experts could provide countries with insights to develop plans and strategies to maximise opportunity whilst also mitigating potential risk.

Strengthen civil society's capacity to engage with digital economy regulatory and policy mechanisms. This should include both technical knowledge and advocacy capacity to ensure public interests, needs and rights are reflected in policy development processes and governance mechanisms. For coalition building and engagement, specific examples include initiatives such as people's assemblies and other processes of deliberative democracy.

Establish and strengthen multilateral efforts to more effectively democratise the benefits of digital. Although multilateralism faces challenges amid growing fragmentation, there is a great need for coordinated, collective action to ensure a more equitable distribution of opportunity and value.

2. Digitalisation of governance – governing through digital

The digitalisation of governance describes how digital technologies are used to support and transform existing administration, services, political processes and other governance functions and arrangements. COVID-19 has accelerated interest and progress in the use of digital tools to deliver services, and increased attention to the digital infrastructure on which so much of government, economy and society runs.

The digitalisation of services can strengthen governance outcomes through increased transparency, auditability and oversight. The digitalisation of core service elements such as case management, welfare distribution and data management can enable governance outcomes that promote increased understanding and engagement with government services, data and delivery.

The digitalisation of governance services can transform participation and increase civic engagement. In addition to the efficiency and response benefits of service delivery transformation, digital technologies introduce new opportunities for consultation and participation in policy processes and service delivery. But the transformation of services also introduces risks of surveillance and discrimination through both intentional misuse and biases in technology design.

Platforms change everything, introducing new opportunities and challenges for both services and democratic processes. Digital platforms increasingly become the means through which individuals access information, including news. Platforms enable new ways to access information and democratise public discourse, while the decline of independent mass media challenges critical infrastructure for accountability and democratic processes[ci].

Algorithms and AI introduce new opportunities for innovation but present challenges to accountability and transparency. In 2023 there were over 230 identified use cases of AI in the public sector in the EU's 27 countries as well as the UK, Switzerland and Norway[cii]. AI is predicted to free up nearly one-third of public servants' time, allowing them to shift from mundane tasks to high-value work, as well as design better policies and improve the speed and quality of public services[ciii]. Algorithms and AI enable step-change progress in data analysis and enable scientific innovation in areas such as public health, but also novel harms, particularly the amplification of bias through the design of algorithms and the selection of training data. These present opportunities and challenges to governance *through* AI and algorithms and governance *of* Al and algorithms.

2.1. Digitalisation of administration and service delivery

Digital transformation of service delivery is well underway. The number of LMICs with high levels of e-government has increased by 57 percent since 2018[civ]. The most common digital services offered are registering a new business, applying for a business licence, applying for a birth certificate, and paying for public utilities.[cv] Services such as these increasingly free up people's time to pursue livelihood opportunities and make people's lives easier. New technologies such as AI, biometrics and alternative targeting data for service provision are enabling the digitalisation of government functions and services to deliver efficiencies in economic activity and interaction with the state.

The digitalisation of services can strengthen governance outcomes through increased transparency, auditability and oversight. The digitalisation of anti-corruption services such as case management, welfare distribution and data management can enable governance outcomes that promote increased understanding and engagement with government services, data and delivery. Initiatives such as GovTech, GovStack, and the Open Government Partnership all advocate for various forms of digitalisation and openness of government services and data. There is extensive evidence suggesting this strengthens governance outcomes. For example, research on open government data shows that increased accountability efforts, open government data and public management capacity can impact health provision and outcomes[cvi]. In the Maldives, UNDP[cvii] has supported the judicial sector with hardware and software to facilitate virtual court hearings allowing for the continuation of court hearings during the covid 19 pandemic. This central repository makes all national laws and regulations easily accessible to the public, setting an example for inclusive digital transformation.

Digital public infrastructure (DPI) and digital public goods (DPGs) are emerging as important ways of ensuring digital technologies deliver public value. Many e-government solutions are proprietary, locking governments into contracts with a single supplier, limiting flexibility and the adaption of core technologies to meet local needs. Countries with systems that are interoperable – where digital payments, identity verification and data exchange systems function as a well integrated network – are better equipped to meet people's needs and meaningfully accelerate action towards the Sustainable Development Goals (SDGs). For example, in responding to COVID-19, India's COVID-19 Vaccine Intelligence Network (CoWIN) enabled 1.3 billion vaccinations across 327,000 locations. CoWIN, built on a UNDP-supported Electronic Vaccine Intelligence Network (eVIN), is a cloud-based system that facilitates registration, immunisations and appointments, and issues digital vaccine certificates.[cviii][cix] The success of these DPGs in other countries provided experiential learnings that facilitated their effective adoption.

Digital Public Infrastructure – like all digital technologies – require appropriate governance frameworks to safeguard rights and mitigate against harm. Technologies are neither good, nor bad – but never neutral, and require effective governance to ensure that they contribute to development outcomes. UNDP is supporting bodies such as the African Continental Free Trade Area (AfCFTA) Secretariat[cx] to create Africa-led common standards and principles to enable safe and secure data exchanges and payments, as well as the development of safeguarding standards to govern digital public infrastructure. The Office of the Special Envoy on Technology and UNDP are also advancing efforts to establish a DPI Safeguards initiative. This will complement existing efforts to advance digital public

infrastructure while addressing a gap in their governance and safeguarding dimension, without which the safety, inclusivity, and sustainability of DPI will continue to be at risk.

Successful digitalisation and e-governance efforts depend on wider ecosystem engagement. A review of evaluations of UNDP support to e-governance[cxi], emphasises the importance of wider institutional reform, where the introduction of technology and capacity is accompanied by updated regulations and changes in the work culture. Strengthening local capacity and state-citizen interfaces, for example, in the form of one-stop shops that combine digital technology with a human/physical interface, can reduce time and costs and reinforce localised public service delivery in remote areas. In Bangladesh, the UNDP-supported 'Aspire2Innovate' (A2I) programme has enabled a whole of government digital innovation transformation that now reaches over five thousand rural and urban local government institutions[cxii] - and has led to the development of two digital public goods, ekShop, an e-commerce marketplace, and NISE3, an online digital skills platform[cxiii]. The key to success is the broader context of reform - in terms of changes in regulations, work culture and political will – as much as any technology.

Digitalisation can enable consultation and participation – but success requires listening. Public participation is a key dimension of e-government, and critical to ensuring digital transformation supports the SDGs[cxiv]. The digitalisation of governance has increased the potential for consultation and participation, but only meaningfully impact service design and delivery if decision-makers respond. A UN survey of e-government initiatives notes that the main barriers to formal online participation include the reluctance of public institutions to share agenda-setting and decision-making power, which leads to people failing to see the value of online participation, among other factors[cxv]. UNDP's Digital Readiness Assessment adopts a participatory approach that emphasises the participation of the private sector, civil society and the public. In Dominica, the government adopted a whole of society approach in its engagement, leading to a co-developed Inclusive Digital Strategy.[cxvi] The transformation of participation is more than a technological process – it requires fundamental change in the power relations between decision-makers and the public.

Can digital transformation restructure governance arrangements?

In a UNDP-convened global consultation, a UNDP resident representative from Latin America reported a view that central government digital service delivery had strengthened the relationship between individuals and national authorities, but at the expense of their connection with local government. Instead, they turned locally to more traditional forms of authority, such as the church. Direct service provision such as cash transfers and interactive services bring the central state close to the people but may also disintermediate local governance and institutions. So digital transformation can have unpredictable consequences for the shape of governance.

Digitalisation of government services also impacts the shape of governance by increasing the visibility and influence of private sector actors. Private actors play an increased role through their provision of digital public infrastructure for service delivery and the public sphere (for example, the provision of mobile payment platforms for public welfare and social platforms that enable the public sphere). The digitalisation of government services also increases private sector actors' capacity to influence government policy and spending - public procurement is one of the government activities most vulnerable to corruption[cxvii]. Private platform companies also play an increasingly visible role in determining policy related to as well as the content of the public sphere. This potentially weakens state legitimacy and authority as the public perceives the dominance of private sector actors.

The digitalisation of governance introduces new surveillance risks – and requires rights-protecting technologies. The digital transformation of service delivery also increases the risk of surveillance and data misuse. The data gathered as part of digitalised service delivery – the personal information required to verify eligibility for services, welfare and entitlements – can also be misused if control over the data changes hands. Political change is unpredictable - there have been over 200

attempted coups in Africa since 1950[cxviii] and eight succesfull ones occurring only in West and Central Africa since 2020[cxix]. There is an urgent need to ensure that digital public infrastructure is designed in such a way that ensures the resilience of individual rights, data protection and privacy through strengthening user control and minimising data collection, sharing and tracking – for example, through secure technologies such as 'zero-knowledge proofs' that enable confirmation of status (e.g. age) without sharing data (e.g. date of birth).[cxx]

Emergent technologies such as AI present new risks – including amplifying discrimination. New technologies such as artificial intelligence (AI) and advanced biometrics present benefits but introduce new challenges, including undermining the protection and implementation of human rights. Some of the human rights risks posed by AI systems include the application of facial recognition systems for mass surveillance, algorithmic bias, lack of transparency resulting in lack of fairness, lack of privacy and data misuse. Reviewing digital systems in welfare provision, the UN Special Rapporteur on extreme poverty and human rights notes 'the grave risk of stumbling, zombie-like, into a digital welfare dystopia[cxxi]. Automated decision-making and processing enabled by AI introduce new risks, particularly around the amplification of discrimination and challenges to remediability. For example, the Dutch government's AI-driven welfare fraud detection system System Risico Indicatie (SyRI), was found by a Dutch court to have algorithmic risk models that targeted low-income and minority-background neighbourhoods[cxxii].

Addressing these emergent risks requires an engaged and digitally literate civil society – in the case of SyRI, it was only extensive civil society activism that brought the case to the courts, where it was found unlawful because it did not comply with the right to privacy under the European Convention of Human Rights.

Laws and regulations require updating to correctly address technological risk. The frameworks of international human rights law and data protection are important mechanisms in governing digital systems and technologies, but there is increasing concern they are inadequate to the particular risks introduced by specific technological designs. For example, legal and data protection frameworks are commonly oriented towards individual rights, yet many emerging technologies used in public service provision collect data that refers to groups and communities.[cxxiii] While these concerns are attracting growing attention from privacy scholars[cxxiv] and even from bodies such as the European Data Protection Supervisor (EDPS)[cxxv], most legal and regulatory frameworks lag behind. There is an urgent need for updated governance frameworks that can meet the challenge of new technologies and systems, especially in LMICs where regulatory capacity is often weak, and there is limited public understanding of the harms that can arise from digital technologies.

Case study Pakistan: marginalised voices for AI-driven policy development

In Pakistan, UNDP has partnered with Citibeats, a company which uses AI and cutting-edge technology to transform ethically sourced public opinions into real-time, data-driven actionable insights, to inform government policy and UNDP research. The objective is to overcome barriers and ensure that marginalised voices can more easily inform policy development.

AI-driven data analysis: Citibeats collects data daily from online conversations in publicly available sources, including Twitter, Facebook public pages, online forums, news comments, and blogs – as well as weekly citizen surveys. Once the data is collected, it is categorised into defined categories. The definition of categories is critical to the rigor of the analysis, ensuring the link between individual anecdotes and broader trends and issues, so in this case, the categories have been defined through a bottom-up analysis of the data and validated by subject-matter experts. Data is then categorised automatically, with human quality controls. This is achieved through semi-supervised machine learning – which means that from initial human-inputted examples defining a category, the system learns and infers which opinions belong to that category according to their context, but this categorisation is subject to human review to

ensure quality control. The categorisation system learns and infers in each local context (in this case, in each country) to adapt to terminology and references made in each country, accounting for differences in language use and social context.

As of January 2023, UNDP Pakistan and Citibeats had collected 2.22 million opinions from 206.190 individual Pakistani citizens.

Lessons learned: The value of this kind of data collection and analysis is the scale and speed - especially in situations where undertaking surveys is difficult and where deployment time is critical, as surveys can take a lot of time.
The challenges include biases in the data collection (who has access to digital platforms, can be reached by surveys), and in the categorisation (the challenge of linking statements to policy issues) and finally this kind of data is perception based. In Pakistan, this risk was mitigated by validating the digital listening data with other perception-based data – specifically drawing on urban resilience data from household surveys.

Conclusion

The digitalisation of government administration and services presents some of the most immediate and apparent benefits of digital transformation. The increased efficiency, direct access and broader inclusion all promise to strengthen the relationship between people and the state. But the digitalisation of government services is also a site of significant change and risk.

The digital transformation of administration and service delivery may have unpredictable implications for the shape of governance. While increased efficiencies, targeting and access strengthen the delivery services and can enable more functional governance, there are also risks. These may include implications for the relationship between people and central and local governments. **Digitalisation can exacerbate exclusion**, as the turn to digital introduces access dependencies, particularly around device, data and literacy. In addition to the barriers of access, digital divides have impacts on development outcomes – for example, evidence suggests that pre-existing digital divides have widened gaps in children's education access and quality[cxxvi].

The governance implications of technologically enabled participation are determined most by the presence or absence of the political will to listen, rather than specific characteristics of any technology or innovation. Participation can strengthen civic engagement, but when it does not lead to impact, it can fuel apathy and disengagement: this is important for governance-driven democracy (government consulting citizens) and democracy-driven governance (citizen-led activism). In other words, technology tends to be an amplifier of the politics of the status quo.

Political will is central to safe, inclusive transformation – especially for participation to translate to meaningful inclusion and engagement. This requires working with the grain of political will, and identifying partners and champions for reform, particularly around inclusion. Entry points can be identifying political champions with sufficient political capital to advocate reform. In all contexts, there is a need to ensure that the process and strategies of digital transformation include not just the deployment and application of new technologies but also the strengthening of capacities to govern the path of transformation so that human rights are upheld and protected.

Crisis presents entry points for transformation: The COVID-19 crisis has forced governments to listen and respond to public demand. In a global consultation, a UNDP resident representative described how government responses to the pandemic-related economic crisis presented an entry point to talk about wider digital transformation: 'there are opportunities now because the government knows that

recovering from the economic crisis is not easy and they wanted to basically bring other persons together and wanted to listen, so what we are also seeing that government is more open to listening'.

Recommendations

Digital transformation efforts should be intentional , building and strengthening digital ecosystems that are empowering and that leave no one behind[cxxvii]. These efforts should adopt a whole-of-society approach and work with local leaders, companies, and digital innovators to develop thriving local digital ecosystems built on inclusivity, sustainability, accountability, and rights.

Digital transformation efforts should also be seen as entry points for wider engagement on broader issues. The interest in digital transformation can be an opportunity to explore wider opportunities around development, inclusion and human rights – to achieve inclusive digitalisation based on human rights.

Support to government-led consultation efforts should be predicated on and support institutionalising policy responses to consultation outcomes, to avoid consultation fatigue. **Efforts to strengthen participation should work with champions able to mobilise political will for reform and change**, building on and strengthening actors and institutions interested in listening, as well as supporting and enabling government and civil society to develop and use systems that help strengthen their voices.

Digital transformation efforts should include support to technology procurement – especially access to and use of either open-source or free-to-use technologies. Efforts should include making procurement 'smarter' – integrating human rights considerations, prioritising digital public infrastructure and digital public goods. International development actors could explore how to negotiate and broker collective procurement for multiple countries and partners.

Digital transformation strategies should include plans for human rights impact assessments of digital technologies, including algorithms and AI. Impact assessments should be mandated in transformation efforts, and procurement guidelines should indicate human rights impact assessment as a necessary condition before finalising contracting.

2.2. Digitalisation of the public sphere

The public sphere[cxxviii] is a public good, a critical component of inclusive, engaged and participatory politics. The digital transformation of the public sphere has implications for the future of governance and democratic, rights-based political processes. The Organisation for Economic Co-operation and Development outlines four possible scenarios for civic space in the digital era: a collapse due to ever-growing restriction, flourishing within a human rights-based regulatory framework, transformation into a space of direct democracy and splintering into microspaces with varying levels of openness and inclusion. However, these are just some of the plausible futures that could be imagined.[cxxix]

The digitalisation of the public sphere presents opportunities for governments to adapt and engage with citizens. The digital transformation of the public sphere introduces new opportunities to strengthen the state–citizen interface, for example, through enabling civic participation in policy-making and governance as well as strengthening the accountability of the state[cxxx]. There are a growing number of examples – in Panama, the government established the Agora platform to facilitate citizen inputs into the country's development vision,[cxxxi] while in Brazil, the Chamber of Deputies of the National Congress established Wikilegis as a platform to enable the collaborative editing of legislative texts. [cxxxii] Digital technologies can transform engagement, but the digital divide means reliance on digital-only engagement can further entrench division and exclusion.

Digital platforms can enable new forms of civic activism – but institutions still matter. Since the rapid increase in internet and platform access, there have been more and larger organised protests and civic activism – from the Arab Spring, 'Colour' Revolutions, and Occupy movement to flash mobs protesting local government corruption in China[cxxxiii][cxxxiv]. This prompts claims that digital technologies enable new forms of 'connective' activism that replace traditional 'collective' action.[cxxxv] However, these movements' limited durability has been explained by the very ease of communication[cxxxvi] - while platforms enable rapid connection and protest, resilient change depends on the slow process of building institutions and strategies. In Peru, 'Redpublica', a successful civic engagement platform, has now turned its attention to identifying entry points for civic voice to be heard and achieve lasting change. The visibility of activism afforded by these platforms also creates a vulnerability – as governments and authorities are able to track planned protests, identify and target activists and make repression more efficient.

Case Study: Tunisia – Contributing to Trust in Public Institutions

In Tunisia, the dual issues that were identified and addressed through the Tech for Democracy pilot initiative were (i) the need to strengthen trust, especially by young persons, in public institutions and (ii) the need to identify and promote youth priorities related to the SDGs. The pilot focused on the application of digital tools to harness relevant data on levels of confidence of the population, especially youth, in public institutions, as well as a digital portal for meaningful engagement.

The effort to strengthen real-time data availability on issues related to youth expectations, governance and trust was based on social media sentiment analysis. The pilot's other key component is a more action-oriented effort to foster youth participation in the elaboration of public policies by allowing young people to express more easily their needs towards public institutions. To that end, the Tunisia pilot engaged national youth in the scoping and designing of tech solutions to broaden civic space. This was done through consultations with youth and youth representative organisations, and through a hackathon.

The hackathon-winning team then benefitted from mentoring sessions to further develop the beta versions of their proposals.

Case Study: Peru – citizen/youth engagement through digital platforms

Redpublica[cxxxvii] was originally envisioned as a digital tool to gather citizen proposals for ways to use technology to reform government and participation. However, as the project advanced, the team identified an opportunity to foster an active community that operated beyond fragmented moments of engagement.

The platform became an important platform for youth engagement through Peru's political crisis, and the founding team identified further opportunities to strengthen the reach and impact of the platform. The following actions were taken to increase the impact of the initiative:

- launch of Redpublica's knowledge hub, "Ojo a Esto":
- strengthened media presence and knowledge generation, leading to more than 30 articles in traditional and digital media.
- strengthened social media engagement, leading to the current ecosystem reaching over 200,000 accounts a month, fuelled by collaboration with top national influencers.
- strengthened actor mapping and partnership building. As a result, 92 institutions formalised partnerships with Redpublica.

The Redpublica team is now focused on identifying pathways to impact, exploring entry points in political parties, institutions and communities to ensure that the voices highlighted through Redpublica influence policy and decision-making.

The rise of platform communication is correlated with a decline of traditional media – increasing access but widening division – for example, between generations, urban-rural populations and social class. Platforms are replacing traditional media – the "duopoly" internet platforms, Google and Meta, capture more than half of digital advertising spending[cxxxviii] and 39% of *social natives* (18–24-year-olds who largely grew up in the world of the social, participatory web) now use social media as their main source of news.[cxxxix] A study by the Youth Voices initiative found most saw new media 'providing access to discursive and informational space previously occupied by smaller civil society and traditional media'.[cxl] Moreover, the benefits of these technologies are often not maximised, due to differing levels of access and engagement. For example, a UNDP study of young people's views on digital engagement in the European and Central Asian region[cxli] identified an intergenerational gap in the digital sphere between young civic actors and decision-makers who are less active in the digital realm. The transformation of the public sphere also leads to geographic division, with the increasing isolation of those without online access as social movements, information sharing and community engagement is increasingly online. The outcomes of this are the exclusion of particular voices from civic and political engagement. Indeed, one study of social class and online participation in the US concludes that the digital tendency is for elite, hierarchical and conservative groups to dominate online activism spaces[cxlii].

The 'passive' impact of platform features and design shapes the public sphere. The many elements of platforms that determine people's experience in communication and access to information – from product design, recommendation systems, content policies, ad services and market incentives – shape the outcome of an increasingly digital public sphere. For example, the use of algorithms in social media can influence attitudes through selective content exposure and people's decreased exposure to counter-attitudinal news can further polarise views.[cxliii] Political polarisation also reduces generalised trust and divides society into "us" and "them." It entrenches opinions, undermines public deliberation and may even reach toxic levels, with detrimental effects on democratic freedoms, human rights and peace[cxliv].

Responses to political polarisation and to mis- and disinformation often focus on countering the information itself – fact-checking the information. While there are emerging efforts to regulate content moderation,[cxlv] including in the global south[cxlvi] companies have limited capacity and/or incentive to adjust algorithms and address content issues in specific countries or geographies. In recognition of the systemic and structural dimensions that shape the technological architecture of the public sphere, UNDP has convened an Action Coalition to address these challenges, urging greater attention to pre-emptive and longer-term interventions, effective convening and partnerships and deeper engagement with technology companies**.** UNDP has also developed iVerify, an automated fact-checking tool that, as part of a suite of interventions, can be used to identify false information and prevent and mitigate its spread[cxlvii].

The 'active exploitation' of online platforms can challenge a healthy, inclusive public sphere. Social media and online platforms have embedded vulnerabilities that are exploited in pursuit of influence and manipulation. Systemic features such as limited content moderation enable malicious actors to influence the process and results of elections and political processes around the world. This is not just domestic political competition between parties – the global nature of platforms means this is an entry point for external actors to influence and manipulate sovereign political processes. There are a growing number of companies that claim to have influenced elections through various forms of mis- and disinformation efforts, both directly targeting elections[cxlviii].

AI technologies challenge the integrity of the public sphere. AI technologies are increasingly powerful because of their ability to observe and analyse large amounts of information and communication, detect patterns, and enable the generation of 'fake' content. AI technologies increase the potential for manipulation of public discourse – for example, through increasingly effective structuring and delivery of personalised content. AI technologies also enable the influencing of political processes such as legislation and elections – from the use of generative AI such as ChatGPT to automate lobbying submissions[cxlix] to the creation of 'deep fake' content such as audio and video of political figures. These are already happening – examples include a fake video of Ukrainian President Zelensky urging surrender[cl], an anti-President Biden attack ad created using AI[cli], and AI-manipulated videos of Indian Bharatiya Janata Party (BJP) President Manoj Tiwari in the 2020 Legislative Assembly elections that reached around 15 million people[clii]. The use of AI to create 'fake' content has the potential to threaten the foundation of shared facts and truth on which a healthy public sphere depends.

Conclusion

The digitalisation of the public sphere is a significant structural transformation with implications for the form and nature of the 'public' that emerges through digitally mediated engagement and interaction. Simultaneously more global, inclusive and accessible but also divided, exclusive and fragile, the digital public sphere demands mindful, intentional engagement to ensure a civic society that upholds rights, is safe and inclusive.

The digital public sphere presents new opportunities for government to nurture bottom-up civic participation, but this transformation also introduces new risks and vulnerabilities to building inclusive, rights-based political processes. The digital transformation of the public sphere is an opportunity for governments to engage with people and enables new forms of civic activism. However, this structural transformation of the public sphere also introduces new challenges, increasing access but also widening division and patterns of inequality along gender, class, and geographies.

The characteristics of the technologies that enable the public sphere make it vulnerable to both passive and active harms. The elements of product design, recommendation systems, content

policies and ad services, together with limited content moderation, can divide communities and make them vulnerable to efforts to manipulate and influence them. But political division and vulnerability to manipulation are not a function of technology alone.

The wider context of an intersectional polycrisis creates an enabling environment for technologies that erode and weaken a healthy, inclusive and open public sphere. For example, a number of studies show how uncertainty and fear make people more vulnerable to misinformation. In the uncertain aftermath of a shock, such as a financial crisis, support for political extremes increases. As our age of polycrises continues – with ongoing environmental crises presenting existential risk, economic crises and declines in wellbeing – so people's anxiety and vulnerability to informational exploitation will remain. It is important to recognise these underlying drivers and engage with them as much as their manifestations in the informational and public sphere.

The public sphere is a public good, and the shape of the infrastructure that enables it is key to realising rights, advancing inclusion and strengthening political processes. The design of the digital infrastructure of the public sphere has implications for how we collectively govern power and politics, that can either drive polarisation and political division or contribute to an inclusive, rights-protecting public sphere. It is vital that we recognise the role that digital technologies that enable the public sphere play as critical public infrastructure. This emphasises the importance of these technologies in supporting the realisation of human rights and inclusive and participatory political processes.

Recommendations

Support governments to strengthen engagement through the digital public sphere. Support to governments' digital transformation and strategy efforts should include encouragement of the use of digital technologies to support public engagement: this should include recommendations for effective online engagement as well as strategies to avoid marginalisation of those excluded from online participation.

Support to civic efforts to use and develop digital public sphere technologies should also include guidance to develop theories of change and strategies to avoid technological dependency and to identify sustainable pathways to impact. This should include, for example, linking online engagement to key decisionmakers.

Efforts to support civic engagement through the digital public sphere should be mindful of divisions and exclusion – both the amplification of digital divides amplified by a digital-only approach to engagement, and divisions enabled by features of the technology. For example, this could mean ensuring a human rights impact assessment of technology procurement and selection, and human rights impact assessments of technology design efforts.

Develop governance of digital public sphere technologies to safeguard public interest and public value. There is an urgent need to develop governance efforts that can ensure that digital technologies that enable the public sphere uphold rights, inclusion and public interest. This is particularly the case for AI and algorithms, where many countries lack regulatory and audit capacity. There is a critical need for model governance frameworks, audit and impact assessment tools to support LMICs in exercising sovereignty over the digital technologies that constitute their public spheres.

Consider the digital infrastructure of the public sphere as 'digital public infrastructure'. Support to the development of digital public infrastructure should extend to governance and 'civic space

infrastructure'. Investments in digital public infrastructure should extend to developing infrastructure that enables civic space to function in the public interest. For example, this could include *publicly-owned and operated platforms and public funding for content governance and moderation*[cliii]**.** The infrastructure required to enable open and free debate, public interest media and content and exposure to diverse views and perspectives are critical to healthy, inclusive societies. In collaboration with UNDP, the G20's Indian Presidency has unveiled two key resources on DPI aimed at facilitating the rapid, large-scale, and inclusive digital transformation of countries. The DPI SDG Compendium offers a comprehensive overview of how DPI can impact and benefit all 17 SDGs[cliv]. Meanwhile, the DPI Playbook serves as a hands-on guide for countries looking to establish their own inclusive and rights-based digital public infrastructure[clv].

3. Conclusion

The digitalisation of governance has created a divide in the governance of digitalisation – at global and national levels. As the divide between the digital capacities of global north and global south government and civil society actors grow, so too does the ability to meaningfully exert authority over digital transformation. This governance divide fuels the fragmentation of multilateral efforts to govern our digital world, and limits efforts to assert sovereignty and the national public interest over global digital technologies.

At the international level, there are governance divides between powerful actors such as the US, EU and China and LMICs in the governance of digital technologies. The governance regimes developed by these powerful blocs have huge implications for LMICs, yet they are commonly excluded from their development and formulation – and lack capacity to engage even if there are opportunities. There is an urgent need to balance this divide by strengthening the digital governance capacity of LMICs, as well as a need to further strengthen and reform multilateral approaches to the governance of digital technologies. That this need emerges in the context of a fragmenting multilateralism should be seized as an opportunity to both address the governance divide and to shore up confidence and commitment to multilateralism more generally.

At the national level, there are governance divides between states and private companies, and between states and civil society. Many LMICs lack capacity to exercise authority over digital technologies, and civil society lacks capacity to participate in the governance of digital technologies and transformation. For states, there is an urgent need for support to develop knowledge and capacity to develop governance frameworks – laws, regulation, policy and institutional arrangements – that can effectively govern digital technologies so that they serve the public interest, uphold rights and are inclusive. This is particularly important in the area of human rights, where there are debates about whether to introduce new laws or reform existing laws and legal instruments to reflect needs of individuals in a digital world, noting that the UN Human Rights Council and the General Assembly confirmed that "the same rights that people have offline must also be protected online."[clvi]

The governance divide between civil society and states is both technical and strategic. While there are some instances where civil society actors are successfully informing policy[clvii] – many are struggling. Many civil society actors lack technical understanding of the technologies on which they seek to influence state decision-making – particularly in relation to algorithms and AI. There is also a divide in terms of strategy and impact. There is great potential to strengthen peer learning to enable those struggling to learn from those who are succeeding. Many civil society efforts to use platforms to profile civic voice and build coalitions focus on technology and visibility first, without sufficient support to develop pathways to translate the movement to effective governance. There is an urgent need to support the capacity of civil society to engage on a level playing field in terms of technical understanding and to mobilise strategically.

Reframing governance – understanding authority beyond the state. A significant implication of emerging digital technologies is the introduction of new actors in the fields of authority traditionally dominated by the state, and the erosion of the state authority over the provision of key public goods. The introduction of new actors into the practice and delivery of governance – from the delivery of services to the provision of the public sphere – challenges the sovereignty of states over the digital architecture of the state, economy and society.

The implications of new actors, and the emergence of technologies such as AI, decentralised currencies and autonomous organisations have a huge impact on trust – particularly for the state and for the public sphere. The implications of this are still emergent, but this may translate into public opinion and political support for actors who claim simplistic solutions to the challenges of holding technology vendors accountable, regulating platform and gig work and rebuilding the public sphere. Efforts to strengthen the legitimacy of accountable, rights-based political processes need a better understanding of the role of digital in the transformation of public authority in the digital age.

The promise of digital is people, not technology. The digital transformation of government, the economy and society is well underway. The promise of digitalisation and the application of new technologies is one of progress and prosperity - but only if people can exercise authority to shape this transformation. Technologies are never neutral, so people-centred governance of technology is critical to mitigate the risk of harm and shape a digital transformation that serves the public interest.

Endnotes

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[xv] https://www.codevelop.fund/

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of developing countries in international discussions on taxation of the digital economy, including strengthening the United Nations Committee of Experts on International Cooperation in Tax Matters."

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