Sudan Digital Rights Landscape Report

Abrar Mohamed Ali

This is an Open Access report distributed under the terms of the **Creative Commons Attribution 4.0 International licence** (CC BY), which permits unrestricted use, distribution, and reproduction in any medium, provided the original authors and source are credited and any modifications or adaptations are indicated.

This report is part of 'Digital Rights in Closing Civic Space: Lessons from Ten African Countries'; the Introduction is also recommended reading.

1. Introduction

The purpose of this report is to understand how the political and technological landscapes in Sudan have contributed to openings and closings of civic space that have impinged on citizens' ability to exercise, defend and expand their digital rights. Internet access in Sudan is improving, and digital technologies are increasingly crucial to the enjoyment of rights and livelihood improvements. However, the government has at times taken aggressive measures to limit internet freedom and close civic space.

The term 'digital rights' refers to an individual's ability to access, use and create digital media freely to exercise human rights, including the right to privacy, data protection and freedom of expression (Human Rights Council 2016). The term 'civic space' refers to the space that people use to communicate with each other freely in a specific political and social context. Civic space provides people with an environment in which they can openly share their interests and concerns, and influence and shape policymaking. Closing civic space can shrink social connections and communications, and deprive individuals of their basic digital rights (CIVICUS 2016).

Section 2 of this report discusses the political landscape in Sudan, and how the digital rights of the Sudanese people are affected by political and technological issues. It addresses the ruling party that has played a part in opening and closing civic space from 2000 to 2020. Section 3 discusses the civic space landscape in Sudan, which includes a timeline of the past 20 years, plotting key points of political contestation and change as they have affected the closing and opening of civic space. Section 4 is a timeline of the past 20 years that describes key events in the use of digital technologies to open and close civic space. Section 5 describes the digital rights landscape, which is an analysis of the previous section. Section 6 is the conclusion, which includes the findings of the report and also makes recommendations to improve digital rights in Sudan.

2. Political landscape

Many political parties have ruled over Sudan. Omar al-Bashir led Sudan from 1989 to 2019, the country's seventh president. Al-Bashir came to power in 1989 when he became brigadier general of the Sudanese Army. He led a military coup that was negotiated with rebels in the south of the country and overthrew the democratically elected government of Sadiq al-Mahdi. In 1992, al-Bashir founded the dominant National Congress Party. Southern and northern Sudan had been at war for more than two decades.

From 2005, Sudan was governed according to the Comprehensive Peace Agreement, which ended the conflict. According to the agreement, there would be an autonomous government for southern Sudan, which would manage its own political and legislative issues. The secession of South Sudan played a critical role in inducing numerous economic shocks. The most critical and direct effect was the loss of oil-producing regions, which accounts for about 50 per cent of the Government of Sudan's revenue and some 95 per cent of its exports, which considerably affected the country's economic growth. These factors led to price inflation and have triggered sporadic protests since September 2013.

Al-Bashir was accused of crimes including what United States (US) Secretary of State Colin Powell described as genocide (US Department of State 2004), and war crimes in Sudan's Darfur region. In 2008, the International Criminal Court issued a warrant for his arrest. In 2010, another arrest warrant was issued on three separate counts of genocide. Thousands of people lost their lives during the Darfur conflict that occurred in February 2013 as the government's Rapid Support Forces (RSF) moved against the Sudanese Liberation Movement and the Justice and Equality Movement.² After that incident, although the Government of Sudan took action against those accused of being involved in the conflict and arrested many people, they restricted citizens from putting human rights-related issues on the internet.

From December 2018 onwards, there were massive protests against al-Bashir all over the country. On 11 April 2019, the al-Bashir government was convicted by the Sudanese military of corruption and replaced by the Transitional Military Council (TMC). From 3 June 2019 to 9 July 2019 the internet was shut down amid a violent military crackdown that on 3 June led to the deaths of 100, with 700 injured and 70 rape victims (Taye 2019).

¹ Southern Sudan refers to the south of the country before the independence of South Sudan in 2011.

² The Sudanese Liberation Movement is a rebel group that has been active in Darfur since 2002. The opposition Justice and Equality Movement has been active in Sudan since 2000.

The blackout was listed as a near-total restriction on information flow both in and out of Sudan for most of the population in the country. Activists such as the Sudanese Professionals Association, a trade union, said that the ruling military council deliberately enforced a blackout in an attempt to violently roll back meagre gains by protesters who had assisted in ousting al-Bashir on 11 April 2019 (Feldstein 2019). The internet shutdown increased street protests, which were already causing a strain on the country.

This was not the first time the country had experienced an internet shutdown; but this time, it was different. The shutdown was coupled with reports of organised and systemic killings and looting by government forces, including the RSF (Amnesty International 2019). Before the mobile internet was shut down, the TMC had been negotiating with opposition groups to set up a transitional civilian government (Reuters 2019).

However, a few days into the shutdown, the TMC stopped the negotiations and reportedly sent the Janjaweed militia³ to attack peaceful protesters (APC 2019). Phones and other personal belongings of the protesters were confiscated and destroyed, so that atrocities would not be shared with the world (Human Rights Watch 2019). The only forms of communication that remained active in Sudan were mobile phones, text messages and fixed-line internet provided by a few operators. It made it difficult for people to know whether their loved ones were safe.

On 4 August 2019, the TMC and the opposition Forces for Freedom of Change – a political coalition of civilian and rebel groups, which was created during the period of the protests – signed a constitutional charter for a transitional period. The charter governs a 39-month transitional period with a power-sharing agreement incorporating political and constitutional agreements (ICNL 2020). General elections will follow the end of the transitional period in late 2022; an exact date has not been set yet. The power-sharing agreement has resulted in the return of some normality to the country. However, civil society is continuously monitoring the country's situation for shifts in the state of human rights.

³ The Janjaweed Arab militia is active in Sudan, particularly in the Darfur region. Since 2003, it has been one of the main players in the Darfur conflict, which has pitted the largely nomadic tribes against the sedentary population of the region in a battle over resources and land allocation.

3. Civic space landscape

Civil society in Sudan has always played a key role in Sudan's ongoing struggle for political reform since its independence in January 1956 (Armstrong et al. 2011). Even though the post-colonial era in Sudan saw most civil society organisations engage in a range of social, economic, cultural and political activities, President al-Bashir ascended to power in 1989 and banned most media outlets (Moorcraft 2015). For instance, in 2012 a human rights defender stated in an interview with global civil society organisation alliance CIVICUS that all organisations promoting human rights within Sudan had been shut down or compelled to flee and establish themselves outside the country (Nigam 2019).

Civil society acts as a service provider to build active citizenship in local, regional and national governance. In the past few years, a great community of actors has been concerned with civic spaces in order to understand the phenomenon behind them better. Sudan's civic space activities have in the recent past faced significant challenges owing to the government's massive censorship and surveillance of the internet (Armstrong *et al.* 2011). According to a study by Freedom House in 2019, citizens' freedom in the civic space was 25 (not free) out of 100, 0 being the least free and 100 the freest (Reduce 2020; see Figure 3.1). Such scores demonstrate how the country is trying to limit freedom to use the internet.

Figure 3.1 Freedom House ranking for ADRN countries, 2000–19⁴



Note: ADRN – African Digital Rights Network.

Source: Adapted from Freedom House (2019)

Civic space provides fundamental digital rights to every individual by providing a space in which everyone can communicate and share their ideas. Since 2000, internet freedom in Sudan has been limited. Al-Bashir deprived the Sudanese of their basic right to open civic space. Despite all the protests and movements, the civic space is still closed in 2020.

Civic space in Sudan has faced many challenges in the past 20 years. From 2000 to 2012, most Sudanese were unaware of their basic digital rights. Civil society created awareness among the Sudanese people and tried to open civic space for internet freedom. However, major challenges started to appear in 2012, when many organisations were working to promote human rights. Many human rights advocates were forced to flee the country.

In June 2012, journalists demonstrating for economic and political change were confronted by police, leading to many protesters being injured. In September 2013, civil society organisations faced mounting pressure as they conducted a large number of public protests when they also faced police brutality. In the whole of 2016, the government jailed many human rights activists and responded with violence to demonstrators. In the past, many human rights activists were jailed and even executed.

⁴ Data not available for 2010 and 2012.

Table 3.1 Civic space timeline

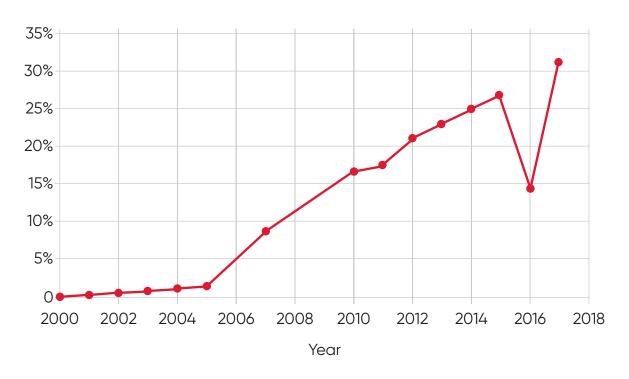
Year	Shift	Implication
2000-05	Sudanese government oppresses the people, who are unable to enjoy basic rights.	Closed civic space.
2005	Access to Information Act is passed.	Opening of civic space.
2008-11	People are least free to enjoy political and civil rights.	Closed civic space.
2012	Sudanese government shuts down many organisations promoting human rights.	Civil society activists forced to flee the country.
2013	Increased public protests; civil society organisations face mounting pressure.	Relative opening of civic space.
2016	Sudanese government increases suppression of civic space.	Journalists and protesters arrested.
2018	Telecommunication and Post Regulation Act is passed.	Telecommunication and Post Regulatory Authority can revoke the licence of any broadcasting station or telecoms company violating the terms of the act.
Feb. 2019	Government unblocks the internet.	People express relief as they can access the internet due to the opening of online civic space.
June 2019	Provisional government shuts down access to the internet.	Widespread protests, with many injured or killed.
July 2019	Court orders Transitional Military Council to restore internet access.	Sudanese people get back online once again.
June- July 2019	Internet shutdown makes it hard to share information.	The internet has become critical to people; civic space is still closed even under the current political regime.

Source: Authors' own.

4. Technology landscape

Sudan has seen millions of people introduced to cyberspace since the start of the millennium, and an expansion of the ability to share information or stay informed about the latest news. As of January 2020, Sudan's internet users stood at 13.38 million people, an increase of 2.4 per cent from 2019, when the number was 316,000 people fewer (Ali 2020). Internet penetration, which measures the proportion of the population that has internet access, remains low, at 31 per cent, as reported in January 2020 (see Figure 4.1). In terms of mobile connections, the number recorded was about 32.83 million, which is an increase of 7.4 per cent from what was recorded in January 2019 (Srinivasan, Diepeveen and Karekwaivanane 2019). The same study considered the number of mobile connections and found that it was about 76 per cent of the whole population. The data show an increasing trend in the use of the internet.

Figure 4.1 Percentage of the population with internet access in Sudan⁵



Source: Based on data from ITU (2020)

⁵ Data not available for years 2007-09.

The Sudanese National Intelligence and Security Services (NISS) control digital media use through multiple strategies, including blocking, controlling, jamming and slowing down certain websites, and hacking private accounts (email, Facebook, Twitter). The NISS acquired ProxySG servers from US cybersecurity and network management company Blue Coat Systems, which enable governments and corporations to intercept internet traffic. The government also uses software that comes from the Italian software company Hacking Team, which enables access to private devices, including data, cameras and microphones. Software and hardware purchases contravene US sanctions and the Wassenaar Arrangement for the non-proliferation of dual-use software (Lamoureux and Sureau 2018).

In 2005, Sudan's government introduced the Sudanese Access to Information Act, which stated that anyone had the right to disseminate and receive data. The act was passed due to constant pressure from foreign countries and also from civil society. However, in 2007 the country introduced the Computer Crimes Act, which mandated two years in prison as punishment for anyone found guilty of limiting access to internet services.

In 2018, the country introduced the Telecommunication and Post Regulation Act, which gave the Telecommunication and Postal Regulatory Authority the mandate to revoke communication licences to any broadcasting station or telecoms company violating the act (Suliman 2019a). Article 56 of the Constitutional Charter for the 2019 Transitional Period enshrined the right to access the internet (Suliman 2019b). However, experts argue that the charter appears vague in the sense that it contains loopholes that the government can use to close civic space and deny digital rights to citizens (*ibid.*).

There are four main internet service providers in the country: Canar, Sudatel, MTN and Zain. MTN and Zain have been able to provide internet services using mobile networks because they have licences (Mohamed Nour 2015). On the other hand, Canar lacks such a licence and therefore relies on leased lines – wireless and landlines – to provide internet services.

To get around the internet shutdowns, Sudanese protesters used various techniques to relay urgent information, but they were not as convenient as using the internet. Not all service providers were willing to prevent their customers from accessing the internet. In particular, Canar refused to switch off the internet for its subscribers. However, owing to pressure from the Sudanese government, the company was compelled to on 5 June 2019

(Suliman 2019b). Canar and Sudatel were providing internet services using fibre-optic fibre infrastructure, so some users continued to share political news with the global community. However, because it was quite expensive to access the internet this way (*ibid.*), only the few users who could afford it were able to access the service.

In April 2018, Suad Ahmed Fadel was charged for sharing information on WhatsApp about how she was dismissed from a communications company and replaced by a niece of al-Bashir (Ref World, 2018). The 2007 Cybercrime Act borrows a lot from the Criminal Act of 1991, which prohibits any dissemination of information that may be regarded to be in breach of morality as well as public order. Suad Ahmed Fadel's information was deemed to be in breach of morality, public order and the sanctity of private life.

There is a need for stakeholders to re-evaluate the cybercrime act to remove problematic laws that impinge on freedom of expression on the internet. This is not the first time: people had been using social media to express their views on politics. However, its use has grown so fast that people who use social media just to express their views on politics have started to use it for hashtag campaigns.

The so-called 'bread protests' erupted in December 2018, complemented by social media campaigns. The protests were not just a result of the increased price of bread, but about economic poverty and rising living costs, including the struggle to obtain daily necessities in the country (Mahmoud 2019). On 19 December 2018, amid the revolution that ousted al-Bashir, the government blocked access to social media sites such as Instagram, WhatsApp, Twitter and Facebook as activists had been using them to open civic spaces. However, with the help of virtual private networks (VPNs), it was still possible to use social media, but only the limited number of citizens who had the necessary technical knowledge were able to do so. This move by the government completely contravened freedom of expression on the internet.

On 26 February 2019, the government unblocked the internet for the public and people in Sudan could access social media again (Suliman 2019b). However, the move drew mixed reactions from different sectors. While the public heaved a sigh of relief, human rights defenders and digital rights activists encouraged citizens to avoid the temptation to stop using VPNs; their privacy was still at stake and the government could not be relied on to quarantee it.

On 3 June 2019, Sudan's authorities descended on peaceful protesters in the country's capital Khartoum, which saw hundreds injured. The hashtags #BlueforSudan, #SudanUprising and #StayStrongSudan trended on social media, creating awareness all over the world of what was happening in Sudan. The spike in social media activities as a result of the violent crackdown shows the strength of the internet in relaying information. In the same month, another hashtag, #SudanMealProject, started trending days after the crackdown to rally well-wishers to provide resources for those who had been injured. The hashtag earned about 400,000 followers who pledged to offer food supplies (Frattasio 2019).

At least 100 people were killed during protests to demand the restoration of civilian rule (Taye 2019). From 3 June 2019 up to 9 July 2019, the provisional government shut down internet access again, leading to widespread protests (Suliman 2019b). On 9 July 2019, a court decision ordered the TMC to restore the internet and ensure all internet service providers could provide services to all citizens (*ibid.*). The court decision saw the Sudanese people get back online once again. As mentioned above, the 2018 Telecommunication and Post Regulation Act gives the regulatory authority a mandate to disrupt any broadcasting station or telecommunications if it finds that they are violating the law (Suliman 2019a). However, legal experts argue that the act appears vague and does not go into sufficient detail, which creates an avenue for the authorities to interpret it in a way that allows them to restrict access to services (*ibid.*).

During the whole period of the internet shutdown, from June to July 2019, Sudanese people within and outside the country were worried because the shutdown made it hard to share information with loved ones or even access essential news (Suliman 2019b).

Table 4.1 Technology timeline

Year	Shift	Implication
2003	World Summit on the Information Society held in Geneva.	Internet access is declared a fundamental human right.
2005	Access to Information Act is passed.	Every Sudanese citizen has the right to receive and disseminate information.
2007	Computer Crimes Act introduced.	Misuse of the internet to relay data becomes a punishable offence.
2018	Telecommunication and Post Regulation Act is passed.	Telecommunication and Post Regulatory Authority can revoke the licence of any broadcasting station or telecoms company violating the terms of the act.
Dec. 2018	The government blocks social media.	The Sudanese people do not have access to social media.
April 2019	Al-Bashir government replaced by TMC.	Citizens feel safer and access the internet without VPNs.
3 June 2019	Hashtags #BlueforSudan, #SudanUprising, #StayStrongSudan and #IAmTheSudanRevolution trending on social media.	Creating awareness all over the world about events in Sudan.
June 2019	Hashtag #SudanMealProject trending.	Rallying people all over the world to offer free food to Sudanese people.
Jan. 2020	Number of internet users increases.	Internet access becomes a key issue in Sudan.

Source: Authors' own.

5. Digital rights landscape

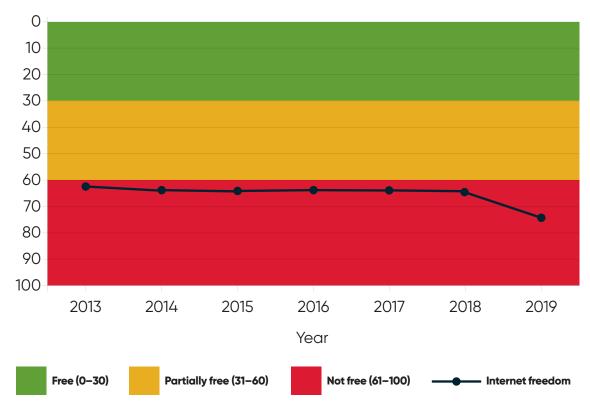
In the presence of the dominant political system and technological landscape, Sudanese citizens cannot easily secure their digital rights. There is much work to be done in Sudan in order to replace the political systems that are not granting the right to digital freedom. Also, the Sudanese people need to expand their technological access, understanding and capacities so that they can open civic space and defend their digital rights.

In Sudan there is a need to address vague and contradictory legislation in order to provide the people with basic digital capabilities in the worst of political or technological situations. Closing of civic spaces stands in the way of achieving internet freedom and digital rights. Key civil society actors are still unable to effectively assess the tools and methods being used by the government to close civic space. Civil society actors should work together to build spaces through which every citizen can exercise and defend their digital rights.

Many reputable international organisations recognise the right to connect to or access information as a fundamental human right. For instance, in 2003 the World Summit on the Information Society held in Geneva reached a consensus that the internet is key to providing information to society and that no one should be denied access to the internet (Access Now 2016). Also, in 2016 the United Nations Council on Human Rights passed a resolution condemning internet shutdowns and supporting human rights online, as was the case in Sudan (*ibid.*).

From 1977, Sudan was constrained by a US-imposed embargo put in place, which in turn reinforced the government's justification for oppression and control over the internet: the internet is necessary for trading and most international trading takes place through online transactions (Kehl and Maurer 2014). Due to US restrictions, citizens in Sudan were unable to download or update US-made software, thus using vulnerable and unprotected operating systems. However, between 2014 and 2017, the sanctions were lifted (Yahia et al. 2018). Despite the embargo, the country went from about 1 per cent of people using the internet in 2000 to about 22 per cent over the next ten years (Internet Live Stats 2016). About 30 per cent of the country's population can access the internet from the comfort of their own home. Thus, more people have internet access, but internet freedom is still not free, as shown on Freedom House's Freedom on the Net Index (see Figure 5.1).

Figure 5.1 Sudan's Freedom on the Net Index score, 2013–19



Source: Based on data from Freedom House (2020)

In the past two decades, civil society organisations in Sudan have tried to build alliances with other groups in order to make it easy for them to maintain and promote their activities in a way that could influence governance. However, the government considers civil society as a threat and has improved its technical capabilities to have control over political activists since 2016 (Lamoureux and Sureau 2019). Sudan's government has invested heavily in its technical capabilities. For instance, the NISS controls digital media operating within its borders by using various strategies such as hacking private accounts and blocking websites. Also, the NISS uses controlling mechanisms and slows down or jams various websites as a way of asserting control over the use of digital media (*ibid.*).

The NISS has proxy servers it bought from the US to allow the government to intercept internet traffic. The organisation also uses spyware from Italian company Hacking Team to access private devices such as microphones and cameras, and data (Suliman 2019a). The proxies allow the NISS to control, intercept or restrict private information, which includes but is not limited to encrypted information, such as private emails and bank accounts. Also,

proxies can slow down certain websites, thus influencing what information people can access.

The Sudanese government does not rely wholly on technological means to control digital media, but also uses the idea of morality. The government's idea to use Islam to control the Sudanese people was first introduced into law in 1991, when a criminal code enabled the government to defend and control the morality of its citizens using Islamic disciplinary measures (Lamoureaux and Sureau 2018).

The increased use of social media has seen the Sudanese government use the internet to monitor communications on social media sites. Moreover, the government established a Cyber Jihad Unit that has since been used to monitor bloggers and dissenting groups (Freedom House 2016). The NISS thus seems to use both technical and social techniques to monitor the activities of Sudanese citizens. The Cyber Jihad Unit proactively monitors the activities of Sudanese people on the internet and is also involved in political influencing through trolls (Freedom House 2014).

6. Digital rights in times of Covid-19

The Covid-19 pandemic is a moment when countries need to reflect on how not to limit digital rights while trying to protect public health. The internet, as a platform for communication, helps inform the public about health threats at a relatively faster rate than traditional tools of communication such as radio and newspapers (Micek and Krapiva 2020). Even though health data should remain confidential, owing to their sensitivity, the government can use health data to respond faster to outbreaks. Governments around the world, not just in Sudan, may see this period as ideal to introduce controversial technology for surveillance to legitimise oppressive tools disguised as public health tools. In most Asian countries, for example, facial recognition technology is already being used for surveillance and control, and to monitor people's movements (Jeria et al. 2020).

As described above, Sudan's authorities have used internet shutdowns to prevent the public from sharing information and convicted citizens of sharing information perceived to cause public disorder (Suliman 2020). Therefore, if the government thinks that an open debate about the severity and extent of the Covid-19 pandemic is not right for the stability of the country or national security, it is possible that the authorities could censor information or limit access to the internet. Censorship violates the right to access information and free speech, and could also encourage the spread of the disease even further.

This last aspect could arise through disinformation. Much false information has spread in Sudan during the Covid-19 pandemic. People spread false information to either become famous or to get more likes on social media platforms. To reduce disinformation, the United Nations Children's Fund (UNICEF) set up help centres to provide all the necessary information regarding the Covid-19 outbreak, symptoms and management. A hotline has operated during the crisis to provide the public with the latest authentic information by phone. People have taken advantage of this hotline as they have no internet access by which they can get information (Madyun and Abdu 2020).

The internet can allow (deliberate) disinformation and (accidental) misinformation about the disease to spread quickly. False data about vaccines or treatments could be spread through social media sites and messaging platforms such as WhatsApp (Suciu 2020). In response, social media sites such as Twitter and Facebook, as well as the tech giant Google, have introduced official guidance from health experts for users looking for coronavirus information (Jakhar 2020). The Sudanese government, however, has not developed a specific app or tracker to trace Covid–19 cases in 2020. The main reason is that most people do not have access to the internet. The Sudanese government, like many other African governments, should thus create awareness to prevent its citizens from spreading disinformation and misinformation about the disease.

7. Conclusion

This report has looked at digital rights in Sudan as a case study. Like many other countries, digital penetration in Sudan has increased over the years, however, the use of digital tools by civil society to voice dissent and coordinate political activities in the country, such as the fall of the al-Bashir regime, has encouraged the authorities to shut down the internet. The opening and closing of online civic space has become key to digital rights in Sudan; specifically, freedom of expression, freedom of assembly and freedom of political opinion.

Access to information has become a fundamental right and internet shutdowns or restrictions contravene the Sudanese people's (digital) rights. Domestic civil society is working effectively to monitor and analyse the opening and closing of civic spaces to provide citizens with their basic digital rights. The government continues to rely on foreign software to spy on citizens and has taken the Covid-19 pandemic as an opportunity to use technology to increase surveillance and limit people's digital rights.

8. Digital rights future recommendations

The government should promote the use of digital technologies to share information and allow essential services to be offered online. Universities and civil society organisations do not currently have the research capabilities they need to effectively monitor and analyse internet shutdowns in Sudan. The Sudanese people must elect a political party that is willing to provide its people with these capabilities and help strengthen digital rights and internet freedom. The government must also find ways to open the civic space and improve technology. Digital technologies can also be used to strengthen governance processes during the pandemic when assembling people, or when traditional cash-based ways of doing business in Sudan are discouraged.

As discussed, limiting the use of the internet in relaying public health information could make Covid-19 spread even further. Therefore, Sudan's government should not discourage online activities or censor information shared through social media sites. The potential benefits of sharing public health information outweigh the risk posed by the spread of disinformation.

Sudan's government, and many other African states, need to revise their regulations on the use of digital technologies to remove or amend specific laws that encourage surveillance of private data and internet shutdowns, and restrict freedom of expression, as is evident in Sudan.

References

Access Now (2016) **'U.N. Passes Landmark Resolution Condemning Internet Shutdowns'**, 1 July (accessed 23 October 2020)

Ali, M.A. (2020) 'E-Commerce in Sudan (Analytical Study)', in M. Ezziyyani (ed.), Advanced Intelligent Systems for Sustainable Development (AI2SD 2019): Vol. 3 – Advanced Intelligent Systems for Sustainable Development Applied to Environment, Industry and Economy, Cham: Springer

Amnesty International (2019) **Everything You Need to Know About Human Rights in Sudan** (accessed 5 November 2020)

APC (2019) Civil Society Organisations Issue Statement Denouncing Internet Shutdowns in Sudan, Association for Progressive Communications (accessed 26 October 2020)

Armstrong, D.; Bello, V.; Gilson, J. and Spini, D. (eds) (2011) Civil Society and International Governance: The Role of Non-State Actors in Global and Regional Regulatory Frameworks, Abingdon: Routledge

CIVICUS (2016) 'Civic Space', What is Civic Space? (accessed 26 October 2020)

Feldstein, S. (2019) 'To End Mass Protests, Sudan Has Cut Off Internet Access Nationwide. Here's Why', The Washington Post, 13 June (accessed 26 October 2020)

Frattasio, E. (2019) **'Sharing, Caring, and Praying for Sudan in the Twitter Age'**, *The McGill International Review*, 17 July (accessed 26 October 2020)

Freedom House (2020) Freedom on the Net (accessed 4 December 2020)

Freedom House (2019) Freedom in the World (accessed 4 December 2020)

Freedom House (2016) **Sudan** (accessed 5 November 2020)

Freedom House (2014) **'Sudan'**, Freedom on the Net 2014 – Tightening the Net: Governments Expand Online Controls (accessed 7 November 2020)

Gil de Zúñiga, H.; Molyneux, L. and Zheng, P. (2014) 'Social Media, Political Expression, and Political Participation: Panel Analysis of Lagged and Concurrent Relationships', *Journal of Communication* 64.4: 612–34

Grobler, M. (2010) 'Strategic Information Security: Facing the Cyber Impact', Proceedings of the Workshop on ICT Uses in Warfare and the Safeguarding of Peace, Bela Bela, South Africa, 11 October 2010

Human Rights Watch (2019) 'They Were Shouting "Kill Them"' (accessed 5 November 2020)

ICNL (2020) Sudan, International Center For Not-For-Profit Law (accessed 26 October 2020)

Internet Live Stats (2016) **Sudan Internet Users** (accessed 26 October 2020)

ITU (2020) Internet Access Statistics, International Telecommunication Union (accessed 4 December 2020)

Jakhar, P. (2020) 'Coronavirus: China's Tech Fights Back', BBC News, 3 March (accessed 26 October 2020)

Jeria, M.B.; Sharif, M.M.; Saiz, E. and Boni, A.L. (2020) **Digital Rights in the COVID-19 Era**, United Nations Human Rights Office of the High Commissioner (accessed 26 October 2020)

Kehl, D. and Maurer, T. (2014) **'Time to Rethink Tech Sanctions Against Sudan'**, *Slate*, 30 January (accessed 26 October 2020)

Kummer, M. (2003) 'Information Society: Promise and Risks', OECD Observer

Lamoureaux, S. and Sureau, T. (2018) 'Knowledge and Legitimacy: The Fragility of Digital Mobilisation in Sudan', *Journal of Eastern African Studies* 13.1: 35–53, DOI: **10.1080/17531055.2018.1547249** (accessed 12 November 2020)

Lin, L. (2020) 'China Turns to Health-Rating Apps to Control Movements during Coronavirus Outbreak', The Wall Street Journal, 18 February (accessed 26 October 2020)

Madyun, A. and Abdu, L. (2020) **Combatting Myths and Misinformation at Sudan's COVID-19 Hotline Call Centre**, New York NY: United Nations Children's Fund

Mahmoud, O. (2019) ' "It's More than Bread": Why are Protests in Sudan Happening?', Middle East Eye, 24 January (accessed 12 November 2020)

Micek, P. and Krapiva, N. (2020) *Protect Digital Rights, Promote Public Health: Toward a Better Coronavirus Response*, Access Now blog, 5 March (accessed 26 October 2020)

Mohamed Nour, S. (2015) 'The Demand Side of ICT', in S. Mohamed Nour (ed.), *Information and Communication Technology in Sudan*, Cham: Springer

Moorcraft, P. (2015) Omar al-Bashir and Africa's Longest War, Barnsley: Pen & Sword

Nigam, S. (2019) The Powerful Mighty State versus the Human Rights Defenders: The Courage to Challenge the Unruly Authority (accessed 26 October 2020)

Reduce, S. (2020) 'The Freedom House Survey for 2019: The Leaderless Struggle for Democracy', *Journal of Democracy* 31.2: 137–51

Reuters (2019) **'Sudanese Forces Storm Protest Camp, More Than 35 People Killed: Medics'**, 3 June (accessed 5 November 2020)

Srinivasan, S.; Diepeveen, S. and Karekwaivanane, G. (2019) 'Rethinking Publics in Africa in a Digital Age', *Journal of Eastern African Studies* 13.1: 2–17

Suciu, P. (2020) 'Misinformation Spreading Faster than the Actual Coronavirus', Forbes, 3 February (accessed 26 October 2020)

Sudan Tribune (2010) **'Sudan Reportedly Blocks YouTube over Electoral Fraud Video'**, 22 April (accessed 26 October 2020)

Suliman, M. (2020) 'Internet Censorship in Sudan: Rethinking Laws and Tactics that Served an Authoritarian Regime', Global Voices Advox, 15 October (accessed 26 October 2020)

Suliman, M. (2019a) 'The Right to Privacy in Sudan: A Call to Enact a Data Protection Act', Global Voices Advox, 5 November (accessed 26 October 2020)

Suliman, M. (2019b) 'Internet Shutdowns and the Right to Access in Sudan: A Post-Revolution Perspective', Global Voices Advox, 16 September (accessed 26 October 2020)

Taye, B. (2019) #IAmTheSudanRevolution: There's a Direct Link between Internet Shutdowns and Human Rights Violation in Sudan!, Access Now blog, 11 June (accessed 26 October 2020)

UN Human Rights Council (2016) **Resolution on the Promotion, Protection and Enjoyment of Human Rights on the Internet**, A/HRC/32/L.20, 27 June (accessed 11 February 2021)

US Department of State (2004) *The Crisis in Darfur: Secretary Colin L. Powell, Testimony Before the Senate Foreign Relations Committee*, Washington DC: United States (US) Department of State

Waterton, E. (2010) 'The Advent of Digital Technologies and the Idea of Community', *Museum Management and Curatorship* 25.1:5–11

Yahia, Y.E.; Liu, H.; Khan, M.A.; Shah, S.S.H. and Islam, M.A. (2018) 'The Impact of Foreign Direct Investment on Domestic Investment: Evidence from Sudan', *International Journal of Economics and Financial Issues* 8.6: 1–10