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# Key Issues in Digitalisation and Governance

March 2022

Suggested citation: Roberts, Tony; Hernandez, Kevin; Faith, Becky and Prieto Martín, Pedro (2022) *Key Issues in Digitalisation and Governance*, Bern: SDC Governance Network

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Reviewer feedback was gratefully received from Anriette Esterhuysen of IGF/APC.

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A report for the Governance Network of SDC. Other documents in this series on digitalisation and governance are:

- *Key Issues in Digitalisation and Governance* highlights key opportunities and challenges arising from digitalisation. A shorter Policy Note with the same title summarises its findings.
- *Main Actors in Digitalisation and Governance* makes specific proposals about potential partners which are most aligned with Swiss strengths and strategic priorities.
- *Mapping of SDC's Projects in Digitalisation and Governance* maps out existing SDC projects.
- A Practice Note, *Ways Forward, Assessment Tools and Possible Partners in Digitalisation and Governance*, introduces practical tools to help navigate SDC's support in this field.

# Contents

# Introduction

**Digitalisation is perhaps the most important strategic challenge that governance will face over the coming decade.** The process is delivering digital dividends as well as new exclusions and injustices, with the rapid but uneven increase in access to mobile and internet technologies transforming how social and economic life takes place. This report highlights the key opportunities and challenges arising from digitalisation. A shorter Policy Brief with the same title summarises its findings. A second report titled *Main Actors in Digitalisation and Governance* makes specific proposals about potential partners which are most aligned with Swiss strengths and strategic priorities. A third report, *Mapping of SDC's Projects in Digitalisation and Governance*, maps out existing SDC projects and a fourth document, a Practice Note titled *Ways Forward, Assessment Tools and Possible Partners in Digitalisation and Governance*, introduces practical tools to help navigate SDC's support in this field. *The SDC's Guidance on Governance* and Switzerland's *Digital Foreign Policy Strategy 2021–24* are taken as reference points. Figure 1 illustrates the interest that those in SDC's Governance Network showed with regard to gaining a better understanding of digitalisation at the launch of a network event in January 2021.

**Digitalisation has created a distinctively new mode of governance.** On the one hand, digitalisation and governance can be viewed as incremental change: that is, governance-as-usual using new digital tools and virtual spaces. On the other hand, digitalisation can be viewed as a fundamental paradigm change, ushering in an increasingly automated, algorithmic and artificial intelligence-based mode of governance, which uses digital data as its raw material. It may be that both perspectives are valuable, with a continuum existing between the two. Either way, SDC will need to take a view on which perspective is most useful for assessing and adapting its governance engagement within a rapidly changing operating environment.

**Digitalisation refers to a move from analogue data and technologies to digital alternatives**[1] – for example, newspapers to social media; physical shops to online retail; or physical postal services to email and instant messaging. The digitalisation process in governance has taken/is taking place in four overlapping stages. The first stage saw computers introduced to increase the efficiency of back-office functions such as accounting, word processing and mail, while in the second stage, governments began using citizen-facing websites and portals to enable government-to-citizen information provision, as well as access to digital government services (e-government). The third stage involves opportunities for interactive citizen participation in governance and decision-making (e-governance), and the fourth and final stage is governance of a digitalised world across all aspects of social and economic life. Given the above, some governance mechanisms designed for an analogue world may prove insufficient as digitalisation progresses. Moreover, issues of data sovereignty,

**Figure 1. Interest shown by those in SDC's Governance Network with regard to gaining a better understanding of digitalisation**


Source: Author's own.

1 An analogue signal or data has a variable physical quality, for example a sound wave or writing on a paper ledger. By contrast, a digital signal or data reduces the same information to a binary code made up of digits (1 or 0) that can be computed and transmitted electronically.

mass surveillance, disinformation and shutdowns of online civic space may require new governance approaches.

**Digital governance is governance in a digitalised world.** Governance is defined by SDC as the ways in which core public functions are performed, public goods are produced and distributed, and power is exercised and negotiated by a multitude of governmental/non-governmental actors at multiple levels (SDC 2020). Digital governance can therefore be said to take place when such processes (a) rely on the use of digital technologies; (b) occur in online spaces; or (c) are concerned with the governance of digitalisation issues such as internet governance, digital rights, data protection or platform regulation.

# Background

**There is broad consensus that use of digital technologies can enable development in general** (McGee *et al.* 2018; OECD 2018a; UNDP 2015), enhance transparency and accountability, help open civic space (Roberts and Mohamed Ali 2021), and play a role in the empowerment of women (Buskens and Webb 2014; Hafkin 2012). As a result, the Sustainable Development Goals (SDGs) included specific targets for extending digital technologies (9c, 17.6 and 17.8), especially in relation to women (5b) and enhancing digital governance (16.7). Despite this, there is also broad consensus that though digital tech holds the potential to enable development, it is not a given that it will do so, and in fact may create new divides or widen existing ones (UNCTAD 2015).

**The SDGs commit signatory governments to inclusive governance.** SDG 16 requires 'responsive, inclusive, participatory, and representative decision-making at every level', while SDG 17 obligates nations to build a *partnership for development* between civil society, governments and the private sector (UN 2015). Digitalisation has both positive and negative implications for governments' ability to deliver against these commitments (Rothe 2020). While governments are introducing digital tools and processes to improve digital service provision, increase transparency and reduce corruption, some states have very limited technical and human capacity with which to effectively implement digitisation (UNCTAD 2021). It is also the case that governments are digitalising surveillance and public opinion manipulation, as well as delegating service entitlement decision-making to automated algorithms in ways that raise serious concerns about algorithmic bias, accountable governance and civic rights (Benjamin 2019).

**Barriers to technology access and effective use are barriers to inclusive digital governance.** Access to digital technologies is constrained by the five 'A's of availability, affordability, awareness, abilities and accessibility (Roberts and Hernandez 2019). In low- and middle-income countries, women are 26 per cent less likely to access the internet, while in Asia, women are 70 per cent less likely to use the mobile internet than men, with the result that 'unequal access to mobile technology threatens to exacerbate the inequalities women already experience' (GSMA 2018), including the ability to access online government services and digital governance (UNESCAP 2016). One of the largest multi-country digital governance research programmes to date found that 'Not only is everyone not online, but the drive to digitise the processes of governance threatens to deepen the disenfranchisement and disempowerment of those who, for whatever reason, can't – or don't want to – engage with ICTs and tech-enabled forms of governance' (McGee *et al.* 2018: 22).

The following sections first present a means of understanding the relationship between digitalisation and governance as four overlapping stages, before going on to examine the political nature of digital technologies.

## Stages of digitalisation and governance

To fully understand digitalisation in governance, it is useful to make categorical distinctions between four overlapping stages: two of digital government and two of digital governance.

**1 Digital in government.** The first application of digital technologies across government functions involves the introduction of computers to improve the efficiency of routine back-office information management, calculation and communications. This digitalisation of internal government processes is often accompanied by claims of increased transparency and accountability. One early example provided in support of this claim was the 2009 move in Afghanistan towards paying police officers directly with mobile money, resulting in a 30 per cent decrease in misappropriated salaries (Leber 2012).

**2 Digital government services.** Next came the digitalisation of government-to-citizen information and service provision via government websites and portals (sometimes referred to as e-government). For those citizens who have access to digital devices, and who possess the necessary digital literacy and adequate connectivity, the ability to access

government tenders, obtain licences and permits, and access open government from the comfort of their own home can be of enormous potential benefit. In many cases, digital service provision has also removed the need to bribe corrupt government officials, as well as removing the potential for gatekeepers to (dis)advantage particular social groups (Srivastava *et al.* 2016).

**3 Digital participation in governance.** A third form of digitalisation is the creation of interactive digital governance spaces (or e-governance) within which citizens can monitor progress, hold powerholders accountable, and actively participate in inclusive decision-making. This includes 'civic tech' initiatives such as FixMyStreet, designed to allow neighbourhood problems to be reported to and discussed with local government officials, and crowdsourced platforms such as Publish What You Pay, which enables engagement with corporate governance officials regarding the provision of open data about mineral extraction contracts. One example of a broader digital participation platform is Decidim, an open source platform used to enable citizens to actively engage in governance and to 'reprogram democracy' in municipalities including Yacatan, Helsinki and Barcelona.

**4 Governance in a digital world.** Given that all aspects of governance now take place in a increasingly digitalised world, attention has turned away from how to digitalise development towards how to cope with its implications. As different sectors of development are increasingly digitalised, new governance issues of how to secure rights and equity are highlighted as data are frequently extracted to private foreign companies and exploited by powerholders. Shoshana Zuboff has documented how private companies in the US – initially Google and Facebook – innovated what she calls 'surveillance capitalism': a mechanism for commodifying user data, profiling citizens, and selling the ability to manipulate their beliefs and behaviours to wealthy politicians, states and corporate lobbyists (Zuboff 2019). This process of citizen surveillance, micro-profiling and targeted manipulation has been used, for example, to supress Black voter turnout in US elections, as well as to covertly manipulate public opinion and voting intentions around the world (Bradshaw and Howard 2019; Nyabola 2018; Ryan-Mosley 2019), with military officials in Myanmar, for instance, using Facebook to incite hatred towards the minority Rohingya ethnic group (Bradshaw and Howard 2019; Mozur 2018). Other US platform companies, such as Uber, Airbnb and Amazon, wield huge influence on working conditions, individual livelihoods and even entire economic sectors in hundreds of countries across the world. Yet the governance of these billion-dollar monopolies largely falls outside the ability of citizens or elected governments to effectively regulate, tax or hold them accountable (ActionAid 2020).

## Thinking politically about technology

**Technologies themselves are neither good nor bad, nor are they ever neutral** (Kranzberg 1986). Specific digital technologies have particular 'affordances'. Affordances are the new 'action possibilities' that are enabled, allowed or invited by a particular new technology (Gibson 1977; Norman 1988). These action possibilities include potential for both bad and good governance. The affordances of social media, for example, include the possibility of instantly publishing text and images to a global audience. The **positive affordances** of digital technologies include enabling access to open government data and participatory governance, while the **negative affordances** include making possible intrusive mass surveillance and micro-targeted disinformation. The applications that digital technologies are put to in practice are not determined by the technology itself, but rather by political choices and economic forces (MacKenzie and Wajcman 1985).

**Technology use tends to reflect wider political and economic interests.** In countries characterised by decentralised governance, open civic space and participatory decision-making, digital technologies can readily enable participatory budget setting (Prieto Martín 2009), citizen-led policy drafting (Landemore 2015) or direct democracy (Smith and Prieto Martín 2020). However, in countries characterised by centralised governance, closed civic space and authoritarian decision-making, digital technologies often facilitate intrusive surveillance and coordinated disinformation designed to manipulate citizens' beliefs and behaviour (Howard 2020; Roberts and Mohamed Ali 2021). As the head of Microsoft Research India concluded, 'the use of digital technologies can only amplify existing human capacity and intent', not substitute for the absence of either (Toyama 2015). This insight helps clarify where digital governance investments are likely to succeed or fail, with political economic analysis useful in this regard. SDC should first identify existing levels of political will and capacity to act, before assessing the affordances of digital technologies to amplify this capacity and intent.

**The rapid pace of digital innovation has been driven in part by private sector competition,** which accelerated after the privatisation and commercialisation of the internet. The expansion of access to mobile and internet technologies, and their widespread adoption in sectors including commerce, education, healthcare and agriculture, has enabled a wealth of digital dividends (World Bank 2016). Intense commercial competition in the digital technology space has also delivered monopolistic concentrations of power in the hands of a small number of mainly US and Chinese corporations (Srnicek 2017). These private sector companies are therefore making *de facto* global governance decisions that impinge on citizens' human rights, national sovereignty and sustainable development (Hintz *et al.* 2019).

**Governance is being privatised and rendered unaccountable.** Digitalisation can enhance accountability or reduce it, with governance functions that were once the preserve of elected governments increasingly being carried out by opaque and unaccountable private sector companies (Crawford 2013; Eubanks 2017; O'Neil 2016). Government agencies increasingly rely on the mass collection of algorithmically analysed data to govern issues such as benefits allocation, housing provision, child protection, employment, policing, sentencing and border control. Moreover, human-mediated deliberative governance is being replaced by automated, algorithmic, artificial intelligence governance processes known as predictive analytics (Hernandez and Roberts 2020; Siegel 2016). In many cases, the data set or algorithm determining governance decisions is 'black boxed' as proprietary code – claimed as a trade secret and therefore closed to transparency or accountability processes (Pasquale 2015).

## New paradigm of digital governance?

**Digitalisation may be perceived as ushering in a new paradigm of digital governance.** Here, the human-centred, deliberative and dialogic mode of analogue governance can be counterposed with the increasingly dehumanised and automated mode of digital governance. In human-centred governance, efforts are made to put citizens at the centre of deliberative participatory governance processes, which increase people's agency and active citizenship (Gaventa 2002). The digital mode of governance, however, replaces human deliberation with artificial intelligence, using algorithms to identify patterns in big data and predictive analytics to automate governance decision-making. These two alternative modes of governance rest on contrary worldviews – each with different ontological and epistemological foundations – of what counts as reality, and how knowledge and decisions should be produced. The human-centred mode of governance sees citizens as having insight about their reality, and views dialogue and deliberation as the preferred way of producing knowledge and decisions. The emerging algorithmic/technology-centred mode of governance sees data as representing reality, and views computational calculation as the preferred way of knowing the world and making decisions. The kind of governance process demanded by the SDGs require inclusive, participatory decision-making at all levels. Such human-centred decision-making is qualitatively different from the automated, dehumanised algorithmic decision-making we are increasingly seeing in practice. SDC may take the opinion that automating governance robs citizens of their right to participate in decision-making on issues affecting their lives. SDC should ensure that citizen-centred development always underpins the use of technology in SDC-supported development programming.

**Decisions arrived at through predictions based on digital data are necessarily reductive, partial, biased and dehumanised.** Here, proponents of the algorithmic mode of governance may claim that digitalisation offers a route to more neutral, dispassionate, 'scientific' and data-driven decision-making. While the ideal of evidence-based decision-making has been at the heart of good governance theory for many years, in practice politics often trumps evidence (Cairney 2016). Automated algorithmic decision-making has re-popularised the idea of data-driven decision-making. One critique of data-driven decision-making, however, is that digital data is essentially reductive, necessarily partial, and produced by subtracting reality until we are left with nothing but ones and zeros. The process of deciding what data counts (or does not count), what should (not) be measured, and which data to include/exclude is consciously or unconsciously political and biased (O'Neil 2016; Perez 2019). We know from multiple studies that social data contain historical patterns of bias, including along the lines of gender, race and class, and that using algorithms to automate decision-making based on such data will reflect, reproduce and potentially amplify inequalities (Benjamin 2019; Eubanks 2017; Noble 2018).

**Digitalisation necessitates new approaches to governance.** Governance mechanisms that were designed for analogue realities have proven inadequate in effectively regulating or holding accountable digital platform companies. Governance mechanisms that rely on artificial intelligence, algorithms and automated decision-making have been shown to reproduce and amplify existing patterns of inequality. As the platform economy has disrupted sector after sector (Srnicek 2017), governments have been slow to respond to issues of individual and national data sovereignty, mass surveillance, and disinformation (Sadowski 2020). As such, there is a need to develop new approaches to governance that take account of digitalisation.

**The Swiss approach to governance can be distinguished from others in several respects.** An interest in neutrality, sovereignty, decentralisation and humanitarianism; a principled insistence on using a human rights lens; and the practice of 'thinking and working politically' are all valuable mechanisms for defining a distinctively Swiss contribution to digital governance.

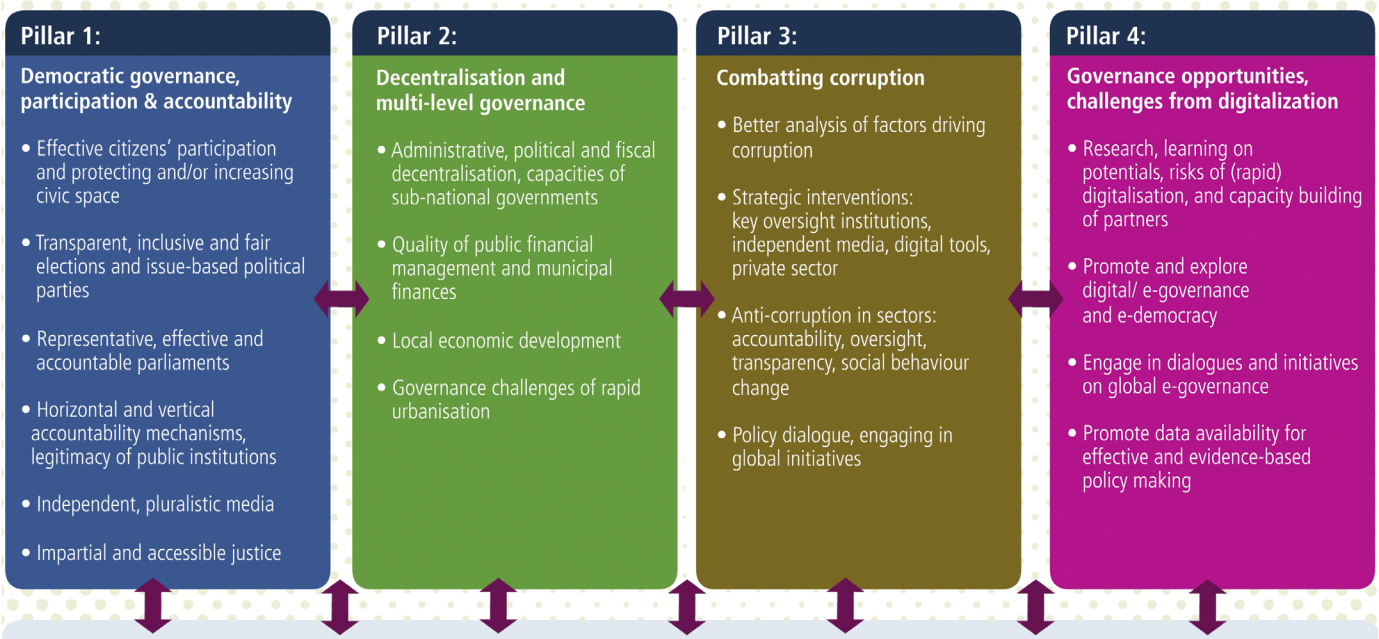
The following five sections – each of which corresponds to one of the five pillars in SDC's Guidance on Governance – review key issues in digitalisation and governance. Each section outlines a range of opportunities and challenges, and makes recommendations for future policy, practice and research.

## Figure 2. The five pillars

**SDC's governance vision and objective:** A well-functioning global, national and sub-national governance system that contributes to building and maintaining peace and promote sustainable development, focusing on the well-being of people – women and men, all groups of society to: promote equitable access to services and social protection, resources, information and justice for all, foster inclusive participation of citizens, enable sustainable and inclusive economic development, ensure the rule of law, human rights and establish legitimate politics and strive for efficient, effective, transparent, rule-based, accountable institutions and processes.

**Contributing to**

- Switzerland's International Cooperation Strategy 2021-2024: Promoting peace, good governance and gender equality (Obj.4), by promoting good governance and rule of law and strengthening civil society (sub-objective 10)
- Agenda 2030, SDG 16: Promoting peaceful and inclusive societies for sustainable development, providing access to justice for all, and building effective, accountable and inclusive institutions at all levels.




**Pillar 5: Governance as a lever and transversal theme in other sectors**

- Systemic approach: Analyse and address the governance system (of a sector) by looking at its three dimensions structures, processes and actors.
- Governance principles: Use the good governance principles to assess the quality of governance processes, identify entry points in sectors and report on governance results.
- "Thinking and working politically": Adopt a political approach to governance considering underlying power dimensions, formal and informal rules and norms and facilitate dialogue to strengthen local problem-solving mechanisms. Promote capacities for PEA and adaptive programming.
- Peace, governance and (gender) equality (PGE): Apply a coherent approach towards governance, peace and (gender) equality with joint analysis and instruments to integrate PGE dimensions within SDC's transversal themes

Source: SDC (2020: 29).

# Pillar 1: Promoting democratic governance, participation and accountability online

This section reviews a number of key issues in democratic governance where SDC can play a role in strengthening democratic institutions and processes, civic spaces, and inclusive participation.

## Deficit of trust

**Trust in politicians and the democratic process is in decline worldwide** (Bertsou 2019). Large sections of the population have disengaged from governance processes, which they feel fail to represent their interests. 'Unruly' youth movements of relatively tech-savvy activists have occurred in part because they regard traditional party and civil society organisations (CSOs) as not representing their values or interests, with digital technologies affording young people independent channels of communication and virtual spaces for dialogue, deliberation and action (Khanna *et al.* 2013). Some may argue that increasing use of algorithmic and automated decision-making offers a means of achieving more objective and trustworthy governance, but as we argue in this report, the technology is never neutral (Winner 1980), reflective as it is of the politics of the data it draws upon, as well as the intent (or unconscious bias) of the programmer and/or programmer's client (Roberts 2019a).

## Digital authoritarianism

**There have been 14 consecutive years of democratic backsliding and declining human rights**, according to the index maintained by Freedom House (2020). Individuals in 64 countries experienced a deterioration in their political rights and civil liberties, while those in just 37 countries experienced improvements. Only 3.4 per cent of the world's population live in countries with open civic space (CIVICUS 2019), with an increasing number of countries experiencing efforts to close down online civic space (Bradshaw and Howard 2019). Of the global population, 73 per cent live in countries where individuals have been arrested or imprisoned for posting content on political, social or religious issues, while 64 per cent live in countries where individuals have been attacked or killed for their online activities (Freedom House 2020). Repressive governments are utilising a diverse array of digital techniques to close online civic space, including social media taxes, digital surveillance and internet shutdowns (Roberts and Mohamed Ali 2021). Freedom House (2018) have characterised this deteriorating situation as a decent into digital authoritarianism. In its Digital Foreign Policy Strategy, Switzerland commits itself to the digital self-determination of digital 'users' and citizens, in order to ensure that privacy, as well as freedom of expression and opinion, are respected.

**The decent toward digital authoritarianism makes SDGs 16 and 17 unattainable.** Achieving the SDGs requires building 'a partnership for development between civil society, governments, and the private sector' (SDG 17) and achieving 'inclusive, participatory, and representative decision-making at every level' (SDG 16). However, most countries are experiencing a decline in political rights and civil liberties (Freedom House 2020) and a closing of civic space (CIVICUS 2019), which has been characterised as a decent into digital authoritarianism (Freedom House 2018). Human rights and access to democratic spaces are precursors to attaining the SDGs in a holistic manner. As recent evidence from Uganda suggests, the closing of online civic space and internet shutdowns may have negative knock-on effects for development outcomes (CIPESA 2017).

**Citizens often make use of digital technologies to open civic space online.** Faced by growing authoritarianism and closing civic space, CSOs and citizen-led movements have made increasingly creative use of digital technologies to open new civic spaces online (Roberts and Mohamed Ali 2021; Tufekci 2017). These digital civic spaces have made it possible for repressed ethnic minorities and LGBTQI communities to create relatively safe spaces in which to exercise their right to freedom of speech and assembly, and for opposition voices to co-construct policy alternatives and mitigate the efforts of repressive governments to completely close civic space (Buyse 2018; Roberts 2019b).

**Governments are making use of digital technologies to close online civic space.** In recent years, governments have developed an arsenal of tech tools, tactics and techniques to close online civic space, employing a combination of internet surveillance, coordinated digital disinformation and internet shutdowns to disrupt online dialogue and democratic deliberation, and drown out dissenting voices. These tactics are especially common during election periods and times of popular protest

(Access Now 2020; Freedom House 2018). It is now possible for those with political and economic power to buy in commercial surveillance and disinformation services, which employ big data, machine learning and predictive analytics to profile populations, micro-targeting them with manipulative messaging to modify their beliefs and behaviours (Sadowski 2020; Zuboff 2019).

**There is a large power imbalance between those seeking to open and those seeking to close democratic space** (Roberts and Mohamed Ali 2021). While legal and regulatory improvements may be necessary, they will prove insufficient in countries where powerful elites are able to circumvent laws and regulations. A comprehensive solution will require SDC to 'think and work politically' with international and domestic partners to shift power.

**Google and Facebook innovated a business model of digital behavioural modification** between 2001 and 2004, which Shoshana Zuboff has termed 'surveillance capitalism' (Zuboff 2019). China's Social Credit System was trialled in 2009, before going nationwide in 2014 (Chen and Cheung 2017). Both systems involve intrusive mass surveillance, the digital profiling of citizens, and behavioural modification. Google Search now has over 4 billion users (88 per cent of the global market), merging surveillance data from its business with additional data points from its acquisition of companies such as YouTube, Nest, Waze and FitBit (Investopedia 2020). These surveillance data are used to produce data profiles, enabling the Google Ad company to sell what is called 'performance advertising', where advertisers pay only for measurable behavioural change. Powerful politicians are able to buy what Zuboff calls 'behavioural futures' and deploy micro-targeted digital disinformation designed to increase/supress the voter turnout of particular demographic groups in specific constituencies (Ryan-Mosley 2020), or fan the flames of racial/ethnic tensions (Bosch and Roberts 2021) in order to covertly manipulate citizens' beliefs and voting behaviour (Bradshaw and Howard 2019; Sadowski 2020; Zuboff 2019).

**Dominant digital companies are unwilling to subject themselves to international governance.** The internet is dominated by US and Chinese monopolies. Facebook owns 77 per cent of mobile social traffic, while Google controls 88 per cent of the global search advertising market (Taplin 2017). US companies dominate the platform economy and compete with Chinese companies Jingdong, Alibaba and Tencent. Recently, Huawei edged ahead in the global market to provide the next generation (5G) of internet infrastructure. There is intense competition between US and Chinese companies to provide artificial intelligence-based surveillance technologies to governments in the global South (Feldstein 2019). Neither the US nor Chinese tech giants have proven themselves willing to be governed by international bodies such as the United Nations (UN)-driven Internet Governance Forum, and neither the US nor Chinese governments have shown themselves willing to rein in their power (Radu 2019).

**New mechanisms are required in order to provide rights-based internet governance.** The internet has resembled an ungoverned Wild West, in which companies have followed Facebook's explicit early mantra to 'move fast and break things' (Taplin 2017). Now that these companies have colonised, privatised and monopolised digital space, it is evident that their unfettered power diminishes democracy, breaches human rights, and compromises the sovereignty of individuals and nations. Hence, the actions of private sector companies are an obstacle to SDC's vision of 'free, open and secure digital spaces'. Although digital technologies continue to provide valuable opportunities to open civic space online, large power asymmetries mean that supporting these initiatives alone is insufficient. It is difficult to see how open or participatory governance can be achieved if the digital political sphere in which dialogue, deliberation and debate takes place is privatised, the algorithms are black boxed, and the dominant players remain unaccountable (Srnicek 2017; Taplin 2017; Zuboff 2019). David Kay, the ex-UN Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, has proposed that rather than creating a new set of regulations for the digital economy from scratch, digital businesses should conduct digital rights impact assessments (like environmental impact assessments) and use the Ruggie Framework, also known as the UN Guiding Principles on Business and Human Rights (OHCHR 2011).

## (Un)democratic digital spaces

**Social media provides valuable spaces for civic expression, rights claiming and digital citizenship,** extending the human rights of freedom of affiliation, opinion, speech and association. Frank La Rue, a previous UN Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, noted the 'unique and transformative nature of the Internet not only to enable individuals to exercise their right to freedom of opinion and expression, but also a range of other human rights, and to promote the development of society as a whole' (La Rue 2011).

**Digital spaces can also be sites of surveillance, hate speech and gender-based violence** (EQUALS 2019). The digital affordances for building low-cost instant global communication are available both to human rights activists and to those promoting ethnic violence, misogyny, climate change denial or anti-vaccination conspiracy theories (Jones 2019). Social media algorithms produce filter-bubbles and echo-chambers, and

algorithmic attention-optimisation can promote polemics that divide populations, acting as an obstacle to open deliberation, social dialogue and inclusive decision-making (Pariser 2011).

## Algorithmic accountability

**Algorithmic governance is shifting power from citizens and elected officials to private companies.** Algorithms increasingly determine what information we see, who is employed, who is bailed/jailed, and who qualifies for welfare and government services (Benjamin 2019; Eubanks 2017; Noble 2018; O'Neil 2016). Many of these algorithms are owned by private companies, which, in an effort to protect profits, keep their precise workings secret (Whittlestone *et al.* 2019). Thus, algorithms with power over crucial elements of social and economic life remain proprietary 'black boxes', the inner workings of which are not known to those whose lives they determine (Pasquale 2015). In some cases – where algorithms are produced using deep learning – this problem is compounded by the fact that the algorithm's logic is not even known to the company that created it (Lepri *et al.* 2017). This reliance on proprietary code to make such decisions represents a shift in governance power away from citizens and elected governments to private companies, as well as a shift away from relatively open and accountable governance processes to opaque and unaccountable practices.

**Internet companies and algorithmic decision-making must be subject to good governance.** This can be achieved by various means, including making the code open source, creating mechanisms for algorithmic accountability, or bringing internet monopolies under public ownership. It can be argued that, as essential platforms and services of modern life, Google and Facebook are now public goods, and so should be subject to democratic governance like other public utilities (Howard 2012). It can also be argued that, in the interests of good governance, decisions – whether taken by humans or machines – must be transparent and accountable. Algorithms that produce wrong and sometimes racist or sexist decisions are now common features in the news (BBC News 2018, 2020; Porter 2020). Moreover, it is becoming commonplace for governments and organisations to blame the algorithms when they make poor decisions, rather than accept corporate accountability (CDEI 2020). SDC should support those engaged in rights-based approaches to algorithmic accountability.

# Pillar 2: Supporting decentralisation and well-functioning multi-level governance

This section reviews key issues in decentralisation and governance where SDC can play a role in restoring digital sovereignty, democratic control and accountability through supporting well-functioning multi-level governance.

## Digital decentralisation

**Digital technologies afford new action possibilities for decentralisation and local sovereignty.** The internet was originally decentralised, free and open, but over time has been privatised and become centrally controlled by a few powerful monopolies. Although dominant political and economic forces sometimes select centralising and controlling digital technologies, this is not inevitable – rather, it is a function of political and economic choices. Political pressure is building to break up the most powerful US internet monopolies through the kind of anti-trust legislation that previously broke up the telecommunications monopolies (Nadler 2020). Digital technologies can also be used in decentralisation. In South Africa, for example, the People's Health Movement use basic text messaging technology in their Bavuse! system to remotely build decentralised capability to access local health services. Bavuse! provides options to call local meetings, run polls and organise local health campaigns. In Latin America and elsewhere, rather than rely on centralised internet and cellular provision, remote communities are building locally owned, decentralised capacity to meet their own communication and connectivity needs (Baca *et al.* 2018; UNHCR 2020). SDC should support efforts to decentralise control over the internet and give citizens a meaningful role in digital governance.

**Digitalisation has opened new space for democratic voice, deliberation and debate**, including on subjects under-represented by establishment media or political parties. Communities have used the affordances of digital technologies to enable the re-writing of the constitution in Iceland, municipal decision-making and participatory budgeting in Brazil, and provincial and city-wide digital democracy projects in Barcelona

(Barandiaran and Calleja-Lopez 2018; O'Flaherty 2018). Digital technologies are being used to enable online participation in democratic deliberation and decision-making, as well as the tracking of government expenditure. In Nigeria, BudgITis a local initiative aimed at making government budget-making and expenditure transparent and accessible. The open government data movement has enabled some decentralisation of control over data and further transparency in governance at multiple levels, while stimulating innovation to produce public benefit (Davies *et al.* 2019).

**Communities can build and govern their own decentralised internet and phone networks.** This enables citizens to regain digital sovereignty, restore privacy rights, and prioritise inclusion and local needs over maximising revenue or profit (GIS Watch 2018). Community networks – communications infrastructure deployed and operated by citizens to meet their own communication needs – are increasingly being proposed as a solution to connect the unconnected (Rey-Moreno 2017). GIS Watch (2018: 59) have documented the state of community networks in 43 countries where citizens 'own, operate and use communications networks in a participatory and open manner'. In Africa, where the proportion of those unconnected is among the highest globally, little is known about the role community networks are playing. In their study, De Filippi and Tréguer (2015) conclude that current telecoms governance overlooks the significant value of community networks in fostering sustainable development objectives, and recommend greater investment support to serve those being left behind. The business model of community networks works well in providing affordable access, and includes the significant benefits of investing in local entrepreneurship, responding to local information needs, and strengthening existing local capacity through networking.

**The decentralised web is a possible route to free, open and accountable internet governance.** There is currently a great deal of innovation in the movement to build a decentalised web, which is dedicated to circumventing the privatised internet controlled by Amazon, Facebook, Apple, Microsoft and Google. The decentralised web is an internet where internet services are distributed rather than centralised, users own and control their own data, and smaller players can take back power from corporate giants such as Google and Amazon (Faife 2018). On the decentralised web, free and open source applications such as Mastodon, PeerTube and Hubzilla provide alternatives to Facebook, Twitter and YouTube (Raman *et al.* 2019). These alternatives enable the operation of internet services on decentralised peer-to-peer networks, replacing opaque proprietary software with free open source code that anyone can open, scrutinise, modify and share.

## Algorithmic social protection

**Algorithms are increasingly used by governments to determine eligibility to entitlements.** At multiple levels of government, access to services and social protection payments is becoming ever more reliant on algorithms, with the automation of entitlement calculations often presented as delivering cost efficiencies and decreasing fraud. A special report by OHCHR (2019) found that digital welfare systems are already common in the global North and becoming increasingly common in the global South. Algorithmic decision-making raises important governance issues of transparency and accountability, as the basis on which the algorithms make decisions may not be known, algorithms reflect and reproduce race and gender bias, and citizens have no clear mechanism for seeking accountability or redress for algorithmically determined decisions (Benjamin 2019; Eubanks 2017; Noble 2018; O'Neil 2016). OHCHR (2019) warns of a potential digital welfare dystopia and mass infringement of human rights if issues around digital inclusion, privacy and private sector interests are not addressed. Experts from computer science and other fields (e.g. security and warfare) where algorithmic decision-making is expanding rapidly are calling for decision-making processes that keep 'humans in the loop' and make humans and organisations responsible for poor outcomes (Mazzolin 2020). Rather than supporting the centralisation and automation of decision-making for social protection, SDC could choose to support calls for more transparent and accountable human-centred decision-making processes, which allow people to participate in the decisions affecting their lives. SDC should secure places for citizens' inclusion and participation in decision-making, as well as a role for civil rights experts in oversight and accountability processes involving algorithmic decisions that affect people's lives.

**Biometric information and digital-ID is often justified as an enabler of digital welfare systems** (Amnesty International 2019; World Bank and Center for Global Development 2017). India's Aadhaar system is the world's largest digital-ID system, using digitally stored biometric information (eye scan, fingerprints) to identify citizens and so enable them to access entitlements and services (Government of India n.d.). However, these systems raise issues of digital exclusion, privacy and data safeguarding. Some marginalised ethnic groups or communities lack the documentation required to obtain such digital-ID as that provided by Aadhaar in India and Huduma Namba in Kenya (Eken 2019). Moreover, according to the World Economic Forum (2019), the world's largest data breach was from Aadhaar, which exposed the personal data of 1.1 billion Indian citizens to abuse.

**Use of digital technologies regularly reflects, reproduces and amplifies existing (dis) advantages.** If machine-learning algorithms are

trained using historical data sets, then historical patterns of prejudice and (dis)advantage will be reflected and reproduced in their results (Eubanks 2017; Hernandez and Roberts 2018). The manner in which digital welfare systems are deployed alongside pressures to control risks and reduce costs is often disempowering for citizens. There is frequently a desire to decrease the number of people that qualify for social services, and increase sanctions on those that fail to meet conditions, in 'a complete reversal of the traditional notion that the state should be accountable to the individual' (OHCHR 2019: 3).

**Unequal power relationships are reflected in digital governance systems.** While digital governance systems are making citizens increasingly visible to governments, the inner workings of government remains opaque to citizens (OHCHR 2019). Automating welfare processes strengthens the state's ability to surveil the poor in ways that discipline or influence their behaviour (Eubanks 2017). Entitlements issued via digital ATM cards provide governments with the ability to track the spending habits of welfare recipients, with such surveillance-enabling cards now being used by governments in 'developed' and 'developing' countries alike (MasterCard 2012; OHCHR 2019). Poor and marginalised groups are less likely to have the political power to fight their inclusion in intrusive surveillance systems, putting them at 'both the cutting edge of surveillance, and stuck in its backwaters' (Eubanks 2017). Moreover, those who choose to protect their privacy through non-participation do so at the cost of exclusion from benefits and citizenship entitlements (Amnesty International 2019; OHCHR 2019). SDC should form partnerships with institutions seeking to tackle privacy and rights abuses embedded in digital welfare solutions.

**Digitalisation often dehumanises and excludes.** Digital systems often replace human intermediaries with machine processes. While making humans redundant delivers cost efficiencies, digital service provision disadvantages those without digital devices, connectivity or literacies (OHCHR 2019). Parallel offline channels for welfare services and applications are necessary in order to mitigate the risk of less connected individuals being excluded from welfare services (Hernandez and Roberts 2018). As OHCHR (2019: 13) observes:

> The digital welfare state sometimes gives beneficiaries the option to go digital or continue using more traditional techniques. But in reality, policies such as 'digital by default' or 'digital by choice' are usually transformed into 'digital only' in practice.

In the UK, 400,000 people were eligible for the Universal Credit scheme but unable to access the digital system, leaving them unable to get help (Youle 2019). In India, access to all government social protection is administered via the Aadhaar digital-ID system, leading to the exclusion of some of the most vulnerable groups (Dreze *et al.* 2015). Digital-ID and digital welfare systems are often imposed by governments without any public consultation or input (OHCHR 2019). SDC should ensure that offline alternatives to all digital governance channels remain available. Moreover, the inclusion of marginalised persons in the design and evaluation of digital governance innovation should be encouraged.

## Smart cities

**Smart cities have the potential to contribute to several SDGs**, with the stated goals of smart cities often including claims about improving sustainability, safety, efficiency and convenience (Cardullo *et al.* 2019; Drapalova and Wegrich 2020; Suzuki 2017). These include SDG 11 (sustainable cities and communities), SDG 3 (good health and wellbeing), SDG 6 (clean water and sanitation) and SDG 13 (climate action) (Hernandez 2019). However, pervasive data collection in smart cities raises important governance issues regarding privacy and data safeguarding. Smart cities infrastructure creates paths for surveillance, making the building in of human rights checks and balances vital.

**There are many competing visions for smart cities.** The technologies deployed can be used in ways that enable freedoms or surveillance, with implementers diverging in terms of how smart cities should be governed and the role citizens should play within them. Top-down techno-centric smart city solutions may involve little consultation and treat citizens as data points that passively produce data. On the other hand, some smart cities take a bottom-up human-centred approach in which citizens govern what data are collected and how they are used (Drapalova and Wegrich 2020). This is the case in Barcelona, where the political leadership and civil society are implementing a joint vision of technologically enhanced urban governance (*ibid.*; Reimer 2020) and techno-political innovation (Smith and Prieto Martín 2020). In this case, the term 'smart city' is often replaced with 'democratic city', thereby implying that the role of datafication is to inform citizen-led governance (Monterde 2019; Srnicek 2019). A contrasting smart city vision is China's 'safe city' model, where a dense network of closed-circuit TVs feed artificial intelligence facial and car licence plate recognition systems to provide police with 'panoptic' surveillance capabilities. The Chinese technology company Huawei is the leading global provider of safe city solutions. The majority (63 per cent) of Huawei's government clients are low- and middle-income countries (Hillman and McCalpin 2019), with the company actively seeking to expand this through the Belt and Road Initiative (Hernandez 2019; HSBC 2018). Western technology companies, including IBM, Cisco and NEC Corporation, are also major smart city providers, though they

promote such initiatives as supporting sustainable development and are less likely to publicly market their surveillance capabilities (Feldstein 2019). SDC should support the inclusion of marginalised citizens in the design and operation of smart cities, and assess proposals through the lens of human rights.

**Critics argue that smart cities are failing to meet the SDGs** due to their tendency towards top-down, techno-centric implementation (Cardullo *et al.* 2019; Kitchin 2014; Suzuki 2017), with the consequence that their governance is highly contested. Smart city platforms utilise algorithms to suggest courses of action based on data, as well as generating income by selling data about citizen behaviour. In Toronto, citizens and civil rights groups campaigned against Google's Sidewalk Labs, taking legal action against what they termed 'data profiteers' and ultimately leading to the plan being dropped (CCLA 2019). In cities where there is structural inequality, the data used by algorithms will reflect these patterns of inequality, meaning the algorithms are likely to reproduce it at speed and scale, potentially automating existing patterns of (dis)advantage. Techno-centric smart city solutions may further underserve the needs of those who have previously been excluded, leaving them further behind by not equally taking into account their 'rights, needs, expectations, and inclusion' (Suzuki 2017). SDC should ensure that marginalised communities play a meaningful role in the design, evaluation and governance of smart cities in order to ensure that existing inequalities are not reproduced and amplified.

## Voice vs privacy

**The benefits of enhanced online voice currently comes at the cost of privacy.** This is not inevitable – rather, it is a function of the dominant social media platforms' business model. In fact, privacy is an important enabler of voice, with the right to online anonymity critical to oppressed people being able to safely express themselves online. Currently, when citizens use social media platforms to make rights claims they leave digital traces that corporations and governments use for tracking and surveillance. Smart cites, smart homes, social media and mobile phones are mechanisms of digitalisation that render citizens as corporate data sellable to powerful groups. This reflects a power imbalance, as corporations can see all our digital traces while we cannot see their algorithms, thereby preventing citizens from tracking and holding accountable corporate decision-makers or politicians. Thus, citizens' right to privacy is compromised by the current business model and the power it grants corporations and politicians over citizens (Sadowski 2020; Zuboff 2019). Citizens' digital profiles are available for sale to politicians in every election, as well as to lobby groups wishing to affect discourse around policy issues such as vaccinations, climate change or genetically modified crops (Howard 2020; Jones 2019; Sadowski 2020). This is increasingly recognised as a significant threat to privacy, unhindered opinion formation, and open and transparent governance (Landwehr *et al.* 2019). SDC should support initiatives that advocate transparency in algorithms and support the knowledge and capacity building of civil society actors and citizens when it comes to understanding algorithmic decision-making (i.e. work on citizen literacy in digitalisation and research on the practices of private sector actors in this space).

## Political economy of digital governance

**Political will and institutional capacity are critical determinants of success in digital governance.** Digital technology amplifies existing human intent and capacity (Toyama 2011). Where a government is committed to free and open digital spaces and to transparency in governance, enhancing its technological and institutional capacity can be expected to amplify free and open digital spaces and the ability of citizens to exercise their digital rights. Where a government is committed to closing civic space and to opaque governance, boosting technical and institutional capacity can be expected to amplify its repressive capacity to close civic space and limit digital rights. In between these two poles, where the political situation is tractable, it may be possible to invest in multistakeholder initiatives that use digital as a bridge between marginalised citizens and government. SDC should build technical and institutional capacity where existing political intent is aligned with SDC's human rights focus, as well as build the institutional capacity of citizens and CSOs to hold state power accountable.

# Pillar 3: Combating corruption at all levels, including open data

This section reviews the role of digital technologies in global efforts to combat corruption, thereby identifying opportunities for SDC to lead dialogue and raise awareness about the impact of corruption, as well as provide support for government and development partner initiatives.

**Digitalisation has provided new action possibilities for tackling corruption.** It is often argued that moving government services and processes online can improve cost-efficiency (UN 2018), increase transparency and reduce bribery among corrupt officials (Kukutschka 2016). Some digital initiatives have been citizen-led, some civil society organised, and some driven by government itself.

**Citizen-led initiatives have often sought to shine a light on corruption in order to provoke action for change.** Citizens can use digital technologies to crowdsource data that government does not collate or make available with, for example, the I-Paid-A-Bribe initiative created by citizens in India and later replicated in other countries. Crowdsourced text or instant messages are used to create a public record of when government officials took a bribe when carrying out their official duties (Ryvkin *et al.* 2017). The impact of the project has been uneven, with such initiatives potentially effective in raising awareness but insufficient to end corruption, especially in authoritarian settings where media is unresponsive and the political will for change is absent (Ang 2014). Following the highly contested 2014 presidential election in Indonesia, a group of volunteers quickly built a website and digitised voting tabulations, many of them handwritten, to enable better monitoring of the election results and address accusations of vote-rigging (USAID 2020).

**Civil society initiatives have often focused on transparency and accountability.** Corruption Watch in South Africa mounted a campaign to ensure transparency and civic engagement in the appointment of a public prosecutor. By partnering with the media, they were able to double the number of nominations for the position and ensure a transparent and deliberative democratic process (McGee *et al.* 2018). Several open government data – and open corporate data – initiatives have been developed to increase transparency surrounding 'big ticket' corruption in large government and international corporate contracts. The logic is that by making contracts and payments subject to public scrutiny, the incidence of corruption can be reduced. The Open Contracting Partnership, OpenOil, Extractives Industries Transparency Initiative and Publish What You Pay are some of the initiatives using digital disclosure to increase transparency, civic participation and accountability.

**Governments are making use of artificial intelligence to identify patterns of corruption in big data.** Open procurement data can be mined to identify anomalies in the percentages of subcontracts won by different entities in competitive bidding processes (Crawford 2015). It is also possible to mine bilateral and multilateral development funding data to identify potential corruption or the misuse of development funding (Dávid-Barrett and Fazekas 2020). Bilateral development donors have played a significant part in financing innovative digital technology use by government in order to disrupt corrupt practices. In the Ukraine, the USAID-funded e-procurement platform ProZorro helped cut costs by 12 per cent, saving US$1.4bn, with the percentage of suppliers that are small and medium-sized enterprises (SMEs) rising from 24 to 80 per cent between 2015 and 2018 (USAID 2020). Elsewhere, Afghanistan moved to paying police officers directly with mobile money in 2009, resulting in a 30 per cent decrease in misappropriated salaries (Leber 2012).

## Open data

**Making data open is an enabler of transparency, accountability and innovation.** Open data is often defined as data that 'can be freely used, modified, and shared by anyone for any purpose' (Open Knowledge Foundation n.d.). Opening up institutional data can help citizens keep track of government budgets and the voting records of elected representatives, and to track service provision in real time (Pawelke *et al.* 2017), thereby increasing transparency and accountability and contributing to improvements in productivity and economic growth (World Wide Web Foundation 2017). Making data open and digitally accessible is, however, an insufficient condition for accountable and responsive government. Social norms and inequalities of access must also be addressed and trusting relationships between citizens and officials fostered (McGee *et al.* 2018). Government signatories to the Open Government Partnership (OGP) pledge to foster a culture of open government in their respective countries.

**Donors such as SDC have an active role to play in supporting the open data ecosystem.**

This could be done by advocating that partner governments join the OGP. Moreover, governments can sign up to open domain-specific data through membership of networks such as Global Open Data for Agriculture and Nutrition (Clark *et al.* 2020). Donors can also actively promote open data in their bids and contracts. For example, several donors – including USAID, UK FCDO and the Gates Foundation – require that funded agricultural research projects publish their findings and underlying data in an open format that enables reuse (Davies *et al.* 2019). Through supporting organisations that promote the open data agenda – such as Global Integrity, PODER, the Open Data Institute, and Open Data Charter – SDC can indirectly incentivise open data. SDC could also lobby for Switzerland to become a member in the OGP.

**Open data initiatives can unintentionally exclude and/or (re)produce digital inequalities.** Women are under-represented in data of almost every kind (Perez 2019), while marginalised communities often lack the digital devices and digital literacies to make effective use of open data, raising the question of 'open to whom?'. Women are under-represented in the open data movement, especially in senior positions (Brandusescu *et al.* 2019), and are less likely to use open data sets than men (Saxena and Janssen 2017). The World Wide Web Foundation (2017) found that very few open data initiatives are designed with gender inclusion in mind. As a consequence of these issues, relatively advantaged connected citizens benefit disproportionately from open data. SDC should enhance the capacity of marginalised citizens to make effective use of open and citizen-generated data.

**Tackling corruption is a cultural and political task rather than an exclusively technical one.** Evidence suggests that bad actors respond to anti-corruption initiatives by shifting to less visible and less quantifiable corrupt activities (Dávid-Barrett and Fazekas 2020). A common criticism of citizen- and civil society-led digital governance initiatives is that although they may do a good job of generating awareness, they often fail to get government buy-in (Peixoto and Fox 2016). These findings point to the need to combine technological solutions with programmes that address the culture of norms and values underlying systemic corruption.

# Pillar 4: Responding to governance opportunities and challenges from digitalisation

This section reviews the governance opportunities and challenges associated with digitalisation, identifying areas in which SDC can contribute to digital transformation for the public good and ensuring that digital governance is based on the principles of good governance.

## Digital inequalities: the 'digital gap'

**The benefits of digitalisation accrue disproportionately to the already privileged** (Hernandez and Roberts 2018). In all economies, a significant percentage of the population lack fast and affordable internet access and/or the functional digital literacy necessary to make effective use of digital technologies. Women, rural communities, people living with disabilities and those on the lowest incomes are most at risk of being left behind. For these reasons, introducing digital technologies to governance may unintentionally increase structural (dis)advantage, locking out the most marginalised. Somebody relying on a basic handset, intermittent 2G connection and minimal mobile data has radically less ability to engage in digital governance than an urban professional with the latest iPhone, ubiquitous 4G/wifi and unlimited mobile data (Roberts and Hernandez 2019). The tendency of governments to move to 'digital by default' governance strategies should always be complemented by offline service-delivery channels (UN 2018). SDC should differentiate its digital governance approach by focusing on reaching the least connected/unconnected citizens who are being left behind by digital governance. When planning projects in the field of digital governance, this aspect should be explicitly addressed.

**Digital inequalities exist between as well as within countries.** Although 84 per cent of UN member states allow citizens to perform at least one government service transaction online, the extent of digital government services is highly correlated with overall development rankings (UN 2020). Whereas all European countries score either 'very high' or 'high' on the UN's (2020) e-Government Development Index, no country in Africa scored 'very high' and only 25 per cent scored 'high'. Even in those countries scoring 'high' or 'very high',

digital exclusion remains a barrier to marginalised communities accessing digital government services and digital governance initiatives. Many digital government initiatives are based on false assumptions that high levels of digital inclusion exist, resulting in a failure to improve digital inclusion or digital literacy when digital governance solutions are implemented (OHCHR 2019). SDC should concentrate its digitalisation and governance support on the least developed digital countries.

## Gender and digital governance

**Women, especially low-income rural women, are less able to engage with digital governance**, leading to gender disparities in the ability to engage with digital democracy and internet governance processes. Issues of cellular coverage availability, affordability, digital literacy, language literacy, safety and security all affect women disproportionately, and in many communities social norms regarding what constitutes acceptable behaviour for women hinders their ownership/unhindered use of mobile phones and the internet (Girl Effect 2018). Addressing the gender barriers to inclusive governance requires more than digital inclusion – it requires addressing the underlying gendered social norms and power imbalances that limit women's access to technology and voice in governance (Hijab and Zambrano 2008; OECD 2018b).

**When women speak about politics online they are often subject to gender-based harassment.** The space for women online is, especially when attempting to assert their political agency, restricted by male domination and hate speech (Guerin and Maharasingam-Shah 2020). These power imbalances include online gender-based violence, which severely impacts women's capability to exercise their voice in the public sphere (Faith and Fraser 2019). Such issues impact women's lives from a young age: a 2020 survey of 14,000 girls from 31 countries found that half had experienced harassment online, with one in four feeling physically unsafe as a result of this experience (Plan International 2020). A report for UK DFID showed how 'social media has become a significant arena for the perpetration of psychological violence against women parliamentarians and activists' (Faith and Fraser 2019) as well as journalists. This illustrates how women in public life are subject not just to sexist remarks but intimidation and threats on social media platforms, with black women experiencing this most acutely (Amnesty International 2018). As Dubravka Šimonović, UN Special Rapporteur on Violence Against Women, has stated, the gender digital divide is intersectional (Human Rights Council 2018). In targeting its development support, SDC should use an intersectional gender lens to ensure that existing patterns of (dis)advantage are not reproduced.

## Fair debate

**The space for open deliberation and debate is shrinking globally** (CIVICUS 2019; Freedom House 2020). Citizens have time and again been creative in opening new online spaces for political voice, using digital technologies such as text messaging, blogging, social media platforms and encrypted messaging. Government responses to close these spaces have included mandatory mobile phone registration, blocking websites, taxing social media, and digital surveillance to arrest online activists (Roberts and Mohamed Ali 2021). The internet has become increasingly privatised – outside of China and Russia, the internet is overwhelmingly governed by US corporations (Kaye 2019). It runs counter to the norms of democratic control and sovereignty that the key spaces of global economic, civic and political life are governed by a small number of US corporations (*ibid.*). Creating space for citizen voice in decision-making about digitalisation and governance, and ensuring the participation of civil society and governments, is a key challenge. Expanding capacity for inclusive governance will require a sustained public digital literacy process, combining both technical and political civic literacies. The institutional capacity of governments, the media, civil society and researchers must be built up if they are to play a meaningful role in 'inclusive, participatory, and representative decision-making at all levels' (SDG target 16.7). In its Digital Foreign Policy Strategy, Switzerland commits to the digital self-determination of digital 'users' and citizens, in order to ensure that privacy and freedom of expression and opinion are respected.

**Coordinated political disinformation represents a significant threat to democracy and to free and open digital spaces.** The coordinated deployment of disinformation via troll farms, cyborg networks, bot armies and other 'coordinated inauthentic behaviour' has now been recorded in 75 countries (Bradshaw and Howard 2017, 2019; Howard 2020; Woolley and Howard 2017). Troll farms are groups of people employed to create and post large volumes of misinformation online (Davies 2019); bots are software scripts used to automatically reply to posts, retweet, and share links containing disinformation (Schneier 2020); while cyborg networks are a combination of human trolls and automated bots, coordinating the deployment of disinformation and attacking the political opponents of their employer (Klepper 2020).

**There is a deficit of evidence and research about coordinated disinformation in the global South**. The majority of knowledge about surveillance and political disinformation is about the global North, with the dynamics determining the opening and closing of online civic space in the global South remaining opaque. We know that Cambridge Analytica worked in Kenya and Nigeria before working on Brexit and the Trump campaign in

2016 (Ekdale and Tully 2019; Nyabola 2018), with the company's website claiming it also worked in India, Indonesia, Italy, Malaysia, South Africa, St. Kitts and Nevis, Thailand, and Trinidad and Tobago.[2] Although Cambridge Analytica was shut down, its work continues through the many spin-off companies and independent companies operating in the multi-billion-dollar industry it spawned (Siegelman 2018). While is known that social media disinformation was used to fuel ethnic division in South Africa in 2016 (Bosch and Roberts 2021), and during the 2017 election in Kenya (Nyabola 2018) and the 2019 elections in Nigeria (Egbunike 2019), little rigorous research exists documenting the dimensions, dynamics or details of the techniques used, nor is there currently any comparative research on the tactics being deployed by global South governments to close down civic space and restrict human rights (Roberts and Mohamed Ali 2021). Taye (2018) has shown that 21 African countries experienced internet shutdowns in a 12-month period as part of what Freedom House (2018) has referred to as a descent into 'digital authoritarianism'. There is an urgent need to address this worsening situation, as without in-country capacity to monitor and analyse these issues it is impossible to develop robust and effective technical, policy or regulatory countermeasures. SDC should fund research and networks that document and build the evidence base on the use of surveillance and disinformation in the global South.

## Sustainability

**Digital governance initiatives need funding beyond the pilot phase.** Initiatives typically rely on external funding from development donors, private foundations or other philanthropic partners, leaving initiatives vulnerable to uncertain long-term funding and premature discontinuation. It is not uncommon for digital governance initiatives to succeed in highlighting an important (governance) issue, only to become dormant shortly afterwards (Kukutschka 2016). It is easier to attract funds for pilots and innovative technological solutions than for ongoing operational costs in the medium-to-long term (Prieto Martín *et al.* 2017). SDC has a track record of making long-term investments in partner organisations, as well as providing more freedom on how money is spent relative to other donors. SDC should leverage its long-term and partner-centric investment culture to invest in and improve the sustainability of digital governance initiatives.

# Pillar 5: Addressing governance as a transversal theme

This section reviews digital governance at a strategic level and seeks to identify opportunities for SDC to achieve effective, transformative and sustainable development in all sectors.

## Internet governance

**Developing mechanisms to regulate internet companies in the public interest is a strategic objective.** The original vision of the world wide web was a decentralised and egalitarian network; an open space in which everyone could freely participate (Berners-Lee 2017). The internet continues to be a space of economic opportunity and expanded information and communication possibilities, allowing some citizens to voice dissent and policy alternatives to be promoted. However, the internet is also home to an increasingly centralised, privatised web, characterised by pervasive surveillance, personal data extraction and covert citizen manipulation. It has also enabled a small number of US and Chinese digital platforms to gain monopolised power and largely evade regulation or accountability (Cohen 2020). At present, the internet is governed in the private commercial (and political) interests of a tiny elite, while systematically abusing the privacy and rights of billions of people. SDC's digital strategy has a vision of a free, open and secure digital space, in which good governance produces public benefit. SDC and the Swiss government more generally should seek to defend this position in internet governance fora.

The UN defines internet governance as 'the development and application by governments, the private sector and civil society of shared principles, norms, rules, decision-making procedures, and programmes to shape the evolution and use of the internet' (UN n.d.). There are two prevailing approaches to governance of the internet: multistakeholderism and internet sovereignty. The two approaches are not dichotomous. In its Digital Foreign Policy Strategy, Switzerland commits to a multistakeholder governance model, offering Geneva as an important space for global dialogue on this issue.

2 This list of countries appeared under case studies in Cambridge Analytica's website before the company shut down. Though the website no longer exists, the authors have a snapshot of the website from early 2019.

## The multistakeholder internet governance model

Multistakeholderism is the principle that governance of the internet should arise out of cooperation between government, civil society and the private sector (Unwin 2017). In practice, however, not all actors have equal representation or influence in internet governance: organisations from developing countries tend to be less represented, as do marginalised groups. There is a cost to attending internet governance fora and organisations have different financial means, with civil society less well represented than the private sector and northern governments (*ibid.*). SDC should support the participation of less represented groups in global fora.

Multistakeholder internet governance is intended to allow civil society voices to participate in internet governance on an equal footing with the private sector and government. Multistakeholder representation is implemented through three main international bodies: the International Telecommunications Union (ITU), the Internet Corporation for Assigned Names and Numbers (ICANN), and the Internet Governance Forum (IGF). Though the ITU is a UN body, only UN member states have voting rights and it is subject to significant private sector lobbying influence when compared to CSOs (*ibid.*). ICANN is a non-profit organisation that manages the internet's naming system (e.g. '.com' and '.co.uk') and IP addresses. It was previously controlled by the US government and was thus mainly seen as serving the interests of US private sector companies. The US gave up oversight of ICANN in 2016 in the hope that a more global and 'multistakeholder' oversight would unfold. While it is now more global in perspective, its legacy as an organisation that mainly serves private interests remains (*ibid.*).

The IGF provides a platform for all three stakeholder types to exchange ideas regarding policy and practice, and emerged out of complaints that CSOs were being left out of internet governance and needed a space where they could interact on an equal footing with the private sector and government (*ibid.*). However, the IGF exists mainly as a forum for vibrant discussion, and has no teeth to make or implement policy. In all three mechanisms, civil society voices participate without decision-making power. SDC should seek to strengthen the decision-making power of rights-based organisations in internet governance.

## Internet sovereignty

While some governments, at least rhetorically, support the ideal of an open and transparent internet, governed through a global multistakeholder process, others propose a system of internet sovereignty. Proponents of internet sovereignty argue that each country should have the ability to regulate internet activity, content and traffic within its own borders. In this system, each country has the sovereign right to establish and implement public policy on matters of internet governance and regulate in its own national internet (Unwin 2017).

The concept of internet sovereignty can be traced back to the 2012 World Conference on International Telecommunications (WCIT), when it was put forward by Russia, China and six Middle Eastern countries (*ibid.*). China continues to be a leader in internet sovereignty policy and practice, having 'already achieved [Internet Sovereignty] by operating a system with tight restrictions on connectivity to the rest of the world. [China] is now helping other countries develop similar online architecture' (Hornby 2017). The digital arm of China's Belt and Road Initiative, known as the 'Digital Silk Road', has become a platform for China to build physical internet infrastructure while promoting the use of Chinese-developed internet standards, policies, practice and digital technologies (Hernandez 2019; Shen 2018).

**The multistakeholder vs internet sovereignty framing may disguise as much as it reveals.** Despite the open and free internet rhetoric of the multistakeholder camp, the internet has never truly been open or free. For some, internet sovereignty is a means of asserting self-determination in the face of US internet domination. Given the inability of international multistakeholder structures to effectively govern the practices of Google, Facebook and others, it could be claimed that the US is practising sovereignty over the internet from beneath a cloak of multistakeholderism. From this perspective, the multistakeholder vs sovereignty framing is a false dichotomy. Some proponents of internet sovereignty suggest that it would offer countries a greater ability to protect their citizens from digital harm and defend government from cyber threats, as well as enabling it to place restrictions on internet companies (Lewis 2020). Political economic analysis will be useful in understanding the political intent of governments. Unfortunately, many governments consider online civil society activity a threat to 'national security'. As the Edward Snowden revelations make clear, many governments that rhetorically support privacy rights and open communication in fact practise pervasive surveillance that infringes citizens' fundamental freedoms. More than half of liberal democracies are now known to deploy artificial intelligence surveillance (Feldstein 2019). SDC values include thinking and working politically and a strong commitment to human rights. SDC should therefore support partners whose practice expands civic space and digital rights irrespective of rhetorical positions.

## Internet governance deficits

**Existing internet governance mechanisms are ineffective.** A few large companies hold effective

control of the internet but are ungovernable via existing mechanisms. Five large internet companies (Facebook, Google, Amazon, Tencent and Alibaba) control an increasingly large share of the internet economy and are creating total service environments where users never have to leave their platforms (Internet Society 2019). The fact that the internet has effectively been privatised by a small number of US and Chinese corporations makes regulation or redress challenging. National governments have struggled to tax, regulate or effectively influence the policies of Big Tech corporations. This challenge is made more difficult by the fact that many incumbent politicians are themselves political beneficiaries of the services provided by this digital manipulation. SDC should reinforce privacy and support rights actors working to strengthen digital governance and rights through multistakeholder fora, including the World Summit on the Information Society (WSIS), IGF and ITU.

The internet sovereignty model is limited in its potential to tackle global internet issues because – taken literally - it suggests that countries should only govern the internet within their own borders. However, the multistakeholder model has proven incapable of controlling such critical issues as surveillance, disinformation and internet shutdowns. Though binding decisions are made in the ITU and ICANN, these remain technical in nature and limited to issues such as internet standards and domain name regulation (Unwin 2017). Meanwhile, the IGF provides a valuable space for dialogue but lacks the political power to make enforceable decisions. The result is fragmented and ineffective internet governance. SDC's advantage in this space is its 'Swissness': it is a neutral power that supports both sovereignty and (decentralised) multistakeholder decision-making. This may enable SDC to play a strategic role in brokering the kind of hybrid internet governance that would allow progress to be made.

# Conclusion and recommendations

This report began by suggesting that digitalisation is perhaps the most important strategic challenge facing governance in the decade ahead. We have provided many examples of the valuable opportunities that digitalisation provides when it comes to achieving SDGs 16 and 17, particularly target 16.7 of 'inclusive, participatory and representative decision-making at all levels'. We have also provided multiple examples of the governance challenges raised by this digital disruption, including loss of privacy due to mass surveillance, closures of online civic space, and a shift in governance power away from citizens and domestic institutions to unaccountable, largely US- and China-based, internet corporations.

The report argues that the move from analogue to digital processes is introducing a new paradigm of digital governance in which artificial intelligence and automated algorithmic decision-making is replacing human-centred dialogue and deliberation. This dehumanisation of governance processes may prove incompatible with SDC commitments to inclusive, participatory decision-making. From a rights-based perspective, it is possible to argue that automating governance robs citizens of their right to actively participate in the decision-making affecting their lives. The report also reviews evidence that shows algorithmic decision-making often reflects, reproduces and amplifies existing patterns of intersectional inequality. From this perspective, there is a need to re-insert citizens and elected government officials into both digital governance and the governance of digitalisation.

The report argues that SDC's existing commitments to thinking and working politically, decentralisation, a human rights lens, and the use of political and economic analysis puts Switzerland in an advantageous position when it comes to assessing possible responses to the opportunities and challenges of digitalisation and governance.

Rather than proposing new foundational principles be developed for digital governance, we argue that all relevant policy and practice responses can and should be guided by existing commitments to SDG target 16.7, the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the Ruggie Framework for Business and Human Rights (OHCHR 2011).

It is necessary for SDC to 'think politically' about digital governance because digital technologies offer the potential both to expand and contract human rights and civic space. The positive and negative applications of digitalisation are not technologically determined or inevitable but represent a function of political will and capacity. SDC should therefore first analyse the political intent and institutional capacity of partner governments and agencies, and only when this has been ascertained should there be any assessment of which digital technologies may be applied to amplify these qualities. This will help in avoiding the fetishisation of digital 'solutions' over development impacts.

In relation to SDC's five governance pillars, the report makes a series of recommendations:

1 **To promote inclusive and participatory governance**, SDC should support initiatives that improve the representation of women and marginalised groups in digital governance at all levels. It is important to go beyond mere inclusion and make possible equitable participation by

investing in digital and civic literacies, as well as the institutional capacity of excluded actors to meaningfully shape governance.

2 **To support decentralised multi-level governance**, SDC must address the shift of governance power from elected officials to foreign digital corporations. SDC interventions should seek to regain individual and national sovereignty, and ensure that citizens, civil society and locally elected representatives can substantively influence digital governance.

3 **To combat corruption**, SDC should both promote open data and build the capacity of citizens and non-governmental actors to make effective use of such data. SDC should support the work of transparency and algorithmic accountability initiatives aimed at making automated governance processes transparent and accountable to citizens.

4 **To respond most effectively to the challenges and opportunities of digitalisation**, SDC should differentiate its digital governance approach by focusing on the inclusion of the least connected citizens and CSOs in digital governance. SDC should fund applied research to produce evidence on and build capacity around surveillance, disinformation and internet shutdowns in the global South.

5 **To address digital governance at a strategic level**, SDC should partner with governments, CSOs and private companies committed to applying digital technologies for development in ways consistent with global commitments to SDGs 16 and 17, the Universal Declaration of Human Rights, and the Ruggie Framework for Business and Human Rights.

The second report, *Main Actors in Digitalisation and Governance*, makes more detailed recommendations about which organisations would make good strategic partners for SDC in realising its digital governance objectives.

What should guide SDC's strategy at all levels is the need to shift the locus of governance away from opaque algorithms and unaccountable foreign corporations. Self-regulation of digital monopolies is unlikely to be sufficient. Democratic principles suggest that locally elected officials should be empowered to govern and that citizens must enjoy meaningful participation. Open data, corporate transparency and algorithmic accountability are likely components of the solution, as are enhancing digital and civic literacies, and building the institutional capacity of domestic governments, media, research institutes and regulators. Here, strengthening the role of multistakeholder initiatives such as the IGF at the national and local levels would be beneficial in achieving 'inclusive and participatory decision-making at all levels'. The African School on Internet Governance (AfriSIG), which has trained hundreds of participants in the skills necessary for participation in digitalisation and governance processes, may be a model worth supporting and replicating in other regions.

It is clear that digitalisation has enormous potential to deliver governance benefits in the shape of efficient digital government services, open and transparent government, and citizen participation in online governance. It is also clear that risks exist in the shape of dehumanising governance, the automation of inequalities, and a decent into digital authoritarianism. None of this is inevitable. The internet began life as a decentralised, free and open digital space. The current phase of digitalisation has resulted in privatised civic space and distorted elections, and poses a threat to human rights. However, the future of digitalisation is yet to be determined, with SDC well placed to influence its future governance.

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