



Digital divisions: COVID-19 policy and practice and the digital divide in Africa

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INTRODUCTION

The sudden and dramatic advent of the COVID-19 global pandemic caught the world by surprise and left many floundering for responses, none more so than those in the information and communications technology (ICT) sector: the policy makers, regulators and internet and other ICT service providers.

It was a few short weeks from the first reports of a strange new respiratory illness in faraway Wuhan (December 2019), to the first cases in Africa (late February 2020), the declaration of COVID-19 as a global pandemic (March 2020) and the imposition of the first full draconian lockdown on the continent (end of March 2020).¹

The measures adopted by so many countries in Africa – the imposition of “social distancing” and stay-at-home strictures, the closure of businesses, shops and schools, travel bans and virus testing – had dramatic impacts on both economies and societies, on lives and livelihoods. And these measures, in turn, created a range of knock-on consequences for the ICT sector, its infrastructures and services, as access to the internet became both a key channel for authorities seeking to manage the crisis, and for citizens seeking to accommodate its exigencies. Thus was precipitated a flurry of ICT sector interventions – from policy makers, regulators and government entities.²

Many of these have been designed to increase access to the internet, to mobile telephony, and to a range of data-enabled ICT services. Many are aimed either at promoting the dissemination of public service information or at mitigating the impacts of lockdowns and social distancing on the economy and society,

1 https://en.wikipedia.org/wiki/COVID-19_pandemic_in_Africa

2 Lewis, C. (2020, 3 April). ICT sector policy and regulation in the time of COVID-19. *ITWeb*. <https://www.itweb.co.za/content/RgeVDPYwGJqKJN3>

on how individuals and their communities live, work and play. Most depend on effective access to the internet and to data services for their efficacy and impact.

Indeed, the COVID-19 crisis has demonstrated in hard and practical ways that access to the internet, and the ability to benefit from its content and services, should now be considered a fundamental human right.³

In this article, we examine how policy makers, regulators and service providers responded to the COVID-19 explosion. The focus is specifically on the ICT sector, on telecoms and the internet, looking at some of the slew of ICT sector-specific measures, ranging from public service messaging, though temporary spectrum assignment and zero-rating of educational and health websites, to those actions intended to make access and services more affordable.

COVID IN CONTEXT

The eruption and rapid spread of COVID-19 found an ICT sector ill prepared to deal with the effects of a health pandemic, and with very limited guidance towards what should be the possible array of good practice responses.

It is true that the International Telecommunication Union (ITU) has since 2001 been working on good practice measures for telecommunications services in time of disaster, but the focus of this work has been on natural disasters, such as hurricanes and the 2004 Indian Ocean tsunami. It was therefore largely taken up with early warning systems and the coordination of post-disaster relief work.⁴ And in a stroke of bitter irony, the ITU was to release a set of guidelines on how to develop a national emergency telecommunication plan in March 2020,⁵ mere days after the World Health Organization (WHO) declared COVID-19 to be a global pandemic.⁶ Despite being far too late to assist countries to formulate ICT sectoral responses to the rapidly escalating crisis, this new set of guidelines too remained centrally preoccupied with how to respond to natural disasters, without even a single mention of epidemiological outbreaks such as Ebola.

But it is in the responses to the Ebola epidemic that the roots of some of the good practice interventions discussed below lie, albeit not explicitly. For example, the GSM Association (GSMA) proposes the use of SMS and other messaging, along with anonymised contact tracing, based on call data.⁷ A

3 Berners-Lee, T. (2020, 4 June). Covid-19 makes it clearer than ever: access to the internet should be a universal right. *The Guardian*. <https://www.theguardian.com/commentisfree/2020/jun/04/covid-19-internet-universal-right-lockdown-online>

4 ITU. (2005). *Handbook on Emergency Telecommunications*. Geneva: International Telecommunication Union. <https://www.itu.int/pub/D-HDB-HET-2004>

5 ITU. (2019). *ITU Guidelines for national emergency telecommunication plans*. Geneva: International Telecommunication Union. https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Documents/2019/NETP_Global_guideline.pdf

6 ITWeb. (2020, 20 March). ITU seeks to maintain vital communications during COVID-19. *ITWeb*. <https://www.itweb.co.za/content/P3gQ2MGx8XKqnRD1>

7 GSMA. (2014). *Blueprint: Ebola Mobile Response*. London: GSM Association. <https://www.gsma.com/mobile-fordevelopment/wp-content/uploads/2014/10/gsma-Ebola-Mobile-Response-Blueprint.pdf> The GSMA is the global umbrella body for mobile service providers. Contact tracing is a full subject in its own right, and will not be discussed here.

similar contemporaneous brief by USAID reviews a number of messaging and monitoring tools.⁸

On the one hand, some of the top-level Ebola lessons – for example, that speed of response trumps perfection⁹ – drove the rapid move to impose lockdowns in so many jurisdictions. On the other, dramatically deadly though the outbreaks of Ebola may have been, those epidemics have been far more localised, making them an imperfect exemplar when it comes to identifying good ICT sector practices in response to the rapid sweep of COVID-19 across entire communities, countries and continents.

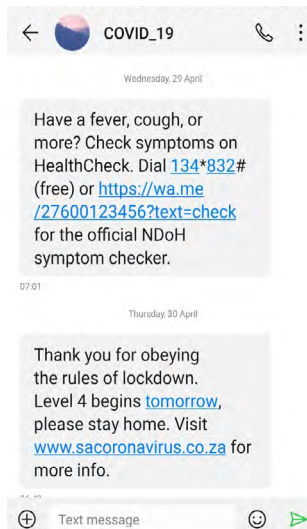
As a result, ICT sector policy makers, regulators and operators have largely been forced to fly by the seat of their pants when it came to devising appropriate responses to the exigencies of the crisis.

It is to a discussion of some of these responses that we now turn. The data and information available to record and examine them may be scant and patchy, reliant on the vagaries of press coverage. But the research and the analysis provide essential guidance for policy makers, regulators and practitioners attempting to deal with similar exigencies in the future.

PUBLIC SERVICE COVID-19 CONTENT: SMS, WHATSAPP, RADIO AND TV

It is no accident that the provision of information about Ebola features prominently in the interventions endorsed above by the GSMA and USAID. Not only is access to information a fundamental human right, but empowering individuals and communities with information about an epidemic is critical to combat viral spread and to ensure popular support for other necessary public health emergency measures.

Although radio and television are still the most common sources of information in Africa, cellular telephony ranks a close and growing third. Some 50% of the population now have access to a mobile phone, although a sizeable 40% of this number only have access via a basic 2G feature phone.¹⁰ GSM telephony, therefore, offers a powerful tool to reach large numbers of people quickly and cheaply, by means of a structured campaign of SMS messaging as had been recommended by the GSMA in respect of Ebola.



← Public service SMS messages
Source: Charley Lewis

8 USAID. (2014). *Technical Brief: Use of Technology in the Ebola Response in West Africa*. https://www.msh.org/sites/default/files/technology_and_ebola_response_in_west_africa_technical_brief_final.pdf

9 <https://www.youtube.com/watch?v=XEUwig1GkHo>

10 GSMA. (2019). *The Mobile Economy: Sub-Saharan Africa 2019*. London: GSM Association. https://www.gsma.com/mobileeconomy/wp-content/uploads/2020/03/GSMA_MobileEconomy2020_SSA_Eng.pdf

Yet, despite a joint call from the WHO, ITU and UNICEF for countries to do just that,¹¹ drawing on a pre-provided database of messages in a number of languages,¹² actual deployment of this intervention appears to have been limited.

Kenya did move quickly in this regard, however, with the government sending out millions of informational COVID-19 SMSs to mobile subscribers in early March.¹³ South Africa followed soon after, with a generalised injunction from the relevant minister to licensees requiring them to “receive and disseminate public information” and to provide “streaming of public announcements”.¹⁴ This was soon formalised in a notice from the regulator, specifying that all mobile licensees should transmit two SMSs daily to their customers.¹⁵



← South Africa's pioneering COVID-19 WhatsApp service
Source: www.iol.co.za

However, no other regulators in Africa appear to have followed suit, although there have been rather less systematic claims of widespread COVID-19 SMS distribution by Vodacom Tanzania.¹⁶

Other information dissemination measures adopted in South Africa included the development of a free national AI-enabled WhatsApp COVID-19 information service, a technological innovation later adopted and rolled out by the WHO itself,¹⁷ and which has subsequently been rolled out in Nigeria and Zimbabwe, among others.

- 11 ITU & WHO. (2020, 20 April). ITU-WHO Joint Statement: Unleashing information technology to defeat COVID-19. *World Health Organization*. <https://www.who.int/news-room/detail/20-04-2020-itu-who-joint-statement-unleashing-information-technology-to-defeat-covid-19>
- 12 Available via Google Docs at: <https://docs.google.com/spreadsheets/d/1d4emD3Dpksns8mXTi22MTlyD2FeAz-U04PgWdKm4C3Y/edit#gid=1702826806>
- 13 Xinhua. (2020, 11 March). Kenya uses mobile phones to spread awareness on Covid-19. *Independent Online*. <https://www.iol.co.za/news/africa/kenya-uses-mobile-phones-to-spread-awareness-on-covid-19-44577955>
- 14 RSA. (2020). Electronic Communications, Postal and Broadcasting Directions issued under Regulation 10(8) of the Disaster Management Act 2002 (Act No 57 of 2002). *Government Gazette*, Vol. 657 No. 43164, 26 March 2020.
- 15 de Wet, P. (2020, 6 April). You'll now be getting at least two Covid-19 SMSes a day, plus info on govt announcements. *Business Insider SA*. <https://www.businessinsider.co.za/covid-19-regulations-require-daily-smses-from-south-african-cellphone-operators-2020-4>
- 16 Telecompaper. (2020, 22 April). 'Vodacom Tanzania donates TZS 2 bln to support fight against Covid-19 pandemic. *Telecompaper*. <https://www.telecompaper.com/news/vodacom-tanzania-donates-tzs-2bln-to-support-covid-19-pandemic--1335522>
- 17 Bloomberg. (2020, 26 March). SA WhatsApp service goes global in Covid-19 fight. *News24*. <https://www.news24.com/citypress/News/sa-whatsapp-service-goes-global-in-covid-19-fight-20200326>

This was followed by a ministerial requirement that all websites registered under the national .za country domain add a link to the COVID-19 portal set up by the Department of Health¹⁸ – a measure greeted with some confusion, but supported in principle.¹⁹

The efficacy and impact of the various measures discussed above remain unclear at this stage. There is limited reporting available on similar measures in African countries other than those specifically mentioned above.

Anecdotal accounts suggest that SMS overload quickly sets in, with subscribers moving to block the short code number being used. More importantly, it appears, unfortunately, that the messages have been circulated in English only. In both cases this would have limited both reach and impact. And, although compliance with South Africa's website linking requirement on the country's top 100 sites was reportedly around 80%,²⁰ the measure does not appear to have been widely emulated.

“DISINFODEMIC” IN THE PANDEMIC: DEALING WITH “FAKE NEWS”

The converse of the right of access to information lies in protection from exposure to incorrect, misleading or false information – of the kind that is often referred to as “fake news”. Indeed, the prevalence and spread of misinformation and disinformation thrive in the vacuum left when the kind of public service messaging referred to above fails to find its audience.

The pervasiveness of such misleading and false information surrounding the COVID-19 pandemic has been so extensive that UNESCO has felt compelled to issue a number of guidance briefs for authorities attempting to deal with what it has characterised as a “disinfodemic” – the dissemination of “content that is false and [...] can have fatal consequences during a pandemic.”²¹

Examples of such fake news during the pandemic abound. Beyond the widely publicised and false fulminations emanating from US President Donald Trump, examples in Africa include:

- Malicious hoaxes, such as a viral video alleging that COVID-19 testing kits in South Africa were contaminated with the virus.²²

18 McLeod, D. (2020, 26 March). All .za websites ordered to link to government Covid-19 portal. *TechCentral*. <https://techcentral.co.za/all-za-websites-ordered-to-link-to-government-covid-19-portal/96874>

19 Dundas, N. (2020, 27 March). COVID-19 Regulations Affecting “.ZA Domain Names”. <https://t.co/azzFLD8qB2?amp=1>

20 Department of Communications and Digital Technologies. (2020, 4 June). Communications and Digital Technologies Sector Response: June 2020 (presentation).

21 Posetti, J., & Bontcheva, K. (2020). *Disinfodemic: Deciphering COVID-19 disinformation*. Paris: UNESCO. https://en.unesco.org/sites/default/files/disinfodemic_deciphering_covid19_disinformation.pdf

22 Grobler, R. (2020, 6 April). Fake News: No, Covid-19 testing kits are not contaminated. *News 24*. <https://www.news24.com/SouthAfrica/News/fake-news-no-covid-19-testing-kits-are-not-contaminated-20200406>

- Deliberate phishing scams, such as the offer of free lockdown gas deliveries in Kenya in return for the payment of a “delivery fee”.²³
- Pseudo-science, such as the miraculous curative claims attached to the herbal tonic Covid Organics by Madagascar President Andry Rajoelina.²⁴
- Conspiracy theories, such as the claim that 5G mobile technology is the source behind the spread of COVID-19.²⁵



Dealing with disinformation and misinformation is not new – examples can be found from up to 200 years ago²⁶ – and so policy makers and regulators have had ample precedent upon which to base good practice responses.

Reactions have ranged from the draconian to the collaborative. The disinformation dynamic in Africa during the COVID-19 pandemic has, however, been complicated by the fact that a number of political leaders (with Tanzania, Madagascar and South Sudan among the culprits) and politicians have themselves been involved in disseminating false information or manipulating the crisis for political ends.²⁷

↑ Madagascar President Rajoelina punts COVID Organics
Source: www.newscientist.com

23 Onamu, A. (2020, 18 May). No, Kenol Kobil Is Not Giving Out Free K-Gas Cylinders. *Gadgets Africa*. <https://gadgets-africa.com/2020/05/18/k-gas-scams>

24 RFI. (2020, 24 April). Two African leaders under fire for touting unproven Covid-19 'preventatives'. *Radio France International*. <http://www.rfi.fr/en/africa/20200424-two-african-leaders-under-fire-for-touting-unproven-coronavirus-preventatives-madagascar-guinea-covid-organics-artemisia>

25 Barlow, E. (2020, 6 April). 'Worst kind of fake news': 5G conspiracy theories run wild. *TechCentral*. <https://techcentral.co.za/worst-kind-of-fake-news-5g-conspiracy-theories-runwild/97106>

26 See, for example: Andrews, A. (2015, 25 August). The Great Moon Hoax. *History*. <http://www.history.com/news/the-great-moon-hoax-180-years-ago?linkId=16545579>

27 Ncube, S. (2020, 26 May). Denial, opportunism and fakery muddy the waters in African campaign against

Whilst shutting down the internet, or blocking over-the-top (OTT) services, has been a widespread means of silencing political dissent in Africa over the years,²⁸ the fears that internet shutdowns might be used to silence opposition to government COVID-19 measures, or to limit the spread of bogus information,²⁹ appear to have been unfounded. Thus, the various calls to end such shutdowns in order to ensure the vital access to the key COVID-19 information discussed in the preceding section appear largely to have been unnecessary. Existing shutdowns in Ethiopia and Guinea, both political in intent, were ended in late March.³⁰

However, in slightly less draconian vein, a number of jurisdictions – Kenya, Rwanda and South Africa among them – have criminalised the dissemination of “fake news”, either in general, or specifically in relation to the COVID-19 crisis (as in the case of South Africa). Such measures are considered poor practice, and are both economically damaging³¹ and widely condemned by human rights organisations, amidst concerns that responses to the “disinfodemic” can become excuses to erode key human rights.³²

Most jurisdictions, however, rely on the self-regulatory codes of conduct adopted by OTT platforms such as Facebook, WhatsApp and Twitter – who themselves make use of artificial intelligence (AI) algorithms based on factors such as content or sharing patterns – or co-regulation with internet service provider associations. Of growing importance are the rising number of fact-checking entities, which identify, research and debunk (or occasionally verify) some of the vast range of claims made on internet-based platforms,³³ sometimes working in association with Facebook and others. These sites, therefore, play a valuable role in buttressing the right of access to factual information. Many of them have been particularly busy in recent months dealing with the COVID-19 “disinfodemic”. In Uganda, the regulator went one step further, launching its own fact-checking service.³⁴

At the end of the day, however, it lies in the hands of public service media entities to ensure that accurate and factual information wins out. If they are

Coronavirus. *Daily Maverick*. <https://www.dailymaverick.co.za/article/2020-05-26-denial-opportunism-and-fakery-muddy-the-waters-in-african-campaign-against-coronavirus>

28 Woodhams, S., & Migliano, S. (2020, 7 January). The Global Cost of Internet Shutdowns in 2019. *Top10VPN*. <https://www.top10vpn.com/cost-of-internet-shutdowns>

29 Human Rights Watch. (2020, 31 March). End Internet Shutdowns to Manage COVID-19. <https://www.hrw.org/news/2020/03/31/end-internet-shutdowns-manage-covid-19>

30 ACHPR. (2020, 8 April). Press Release by the Special Rapporteur on Freedom of Expression and Access to Information in Africa on the Importance of Access to the Internet in Responding to the COVID-19 Pandemic. *African Commission on Human and Peoples' Rights*. <https://www.achpr.org/pressrelease/detail?id=487>

31 Woodhams, S., & Migliano, S (2020, 7 January). Op. cit.

32 Milo, D., & Thiel, J. (2020, 20 March). Fake news about Covid-19 now a criminal offence. *Daily Maverick*. <https://www.dailymaverick.co.za/article/2020-03-20-fake-news-about-covid-19-now-a-criminal-offence>

33 Examples, some of long standing, include <https://africacheck.org> and <https://pesacheck.org> in Africa – along with Media Monitoring Africa's recently launched and currently primarily COVID-19-focused <https://www.real411.org> – as well as <https://www.snopes.com> and <https://www.hoax-slayer.com> internationally.

34 Ssebwami, J. (2020, 13 April). COVID-19 CRISIS: UCC launches fact-checking initiative to identify misinformation. *PML Daily*. <https://www.pmldaily.com/news/2020/04/covid-19-crisis-ucc-launches-fact-checking-initiative-to-identify-misinformation.html>

proactive, transparent, accurate and authoritative, it is their news and information that will prevail, and that will make meaningful the right of access to information. In the long term this needs the support of the education system in order to promote digital skills, including informational skills, among citizens and the youth.

SPECTRUM: MEETING THE UPSURGE IN DATA DEMAND

The dissemination of public interest information depends on service providers, and on mobile service providers in particular, as we have noted above.

Social distancing measures in general, and the imposition of lockdowns in particular, have led to a dramatic upsurge in network traffic, as people have been forced to work from home, communicate with family and friends from whom they are physically separated, access information over the internet, or make use of mobile money and e-commerce services. The resultant spike in demand for data and telephony services put pressure on the wireless networks that are the lifeblood of online content and services, as well as on the financial position of the operators.³⁵



← ICASA's Temporary COVID-19 Spectrum Assignment
Source: ICASA

As a result, operators in many jurisdictions turned to their regulatory authorities, asking for access to additional electromagnetic spectrum in order to supply the necessary bandwidth, and for financial relief.

In Ireland, the regulator, ComReg, was quick to respond, running an expedited notice and comment process before issuing three-month temporary spectrum licences to several of its incumbent telcos.³⁶ Similarly, the FCC in the United States granted temporary COVID-19 spectrum access to major providers AT&T and Verizon, and others.³⁷ New Zealand went one step further, simply allocating COVID-19 spectrum both directly and permanently.³⁸

In Africa, the Independent Communications Authority of South Africa (ICASA) was quick to respond, first offering a temporary waiver of spectrum fee payments,³⁹ and then issuing the incumbent licensees with additional spectrum

35 WIOCC. (2020, 2 June). Dramatic Surge in IP traffic due to Covid-19. *West Indian Ocean Cable Company*. <http://wiocc.net/blog/dramatic-surge-in-ip-traffic-due-to-covid-19>

36 ComReg. (2020). *Wireless Telegraphy (Temporary Electronic Communications Services Licences) Regulations, Statutory Instrument No. 122 of 2020*. Commission for Communications Regulation. <https://www.comreg.ie/publication-download/s-i-no-122-of-2020-temporary-electronic-communications-services-licences>

37 Welch, C. (2020, 19 March). Dish is letting the major US carriers borrow spectrum during quarantine data crunch. *The Verge*. <https://www.theverge.com/2020/3/19/21187378/dish-letting-att-verizon-tmobile-use-spectrum-coronavirus>

38 O'Neill, R. (2020, 12 May). NZ telcos welcome government's 5G spectrum direct allocation plan. *New Zealand Reseller News*. <https://www.reseller.co.nz/article/679634/telcos-welcome-government-5g-spectrum-direct-allocation-offer>

39 TechCentral. (2020, 30 March). Icasas grants 3-month spectrum break to operators. *TechCentral*. <https://>

on a temporary basis.⁴⁰ While there has been some criticism of the move as having favoured incumbents and not sufficiently encouraging innovation,⁴¹ it has nevertheless been widely welcomed⁴² as providing much-needed relief for the incumbent networks that bore the initial brunt of the spike in traffic. Ironically and sadly, however, one of the dominant players turned its COVID-19 temporary spectrum allocation to the benefit of its most affluent customers, launching 5G services in several major metropolitan areas.⁴³

A limited number of regulators elsewhere in Africa implemented similar measures, notably Ghana,⁴⁴ Zambia,⁴⁵ Zimbabwe,⁴⁶ the DRC and Morocco. These supply-side interventions were warmly welcomed by the global GSM Association as good COVID-19 regulatory practice.⁴⁷ But they are a measure less necessary in jurisdictions with lower levels of mobile penetration and fewer numbers of internet users, and where there is consequently less pressure on spectrum under the changed patterns of usage caused by COVID-19.

Perhaps of more interest in addressing the digital divide is South Africa's award of TV white space spectrum for rural connectivity to three licensees.⁴⁸ However, initiatives such as these – and there are a number, both in South Africa and elsewhere on the continent⁴⁹ – are highly unlikely to deliver results in the short time frames of the COVID-19 crisis. Rather than forming part of pandemic good practice, they need to be part of the long-term, multifaceted armoury of ongoing digital divide interventions.

techcentral.co.za/icasa-grants-3-month-spectrum-break-to-operators/96944

- 40 ICASA. (2020, 6 April). Emergency release of spectrum to meet the spike in broadband services demand due to COVID-19. *Independent Communications Authority of South Africa*. <https://www.icasa.org.za/news/2020/emergency-release-of-spectrum-to-meet-the-spike-in-broadband-services-demand-due-to-covid-19>
- 41 Gillwald, A., Hadzic, S., & Aguera, P. (2020). *Temporary COVID-19 spectrum – a missed opportunity for some regulatory innovation?* Cape Town: Research ICT Africa. <https://researchictafrica.net/wp/wp-content/uploads/2020/04/Covid-spectrum-brief-04-20.pdf>
- 42 Stone, S. (2020, 15 April). 'Temporary spectrum relief a welcome step'. *City Press*. <https://www.news24.com/citypress/Business/temporary-spectrum-relief-a-welcome-step-in-inevitable-evolution-of-human-connectivity-20200415>
- 43 McLeod, D. (2020, 4 May). Vodacom unveils first 5G deals – 800GB for R1 499. *TechCentral*. <https://techcentral.co.za/vodacom-unveils-first-5g-deals-800gb-for-r1-499/97785>
- 44 Adepoju, P. (2020, 28 April). Ghana expands spectrum for MTN, Vodafone. *ITWeb*. <https://itweb.africa/content/5yONPvEgAGGMXWrb>
- 45 Malakata, M. (2020, 27 May). Zambia releases free additional spectrum. *ITWeb*. <https://itweb.africa/content/KzQenMjVeXrMZd2r>
- 46 Adepoju, P. (2020, 15 May). Zim telcos receive additional spectrum at no charge. *ITWeb*. <https://itweb.africa/content/Olx4zMkneP756km>
- 47 GSMA. (2020, 31 March). Keeping everyone and everything connected: How temporary access to spectrum can ease congestion during the COVID-19 crisis. <https://www.gsma.com/newsroom/blog/keeping-everyone-and-everything-connected-how-temporary-access-to-spectrum-can-ease-congestion-during-the-covid-19-crisis>
- 48 Goldstuck, A. (2020, 10 May). TV white spaces change the rural Wi-Fi game. *Business Times*. <https://www.timeslive.co.za/sunday-times/business/2020-05-10-tv-white-spaces-change-the-rural-wi-fi-game>
- 49 Rey-Moreno, C., & Graaf, M. (2018). Map of the Community Network Initiatives in Africa. In L. Belli (Ed.), *Community Connectivity: Building the Internet from Scratch*. Rio de Janeiro: FGV Rio Editions. <https://bibliotecadigital.fgv.br/dspace/handle/10438/17528>

ADDRESSING AFFORDABILITY: FROM MOBILE MONEY TO ZERO-RATING

The ability of poor individuals and remote communities to make use of the internet, and of data and messaging services, in order to mitigate the social and economic impacts of COVID-19 counter-measures is dramatically inhibited by the barrier of affordability.⁵⁰ The affordability-based digital divide, and its impact on lives and livelihoods, is an issue that has long been at the forefront of concern from many quarters⁵¹ – all the more so now, given the fact that COVID-19 is a pandemic with deeply divided consequences for society.⁵² On the one hand, the high-bandwidth, advanced-device access to the internet and data services enjoyed by the rich can palliate the most adverse consequences of COVID-19 strictures. On the other, those with limited data and basic handset devices have extremely limited access to the necessary data and services.

As a result, policy and regulatory interventions aimed at ensuring access to online data and services for the poorest households and most remote communities must surely be a key component of any good practice intervention during an emergency such as that occasioned by COVID-19.

Internationally, service providers adopted a number of measures aimed at poorer customers: they cut data prices, doubled data allocations, and promised not to disconnect those with payment arrears.⁵³

In Africa, the response was rather more limited. While prices were cut in countries as far flung as Cameroon,⁵⁴ Mozambique and Cape Verde,⁵⁵ and while Egypt offered marginal increases to data bundle sizes,⁵⁶ other jurisdictions preferred to target the more affluent work-from-home contingent.⁵⁷

South Africa had just emerged from a data services market review in which the Competition Commission had recommended a series of remedial measures which included substantial cuts in the retail price of data, provision

50 Turianskyi, Y. (2020, 14 May). COVID-19: Implications for the 'digital divide' in Africa. *Africa Portal*. <https://www.africaportal.org/features/covid-19-implications-of-the-pandemic-for-the-digital-divide-in-africa>

51 ITU. (2020). *Measuring Digital Development: ICT Price Trends 2019*. Geneva: International Telecommunication Union. https://www.itu.int/en/ITU-D/Statistics/Documents/publications/prices2019/ITU_ICTpriceTrends_2019.pdf

52 Jorge, S., Sarpong, E., & Nakagaki, M. (2020). *Covid-19 Policy Brief: Internet Access & Affordability*. Washington, DC: Alliance for Affordable Internet and Web Foundation. https://webfoundation.org/docs/2020/04/Covid-Policy-Brief-Access_Public.pdf

53 Ofcom. (2020, 1 April). How broadband and mobile firms are serving customers during the coronavirus pandemic. <https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/broadband-and-mobile-firms-commit-helping-customers-during-coronavirus>

54 Atabong, A. (2020, 25 March). Orange Cameroun slashes prices in response to COVID-19. *ITWeb*. <https://itweb.africa/content/KzQenqjVdKPqZd2r>

55 Tsanzana, D. (2020, 3 April). Mozambique and Cape Verde's telcos offer affordable mobile internet as citizens urged to stay home. *Global Voices*. <https://globalvoices.org/2020/04/03/mozambique-and-cape-verdes-telcos-offer-affordable-mobile-internet-as-citizens-urged-to-stay-home>

56 Al-Youm, A. (2020, 16 March). Egypt's internet companies increases bundle quotas by 20% for free: Ministry. *Egypt Independent*. <https://egyptindependent.com/egypts-internet-companies-to-increase-bundle-quotas-by-20-ministry>

57 Oloo, V. I. (2020, 25 March). COVID-19: MTN Uganda Introduces Work From Home Data Bundle. *Dignited*. <https://www.dignited.com/59266/mtn-work-from-home-data-bundles-uganda>

of free lifeline data to poor consumers, zero-rating of public benefit websites, and abolition of price premiums on smaller bundles.⁵⁸

In their settlements with the Commission (most of which were agreed just as the COVID-19 wave began to break), the dominant service providers agreed to implement some but by no means all of the findings. While prices were cut, and zero-rating agreed to, the tiered structure of bundle pricing remained,⁵⁹ and free data became camouflaged under free access to proprietary services and platforms.⁶⁰

As a result, many were deeply disappointed at the limited extent of the settlements of the service providers with the Commission⁶¹ – and no new concessions were made after the pandemic hit, despite encouragement by the regulator for providers to do so, leaving poor households severely constrained – aside from content on zero-rated websites (see discussion below) – in their ability to secure meaningful access to the internet during the crisis.

Some have pointed to South Africa’s universal service fund and its provisions for funding the access of “needy persons” to ICT services, but nothing was ever attempted in this regard. This may be down to the March ministerial injunction for the fund to prioritise broadband access to municipalities, although there is no evidence that that was done either.⁶²

It is unfortunate that regulators in Africa were unable to secure the kind of substantive commitments elicited by Ofcom, the UK regulator, in support of those on the wrong side of the digital divide. ICASA did undertake such a written engagement with the sector early on in the pandemic,⁶³ but its impact and outcomes remain unclear.

Mobile money, however, proved rather more susceptible, as lockdown restrictions on movement curtailed the ability of individuals to access cash and to pay for goods and services. In a number of jurisdictions – Uganda, Malawi, Airtel and Safaricom in Kenya – m-money fees were waived or reduced, either on all transactions or low denomination ones. Even cash-critical Zimbabwe made

58 McLeod, D (2019, 2 December). Free data for all South Africans in radical regulatory intervention. *TechCentral*. <https://techcentral.co.za/free-data-for-all-south-africans-in-radical-regulatory-intervention/94444>

59 For example, an MTN subscriber currently buying 1 GB of data in 100 MB chunks, still pays twice as much per GB as a subscriber who can afford to purchase a full 1 GB at a time.

60 BusinessTech. (2010, 20 March). MTN announces massive price cuts and free data. *BusinessTech*. <https://businesstech.co.za/news/telecommunications/383443/mtn-announces-massive-price-cuts-and-free-data>

61 Shoba, S. (2020, 18 March). Are mobile network providers doing enough to keep South Africans connected? *Daily Maverick*. <https://www.dailymaverick.co.za/article/2020-03-18-are-mobile-network-providers-doing-enough-to-keep-south-africans-connected>

62 USAASA has since issued a controversial tender to supply over 100,000 television sets to indigent learners in their final year of schooling – see Labuschagne, H. (2020, 15 June). Government plans to give free TVs to more than 100,000 matrics. *MyBroadband*. <https://mybroadband.co.za/news/broadcasting/356259-government-plans-to-give-over-100000-matrics-free-tvs.html> – a quixotic initiative whose chances of success in the absence of concomitant affordable access to online services, devices and content must surely be dismal.

63 ICASA. (2020, 19 March). ICASA engages with licensees to open their services to all South Africans as the country fights the scourge of the COVID-19 pandemic. *Independent Communications Authority of South Africa*. <https://www.icasa.org.za/news/2020/icasa-engages-with-licensees-to-open-their-services-to-all-south-africans-as-the-country-fights-the-scourge-of-the-covid-19-pandemic>

some moves in this direction, albeit contradictory ones. The spike in mobile money transactions has been a global one,⁶⁴ and the eagerness of providers to facilitate the upsurge is likely due to a desire to leverage the COVID-19-driven demand for cashless transactions and cash transfers in order to achieve greater market share, as Kenya's Safaricom was historically able to do with M-Pesa.

FROM CLASSROOM COMFORTS TO E-LEARNING LAPSES

The widespread closure of schools and institutions of further education and training prompted a slew of responses intended to minimise the consequent disruptions to learning programmes,⁶⁵ but, as in many of the cases discussed here, there was little by way of a priori good practice guidance. Moves to replace face-to-face teaching with ad hoc e-learning, and by providing online access to educational resources, rapidly ran into the rocky ground of the e-learning ecosystem and foundered in the face of the digital divide.

A shift to e-learning is relatively easy for the affluent, with ready access to both the requisite user devices and connectivity, as well as the necessary digital skills to navigate the concomitant changes to facilities and behaviours.

But most learners from poorer households do not have either a laptop computer or easy access to their own smartphone, and many do not have ready access to the electricity needed to operate the devices. And then they are faced with the unaffordable costs of the data required for bandwidth-hungry e-learning content. Educators too are faced with a multitude of challenges as they seek to develop and deliver content that needs to be accessible and usable via a multitude of channels on a multiplicity of user devices.

The widespread adoption of zero-rating for educational content across the continent – an affordability proposal long punted,⁶⁶ often under the wider umbrella of public benefit content, and with antecedents in Facebook's "Free Basics" offering – was seen as a ready response to address the problems of affordable access for e-learning to take place. A number of operators, many with previous experience of using zero-rating as a marketing ploy, quickly moved to offer free access to educational websites. These included Airtel and Safaricom in Kenya, Orange and MTN in Liberia, Telekom Networks Malawi and all the major mobile operators in South Africa. Others, such as the Botswana Telecommunications Corporation, launched proprietary e-learning platforms. In some jurisdictions zero-rating has also been extended to health websites.

64 The Economist. (2020, 28 May). The covid-19 crisis is boosting mobile money. *The Economist*. <https://www.economist.com/middle-east-and-africa/2020/05/28/the-covid-19-crisis-is-boosting-mobile-money>

65 ITU. (2020, 31 March). COVID-19: Here's how some countries are addressing the digital education divide. *ITU News*. <https://news.itu.int/covid-19-countries-addressing-digital-education-divide>

66 Mail & Guardian. (2020, 23 March). Zero-rate mobile services for health, education and development now. *Mail & Guardian*. <https://mg.co.za/article/2020-03-23-zero-rate-mobile-services-for-health-education-and-development-now>

There have been a number of problems with this initiative,⁶⁷ not all of them fully documented and reported as yet. Firstly, there was often less than full unanimity on which of the many possible websites and online resources to zero-rate. This meant that some learner subscribers on one network were unable to secure free access to content that had been zero-rated by a different network. Secondly, websites often access breakout content, resources and JavaScript from external sources, which may not form part of the zero-rated walled garden, resulting in learners either unknowingly incurring unexpected data charges or being unable to load certain pages properly because they had run out of data. Thirdly, being classified as offering zero-rated content is a highly desirable status for providers seeking to maximise their exposure, creating a scramble for favourable classification.

Some have proposed a reverse billing model to resolve some of the problems with unexpected data charges. Meanwhile, universities in South Africa have struck agreements with service providers to provide free monthly data allocations to needy students as an alternative solution.

The resulting confusion has led South Africa recently to issue a comprehensive set of policy directions aimed at resolving these problems,⁶⁸ and, finally, publication of a long list of qualifying sites.⁶⁹

But a further access challenge remains to be resolved: the provision of the necessary devices for learners to use. In South Africa, universities have offered loan laptops to students as a way of addressing the problem. The national student bursary scheme too has stepped into the breach, but its ability to supply laptops to needy students has been delayed by the decision to centralise the procurement process, and hence to put the project out to tender.⁷⁰

Despite its intuitive appeal, zero-rating of online content has therefore proven to be a less than ready panacea for the challenges of e-learning access for disadvantaged learners.

THE DIGITAL DIVIDE AND THE FUNDAMENTAL RIGHT TO INTERNET ACCESS

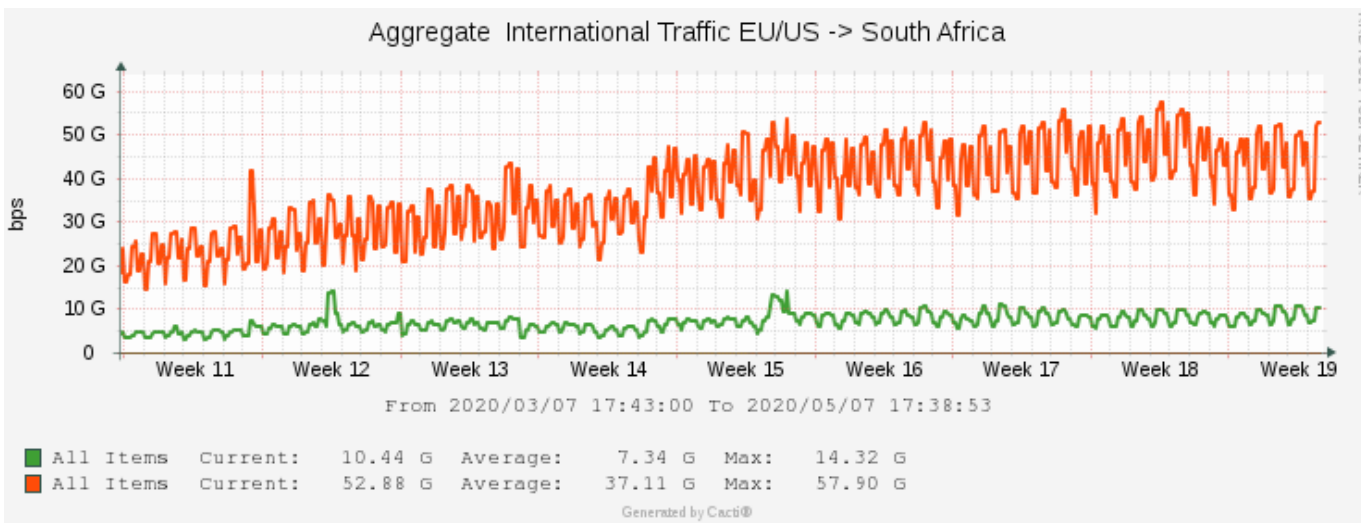
As we have seen from the discussion above, the global COVID-19 crisis threw entire economies and societies into turmoil. It caught national governments across the board ill-prepared for the drastic, dramatic health and public safety measures that were required to combat the scourge of such an unprecedented global pandemic. But ICT sector policy makers, regulators, service providers

67 Dell, S. (2020, 9 April). Zero-rating online learning – Not as simple as it sounds. *University World News*. <https://www.universityworldnews.com/post.php?story=20200408201225155>

68 Mzekandaba, S. (2020, 9 June). Zero-rating criteria for education, health sites gazetted. *ITWeb*. <https://www.itweb.co.za/content/mYZRXv9aLQnvOgA8/2JN1gPvO29qjL6mO>

69 McKane, J. (2020, 17 June). Here is the full list of zero-rated websites in South Africa. *MyBroadband*. <https://mybroadband.co.za/news/internet/356371-here-is-the-full-list-of-zero-rated-websites-in-south-africa.html>

70 Mzekandaba, S. (2020, 10 June). NSFAS students in laptop limbo as govt opens tender. *ITWeb*. <https://www.itweb.co.za/content/ILn147mjEEDMJ6Aa/2JN1gPvO29qjL6mO>



and users were equally unprepared for the kinds of interventions that would be necessary if ICT infrastructure, services and content were to both manage and mitigate the consequences of social distancing and lockdowns.

↑ The upsurge in data traffic due to Covid
Source: Cacti

As a result, there were few if any good practice models that could be relied on for guidance.

Detailed research is required to track, delineate and analyse the interventions outlined above, and to assess the degree to which they may be considered to constitute an embryo of emerging international good practice. The ITU⁷¹ and others⁷² have commenced the work, but far more is needed to be done.

It is clear, however, that the ICT sector is a complex, dynamic and interlocking ecosystem, and that interventions need to be considered in the light of that complexity, so that they do not fail because of one or more overlooked critical success factors, or produce unintended consequences.

What is equally clear is that COVID-19 is a pandemic of two halves and two divergent outcomes, with socioeconomic disparities between rich and poor, between the connected and unconnected, both cruelly exposed and harshly magnified by ICTs.

For the connected few, with ready access to technology, information and the power of digital skills, COVID-19 has been a substantial inconvenience, but fundamentally a navigable circumstance. They have been able to adhere to lockdown measures, to work from home, and school from home, and shop from home, and live their lives from home.

But for those with limited or no access to ICT infrastructure, services and content, disabled by lack of technology and inadequate devices, and crippled by the high price of data, it has been a diametrically different story. They have

71 ITU. (2020). *First Overview of Key Initiatives in Response to COVID-19*. Geneva: International Telecommunication Union. https://www.itu.int/en/ITU-D/Regulatory-Market/Documents/REG4COVID/2020/Summary_Key_Covid19_Initiatives.pdf

72 <https://www.mobileworldlive.com/featured-content/home-banner/covid-19>

been largely unable to work, or learn, or transact, or navigate daily lockdown life.
As the 2016 African Declaration on Internet Rights and Freedoms reminds us:

Access to the Internet plays a vital role in the full realisation of human development, and facilitates the exercise and enjoyment of a number of human rights and freedoms, including the right to freedom of expression and information, the right to education, the right to assembly and association, the right to full participation in social, cultural and political life and the right to social and economic development.⁷³

COVID-19 has demonstrated in ways beyond the cruel toll of those infected or killed, that access to the internet and its cornucopia of goods, services and content is, as its architect reminds us, a fundamental precondition for human welfare, for economic growth and for social development.⁷⁴

This is a position that the 2019 Banjul Declaration reaffirms:

[U]niversal, equitable, affordable and meaningful access to the internet is necessary for the realisation of freedom of expression, access to information and the exercise of other human rights.⁷⁵

Resolute, concerted and urgent action is therefore required to deal with the digital divide, to mitigate its impact on individuals and communities, on lives and livelihoods, on health and happiness. It is a challenge that humanity dare not fail.

73 <http://africaninternetrights.org/wp-content/uploads/2015/11/African-Declaration-English-FINAL.pdf>

74 Berners-Lee, T. (2020, 4 June). Op. cit.

75 ACHPR. (2019). Declaration of Principles on Freedom of Expression and Access to Information in Africa. Banjul: African Commission on Human and Peoples' Rights. [https://www.achpr.org/public/Document/file/English/Declaration of Principles on Freedom of Expression_ENG_2019.pdf](https://www.achpr.org/public/Document/file/English/Declaration%20of%20Principles%20on%20Freedom%20of%20Expression_ENG_2019.pdf)