Digitalisation in achieving the SDGs and "building back better" after COVID-19: possibilities and tensions

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Introduction

The 2030 Agenda for Sustainable Development, with 17 Sustainable Development Goals (SDGs) at its heart,[2] reflects the shared ideals of all the United Nations member states in achieving a better and more sustainable future for all. Following the COVID-19 pandemic, there is a greater need than ever to ensure effective collaboration between states as part of an equitable global recovery - to 'Build Back Better', using the SDGs as a framework through which countries can model their approach to recovery. This briefing paper focuses on the place of digitalisation in this effort, drawing on the discussion of "building back better" held at the Regional Forums for Sustainable Development (RFSDs) in each region – Africa, Europe, Latin America and the Caribbean, Asia-Pacific and West Asia – earlier this year.

The 2021 Regional Forums for Sustainable Development[3] have been windows into regional ambitions and challenges around 'Building Back Better'. The RFSDs are key regional spaces for review and follow up the implementation of the SDGs, with each forum generating a report to this

[1] With thanks to Megan Mann for her contribution to the writing process and Dr. Graham Long and Dr. Anh Vu for their support and commentary throughout.
[2] See Transforming our World: the 2030 Agenda for Sustainable Development https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E.
[3] See The UN Regional Commissions https://www.regionalcommissions.org/.

year's High Level Political Forum.[4] As highlighted in these reports, digitalisation has been identified as a strategic imperative that will generate major transformations in recovering from the pandemic for countries within their health, social and economic sectors.[5] In contrast to *digitisation* that refers to the procedure of making something digital, *digitalisation* denotes the implementation and networking of digital information and communication technologies.[6] Artificial intelligence, digital data storage, and crypto-currencies are all examples of technologies associated with the implementation and networking of technologies that are linked to digitalisation.[7]

As a long-term strategy, digitalisation is widely perceived within the U.N. and member states as a potent synergising agent for sustainability, generating major opportunities to address the issues of structural inequality embedded within the unique challenges faced across the world.[8] However, some experts view sustainability and digitalisation as potentially in tension. Digitalisation may lead to far-reaching changes in social and ecological spheres, in the way humans interact with each other and affect their environments, that might be good or bad for people and planet.[9] Whilst the future effects of digitalisation are unknown, the devastating COVID-19 pandemic has clearly pushed the world towards a convergence of these two ideas - digitalisation and sustainability. This paper uses the European, Asia-Pacific, African, West Asian and Latin American and Caribbean RFSD reports published in April 2021 as a body of evidence, seeking to evaluate how their discussions – as summarised in their reports – address the role of digitalisation in a sustainable development model, by addressing the technology's impact on equal access across social groups, the environment, and the private information of citizens. The paper argues that while digitalisation

[4] For Regional Reports see:
ECA: https://undocs.org/en/E/HLPF/2021/3/ADD.1
ECE: https://undocs.org/en/E/HLPF/2021/3/ADD.3
ECLAC: https://undocs.org/en/E/HLPF/2021/3/ADD.2
ESCAP: https://undocs.org/en/E/HLPF/2021/3/ADD.4
ESCWA: https://undocs.org/en/E/HLPF/2021/3/Add.5
[5] Gema Del Río Castro, María Camino González Fernández and Ángel Uruburu Colsa, "Unleashing The Convergence Amid Digitalisation And Sustainability Towards Pursuing The Sustainable Development Goals (SDGs): A Holistic Review", *Journal Of Cleaner Production* 280 (2021): 15.
[6] Maja Van Der Velden, "Digitalisation and The UN Sustainable Development Goals: What Role For Design", *ID & A Interaction Design & Architecture* 37 (2018): 160.
[7] Maja Van Der Velden, 160.
[8] Gema Del Río Castro, 15.
[9] Gema Del Río Castro, 15.

offers immense positive potential in enabling countries to recover from the pandemic, it should not be viewed as a quick "fix" because of its potential costs in these three respects.

The paper is structured in three sections that address and evaluate the role of digitalisation in a model of sustainable development. The **first** section explores the relationship between digitalisation and priorities around the environment and climate change. This section argues that the increasing reliance on technology has potential risks for the environment which need to be mitigated in line with SDG 13. In the **second** section, the report explores and examines the effects of access to digital services in light of localities, generational vulnerabilities and minority groups. This section argues that there ought to be greater cooperation between states and regions to lessen the digital divide in terms of accessibility among these varying groups. In the **third** and **final** section, the report evaluates the issues faced by governments in using digital data technologies in a sustainable model to recover from the pandemic. This section argues that in order for governments to safely and responsibly use digital technologies, an accountability framework needs to be in place to prevent misuses of power and security concerns. In presenting each section, the aim of the paper is to address the realisable potential of using digital technologies to recover from the pandemic while illustrating, at the same time, the inevitable tensions in implementing digitalisation in a sustainable development model.

(1) Digitalisation, The Environment and Climate Action

Discussions in all the RFSD reports support the notion that pervasive digitalisation and the accessibility of technological breakthroughs are essential components in achieving the SDGs and building back better in response to Covid-19. However, the relationship between digitalisation and the particular imperatives of environmental protection and climate action is potentially more complex. On the one hand, digitalisation could support the increased adoption of sustainable practices in the pursuit of positive change in climate action. On the other hand, though, digitalisation should not be pursued instead of, or at a cost to, environmental sustainability. The response to Covid-19 is seemingly the most prevalent short-term issue governments are currently facing; however, climate change remains the most globally existential threat and cannot be viewed as of secondary importance without costly long-lasting repercussions. While mass investment in

digitalisation is sought as an effective "quick fix" recourse against the social, health and economic effects of Covid-19, it is imperative that this is done in ways that close the disconnect between these more immediate, particular challenges and the longer term, global environmental challenges.

Within the Economic and Social Commission for Western Asia's (ESCWA) regional forum there is a recognition of the synergy that exists between digitalisation and the SDGs for example, in the form of (1) new agricultural technologies, (2) access to evidence-based decision-making processes derived from enhanced scientific data collection and (3) food systems working on food security.[10] In this context, digitalisation is being deliberately and effectively deployed to alleviate the stress on food systems by creating more efficient and reliable production. However, this poses the question of whether the environmental component of the Goals is being addressed as integral. Whilst incentives for 'environmentally-friendly and climate-smart' agriculture are offered, this arguably presents these objectives as a choice – an added benefit rather than a necessary global good.

In the Economic Commission for Africa's (ECA) report, discussion highlights that Africa is home to the second largest carbon sink in the world, in the Congo Basin, but that as a global resource, Africa should not be solely responsible for the cost of preserving it. As a part of a wider model of green industrialisation, the ECA report identifies potential for digitalisation to operate in support of environmental objectives - investing in climate risk information and digital solutions that enhance the use of technologies in the production of tailored and integrated climate information services.[11] Although the ECA report again identifies and seeks to correct challenges surrounding food security, more emphasis is placed in sustainable foods explicitly to target climate change. Thus, investment in humanitarian and nutrition assistance of this sort is presented as more integrated with environmental objectives.[12] The ECA also emphasises the role of the education and of local communities and young people in tackling climate change: perhaps mitigating a key tension in 'building back better' between climate action and stimulation of the private sector.[13]

[10] "Input from the fifth session of the Arab (ECSWA) Forum for Sustainable Development". *United Nations Economic and Social Council*, 2021: 18.
[11] "Input from the seventh session of the Africa (ECA) Regional Forum on Sustainable Development". *United Nations Economic and Social Council*, 2021: 4.
[12] ECA, 10.
[13] ECA, 14.

A central theme of the approach discussed in the Economic Commission for Europe's (ECE) forum, regarding climate action, is to ensure that 'no-one is left behind'. Emphasis is placed on the need to strike a balance between development in a post-pandemic world and the imperatives of environmental sustainability .[14] Digitalisation has a key role in achieving a successful balance - in particular, the role of data in effectively informing decision-making. Any sustainable progress will require international solidarity beyond the national level. Other themes visible to a greater extent than in other reports are a stress placed on reforming not only production patterns but consumption patterns, something that can be tackled at the grass root level through the education of individuals and is essential in order to reverse wrongdoings to the environment as opposed to just mitigating the damage.[15] There is also an importance placed on the idea of tourism being approached on a sustainable trajectory. Here, the pandemic presents an opportunity for a world-wide reset, allowing governments to align tourism and travel with climate change strategies.[16]

The Economic and Social Commission for Asia and the Pacific's (ESCAP) report, in a similar vein to the ECA, discusses giving greater responsibility to local communities through the empowerment of local governments. There are proposals for investments in environmentally friendly technologies which benefit women by providing equal opportunities to green jobs, something that both serves to correct gender imbalances in that sector but also, importantly, strengthens digitalisation of climate information services and data collection, and influences policy action.[17] As in the context of the ECA report, an emphasis on the role of local communities/governments in accelerating climate action, goes hand in hand with the mainstreaming of climate education. In addition, the crucial policy changes at the heart of discussion are the strengthening of legal frameworks and institutions with sufficient access to information and the appropriate emphasis on environmental justice, so that policies imposing strict industrial standards on environmental

[14] "Input from the fifth session of the Regional Forum on Sustainable Development for the Economic Commission for Europe (ECE) Region". *United Nations Economics and Social Council,* 2021: 10.
[15] ECE, 11.
[16] ECE, 16.
[17] "Report of the Eighth Asia-Pacific (ESCAP) Forum on Sustainable Development". *United Nations Economic and Social Council,* 2021: 14.

protection and pollution mitigation (e.g. reflecting the removal of subsidies for fossil fuels) are adequately followed, and the 'watchdog' role of environmental defenders is upheld.[18]

The Economic Commission for Latin America and the Caribbean (ECLAC) forum report's consideration of climate change is centred around the use of investment in climate change adaptation and mitigation as a means of debt relief. Civil society voices in the report, whilst calling for more citizen participation, more equality, more democracy and more human rights, also call for a greater degree of harmony with nature.[19] Digitalisation can have an integral role in this synergy and achieving the desired changes, as we go on to highlight. Greater availability of timely data, and widely shared, globally-public access to that information can support environmental protection. However, unequal access to that information can undermine it, and more broadly undermine the commitment of the SDGs to "leave no one behind". This is the issue we turn to in section 2.

(2) Accessibility, Exclusion and the 'Digital Divide' - Ensuring 'no one is left behind'

The COVID-19 pandemic is acknowledged in all the RFSD reports as highlighting and exacerbating existing global inequalities, particularly for populations such as young people and women. As addressed in all of the RFSDs, *accessibility* for the digital world is essential in "Building Back Better". The challenge here is, in part, social. People have been isolated and their movement restricted, so that the ability to competently use and access technology has become essential to maintaining personal interconnections. Conversely, a lack of access to technology has set back the wellbeing of particular populations – reinforcing existing inequalities and vulnerabilities and creating new ones. The challenge is also economic. Digital access is important for a working economy as it enables countries' access to the transnational economy, especially during and following the pandemic where face to face interaction has become increasingly limited. Therefore, the role of digital access in a post-covid economy is a focus for the regional reports.

[18] ESCAP, 13.

[19] "Input on the implementation of the 2030 Agenda for Sustainable Development in Latin America and the Caribbean (ECLAC)". *United Nations Economics and Social Council,* 2021: 12.

While the ECLAC report perhaps says relatively little about the difficulties with regard to digital accessibility, it takes a proactive approach to using digitalisation to protect the economy, outlining a plan in which one percent of GDP will be allocated to the 'digital basket' in order to contribute to enhancing some universal social protections. [20] The ECA report addresses the use of digitalisation in terms of improving labour market systems and being able to better monitor market trends, though little is said about the way in which this will be achieved. [21] The ECE report offers the most commentary on using access to technology to enhance economic prospects based on developing the skills of the labour force, with this supported by those with greatest access and digital resources so as to lessen the skills gap between states.[22] They also note how the use of technology has been able to reduce the economic impact on businesses as a result of the pandemic;[23] something only those with greater access (particularly in richer states) and developed tertiary industries have been able to do.[24] The ESCAP report notes that closing the digital divide will take a lot of investment in order for trade to develop digitally,[25] and the difficulties in generating the funding to meet this challenge.

This vision aligns with the role of technology within SDG 10: reducing inequalities within and among countries.[26] With these social and economic impacts of digitalisation in mind, the remainder of this section discusses how exclusion and the 'digital divide' are addressed in each RFSD report, identifying ways in which states can ensure that "no one is left behind". This is addressed particularly in relation to (i) the access that minorities and more vulnerable people have to digital resources, (ii) accessibility in more rural or remote areas, as well as (iii) disparities between generations and their capabilities in terms of technology use.

Access for Minorities and Vulnerable Persons

[20] ECLAC, 5.
[21] ECA, 5.
[22] ECE, 11.
[23] ECE, 21.
[24] Carolyn Evans, "The Coronavirus Crisis and the Technology Sector", *National Association for Business Economics* 55 (2020): 256.
[25] ESCAP, 8.
[26] "The 17 Sustainable Development Goals: Goal 10", *United Nations*, 2021.

In considering digital accessibility with regards to minorities and more vulnerable groups within communities, we can see how challenges will differ for particular states, e.g. reflecting politically salient ethnic divides or minorities facing greatest persecution. Without access to technology and the development of digital skills, it will become increasingly difficult for these peoples to participate in a world increasingly characterised by technology. In the African report, the commentary on this is notably limited, though this might reflect Africa's challenges in digital capacity and accessibility generally,[27] let alone specific challenges around vulnerable and marginalised groups. The UNECE report notes the need for provisions to ensure those with disabilities have the same access to developing their digital skills as anyone else,[28] but national or ethnic divisions in accessibility throughout the region are perhaps less acknowledged. This trend is echoed in the Asia-Pacific report, while the Latin America and Caribbean report does not address minorities or vulnerable people specifically in their consideration of digital accessibility following the coronavirus pandemic.

Locality and Access

Looking at geographic differences, the considerations both between states, as well as internal inequalities between in rural and urban areas, are highlighted in all reports to varying degrees. Keeping rural areas and the developing world integrated via technology is critical for lessening the skills divide for equitable and socially sustainable development.[29] The ECE report spends the longest on this issue,[30] emphasising the importance of assisting those states less advanced in developing their technologies and skills, in turn better enabling their economies to develop within the digital world. They specifically suggest a multi-stakeholder approach in addressing these divides between countries to benefit economies but also - reflecting the sensitivity of digital data - promote trust and cooperation as well. The report also considers the effects on more rural agricultural communities, suggesting that through demonstrable and effective progress, transforming agriculture to make greater use of technology will be beneficial in the longer term.

[27] Kevin Ibeh, "Promoting African digital multinationals for a more inclusive post-pandemic future", *Transnational Corporations Journal* 27 (2020).
[28] ECE, 22.
[29] Jeffrey James, "Confronting the scarcity of digital skills among the poor in developing countries", *Development Policy Review* 39 (2019): 327.
[30] ECE, 22.

The ESCAP report also discusses the urban-rural divide but does not go as far as identifying concrete steps as to how this can be redressed.[31] They do, however, make note of the transfer of digital skill knowledge between states to enhance their participation in developed markets. The Latin America and Caribbean report, too, focuses less on how digital divides might be addressed, instead noting the digital divides nationally, regionally and globally have worsened.[32] The ECA report considers digital capacity development largely at a regional scale.[33]

Generational Vulnerabilities and Access to Digital Services

All reports consider digital accessibility as a generational question. Young people have been disproportionately affected by the pandemic through disruption of education and training and increasing unemployment. There are both short- and long-term impacts of these school closures. This issue is discussed within the European report which identifies that almost 60% of young people have learnt less during the pandemic compared to a normal school year.[34] The African report focuses on pursuing digital access for young people in order to harness their innovation via technology, perhaps as a driver for economic progress throughout the region. [3536] However, the disproportionate barriers to employment faced by youth pose a problem for viewing digital access in this way. Similarly, the ECLAC report considers young people's digital access, highlighting that 46 per cent of children did not have access to tele-education.[37] This would in turn limit their education and stunt the potential for the pursuit of further and higher education, prompting a need to address how these people would access digital services to continue their education throughout the pandemic and beyond. COVID-19 exposed severe inequalities in digital accessibility in Africa, documented in the ECA report. Of all the regional reports, ESCWA's had the least focus on youth vulnerabilities, though still acknowledging the need to increase training opportunities for youth within the Arab region.

[31] ESCAP, 10.
[32] ESLAC, 5.
[33] ECA, 7.
[34] ECE, 15.
[35] ECA, 4.
[36] Petro du Preez and Lesley le Grange, "The Covid-19 Pandemic, Online Teaching/Learning, The Digital Divide, and Epistemological Access." *Alternation African Scholarship Book Series* 1 (2020): 95.
[37] ECLAC, 5.

With respect to older persons, Europe's report considered the need to ensure the aging population to have access to digital services to keep them connected following periods of isolation, suggesting young people with digital skills be engaged in teaching the older generations how to use technology.[38] The Asia Pacific report makes little comment on digital accessibility, noting the problem of older people being affected by the digital divide, but not highlighting particular remedies.

(3) Digitalisation of Data – The Need for Accountability

Digitalisation of data collection - collecting data electronically using current technology such as tablets, mobile phones, apps and other digital devices - is a specific domain of digitalisation that is highlighted in each of the RFSDs.[39] Digitalised data collection has played an important role in measuring the impact of Covid-19 in different nations as well as critically informing the appropriate response, determining planning and allocation of resources for local and national governments.[40] Its key advantages compared to traditional paper data collection methods, lie primarily in the reduction of human error, faster and more reliable data collection, as well as easier accessibility for stakeholders.[41]

It is evident that digital data collection has had the effect, and could continue to have the effect, of reducing the cases and deaths caused by the pandemic. However, significantly, in each of the reviews, the theme of *accountability* in digital data collection – both in the context of the pandemic and the future - is relatively unaddressed. Accountability for digital data is, in large part, an issue of governance: ensuring governments are held accountable in using that data responsibly and holding that data securely. Currently, most governments are using centralised databases as a means of storing and analysing data collected via digital technology platforms to form policy initiatives

[38] ECE, 12.
[39] Sera Whitelaw et al., "Applications of Digital Technology In COVID-19 Pandemic Planning and Response", *The Lancet Digital Health 2*, no. 8 (2020), 436.
[40] "High-Level Political Forum 2021", *United Nations*, 2021.
[41] Patrick Ercolano, "Data Collection During COVID-19 Offers Benefits and Poses Hazards", *The Hub*, 2020, 1.

to combat the effects of Covid-19.[42] A centralised database contains all the anonymous records of individuals' symptoms, their personal information and so on within a single collective location.[43] This is the opposite to a decentralised database, that stores personal and private data of individuals' information on their own devices, rather than on a singularly located platform.[44] In opting for a centralised database initiative, there are two central challenges faced by governments that make accountability for safe and responsible storage and use a critical issue. The first challenge is potential security concerns with how the data is held; the second is safeguarding against governments going beyond their legitimate authority in how they aim to use the data. As much as there is immense positive potential in the capacity for digital data collection, it is critical that there is oversight over how digital data is collected, if the potential of digitalisation, as outlined in the RFSD reports, is to be realised. The aim of this section is to reflect on these concerns around accountability.

The first central challenge is that in the focus of governments on urgent data gathering to support policy initiatives and resource allocation in the social and health sectors, with an emphasis on scalability and efficiency, less attention might be paid to the protection of that data against cyber criminals. Given the fact that central databases used by governments have access to millions of people's personal information, this is a serious issue that threatens the internal security of governments as well as the safety and freedoms of its citizens. Indeed, this issue has already been highlighted in a security breach of Qatar's Covid-19 contact-tracing application that resulted in the private and sensitive information of over a million of the country's citizens being put at risk in 2020.[45] Hackers gained access to critical private and sensitive personal information, including names, national ID, health status and location data of users. The issue here, then, is exploitation by cyber criminals of an industry that is ultimately in an emergent, relatively unprotected stage. This illustrates the tension between digitalisation and sustainability because it demonstrates that

[42] Ellie Peck, "Some Countries Want Central Databases For Contact-Tracing Apps", *The Economist*, 2020, 2.
[43] Paul Hague, "Centralised Vs Decentralised Data – What are the Risks to Data Privacy?", *Blackdice*, 2020.
[44] Paul Hague.
[45] Alex Hern, "Qatari Contact-Tracing App", *The Guardian*, 2020.

the long-term focus of governments directing their efforts of digital data collection to support policy initiatives and allocate resources can endanger the freedoms of its citizens.

At the same time, it is exactly this potential and emergent state for digitalisation that is captured within the aspirational goals of the RFSDs. As Horgan et al.'s paper highlights, the pandemic exposed the weak infrastructural state of countries' health care data systems, in the sense of relying on traditional data collection to mandate resources and form strategies.[46] The use of contact tracing by public health authorities is one example of this. Contact tracing aims to identify as many contacts as possible of those who have the virus, so these contacts can themselves be tested and asked to follow the relevant government procedures, such as self-isolating.[47] As Horgan et al. state, in the context of the pandemic this has typically been done manually by health authorities and is a slow, time-consuming process.[48] Mass investment in digital data, however, offers an opportunity to readdress this issue by harnessing its immense scalability and efficiency. For example, mobile apps with tracing functionalities can identify both known and unknown contacts of a confirmed case and can aid in follow up scenarios where a significant number of cases could overwhelm public health authorities. In such ways, efficient and accurate data collection can ultimately result in a quicker and more informed response by governments when allocating resources and forming policies to combat the effects of Covid-19.

Digitalisation of data is highlighted in all reports, reflecting its global recognition as a mechanism of response and recovery. But this common global recognition itself suggests the importance of moving beyond digital data collection in an isolated, singular manner by each country, in part because of its status as an emergent technology that will continue to face security issues. Global sharing and peer learning around approaches to digitalisation could highlight the strengths and weaknesses of different approaches in diverse sectors and country contexts, and so maximising the potential of digitalisation as an emergent area of technology. In terms of accountability, this would represent a responsibility for each country to engage with this multi-lateral effort, and entail being open to outside evaluation and scrutiny from other countries. As a collective vision of global

[46] Denis Horgan et al., "Digitalisation And COVID-19: The Perfect Storm", *Biomedicine Hub* 5, no. 3 (2020): 16.
[47] Denis Horgan et al., 17.
[48] Denis Horgan et al., 17.

partnership in line with this core ethos of the SDGs, this would bolster countries' ability to be protected from cyber security while reducing the global negative effects of Covid-19.

The second risk of using a centralised database in digital data collection concerns the potential for an abuse of legitimate authority: governments using the private, sensitive data of its citizens as an illegitimate opportunity to erode their freedoms, for example through illicitly surveilling and tracing their geo-movements, characteristics and interests. This is made possible by storage of digital data in a central database: instead of the data being protected and held by the individual user in the privacy of their own electronic device, it is stored in a central accessible location that contains the information of all its users. This unlocks the capacity for abuse – the use of data by governments for purposes beyond combatting the pandemic. Abuse poses a potential risk to sustainability – notably by undermining SDG 16 – but also the progress of digitalisation, since governments misusing their power enabled through digitalisation could result in citizens actively disengaging with digital data technologies and jeopardise their long-term potential. Rule-setting and accountability for legitimate use of centrally held data, then, is critical – an extended frontier for the protections of fundamental freedoms, and the need for accountable and transparent governance, acknowledged in the targets of goal 16.

At the same time, the potential of this technology, when used responsibly, has the opportunity to accelerate social, economic and health reforms in response to the pandemic. As a result of data digitalisation, it is easier for governments to categorise data relating to the transmission of Covid-19, recognise significant patterns, correlations and trends surrounding the cause of the transmission, and so quickly adopt the right policies in response. As Whitelaw highlights, one example is the experience of the Taiwanese government that, after the outbreak of Covid-19 in China, began health checks for in-going and out-going travelers from Wuhan by using its central national health insurance database in conjunction with the data from the country's immigration records.[49] This assimilation of digital data collection enabled health care institutions to obtain civilians' travel histories and recognise individuals potentially infected with Covid-19. Taiwan's geographical location close to Wuhan made it vulnerable to the effects of Covid-19. However its efficient use of centralised digital data collection by the government is credited as an important

[49] Sera Whitelaw, 436.

reason for its relatively low volume of cases and deaths.[50] Thus, the scalability, efficiency and accessibility of digital data offers concrete solutions to problems arising from the pandemic. Whilst technology has the potential to be exploited, it can also, if used in the right direction, can save lives, and benefit economies, healthcare and social systems.

This potential, and these risks, underscore the need to put an accountability framework in place, in which governments are held directly responsible in holding this power through digital data. "Sunset clause" could be part of such mechanisms, agreeing a set time after which the data held by governments in response to the pandemic is destroyed.[51] This would then be the standard to hold governments to, with penalties for those that hold on to the data for longer than the agreed time. Sunset clauses are also useful in dispelling concerns around the irreversibility of the measures that governments have taken in response to COVID – a signal that the extra power granted by citizens to governments would not translate into a longer-term removal of personal freedoms and so bolstering public trust.

Conclusion

All the RFSD reports highlight the positive power of digitalisation as part of efforts to "build back better" in ways that achieve the SDGs. In the reports there are examples of the potential tensions between the concepts of digitialisation and sustainability. Digitalisation has the propensity to develop risks on the one hand but create positive outcomes on the other. Though digitalisation is not a "quick fix" to be pursued over, or at the expense of, responding to climate change and the need to protect our shared environment, it can support environmental management, cooperation, and awareness. Though addressing the 'digital divide' is critical to realising digitalisation's potential for *inclusion* rather than *exclusion*, equitable digitalisation offers new arenas in which populations can be heard and empowered. Whilst it is important governments' use of digital data does not outstrip accountability for use and abuse, it is clear – though it lies outside the scope of this paper – that digitalisation could be an avenue for a more participatory and accountable politics.

[50] Sera Whitelaw, 436.
[51] Hayden Dahmm, "Data Sharing In A Post-Pandemic World: How To Safely Wind Down Surveillance Measures", *IISD*, 2020.

There are concrete measures in investment, policymaking, and regulation that could be taken in each of these arenas to maximise the possible contributions of digitalisation, and these concrete measures in turn reflect basic principles of the 2030 Agenda for Sustainable Development. Progress in "building back better" should recognise the need to integrate *environmental* and *governance*, as well as *social* and *economic* dimensions of sustainable development through coherent policymaking. Recognising and addressing inequalities, vulnerabilities and marginalisation - "leaving no one behind" - is central to pandemic recovery. Digitalisation should support participation and partnership within each country – a "whole of society" approach - and continue to develop *global* and regional partnerships.

The Regional Forums for Sustainable Development are vital spaces in which to discuss these issues, with dialogue at the regional level itself reflecting a further principle of the 2030 agenda – the recognition of the SDGs as universal, but owned and realised in diverse national contexts. How the Regional Forums apply the SDGs as a lens through which to 'build back better' will be a critical indicator of progress towards realising the SDGs by 2030, and something that can be assessed in future papers.

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