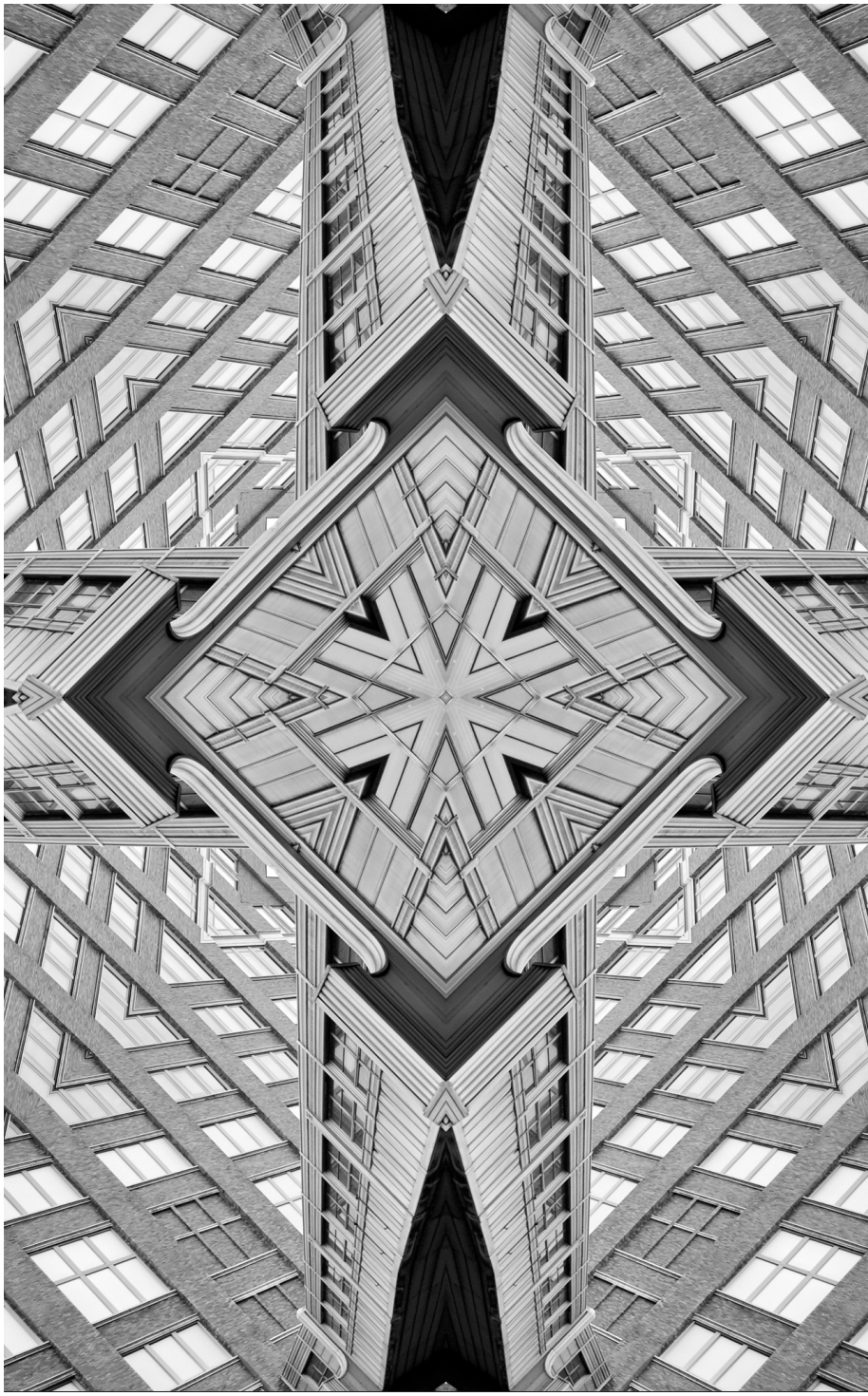
Issue Brief

ISSUE NO. 548
MAY 2022

ORF OBSERVER RESEARCH FOUNDATION



Mental Health and Technology: The Case of Africa

Rethabile Tsephe

Abstract

Mental health is an increasing concern in many parts of the world, especially amidst the prolonged COVID-19 pandemic. This brief tells the story of Africa where, in many communities, the subject of mental health can often be a taboo. It discusses the role of the internet in helping individuals manage their mental health issues, while at the same time, posing its own challenges, especially those related to extensive use of social media. The brief focuses on the history of the internet in the continent, the extent of its penetration, and the technological innovations that are helping efforts in mental health. It highlights the economic case for paying attention to mental health.

Attribution: Rethabile Tsephe, "Mental Health and Technology: The Case of Africa," *ORF Issue Brief No. 548*, May 2022, Observer Research Foundation.

Introduction

The global lockdown of 2020 following the COVID-19 outbreak affected human life in fundamental ways. As governments across the world attempted to contain the spread of the virus, they imposed restrictions on movement and norms on physical distancing. This response profoundly changed the way people worked, lived their daily lives, and connected with their family, associates, peers, and friends.

Carrying out daily tasks, holding social gatherings, and even collective grieving had to be done differently. Internet connectivity, with its global reach, played an important role in enabling this shift. Schooling had to be conducted online; companies and organisations were forced to rethink employees' roles, and provide services and products online; gatherings—whether celebrations of happy occasions or memorials for the dead—had to be done through virtual streaming. In healthcare, mental healthcare and wellness support services were made available on social media and other internet platforms. For those who needed to quarantine, the internet became the primary source of communication. Indeed, *everyone* was isolated, and with this isolation, mental health challenges increased: There was a rise in the incidence of depression, anxiety, and paranoia, and in suicidal tendencies.[1]

Technology has assisted in managing these mental health challenges. The World Health Organization (WHO) has noted how, especially in developing countries, mobile technologies are beneficial for individuals without access to mental health resources. Various apps—from patient self-assessment to virtual sessions with healthcare specialists—offer support to those who have access to mobile devices.

Indeed, technology continues to introduce new concepts in mental health support and data collection. Mobile devices such as tablets and smartphones have developed innovative ways to link researchers, medical doctors, and the public, enabling new ways of accessing help, monitoring the process of doing so, and increasing understanding of mental well-being. According to the US's National Institute of Mental Health,[2] mental health support on mobile phones can be both simple and effective. Anyone with the ability to send a text message, for example, can contact a crisis centre and seek help.

Introduction

New technology can also be packaged into more sophisticated apps for smartphones or tablets. Such apps could also use the device's built-in sensors to collect information on a user's typical behaviour pattern. If the app detects a change of behaviour, it could provide a signal—before a crisis occurs—that the user needs help. There are also apps with standalone programmes that promise to improve memory and thinking skills. Others help the user connect to a peer counsellor or a healthcare professional.

This brief focuses on the experience of Africa, where 70 percent of the countries spend less than 1 percent of their health budgets on psychiatric aid and many overlook mental disorder. Using digital technology, people have found ways by which they can honestly discuss their challenges, without fear of being shamed or humiliated. Smartphone technology and mobile apps, in particular, are providing support.[3]

The rest of the brief will outline a brief history of internet penetration in the continent; give an overview of the pervasive mental health challenges; and discuss the tech innovations that have proved valuable in addressing the gaps in mental health resources. It will also examine the twin problem in using tech: that these same technological innovations, and people's dependence on them, can also affect one's mental health.

Internet Penetration in Africa

The history of the internet in Africa is an interesting one.[4] Different sources have contributed to the internet's development in the continent in the areas of infrastructure, policy, capacity building, and more. The first step was taken by the African Union (AU) in 2001, when it adopted the New Partnership for Africa's Development (NEPAD) during its meeting in Lusaka, Zambia. NEPAD's e-Africa programme aims to promote Africa as a globally competitive digital society. Earlier called the NEPAD e-Africa Commission, it was tasked with developing policies, strategies, and projects on information and communication technologies (ICT) at the continental level.

As of 2020, internet penetration in Africa was 43.1 percent[5] against the global average of over 66 percent,[6] varying widely across countries. Adults below 30 are more likely to own smartphones and spend more hours online than those above 50. In South Africa, for example, 75 percent of people between the ages of 18 to 29 reported using the internet, against only 31 percent of those above 50.

The internet has given users numerous benefits, many of which are not unique to the experience of Africa. Using a mobile app, a family in rural Lesotho, for example, can make instant payments for services such as electricity or water. With few ATMs or collection centres in these areas, a person would earlier have had to travel for two days to Maseru, the capital city, and back—to withdraw cash and physically make payments.

The following paragraphs provide a snapshot of the state of internet penetration in some of the countries in the African continent.

Kenya

Various estimates peg the extent of internet penetration in Kenya between 27 and 40 percent, even as mobile penetration is 109 percent (since some have more than one SIM card). Of those using the internet, the *Kenya Digital Report* found that 97 percent do so through their mobile phones. The same report noted that internet users in the country spend a daily average of over four hours online. Rapid internet adoption in Kenya owes much to M-Pesa, a mobile wallet provider headquartered in the country, whose secure and seamless payment system has proved popular. M-Pesa, a joint venture of global telecommunications giant Vodafone and local provider Safaricom, is one of the biggest mobile money services in Africa.[7][8]

Internet Penetration in Africa

Nigeria

In 2021,[9] Nigeria had 108.75 million internet users, and around 15.4 percent of the population used social media. Nigeria is a mobile-first market where infrastructure and online usage leapfrogged wide desktop-laptop adoption and went directly to mobile internet use through inexpensive smartphones. Nearly three-fourths of web traffic in Nigeria is generated via smartphones.

Ghana

There were 15.70 million internet users in Ghana in January 2021, the number having increased by more than 6 percent over the past year.[10] Internet penetration stood at 50 percent. E-commerce usage is growing, with 25.5 percent of clothes and accessories, 19.9 percent of electronic items, and 9.2 percent of all cosmetics being bought online.[11]

Lesotho

Despite 90-percent 3G coverage, only 30 percent of Lesotho's residents use the internet.[12] Of these, 86 percent access it through smartphones, though their high cost remains a hurdle to internet expansion.

South Africa

There were 38.19 million internet users in South Africa in January 2021, the number having increased by 4.5 percent from the year before.[13] According to *Stats SA*, the market share of online retail in South Africa grew to 2.8 percent in 2020, doubling from 2018.

Africa's Mental Health Challenge

Ghana is one of the few African countries that had begun addressing the problem of mental health even before the COVID-19 pandemic. In 2012, it passed Act 846, also known as the Mental Health Act. A report by Human Rights Watch published early that year had estimated that 2.8 million Ghanaians (out of a population of 25.9 million) had some form of mental disorder.

In South Africa, the *South African Journal of Psychology*[14] reported that:

- One in six suffered from anxiety, depression, or substance-use disorders;
- 40 percent of those with HIV had a mental disorder;
- 41 percent of pregnant women were depressed; and,
- About 60 percent could be suffering from post-traumatic stress following a crime or other tragic events.

Data for Lesotho, meanwhile, shows that one-fifth of its population of 2.2 million[15] suffer from mental disorders, which were exacerbated by the cascading effects of the pandemic: the isolation caused by the lockdowns, the widespread loss of work, and grief from losing loved ones to the contagion.

In South Africa, only 27 percent of those with a mental disorder receive treatment. The treatment process is also often inefficient, agonising, and more likely to be detrimental rather than helpful for the patient, due to lack of funds or inconsistency in treatment. The challenge only heightens because discussion around mental disorders is stigmatised—this often prevents those with a disorder, and their families, from seeking assistance and they instead decide to conceal it.

Part of the challenge is the lack of awareness of what constitutes mental illness, to begin with. A study by Biomed Central in Northern Nigeria, for example, found that at least 34 percent of respondents believed that drug and alcohol abuse was "a major cause of mental disorders."[16]

Tech Innovations for Mental Health

Technology-based services can be used to improve the means of tackling mental health. Before the COVID-19 pandemic, patients seeking mental health support had to visit a hospital or book an appointment for an in-person consultation with a specialist. As COVID-19 forced major changes upon societies, teleconsultations have become more popular. These virtual sessions are largely easier to book and cost-effective as well.

Across Africa, mental health tech start-ups include Wazi in Kenya, launched in October 2018.[17] Wazi promotes awareness through messages, carried in 3D animation, that stress on peace and harmony. It currently has 90 volunteers offering their services, and 500 users. A total of 9,800 messages have so far been exchanged between users and therapists on Wazi.[18]

PsyndUp in Nigeria, meanwhile, is a "find a therapist" platform, enabling users to find mental health support closest to their locations. PsyndUp has 240 people registered on it, and has held 41 discussions, including sessions with clinical psychologists. More than 60 people have used PsyndUp to consult therapists in Lagos, Port Harcourt, Abuja, and Kano, through email, social media channels, and its "find a therapist" link.

In Ghana, a health service called MindIT not only enables users to find help by dialling a particular number but also seeks to close the gap in the treatment of mental conditions by providing training to nurses to help them conduct diagnoses and prescribe medication. The service has handled more than 2,000 users since it began in October 2017.

Lesotho, for its part, has 'Real Talks with Pinks'—a YouTube channel that covers diverse topics including mental health. Experts reply to questions on mental health from viewers and suggest coping mechanisms. The MEGA project in South Africa and Zambia helps those with mental health issues to find vital resources and support.

These are just some examples of innovations that tech startups across Africa are launching in the domain of mental health. These efforts are complemented by continent-level initiatives, including those conducted bilaterally with other countries and regions. On 20 November 2019, for example, around 200 experts, advocates, researchers, and practitioners from Africa and the United

Kingdom (UK) met in London to discuss implementation strategies for mental health interventions. The meeting was organised by the Royal African Society and the London School of Hygiene and Tropical Medicine, with support from entities such as WHO, the Bill and Melinda Gates Foundation, and the Wellcome Trust.

A pillar theme of the conference was the economic case in nurturing people's mental health. Indeed, a World Bank analysis found significant returns on investment in mental health services.[19] The Africa-UK discussion shared insights on the cost-benefit of providing support to individuals living with a mental condition. They agreed that timely diagnosis and treatment, particularly in children and youth, can prevent acts of disruptive behaviour later in life, and give them an opportunity to play a more constructive and productive role in society.

The participants agreed on the following fundamental principles:

1. Health requires a holistic approach, whereby mental health and physical health are given equal attention. Several African countries have already adopted this approach; however, efforts have to start from primary healthcare provision. Health workers need to be trained to identify symptoms of mental disorder and recommend relevant interventions.

2. It is critical to identify mental disorders in children and provide them the necessary treatment at the earliest. Most mental conditions manifest themselves by the age of 14. An early prevention and intervention plan will significantly reduce the risk of serious problems that could eventually emerge.

3. Communities must be involved in disseminating information on mental health. Families, caregivers, and guardians of mental health patients undergo great strain; there are also substantial financial implications of providing mental healthcare. Traditional healers need to be recognised as assets and involved in the healing process through outreach and training.

4. Self-help groups with experience in tackling mental disorders should be set up, with the help of civil society and non-government organisations.

5. Populations should be made aware of available innovations in treatment. These include initiatives such as Zimbabwe's 'friendship bench'—literally, the setting up of benches where people can sit together and talk, either with one another or with a professional therapist.[20] It is a project of the NGO with the same name, and it has transformed the treatment of less severe mental disorders in those communities, reducing both the cost of treatment and the stigma around them.

Discussions, programmes, and projects on mental health call for good governance at the national level. They need to be mainstreamed in national health strategies and allocated sufficient budgets. Governments need to coordinate their efforts effectively. A number of African countries do have mental health policies—South Africa, Ghana, Zambia, and Uganda are examples—but all too often these exist only on paper. Resources should be provided for mental health treatment as a part of the wider universal health coverage.

It is important to change attitudes and mindsets on mental health. Both traditional media—i.e., newspapers, radio, television, and entertainment shows—and social media platforms can play important roles.

The Flip Side: Tech as Cause of Mental Ill-Health

There is enough evidence that technology has brought about many positive changes to large populations across the globe. It has improved communication for individuals and provided them easy access to information, help, and support. At the same time, however, it has negative consequences. There are significant risks associated with increased use of the internet.[21] The duration of smartphone and internet use is closely related to mental health problems, such as depressive symptoms, decreased general happiness, poor quality sleep, and loneliness.[22]

Isolation

Humans are social animals. Spending too much time on the internet, especially social media, can lead to behavioural changes, including, for some, obsession and addiction. Social media platforms are designed to grab attention, keep viewers online, and induce them to repeatedly check their screens for updates.[23] Much like a gambling compulsion or an addiction to nicotine, alcohol, or drugs, social media use can lead to psychological cravings. 'Likes', 'shares', or any other favourable reaction to a post, can trigger a release of dopamine in the brain, the same 'reward' chemical that follows winning on a slot machine, taking a bite of chocolate, or lighting up a cigarette. The more a person is rewarded, the more time they want to spend on social media.

Sleep deprivation

Surfing the internet extensively or being on social media at night can affect the quality of sleep. It leads to stress which makes proper sleep impossible, which in turn can affect mental health. Rays from tech devices also disturb sleep patterns.

Fear of Missing Out (FOMO)

Such a feeling can arise from intensive social media use and is associated with melancholy and low life satisfaction. Online platforms can negatively affect mental well-being by promoting unrealistic expectations. Social media has been linked to poor self-esteem from looking at images on photo-sharing platforms, which are often digitally altered. In particular, the 'idealised body image' presented on such platforms has been detrimental to self-image, especially amongst young girls. A survey by the Royal Society of Public Health in the UK found nine of every 10 young females saying they were unhappy with the way they look.

Conclusion

Mental health has historically been neglected in Africa, though this experience is not unique to the continent. Confronted with several challenges such as intractable poverty, infectious disease, maternal and child mortality, as well as conflict, African political leaders have underestimated the importance of mental health education. There are four main indicators of this neglect: ignorance of the magnitude of the mental health problem afflicting the continent; the stigma facing those who live with mental health disorders; the paucity of discussions on mental disorders; and the misconception that mental disorders cannot be treated.

Statistics suggest that social media will play an increasingly dominant role in our lives. But it is also seen that social media use can lead to anxiety, depression and loneliness. The relationship needs to be further examined by researchers, mental health policy stakeholders, and the social media industry. In the meantime, it is critical to think carefully about social media management and its impact on mental health.

Goal 3 of the UN's Sustainable Development Goals (SDGs) commits the international community to the following target: "Ensure healthy lives and promote wellbeing for all at all ages." This echoes a principle laid down in WHO's definition of health, which states that health should include both its physical and mental aspects. This holistic concept of health is widely acknowledged historically and across cultures, and reflected in the popular slogan, "no health without mental health". It is time for policymakers, not only in Africa, to pay proper attention to mental health.

Rethabile Tsephe *is a Researcher at the Global Foundation for Cyberstudies and Research.*

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20, Rouse Avenue Institutional Area,
New Delhi - 110 002, INDIA
Ph. : +91-11-35332000. **Fax :** +91-11-35332005
E-mail: contactus@orfonline.org
Website: www.orfonline.org