



AJ Impact / SCIENCE & TECHNOLOGY

How Africa's tech innovators respond to the coronavirus pandemic

Across Africa, advanced and low-tech solutions take leading role in efforts to meet challenges unleashed by COVID-19.

by **Zoe Flood**

15 Apr 2020



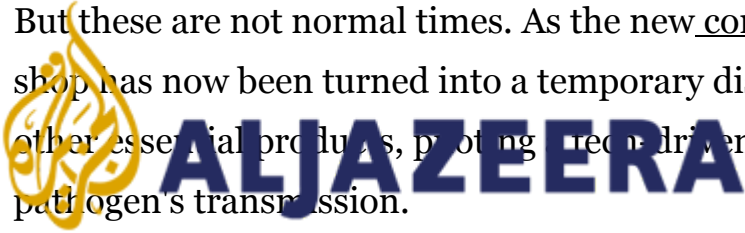
Nichonar Ochieng, in white, helps local residents in Dandora to wash their hands outside his shoe shop [Courtesy of Nichonar Ochieng/Al Jazeera]

In normal times, Nichanor Ochieng sells shoes on a busy junction in Dandora, a high-density, low-income neighbourhood in Kenya's capital, Nairobi.

We use cookies to give you the best possible experience. [Learn more about how we use cookies](#) or [edit your cookie preferences](#).

X

But these are not normal times. As the new coronavirus continues to spread, his small shop has now been turned into a temporary distribution point for free hand-cleaning and other essential products, part of a tech-driven initiative aimed at helping slow down the pathogen's transmission.



More:

- [How is the pandemic affecting elections in Africa?](#)
- [Coronavirus disrupts Uganda's locust fight](#)
- [Tracking Africa's coronavirus cases](#)

Launched by a coalition of community groups and businesses - including some of the country's leading technology firms - Safe Hands Kenya is working to use existing tech-enabled supply chains to hand out items such as sanitiser, masks, soap and surface disinfectant, particularly in poor, densely populated areas.

"Most Kenyans live on a daily wage - they have to go out to work. Where they live, social distancing is impossible," says Andrew Waititu, CEO of the newly formed Safe Hands Kenya.

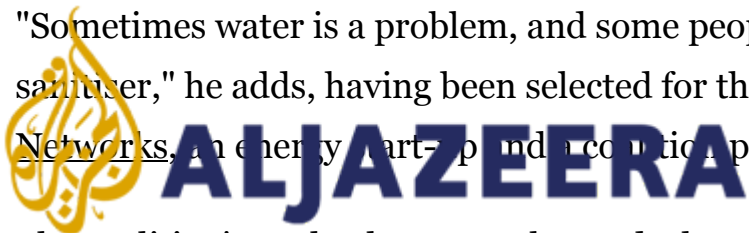
"Sanitation is the next best step ... Take products that are already being manufactured and get them into people's hands."

Some of the coalition's tech firms are already well-known for their e-commerce and supply chain platforms, delivering produce and other essential goods and services.

Collectively, they have access to more than 200,000 geolocated points of sale across the East African nation, many - like Ochieng's - located in informal settlements. The firms have stitched together their retail datasets with population surveys to build a geospatial demand map, which they say should help ensure more precise and equitable distribution of products to vulnerable communities.

We use cookies to give you the best possible experience. [Learn more about how we use cookies](#) or [edit your cookie preferences](#). "These are slums, and the virus can spread easily in areas like Dandora," says 29-year-old Ochieng, who lives with six family members in a one-bedroom house.

"Sometimes water is a problem, and some people can't afford soap. They can't afford sanitiser," he adds, having been selected for the pilot as a cooking fuel agent for Koko Networks, an energy start-up and a coalition partner.



The coalition's goal volumes are beyond what manufacturers can viably donate, so they are asking local producers to supply at cost and have been raising funds to scale up as quickly as possible. Distribution of a million bars of soap is already under way, and a media-based education campaign has been launched. They have also had an endorsement nod from the Africa Centres for Disease Control and Prevention (Africa CDC).

'Technology front and centre'

The number of confirmed coronavirus cases in Africa still remains fairly low compared with other parts of the world, totalling more than 16,200, according to Africa CDC.

But as cases continue to rise, many worry that fragile healthcare systems will be swiftly overwhelmed, especially if the virus hits overcrowded areas. There are also significant concerns about the many millions of people who live without safety nets - and how long lockdowns imposed by governments as part of coronavirus containment measures can realistically last.

Like elsewhere in the world, technological solutions are being adopted across Africa to deal with problems caused by the crisis surrounding COVID-19, the highly infectious respiratory disease caused by the coronavirus.

From clinics offering virtual appointments to the rise of video-conferencing and community WhatsApp groups, African nations are leaning on many of the same workarounds that are being embraced globally.

"We're seeing an unprecedented scenario in Africa where technology has become front and centre in so many everyday issues," says technology analyst Moses Kemibaro.

"Internet service providers are doing serious upgrades to sustain customer demands." **We use cookies to give you the best possible experience. [Learn more about how we use cookies](#) or [edit your cookie preferences](#).**

X

In a relatively early move, some telecommunications operators - including in Kenya, Rwanda, Zambia and Ghana - removed fees on smaller mobile money transactions to discourage people from handling cash. Other payment platforms have followed suit, making digital payment services more freely available.

Information about coronavirus - and how to try and stay safe - is being widely disseminated by WhatsApp, SMS and other platforms, with materials translated into local languages.

Chatbots help get information to people whose main data spend is on WhatsApp. Following millions of sign-ups to South Africa's COVID-19 HealthAlert service, praekelt.org, the Johannesburg-based non-profit behind the bot, partnered with the World Health Organization (WHO) to create a global version.

Technology is also being used to quickly gather insights into citizens' lives amid the pandemic.

Multimedia youth platform Shujaaz Inc is tapping into its 7.5 million-strong network of young people across East Africa through existing SMS, mobile phone and social media channels.

"Most recently, 44 percent of fans who replied say their income and ability to cover expenses is the part of their lives that has been worst hit," says Sylvia Thuku, Shujaaz Inc's research manager. "Another 22 percent note a deterioration in their physical and mental wellbeing."

Many tech initiatives across Africa responding to the pandemic are still in the earliest stages, but innovators are scrambling to find solutions to the inevitable economic shocks or strain on healthcare systems.

Several are looking at ways to repurpose mobile health monitoring platforms to detect and trace COVID-19. South Africa's [epione.net](#) is piloting a symptom tracker, which allows users to request a screening if they meet case definition guidelines. **We use cookies to give you the best possible experience. [Learn more](#) about how we use cookies or [edit your cookie preferences](#).**

X

Various teams across the continent are working on low-cost personal protective equipment and ventilator alternatives, while Nigeria's blood delivery start-up LifeBank has launched a mobile testing unit in Lagos and created a national register of the country's (extremely limited) critical medical equipment.

Leaning on more familiar, low-tech solutions is also essential - such as for many millions of children affected by school closures.

While smartphone use has grown rapidly, the GSMA found that in 2018 only 23 percent of sub-Saharan Africa's population used mobile internet regularly. And as incomes are threatened, the cost of data may also become prohibitive.

In Kenya, Eneza Education has partnered with Safaricom to deliver free learning materials by even the simplest of mobile phones.

And in Liberia and Sierra Leone, where schools closed for months during the 2014 Ebola outbreak, there has been a swift return to radio.

"Most children don't have access to computers or the internet at home. The only medium that is both economic and realistic is the radio," explains Elsiemae Buckle of Rising Academies, which is repurposing existing curriculum content into radio-ready scripts for nationwide broadcasts in both countries.

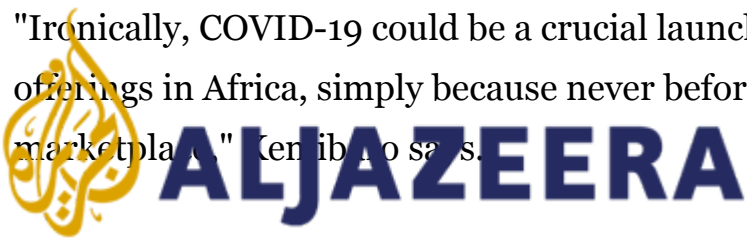
Rising Academies have also put their scripts online under a creative commons license. In just a week, they have had interest in the materials from across 10 different countries, mostly in Africa but some in South Asia.

"After the war here, it was really hard to get education up and running again," Buckle said, referring to Sierra Leone's conflict, which ended in 2002. "It's so important to make sure learning goes on."

Around the world, enormous challenges exposed by the unfolding pandemic have been met with urgent innovation. Across Africa, particularly extreme and unmet needs have

been revealed - in which innovative solutions could also emerge, if given the right space, cookies or edit your cookie preferences. to develop.

"Ironically, COVID-19 could be a crucial launchpad for many nascent technology offerings in Africa, simply because never before has there been a big enough need in the marketplace." Kenibou says.



SOURCE: AL JAZEERA NEWS

We use cookies to give you the best possible experience. [Learn more](#) about how we use cookies or [edit your cookie preferences](#).

X