A provisional analysis of the impact of telecommunications policy and regulatory frameworks in Africa and COVID-19: A community networks perspective

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INTRODUCTION

The COVID-19 pandemic has had a significant socioeconomic impact across the globe. To prevent the spread of infections, governments are implementing emergency measures, such as physical distancing and lockdowns, with some countries encouraging cashless transfers. Individuals, organisations and institutions are now leveraging internet connectivity and digital technologies for work, education, commerce and entertainment. However, for the privileged few with home internet service, this has not been designed for heavy usage, such as multiple live streaming connections and applications, which has resulted in a depreciation in quality of service. Slower speeds and internet outages are some of the effects of the sudden upsurge in internet uptake and digital platforms are straining the existing infrastructure capacity. For the economically and socially disadvantaged who are unable to access and use the internet, the impact goes beyond livelihoods to accessing critical information on the pandemic such as health and social connections.

This article seeks to examine the extent to which national and regional responses to the COVID-19 pandemic may have impacted on the regime of human rights online. The article also examines the widening digital divide and the role that telecommunication policy and regulatory frameworks play in closing this gap. The article is informed by two preliminary observations. First, regional state and non-state actors predominantly view the pandemic through clinical lenses, while largely projecting its current and anticipated impact in public health and socioeconomic terms. Second, the responses have been state-centred, resulting

in widening the digital divide and violating digital rights, such as the right to information and freedom of expression.

This article also discusses inequalities online and offline that have become apparent from the shift to online spaces, especially for work and education. Specifically, it will consider how this is impacted by the digital divide and the potential capacity of community networks in Africa to provide access during and beyond COVID-19. The article then discusses the importance of bottom-up approaches to fighting the pandemic and the role of community and community-based organisations such as community networks, radios and health centres.

CONTEXT

Africa reported its first case of COVID-19 in mid-February, and by the end of May 2020, the continent had over 100,000 cases reported.[1] Despite the initial fears about the continent's preparedness to deal with the pandemic, the reported mortality rate is not as high as that experienced in other parts of the world. However, the number of reported cases is still on the rise. Countries have implemented various emergency response measures to curb the spread of the virus, such as border closures, public health measures, and full and partial lockdowns. The implementation of physical distancing measures resulted in the shifting of work, education, commerce, public gatherings, family meetings and other day-to-day activities online. To some organisations and institutions, especially in the private sector, this was an almost easy transition. However, the operations of many public institutions, such as schools, and of those working in the informal sector, were curtailed.

The digitisation agenda has dominated conversations among governments, policy makers, businesses and civil society. African countries have made progress on digitisation in sectors such as financing and e-commerce. In 2019, Africa had over 122 million people using mobile financial services, which have been widely adopted due to penetration of mobile connectivity and basic phones.[2] The telecommunications sector has felt the impact of the pandemic as there has been an increased demand on mobile voice and messaging services and both mobile and fixed broadband, with accelerated internet and digital technologies adoption. The sector is now among those listed as essential services, and governments are exempting operators from some restrictions, such as movement within or outside cities.

Telecoms operators in Africa are implementing different response strategies. In Kenya, Safaricom, a telecoms operator, reported a 70% increased demand in April.[3] With the Kenyan government recommending the use of mobile money

1 World Health Organization. (2020, 22 May). Africa COVID-19 cases top 100 000. https://www.afro.who.int/news/africa-covid-19-cases-top-100-000

2 Leke, A. (2019, 3 September). Why Africa's digital boom is only just getting started. *World Economic Forum*. https://www.weforum.org/agenda/2019/09/why-africas-digital-boom-is-only-just-getting-started/

3 Miriri, D. (2020, 14 April). Kenya's Safaricom sees 70% jump in data usage during COVID-19 lockdown. *Reuters*. https://af.reuters.com/article/investingNews/idAFKCN21W1NH-OZABS

transactions to help reduce spread of the virus, Safaricom waived transaction fees for person-to-person transactions below 1,000 Kenya shillings (roughly USD 10). Daily transactions for small and medium-sized businesses were increased from 70,000 Kenya shillings (USD 700) to 150,000 Kenya shillings (USD 1,500).[4] Other telecoms operators across the continent have implemented responses as well: for example, Vodafone is sending COVID-19 health information via text messages at no cost to its subscribers; and MTN in Cameroon is providing communication services for the government's testing centres and dissemination of information.[5]

OFFLINE INEQUALITY MEETS ONLINE INEQUALITY

Africa's telecommunications sector is a key driver of socioeconomic transformation. The sector liberalisation and privatisation created an enabling environment for increased competition and foreign investment. In the last decade, the sector has advanced with varying degrees of structural and regulatory reforms starting in the 1980s and 1990s with the adoption of the structural adjustment policies.[6] These reforms have led to the privatisation of state telecommunications monopolies, the creation of regulatory agencies, national information and communication policies and master plans in several states. There has been a significant investment for undersea fibre optic from some governments and the private sector. For example, the Kenyan government launched The East African Marine System (TEAMS), a 5,000-kilometre fibre optic undersea cable, in October 2009.[7] Terrestrial fibre is also growing, and it is estimated that over 1.3 million kilometres have been rolled out with over 1 million kilometres being in operation in 2019.[8] Lastly, the number of internet exchange points (IXPs), which enable local internet traffic exchanges, continues to expand. Currently, there are 46 active IXPs in 34 countries.[9]

For the majority of end-users, mobile represents the primary means of connectivity. The network coverage in 2018 for 3G and 4G was 71% and 40% respectively.[10] In 2019, talk of the "fourth industrial revolution" dominated conversations across all sectors and continents. There was excitement about the

4 Bright, J. (2020, 16 March). Kenya turns to M-Pesa mobile-money to stem the spread of COVID-19. *TechCrunch*. https://techcrunch.com/2020/03/16/kenya-turns-to-its-mobile-money-dominance-to-stem-the-spread-of-covid-19

5 CIPESA. (2020, 27 March). How Technology is Aiding the Covid-19 Fight in Africa. https://cipesa.org/2020/03/how-technology-is-aiding-the-covid-19-fight-in-africa/

6 UN Economic Commission for Africa. (2017). *Review of the legal and regulatory frameworks in the information and communications technology sector in a subset of African countries: What lessons can we learn?* https://www.uneca.org/sites/default/files/PublicationFiles/review_of_the_legal_and_regulatory_framework.pdf

7 https://teams.co.ke

8 Hamilton, P. (2019, 19 November). Africa's Operational Fibre Optic Network Reaches 1 Million Route Kilometres. *Africa Bandwidth Maps*. https://www.africabandwidthmaps.com/?p=6158

9 https://www.af-ix.net/ixps-map

10 Broadband Commission Working Group on Broadband for All. (2019). *Connecting Africa Through Broadband*. Broadband Commission for Sustainable Development. https://www.broadbandcommission.org/Documents/working-groups/DigitalMoonshotforAfrica_Report.pdf

seemingly countless possibilities of these revolutionary technologies such as artificial intelligence, machine learning and robotics that would usher individuals, communities and organisations into a new era. These bandwidth-intensive initiatives would require even faster, more reliable and secure internet connectivity. The reality in many countries' focus on internet access has been on how to keep improving services for the connected, especially the economically advantaged in urban areas which are more commercially viable for telecom operators. According to the GSMA, although in 2018 mobile broadband coverage in Sub-Saharan Africa was at 30%, the mobile internet usage gap was at 46%. The two major barriers identified were the lack of digital and literacy skills, as well as affordability.[11] The majority of Africa's population live in the rural areas and the economies are primarily powered through the informal sector and agriculture. Unlike urban areas, rural and remote areas are usually sparsely populated with little disposable income. According to operators, high licensing and spectrum fees are some of the contributing factors to the high costs of the internet. Another challenge is the high backhaul costs due to local governments charging high right of way fees for telecommunications service providers. Early this year it was reported that in Nigeria, 14 state governments charged a 1,000% increase to operators laying fibre optic cables along state roads.[12] On the demand side, affordability of end-user devices and telecoms equipment is affected by high import and tax duties, the costs of which are transferred to the user. This results in economically disadvantaged people being left out.

Across Africa, telecommunication regulators are implementing temporary measures to help keep citizens connected during the pandemic. In South Africa, the Independent Communications Authority of South Africa (ICASA) temporarily granted additional spectrum to mobile operators at no additional cost. This was on condition that the operators would facilitate remote learning and free access to health-related websites. In Zimbabwe, the Postal and Telecommunication Regulatory Authority of Zimbabwe (POTRAZ) allocated additional spectrum to operators for 3G and 4G as well as wireless spectrum to the top telecom operators at no cost. Temporary free access to spectrum has also been offered to Vodafone and MTN by the regulator in Ghana. In Kenya, the Communications Authority of Kenya waived fees on toll-free numbers providing COVID-19-related advisories. However, these responses have shown little to no impact on the pre-existing barriers such as affordability and access to internet-enabled devices.

Offline and online inequalities have become more pronounced with COVID-19. Unfortunately, the implementation of responses has been top-down, missing critical realities faced by Africans and exposing the gaps in communication among governments, policy makers and citizens, especially those who are socially and economically disadvantaged. A key question to ask is to what

11 GSMA. (2019). *Mobile Internet Connectivity 2019: Sub-Saharan Africa Factsheet*. https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/07/Mobile-Internet-Connectivity-SSA-Factsheet.pdf

12 Kolawole, O. (2020, 8 January). How increased Right of Way charges could raise data and voice call tariffs. *TechPoint Africa*. https://techpoint.africa/2020/01/08/increased-right-of-way-charges/

extent the responses by both state and non-state actors have been inclusive of all groups in the society.

With COVID-19 responses being largely online, the unconnected are excluded not just from access to the internet, but also the much-needed information and services that affect livelihoods, education and health. Government recommendations during the implementation of the lockdown measures were that schools should find ways of ensuring that learning continued online. However, this would only be possible if students had access to the internet and internet-enabled devices from home. As it stands now, only about 10% of students can access computers from home, with over 80% being unable to get access to the internet, leaving over 330 million learners stranded and more than 8.5 million teachers unable to deliver online classrooms.[13] In Kenya, learning for private universities such as Strathmore University and United States International University-Africa continued, unlike in public universities, where attempts by lecturers were unsuccessful as learners were unable to get online.[14] Furthermore, misinformation and disinformation about the pandemic have been fuelled in online spaces, especially on social media. Hate speech especially has promoted both online and offline violence against foreigners and migrants, exposing the underlying inequalities.

Communities have an important role in curbing the spread of the virus, which means that emergency responses have to be created with communities. One of the key lessons learned from the Democratic Republic of Congo's fight against the Ebola virus was on the importance of communities owning the response measures. Due to the different economic, geographical and sociocultural contexts in countries, cities and villages, one-size-fits-all responses are already proving to be ineffective in some contexts. For example, implementing physical distancing or self-quarantine in informal settlements has not been successful due to the crowded conditions in which families live, as well as the sharing of amenities like public toilets.

From the onset of the pandemic, community organisations and leaders stepped in to provide accurate information on COVID-19, debunking myths related to the virus and translating and contextualising government guidelines. Community networks and community radios are contributing through the dissemination of context-relevant information. Community networks are a complementary approach to connecting the unconnected. Unfortunately, the existing policy and regulatory environment does not support small and community-owned networks. Thus, grassroots communities, especially those in rural, remote and underserved areas, are viewed as having a purely passive role as customers. Community networks are telecommunication infrastructures built and operated by, with and for the community. [15] In Africa, these networks take different shapes

13 UN Sustainable Development Group. (2020). *Policy Brief: Impact of COVID-19 in Africa*. https://unsdg.un.org/sites/default/files/2020-05/Policy-brief-Impact-of-COVID-19-in-Africa.pdf

14 Kigotho, W. (2020, 21 May). COVID-19 – Fuelling a crisis already in the making. *University World News*. https://www.universityworldnews.com/post.php?story=20200518141038342

15 Rey-Moreno, C. (2017). *Understanding Community Networks in Africa*. Internet Society. https://www.internetsociety.org/wp-content/uploads/2017/08/CommunityNetworkingAfrica_report_May2017_1.pdf

in terms of their legal registration, some being cooperatives while others are started by not-for-profit or community-based organisations. The key thing is the active involvement and participation of the local community members in different aspects such as the governance and operations of the network. They exist to complement existing activities, and thus contribute to the development of local ecosystems both socially and economically. One of the advantages of these community-led initiatives is the holistic approach in addressing digital inclusion barriers such digital skills, locally relevant content and applications. They also contribute to local economies, workforce development and fostering social connections. In deploying of network infrastructure, these networks use Wi-Fi technologies due to the availability and lower costs of equipment.

During the pandemic, this holistic approach has been proven by the networks going beyond the provision of connectivity services to offering support in the making and distribution of locally made masks. Additionally, community networks like Zenzeleni[16] in Eastern Cape, South Africa and Tunapanda[17] in the Kibera district of Nairobi, Kenya are providing support in their communities through the customisation of health information to the community's local languages and contexts. In Uganda, several community radios continued using their platform to share updates from the Ministry of Health, as well as sharing public health information in the local languages.[18]

CONCLUSION

COVID-19 is a wakeup call on the importance of universal access for all. Internet access and affordability, one of the key principles of the African Declaration on Internet Rights and Freedoms,[19] advocates for affordable access for all Africans regardless of race, colour, sex, language, political or other opinion, national or social origin, property, birth or other status. As more people get online, the internet is now becoming an enabling platform for fundamental human rights such as the right to freedom of expression, freedom of assembly and political participation.

The full impact of the pandemic is yet to be fully realised, as new cases are being reported daily and countries are yet to fully reopen. Although operators have had increased traffic, it is too early to determine if the sector will experience losses or make profits. The responses from regulators have been mainly towards large national operators, in effect leaving out end-users served by small-scale operators and community networks. A key question is how the experiences from the pandemic will shape the future of policy regulation in Africa.

During the pandemic, regulators in Africa have had a fast turnaround in terms of implementation of the emergency responses, which is quite

16 https://zenzeleni.net

17 https://tunapanda.org

18 Myers, M., Harford, N., & Ssemakula, M. (2020, 19 May). Local Radio Stations in Africa Prove Resilient Amid COVID-19. *CIMA*. https://www.cima.ned.org/blog/local-radio-stations-in-africa-prove-resilient-amid-covid-19

19 https://africaninternetrights.org

↑ TunamapandaNET Network
Source: TunamapandaNET

commendable. This should continue post-pandemic. In the past, policy and regulation processes have lagged behind technological advancements. There needs to be a shift in the policy and regulatory frameworks in Africa to recognise the role of community-based operators in addressing geographic and sectoral connectivity gaps. The importance of creating an enabling regulatory environment that addresses digital inequalities cannot be overemphasised.

Communities can no longer be viewed as being on the receiving end of already preconceived policies and regulations. This can be achieved through actively involving community leaders, champions and members who understand local perspectives in policy and regulation formulation and implementation. Relief strategies such as licence or fee exemptions should not only be made available to large national operators, but also to community-based networks or small internet service providers.

In addition to bottom-up engagements with communities, regulators and policy makers should be open to alternative approaches to connecting the unconnected. The connectivity agenda should not only focus on commercially viable areas such as cities, but also consider rural and marginalised communities who require support beyond access. It is not enough to have access; users must have the right digital skills and tools that enable them to fully participate in the digital space.