

Youth-led (digital) innovation and resilience during Covid-19

Experiences from the African continent

**Stephanie Diepeveen and Sanyu Phiona,
with Emilie Tant and Aaron Bailey-Athias**

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Key messages

Young people across the African continent responded to Covid-19 by taking leadership, mobilising their community and addressing basic needs. They pivoted towards online income-generating opportunities such as freelancing or gig work. Those familiar and comfortable with technology were at an advantage, as were those who had the financial resources to meet data and device costs.

Community-first approaches led and sustained by youth emerged from a strong social fabric, which typifies many African communities. Relations of reciprocity, solidarity and caring for the most vulnerable orientated their efforts to support themselves and others through the crisis. Often, community-based initiatives and collaborations were critical to their own resilience strategies.

Youth adapted their businesses in response to Covid-19, anticipating or reacting to changes in inputs and markets, and evolving demand for products or services. Often this meant shifting activity online, rethinking production and deploying technology to sustain business operations.

Future resilience to shocks will depend on expanding youth access to basic services, digital infrastructure and financial capital. Training in creative use of information and communications technologies (ICTs), critical thinking and confidence building were identified as priority areas.





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Acronyms

AI	artificial intelligence
AYFC	African Youth Front on Coronavirus (African Union)
CBO	community-based organisation
CSO	civil society organisation
ICT	information and communications technology
IDP	internally displaced person
ILO	International Labour Organization
ISP	internet service provider
NGO	non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
PDA	Participatory Development Associates
SACCO	Savings and Credit Cooperative
WHO	World Health Organization

Summary

This case study contributes to the evidence base on how young people across the African continent have adapted their situations and enterprises in response to the Covid-19 pandemic. The findings and recommendations are based on evidence from a text-based, online consultation with young people from across continental Africa in May 2021. The dialogue generated a high level of participation, with the consultation platform recording over 500 comments from nearly 120 participants living in at least 15 African countries. Of the 109 youth who provided ages, the majority were 20–36 years old (90%), with the highest number of young participants registering from Ghana, Nigeria, Kenya and Uganda.

Background

In May 2021, the Youth Forward Learning Partnership convened an online global interactive consultation with youth from different African regions to ask them how young people across the continent have applied innovative skills and thinking to be more resilient. The aim was to understand not only about youth-led innovations to survive the Covid-19 pandemic-shocks, but also any adaptive approaches – and, if applicable – even where and how youth have thrived.

The aim of this case study is to give space to young Africans to explain what resilience means to them, and how being resilient manifested during the Covid-19 pandemic. Second, the case study identifies what support youth considered important to their resilience during lockdowns, and what additional initiatives could strengthen youth preparedness and adaptability in the face of future shocks.

Adaptation is about accepting realities that you currently face. Although it may be hard on you ... For every negative situation there are some elements of good in it (25-year-old man, self-employed, Nigeria).

Key findings

Young consultation participants focused on four areas for their resilience: individual characteristics, communities, businesses and building back for the future. Key findings include:

Individual resilience

- Resilient youth were self-motivated and flexible, and often oriented towards community needs.
- The pandemic became an opportunity for young people to develop their human capital, specifically in upskilling and to train others.

- Digital technology was required for young people to demonstrate their adaptability and self-motivation during the pandemic.

Community resilience

- Strong social fabric and willingness to partner with local stakeholders underpinned effective efforts by young people to quickly meet the needs of the most vulnerable in their communities. This enabled them to sustain education, information and other services during lockdown conditions.
- Community-wide organisation, skills and infrastructure were identified as areas to focus on for building back stronger after the crisis, and to respond collectively with more flexibility during future shocks.

Business resilience

- Since the pandemic, some youth developed the view that self-employment provided more opportunities to sustain income-generating activities, given the greater flexibility and autonomy in comparison to employed work.
- Youth demonstrated innovation in adapting their businesses in response to the pandemic, navigating changes to products, inputs and markets.
- Enabling more youth to build resilient businesses requires investing in community-wide digital networks and expanding mobile phone access, plus developing skills in critical and creative use of technology.

Building back for the future

- Youth priorities centred around holistic support for sustainable youth entrepreneurship, including finance for business and digital technologies, training in critical thinking and creativity, as well as confidence building.
- Digital innovation will continue to be a critical feature of sustainable and resilient youth businesses and communities in the future. There are opportunities to work at the community level to train young people in more advanced digital skills, confidence and safety online, and improve the accessibility of digital infrastructure, devices and platforms.

Core recommendations

Reflecting on African youth perspectives on resilience since the first year of Covid-19, several areas emerge as potential opportunities for further engagement, research and support:

- Recognise and elevate youth as creative leaders in the response to crises, with a clear commitment to use their creativity as part of solutions to build inclusive and sustainable community resilience, both in digital and local spaces.

- Gather more systematic evidence on how to enable youth to thrive and build back better for the transformative futures they envision. Pay attention to different groups of youth who have diverse needs and experiences (e.g. rural/urban; gender; refugees and internally displaced persons (IDPs); ethnic minorities; people living with disabilities).
- Support opportunities for discussion and to share knowledge between young people from different communities across the diverse regions of the African continent.
- Contribute to efforts that aim to build-up young people's confidence and ability to be innovative when using digital technology for business and in response to shocks.
- Invest in infrastructure development to ensure reliable, accessible and affordable use of different technologies in young people's businesses and everyday activities. Targeting universal digital infrastructure coverage can address structural inequalities by reaching those left behind first.



A young African man wearing mask and volunteering to educate people on Covid-19 on the need to stay at home to stay safe in Kumasi, Ghana in May 2020. Credit: Yaw Niel / Shutterstock

1 Introduction

1.1 Context

The Covid-19 pandemic brought a new set of challenges and opportunities for youth innovation and entrepreneurship across the diverse regions of the African continent. Young people demonstrated creativity in responding to challenges, with digital technologies becoming instrumental in helping them adapt to restrictions brought on by the crisis (e.g. lockdowns). At the same time, opportunities for young people to make use of digital technologies have been unequal, tied to barriers including access to infrastructure and digital skills (Pinet et al., 2021).

Yet, while youth have been at particular risk of employment insecurity during the global pandemic, the Covid-19 situation for young people across African nations is not wholly negative. This case study explores how young people adapted and responded in diverse ways to the multiple crises brought on by Covid-19. Global structural inequalities shaping the African context meant youth were often working within their communities and making use of tools or partnerships that were available to them, resourcefully navigating a path out of uncertainty after the initial fears of the pandemic.

The inability to continue many in-person activities without risk of spreading and heightening the impact of Covid-19 made networked and digital technologies particularly important – becoming a central resource for sustaining engagement with public information, public life and business. However, lower-income urban communities and rural populations tended to have lower access to digital services critical during the pandemic, such as ordering delivery of food supplies and mobile electronic payments (Bakibinga-Gaswaga et al., 2020).

Covid-19: one of multiple challenges

Covid-19 is one among multiple challenges facing youth across continental Africa, particularly in terms of employment and entrepreneurship. Up to 96% of youth living in the UN-defined region of sub-Saharan Africa are informally employed, with women experiencing lower pay and more vulnerable contracts (UNESCO, 2020). The informal sector dominates urban economies across the continent and, significantly, is where the majority of youth aged 15–24 (95.8%) and young women (92.1%) engage in work (ILO, 2018).

A large proportion of young people live in rural (IFAD, 2019) or hard-to-reach areas, with poor to no electricity coverage, which speaks to the context where data suggests over 70% of Africa's youth are offline (AU, 2020). As for the rest of the world, intersecting and systemic inequalities affecting youth and pre-dating the Covid-19 pandemic include uneven access to education; constrained access to capital; limited land rights – particularly for women (Leon-Himmelstine et al., 2021); lack

of social inclusion for people living with disabilities (Brouillard, 2020); and discriminations towards groups belonging to the LGBTQI+ community (Ghoshal, 2020), as well as livelihood insecurities relating to their migrant or refugee status.

Pandemics and epidemics, such as Covid-19 or Ebola, tend to expose and augment existing inequalities. This affects those who are most vulnerable and marginalised (UNAIDS, 2020). For example, those who are in precarious employment situations at the onset of a pandemic are often disproportionately affected when businesses close or are unable to work due to prevention restrictions. They also may lack social protection or secure contracts due to the informality of their labour (*ibid.*). Those who live in informal settlements are much less able to avoid close contact, making them more vulnerable to the spread of infectious disease (Jamieson and van Blerk, 2021).

Box 1 Defining resilience

This case study considers youth resilience from the context of the Mastercard Foundation's Covid-19 Recovery and Resilience Program, where resilience is defined as 'the capacity of individuals, communities, institutions and systems to survive, cope and thrive in the face of shocks and stresses' including since the coronavirus pandemic. For this definition, improving resilience involves strengthening three capacities across multiple levels – i.e. individuals, institutions and systems. Resilience for young people therefore involves: (1) Absorptive capacity, which considers their survival from shock, and their ability to anticipate, prepare and start to recover; (2) Adaptive capacity, which is how young people cope, and maintain standards of living and quality of life; and (3) Transformative capacity, which is the capacity to thrive, and make fundamental changes to build back stronger after crises, and become more flexible when faced with future shocks.

Different areas which are considered essential to supporting resilience include six types of assets that can enhance young people's livelihood options in crisis conditions: financial (e.g. credit, savings); human (e.g. skills, education); social (e.g. community networks); political (e.g. voice/representation); natural (e.g. land, water); and physical (e.g. infrastructure).

This case study contributes to the evidence base on how African youth have adapted their situations and enterprises in response to the Covid-19 pandemic. At the same time, it identifies both the enabling factors and obstacles facing young people in contexts of economic shock.

Youth respond through innovation

Information and communications technologies (ICTs) became a central resource for sustaining engagement with public information, public life, and maintaining business operations.

'In light of the Covid-19 context, youth have emerged as leading agents of communities' responses worldwide. In fact, since the onset of the crisis youth did not act as mere spectators and disempowered citizens but on the contrary, they reacted as front-line responders, tackling the spread of the virus and mitigating the many consequences of the pandemic' (UNESCO, 2020).

Underpinning many participant's perspectives was the idea that those striving to improve the community's situation were best able to respond to the pandemic. Being aware of community needs was often identified as foundational to youth resilience and innovation strategies. Resilient youth were understood as people who sought to support community resilience – while also sustaining their own livelihoods. Upskilling proved an important aspect of youth adaptation responses to the loss of opportunity during the pandemic, and digital platforms were one key tool through which community-based and youth-led innovations emerged.

'Even as young people face unprecedented difficulties and uncharted paths, they are raising up and making a difference-young activists and volunteers are generating ideas'

(Wickramanayake, 2020).

Delving into the regional response from African youth to the Covid-19 pandemic, this case study draws on examples and anecdotal evidence from contributions in the consultation. Participants commonly described young people's innovative responses, many pivoting to new ideas, business modalities and technologies, as they took action to protect themselves, their families, and communities from coronavirus and the threats to daily life.

1.2 Data and methodology

How did youth resilience manifest over the first year of the Covid-19 pandemic? This research reveals challenges that emerged for young people, how they responded, and which forms of capital became scarce or more precarious. Youth also identified what they felt was critical to surviving, coping and even thriving, as they emerged from the initial shock of the pandemic.

A digital consultation was held over two days in May 2021 on Platform4Dialogue, an online interactive platform that allows for text-based contributions at any point while live. The dialogue was kept open for five days in total, after the sessions were formally closed, to allow participants to continue to contribute.

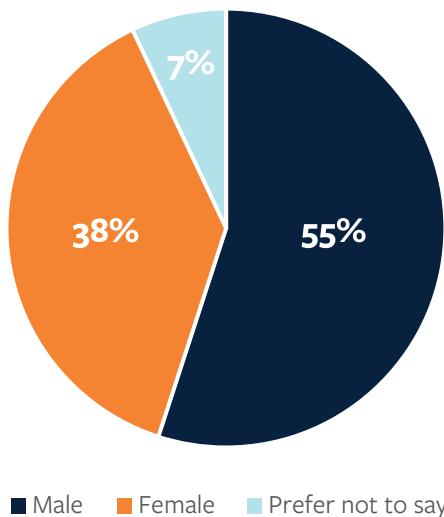
There was a high level of participation, with more than 500 comments from nearly 120 participants across at least 15 countries. Participants were able to comment in four discussion areas and were also invited to contribute in an introductory and closing session.

The discussion areas were:

1. Youth experiences of living through the pandemic one year on
2. Innovating for inclusive resilience
3. Business resilience and digital technologies
4. Building back better: young people's priorities for a resilient future

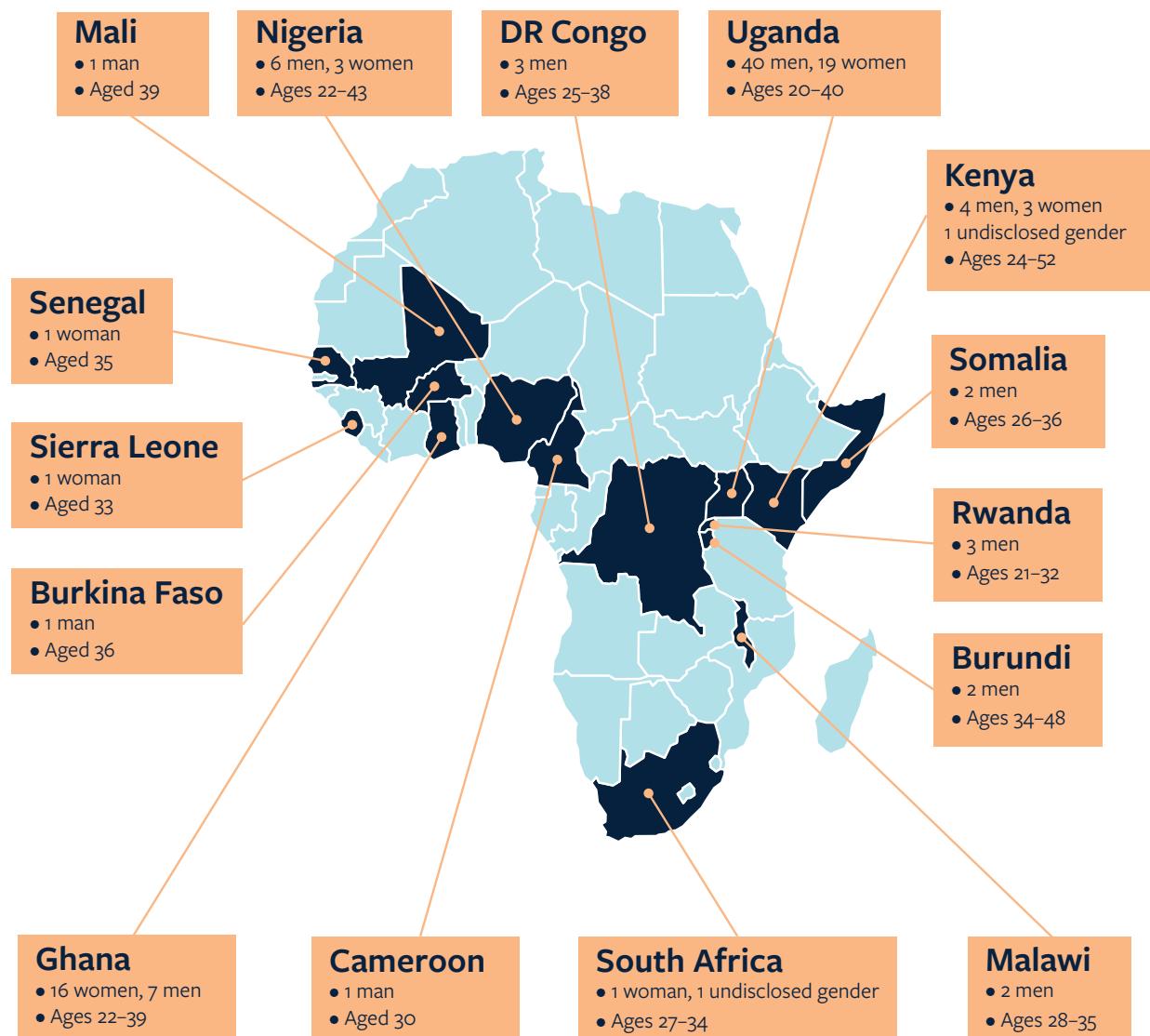
This case study presents the findings from the youth consultation, supplemented by additional insights from the wider evidence base in relation to these four discussion areas.

Figure 1 Consultation participants' gender identity



Colourful fabric face masks for Covid-19 protection hanging out to dry in the sun in South Africa. Credit: Kelly Ermis / Shutterstock.com

Figure 2 Participation per country



Note: The data above is in relation to participants who wished to disclose their information.

Many participants took part in the consultation anonymously.

2 African youth experiences of living through the pandemic

The Covid-19 pandemic has had a profound and immediate impact on young people's social and economic lives all over the African continent, compounding existing challenges around work, education and skills. Prior to the crisis, the Organisation for Economic Co-operation and Development (OECD) estimates 1 in 10 youth (aged 15–24 years) were not in education, employment or training (OECD, 2020a).

Unsurprisingly then, consultation participants discussed pre-existing issues that continued to impact them, such as limited access to educational opportunities and resources. For those who had formal education, Covid-19 exacerbated the challenges to securing income-generating opportunities.

2.1 Changes to youth lives since Covid-19

The impacts of the pandemic on individual well-being were all-encompassing and community-wide, with Covid-19 described as affecting everyone and all areas of their relationships. Young people were affected by pressures on family incomes resulting from lockdowns, experiencing declines in their own income and that of their parents (Parkes, 2020). In addition, closures contributed to widespread social isolation, as in-person activities were limited (*ibid.*). Joblessness and a decline in income and income-generating activities was raised as a collective challenge facing youth.

School closures removed some of the support channels for vulnerable youth, as provisions for special education, school-based social and emotional support, and school meals were curtailed (OECD, 2020a). The National School Nutrition Programme in South Africa, for example, was suspended during lockdown (Jamieson and van Blerk, 2021). Another study found that young South Africans responsible for contributing to their family's basic needs, i.e. as breadwinners, were worst affected. Often working in informal or service-based industries, they were unable to meet basic needs for themselves and their families (Gittings et al., 2021).

In Tanzania, some young people voiced a perception that social ties and community initiatives weakened with the pandemic, including practices called *kubebeana mzigo* or 'carrying one another's burdens'. They saw this in the resultant school closures and discontinuation of some community activities (Ngutuku, 2020).

In 2020, at the onset of the pandemic, I saw that many of my colleagues were gravely affected; their business were closed, they were laid off from work while others have lost their loved

ones, I saw that they had a lot of unanswered questions like are we going to be in this situation forever? Will we ever be able to redeem our fallen businesses? Will we ever get jobs again? (27-year-old man, self-employed, Uganda).

To me 2020 was quite a challenging to the whole world, and which is not peculiar to my country where we were hardly prepared for any disaster, therefore leaving the most vulnerable to suffer more. All the challenges ranging from fear, lost of lives, lock down, lack of jobs, losing jobs, no schools etc. It was an eye opener where we need to strategize beyond the normal and think innovative[ly], these causing a lot of positive change where we have to adapt the use of technology to improve our work as the lock down continue. It was an experience to remember (37-year-old woman, self-employed, Nigeria).

This generated a sense of magnitude and uncertainty, and, for some, depression.

It was scary from the beginning we all thought that it was under control but as it began to spread to other countries, it got more scarier as people were dying and others losing their jobs due to the pandemic (28-year-old man, self-employed, Ghana).

2.2 Other intersecting and related challenges

The impact of the pandemic was felt to different degrees among different groups, with the most vulnerable being hit hardest, following patterns of pre-existing inequalities. Geography played a role, with disparities clear between rural and urban contexts, as well as between genders. Challenges facing rural youth were often irrespective of Covid-19, for example, lack of digital infrastructure or support for youth business start-ups and entrepreneurship. For urban youth, pre-existing unemployment problems were accentuated by the pandemic with more lay-offs.

In terms of the degree to which gender identity affected the challenges facing young people, in 2020 the International Labor Organization (ILO) reported that young women tended to record greater productivity losses compared to young men. Additionally, a study of Covid-19 in South Africa revealed gendered impacts of the pandemic, with women experiencing a greater rate of net national job losses, accounting for 58% of lay-offs, between February and June 2020 (Jamieson and van Blerk, 2021).

Similarly, the African Youth Front on Coronavirus (AYFC), established by the African Union, found that young women were more affected by financial instability and unemployment, due to gendered burdens of unpaid domestic work. Male violence against women and girls also emerged as a key concern for young people in Africa during the pandemic (Nwachukwu, 2020), noted by members of AYFC as multiplying cases of gender-based violence, child marriage and

female-genital mutilation (e.g. in Somalia). This was suggested to be linked with reduced access to external support and care, and lockdown conditions that limited survivors' ability to escape aggressors (*ibid.*).

Even in this context, participants felt that to cope, women also had to be adaptable and resilient to shocks:

The characteristics of a successful young woman that has managed to cope and adapt in these difficult times is one who is very agile, has very high risk tolerance. A versatile young woman who has developed more than one skill so that [she] can cut across different sectors is one that has managed to cope and adapt. A young woman who has also built their remote working and collaborative skills in distributed teams is one who will continue to thrive way after probably the pandemic phase passes (29-year-old woman, self-employed, Uganda).

Geography also played a role. In Rwanda, work in the agricultural sector tended to stay open, meaning less disruption than other sectors (Collins et al., 2021). In Nigeria, a longitudinal phone survey by the National Bureau of Statistics found that employment for rural households and those in the agricultural sector showed a stronger recovery by June/July 2020 (Oseni et al., 2020). A study in South Africa finds that rural areas were more affected by job losses than urban. Urban areas also showed signs of recovery sooner, as unemployment was still increasing in rural areas (Jamieson and van Blerk, 2021).

While the pandemic brought added challenges in access to employment, education and income-generating activities for young people generally, communities with limited access to remote learning tools and network infrastructure were disproportionately affected (Acland, 2020). For example, with education moved online, an individuals' home environment tended to determine their access to schooling.

As reliable internet services and digital devices (laptops, mobile phones, tablets) have significant costs attached, a household's income greatly influenced individual educational access. Therefore existing inequalities were exacerbated, with lower-income families less likely to have access to digital resources or a stable network connection to sustain educational access through the pandemic (OECD, 2020a). Sourcing digital equipment quickly during the pandemic was identified by consultation participants as a challenge:

Looking at the effects of Covid-19 on schools in general and certain child learning centres in particular, we felt the need to digitalise our teaching methods. Whereas we tried to crowdfund for at least 100 tablets, we managed to raise funds for one tablet. The lesson learnt is that for

our school to overcome any future mishaps, we need a strategy for inclusive digital tools usage in all primary schools in Uganda. Our government must wake up!! (34-year-old man, employed/self-employed, Uganda).

2.3 Opportunities to adapt and cope

Recent studies have drawn attention to the diverse ways in which youth have shown resolve in the face of the crisis (Pinet et al., 2021; Banga et al., 2021; Ngene et al., 2021). Consultation participants emphasised a combination of characteristics that enabled them and their peers to be resilient following the initial shock, and cope during the first year of the pandemic. During the consultation, youth identified human characteristics fundamental to resilience, clustering into two broad categories: (1) a combination of being both determined and flexible; and (2) a desire/orientation to support and work with their communities.

Resilient youth had to be both self-motivated and determined in a context of changes brought on by the pandemic. Participants described the typical characteristics of a young person who managed to cope/adapt during this difficult period as:

Hard-working, determined, resilient, [with a] high sense of maturity and treating fellows with humility no matter the situation (34-year-old man, employed/self-employed, Uganda).

Definitely someone who is resilient and also courageous. Someone who can easily adapt to circumstances and is also strong (34-year-old woman, not in education, employment or training, South Africa).

That man or woman is self-motivated, focused, determined and he or she tries to change the community (24-year-old man, student, Uganda).

Flexibility was considered important to resilience, but this was understood in different ways. In practice, being flexible and motivated involved investing in skills development to improve one's human capital during Covid-19. Upskilling was an important aspect of youth adaptations to the loss of opportunity during the pandemic.

One male participant explained how coping entailed 'continuous learning and search[ing] for opportunities which fit the current situation which includes remote work'. Others also suggested the importance of being quick to learn, and open to navigating and using online platforms in different ways. One participant expanded:

Flexibility is key, and being a quick learner. Being hungry for more information and [a] willingness to learn new things, which we were not accustomed to, including online meetings and working remotely, and you still deliver results (Anonymous).

For another participant, flexibility and adaptability involved being optimistic about future possibilities:

Adaptation is about accepting realities that you currently face. Although it may be hard on you as I experienced, but I was positive about it. For every negative situation there are some element[s] of good in it. So, characteristics of young persons are ability to socialize, network, even if it's to a small extent, and build relationships (25-year-old man, self-employed, Nigeria).

A consensus emerged on the importance of being motivated to continue in the face of shocks, while understanding the challenges at hand, and also being open to making changes in response. There was also a common experience among participants of the pandemic being both an individual and community challenge.

Many commented that resilient youth had addressed community needs while also sustaining their own livelihoods. Therefore, individuals' responses to the pandemic involved both ensuring their own ability to cope, and their community's (explored more in Chapter 3). In this context, acting to protect the community, or address the needs compromised by the pandemic, motivated many participants' responses and their experiences of resilience. Being able to support their communities was central to helping young people be resilient, therefore, often community and individual resilience were interlinked. One female consultation participant from Nigeria explained:

Knowing I am a strength and [that] some persons out there depend on me, gives me the strength to cope and move on (37-year-old woman, self-employed, Nigeria).

I attended online training on Trauma Release Exercise (TRE), which helped me to acquire skills that I am using for Healing and Peace circles in my community. I also attended [an] online global youth peace summit where I was able to share my story which help[ed] me to heal and create safe space for others to heal and embrace and adjust to the situation (31-year-old man, student, Kenya).

Flexibility through digital technologies and training

Most often consultation participants drew on social networking and digital communication platforms (e.g. Zoom or Google Meet, or LinkedIn, Facebook and WhatsApp, through smartphones or laptops) to be flexible and sustain community and income-generation activities. Using digital tools innovatively meant staying up-to-date and embracing new technologies as they

evolved. Those comfortable with online platforms prior to the pandemic were well positioned to shift to online work and training, which exposed divides around digital literacy. Some youth therefore raised concerns about how differential access to technology affected young people's ability to adapt to pandemic conditions.

Digital technologies provided the infrastructure to be flexible, allowing individuals to participate in upskilling and training, and continue business activities when they could not travel, or watch lectures remotely when schools closed. Because of this, physical capital in the form of network infrastructure and digital device ownership was a precursor to young people's active displays of motivation, flexibility and interest in their communities.

Many consultation participants mentioned completing online training during the pandemic. This included free courses online (e.g. Alison, Philanthropy University) which tended to cover digital skills and business-related training such as: product-making, digital transformation, information security, project management, entrepreneurship and web design. For some, their online learning was self-directed – one young person trained in computer science built his skills through free YouTube learning channels:

With the lockdown I force[d] myself to practice my profession through online resources like YouTube, conferences and meetings which add so much knowledge to me and [allowed me to] make so much income from it (28-year-old man, student, Uganda).

Youth also explained how they helped provide online training to others in their communities. Trainings tended to focus on equipping young people with skills to set up their own businesses effectively in the context of the pandemic. This included training in making products (e.g. soap, handicrafts, crochet, bead-making and consumables), as well as life planning and setting up income-generating products from scratch. One female consultation participant from Uganda explained her journey from being jobless during Covid-19, and experiencing a strong sense of hopelessness and depression, to taking online courses, and finally drawing on her learning to create an initiative online to help other youth also struggling with depression.

Box 2 Women supporting women to adapt their business

Young women also utilised digital infrastructure to train one another throughout the pandemic. Some consultation participants were involved in training young women to use technology innovatively in their businesses, such as creating Facebook pages to share information on innovation in agribusiness. For example, one young female participant mentioned their organisation, Ghana Ladies in Tech, which trains women in web development so that they can create websites to advertise businesses, and better reach their target market. The organisation is also involved in supporting with business management, advertising, product development, and also holds counselling sessions around challenges with businesses.

The centrality of digital communications to coping with the shock, and building better networks in response, sharpens the questions over differential access and use of digital technologies, and how this might lead to a divide in young people's ability, not only to cope, but also thrive following the Covid-19 pandemic.



Young Nigerian business woman holds up a sign during the pandemic. Credit: I_am_Zews / Shutterstock

3 Building community resilience

Community challenges for participants became part of their individual efforts to stay resilient throughout the pandemic. During the online dialogue, young people focused on how they had sought to support community resilience after the initial shock. As became clear, many African youth did not necessarily separate their individual ability to cope with the pandemic from the well-being of their community. This led them to address community-wide issues and the barriers that threatened collective capacity to adapt and be resilient.

3.1 Community-first responses: young people and civil society

At the local level, consultation findings establish an emphasis on the centrality of community partnerships and support networks in enabling everyone to cope. Community support included both social and material support, often delivered by local groups, faith-based or civil society organisations (CSOs) and neighbours. In South Africa, Jamieson and van Blerk (2021) found that the spirit of *ubuntu*¹ (see Ogude, 2019) came alive as support networks and CSOs came together, working to meet local needs (e.g. providing food parcels, delivering information campaigns, sharing home-learning resources).

Those participants who contributed to community-first responses were often already active members of civil society, even before the pandemic. For example, a young man from Uganda who had already been in the process of developing digital learning materials for individuals with hearing impairments at his youth club, provided vital Covid-19 health information to those who needed alternative information sources, such as through WhatsApp:

Presently am leading a team of innovators from Kampala Deaf youth club developing digital learning content aimed at increasing access to SRHR [sexual and reproductive health rights] information and services among young people with hearing impairment in Uganda. Given the existing communication barriers due to limited sign language skills among most sections of the population, digital platforms like WhatsApp and smartphones have been of help in regard to access to relevant information since the occurrence of Covid-19 (28-year-old man living with a disability, employed, Uganda).

¹ *Ubuntu* is a concept that emerges from the Zulu phrase *ngumuntu ngabantu*. Ogude (2019) defines the term as ‘premised on the ethical belief that an individual’s humanity is fostered in a network of human relationships’, which can be summarised by the phrase ‘I am because you are; we are because you are’. For Jamieson and van Blerk (2021: 8) *ubuntu* encapsulates two sets of complementary values, ‘the first focused on communalism, group solidarity, co-responsibility, social justice and sharing; and the second of respect, dignity, value, acceptance and belonging’.

During the pandemic, work by religious charities or community-based organisations (CBOs) addressed emerging local needs. This included: distributing personal protective equipment, supplying or distributing food and cash, providing online training and education related to Covid-19 and, giving period hygiene products to girls in schools. In one participant's community, Savings and Credit Cooperatives (SACCOs) and savings groups led in providing support to members through food and cash, with the district government assisting later.

[The] private sector such as charity organisations did come through no matter how small to help people in communities to cope with the pandemic (29-year-old woman, self-employed, Uganda).

Box 3 Widening community access to digital materials

Shetechtive Uganda is a social enterprise that aims to expand access to digital devices for use for education. They do this by trying to increase access to digital education devices. This includes by providing affordable ICTs (e.g. laptops, tablets) to girls and young women on instalment payment plans. This aims to help improve access by reducing or making payment for expensive digital devices more feasible. Also, during the pandemic they held mobile tablet classrooms on rotation, where they provide tablets with open-source educational content (e.g. YouTube tutorials) for use by children in communities where they cannot afford power and internet connect costs.

Source: 23-year-old female consultation participant, self-employed, Uganda.

3.2 Pandemic partnerships: mobilising together

Many young people worked in partnership with other actors and groups in their communities to address the economic, health and social impacts of the pandemic. There are stories of young volunteers working with local leaders (e.g. women's groups, teachers, and elders) on small-scale solutions to immediate pandemic-related challenges such as supporting self-isolating individuals or helping tailor physical distancing measures around family units – to favour household cohesion (Honwana and Honwana, 2020).

Consultation participants emphasised that community-based partnerships were important to ensuring that the most vulnerable and marginalised could cope with the pandemic and access services. This was significant given the earlier mentioned unequal impacts of the pandemic (across the African continent, at multiple scales and worldwide).

Youth commented on a range of examples they were involved in, as part of their local pandemic response. Some worked together to mobilise food and cash, others mentioned how they worked together at community scale to draw on local resources and develop products. In one school in Uganda, teachers and parents shared food after schools were closed.

Agriculture was a core area of community collaboration, with struggles around access to sufficient food supply. In one case, leaders from the community provided food relief, and local food was sold at a lower cost during the pandemic. The value of partnerships as a strong foundation for crisis responses was highlighted by consultation youth. They suggested that communities were more likely to thrive when individuals and organisations worked together to meet everyone's collective needs.

Sharing is something beautiful that emerged from this situation ... especially the caring for the other ... some took over the caring of the kids while mummy went to do the laundry or knock up something for us to eat ... We got into caring and sharing ... ! (Anonymous).

When you live in a community, especially here in Uganda, you kind of know everyone around you and what they do. So, when the pandemic hit and the country was locked down, volunteers stepped [in] to identify those in need. After mapping, they mobilised resources amongst themselves and from the other sources, and then bought food items, soap and masks to give to the people whose income sources have been most affected – especially those who have been feeding from hand to mouse (sic). I mean [those in] the casual works who rely on [daily] wages (26-year-old man, employed, Uganda).

Strong social fabric and willingness to partner with other community members underpinned effective efforts by young people to quickly meet the needs of the most vulnerable around them. This enabled them to sustain education, share information and deliver other services during lockdown conditions.

3.3 Support-focused and youth-led approaches

For some young people, the pandemic provided an opportunity to take leadership when helping their communities to cope with pandemic conditions. The consultation participants emphasised how their responses were shaped by their assessment of community needs. When prior business activities and products were no longer feasible or in demand, they reflected on what would benefit their community's context and pivoted their activities to address them. For one male youth from Uganda, this involved drawing on their skills in making skin care products (aftershave) to instead produce cleaning products which also acted as a mosquito repellent, as malaria remained a pressing community issue during the pandemic.

One participant explained the reflective process around community needs that directed how they shifted activities during the pandemic:

I took some time to learn, unlearn and relearn. I started thinking of [the] street family who depend on waste food from hotel and borrowing from street, the vulnerable women and girls that we have empowered through basket weaving for their livelihood. All towns and market were closed, and both could not access them. That [is] how I started the program of feeding street family and distribution of food, facemask and create awareness about Covid-19 (sic). We started training women on detergent, making for domestic use and for sale. So, pandemic offered me an opportunity to live my calling (31-year-old man, student, Kenya).

Young people's initiatives to strengthen community resilience took many forms. First, they aimed to improve communication of accurate information on the pandemic, i.e. on prevention measures, both in the community and on digital platforms. In Kivu in the Democratic Republic of Congo, young people with the Amani Institute volunteered to distribute informational pamphlets about Covid-19 prevention. In Burkina Faso, the National Youth Council set up a volunteer training programme for 1,500 young people (Honwana and Honwana, 2020).

Box 4 Digital technologies and innovative communications approaches

In Nigeria, one youth used digital tools to produce Stop Covid-19 infographics in more than 60 local African languages (Honwana and Honwana, 2020). In another example, young people within the Co-creation Hub (CcHub) in Nigeria partnered with the Africa Centres for Disease Control and Prevention to design communication apps to share vetted information on Covid-19 in African languages (UNESCO, 2020).

Consultation youth also used digital platforms to provide information on Covid-19 to members of their communities (including those living with specific disabilities or impairments). African youth across all over the continent continued to provide educational resources when access to schools was restricted. One young Ugandan consultation participant set up a small retail shop for phones and phone accessories, responding to a change in communication needs during the pandemic.

Another participant (37-year-old woman, self-employed, Nigeria) used digital technology to help address some of the negative impacts on women during the pandemic. Working remotely, they used mobile phones and network connections to share information of cases of male violence against women under lockdown conditions. This female participant's organisation, in North East Nigeria, created a network of peace observers who shared information over the phone on suspected and reported violations. This helped them to identify women at risk of violence and in need of support until lockdown was lifted and formal court proceedings could resume.

Other youth initiatives focused on addressing basic needs to help people in their community. Specifically, they supported the most vulnerable to survive the pandemic. Given that Covid-19 was experienced differently across the world, in the African context youth were part of communities that were exposed to greater pressures on basic needs. As they described, for the most vulnerable, the pandemic was a matter of survival. Understanding the pandemic within the centuries' old history of the unequal distribution of resources can help to contextualise the youth's orientation towards community-focused responses (Husaini, 2020). For example, Covid-19 for those living in the so-called Global South required a resilience that is materially distinct when taking into account how the resources and infrastructure for welfare systems have been drastically constrained to varying degrees across and within African countries (Mkandawire and Soludo, 1998).

A few consultation participants directed their efforts towards healthcare, for example, starting a telemedicine and mHealth company (see also Ngene et al., 2021). One 29-year-old employed man in Uganda worked to develop a smartphone app to alleviate patient congestion in hospitals. Some concentrated their efforts on the supply and distribution of foodstuffs within their community. A couple of participants identified a high demand for food in the midst of Covid-19, so shifted their activities to farming and selling agricultural products.

3.4 Obstacles to community innovation

In discussing how they engaged in community-focused efforts since the pandemic, youth suggested areas where community-level support capital could be strengthened to better collectively position themselves to respond to future shocks (e.g. climate crisis events, pandemics, financial crashes, etc.).

During the consultation, three interrelated areas emerged as important to invest in for building community-level support capital:

1) Crisis preparedness: The strong social fabric of many communities on the African continent placed them in a strong position to work together in response to the Covid-19 crisis. Still, some of the youth participants suggested that, as a community, they could have been more

effective – if they had had stronger communal organisational structures already in place for crisis management. Young people in the dialogue gave different suggestions of how to set up community structures to organise future pandemic responses. For example, leaders skilled in motivation and crisis management could be identified to take initiative in the early stages of a crisis. Training could be set up for key workers in the community, like farmers, so they can better react to shocks or changing contexts. Communities could start with a needs/risk assessment, like the example shared earlier from Uganda on community mapping to mobilise support. This enables the community to identify vulnerable groups and prioritise training and direct support to those who are most at risk and/or marginalised.

2) General baseline community skills and infrastructure coverage: Young people in the consultation wrote that the pandemic highlighted wide gaps in baseline levels of social capital, economic skills (e.g. digital marketing, e-commerce) and basic infrastructure across regions and between and within rural/urbanised territories. These weaknesses were viscerally revealed during the pandemic. A quicker, more effective and reactive collective response could be enabled by building better baseline capital within the community. Suggestions included longer-term mentorship and support beyond fixed-term projects; community-wide training and upskilling to local gaps and inequalities in opportunity; or improving general access and affordability of key physical infrastructures (see Pinet et al., 2021; Ngene et al., 2021), including energy distribution and agricultural production.

3) Access and use of digital devices in business, education and social services: Digital technologies underpinned some of young people's pandemic efforts to improve communication of accurate information, support education and health services, and distribution of goods. To better utilise digital technology in the future, youth wanted to enhance: (1) access and quality of network infrastructure; and (2) skills and familiarity using digital devices. A more resilient community required more accessible, cheaper and reliable digital infrastructure, and community members needed support in getting comfortable with engaging through digital devices. One young participant commented that scamming was a fear when it came to doing business online, and confidence in secure use needed to be strengthened. Another suggested more community sensitisation to encourage use.

From the perspective of their communities, building strong social capital in the form of partnerships, and a spirit of *ubuntu* or *kubebeana mzigo* (working together), helped to facilitate communities' response to the pandemic. This approach ensured the members of the community could adapt to the shock as a collective.

Young people often worked with other actors in the distribution of information, food, and other goods and services across the community. Community-wide organisation, skills and infrastructure were identified as areas for change to build back stronger after the crisis and be more flexible to address future shocks.

4 Building business resilience

The pandemic led to a global economic downturn, and new obstacles for young people in the job market. There were fewer job vacancies, more lay-offs, and increased risk of redundancy, start-up failures and business shutdowns (ILO, 2020). Young people aged below 25 were affected particularly hard: 2020 OECD estimates indicate they were 2.5 times more likely to be unemployed than those aged over 25, and had less income than previous comparable generations (OECD, 2020a).

Compounding these challenges, young people with compromised health faced a heightened risk by continuing to work during the pandemic. One study of urban youth with HIV in Ethiopia revealed that multiple young people resigned from employment or considered resigning out of concern for inadequate Covid-19 protective measures (Emirie et al., 2020).



Two young Ghanaians in a local supermarket practising social distancing in the Covid-19 pandemic.

Credit: Yaw Niel / Shutterstock.com

4.1 Facing the economic shocks

Young people were often more represented in the industries hit hardest by the crisis (e.g. service sector, gig work). A webinar series by Ghana-based Participatory Development Associates (PDA) found that 60% of employees who were employed by young entrepreneurs were laid off and about 45% of start-up businesses had stopped operating as a result loss of revenue (PDA, 2020).

The pandemic challenged multiple dimensions of young people's business activity. For young agricultural entrepreneurs, access to input markets was limited. Prices of seeds, fertilisers, and transport to market went up, and good quality input supplies were hard to come by, affecting quality of harvests (Banga et al., 2021). Travel limitations constricted access to inputs and also meant it was hard to top up mobile phone data, as many could not travel to vendors (*ibid.*). At the same time, markets were closed during lockdown, which meant buyers stopped coming to purchase produce from communities, and young people could not sell their goods (*ibid.*).

In this context, some youth focused their business activity on only meeting their basic needs, rather than enterprise growth. For example, in Uganda, some young people closed their businesses to concentrate on farming to ensure food security and pre-empt an anticipated increase in demand (*ibid.*). As Covid-19 shifted the distribution of demand for products for small businesses, many lost their in-person points of contact for networking and collaboration. In some cases, businesses were fully shut down (*ibid.*).

The African continent's youth is a growing population, one identified as key to growing digital entrepreneurship and the digital economy, and the economic pressure brought on by the pandemic presented an opportunity for young people to shift some (or all) of their business processes, markets and/or work online.

Some technology firms recognised this nascent trend even prior to the pandemic. Google opened an artificial intelligence (AI) lab in Ghana and Microsoft opened an Africa Development Centre in Kenya and Nigeria. Also, some foundations have sought to encourage young digital entrepreneurs across the continent. This includes the Jack Ma Foundation Africa Netpreneur Prize and the Alibaba eFounders initiative, which aims to support 100 African entrepreneurs through mentorship, training and investment (\$10 million) (Costa, 2020).

4.2 Youth enterprise resilience and innovations

Growing opportunities for digital innovation among young people intersected with their strategies to cope with the multiple challenges facing them in business and work. During the pandemic, consultation youth concentrated on business activities and self-employment, as opposed to work as employees. Boxes 5 and 6 provide two examples of youth innovativeness in starting up new businesses during the pandemic, both as part of a small group of youth working together.

Many participants shared stories about how they turned idleness and loss of work into an opportunity to work in new ways, or to invest in new training.

During Covid-19, a lot of innovation to certain problems and school was stopped. I found myself so idle and had to learn something and [while] I'm this way, I found myself learning web designing so that I could keep up with the changing world. Through this I was able to use these skills to start up my start-up company (21-year-old man, student, Uganda).

Others shifted operations online; this was easiest if their business involved training or sales. One consultation participant (a 32-year-old woman, self-employed, from Uganda) explained she had already been conducting training online, and simply moved towards more digital training. She noted this reduced the cost of access to her training for those who had internet access and digital devices, but also meant that others were excluded, particularly women and youth in villages who lacked smartphones.

Other businesses did not easily translate online (e.g. construction, architecture, hairdressing). Some of these young people diverted their attention during the pandemic to online learning. One female participant in Uganda taught herself to use a new graphic design platform. Another male participant also from Uganda noted that teachers in his school shifted to working as motorbike drivers and in services when the schools closed.

Box 5 Ugandan student e-Health app

A business developed around a new e-health platform: one young participant (a 21-year-old man from Uganda) told how he was a part of a group of campus students who identified, early on in the pandemic, that mothers were facing difficulties in accessing healthcare centres before and after birth, tied to fear of Covid-19. They created a start-up company, premised on their development of an e-health platform that was designed to enable mothers to contact nurses and to receive online consultations from professional medical personnel. They used their student stipends and family support for the set-up costs. They saw this as an opportunity to utilise the increasing accessibility and lower cost of online access, for example, as some internet service providers in their area were making offers to their customers that lowered internet access costs.

In addition to the examples above, some young people developed successful apps to help with the pandemic response, e.g. Stowelink which shares content on Covid-19 in English, Kiswahili and Amharic, or Coronapp, which was developed by university graduates in Cape Town to centralise information flows (Honwana and Honwana, 2020).

4.3 Adaptations since Covid-19 to business operations

Often, digital innovations in business did not require advanced and costly applications. Consultation participants tended to identify a relatively narrow selection of digital tools and platforms in

business: usually smartphones, public websites (e.g. YouTube), free word processing tools (e.g. Google Docs), and communication platforms (e.g. Facebook, Twitter, WhatsApp, Zoom, Teams). One study (Costa, 2020), suggests the reliance on smartphones for finance or business start-ups is a response to insufficient formal infrastructure. But, with this, individuals on the continent have shown innovation, moving ahead globally with mobile-based applications like M-Pesa, which operates in seven countries (Kenya, Ghana, Egypt, DRC, Mozambique, Tanzania, Lesotho).

Across the continent, young entrepreneurs showed flexibility in adapting their businesses to respond to limited opportunities (OECD, 2020b). Digital platforms were often central to the ways young people adapted their businesses to the Covid-19 context. Young entrepreneurs re-strategised their businesses either by diversifying production or by adding value to their products (PDA, 2020), given new logistical difficulties and changing demand. Some concluded that diversity of products was necessary to be resilient, as having one product or business made them vulnerable to risk.

Studies of youth entrepreneurship in Africa during the pandemic provide additional examples of youth quickly shifting to develop and sell products that were in demand given the crisis. This included making and selling homemade hand sanitiser according to World Health Organization (WHO) guidelines (e.g. the One Person One Hand Sanitizer initiative in Cameroon) or raising money for hand washing stations (e.g. the Garden of Hope Foundation in Kenya (Honwana and Honwana, 2020; Wickramanayake, 2020)). One young person in Ghana developed a solar powered hand-washing sink out of a recycled barrel with an automated soap dispenser (UNESCO, 2020).

Box 6 Adding value: ginger paste agribusiness

In the consultation, a 28-year-old, self-employed Ghanaian man provided an interesting example of creating a business in value-added agricultural products. During the pandemic, a small group of friends designed a business plan to source farm produce and sell it to customers. In December 2020, they had identified a value-added product that had some demand (ginger paste), after testing it with a few acquaintances. They shifted to planning production in early 2021. Social media was part of marketing the product, and is intended to be the platform they use for orders and sales.

Among consultation participants, one went from chicken farming to marketing value-added (frozen) chickens to grocery stores in Uganda. Another switched to making and selling cleaning detergents and sanitisers, using social media to market products and *boda boda*² drivers to make deliveries.

² *Boda bodas* are bicycles and motorcycle taxis commonly found in East Africa.

4.4 Role of digital ICTs

Just as everywhere else across the world, digital technologies proved critical to young entrepreneurs' adaptations and responses to the pandemic in the African context, providing material capital for new applications, online marketing and online learning. In a recent study on agricultural enterprise growth during Covid-19, young Ugandans identified that the top reasons for using digital platforms in farming during the pandemic included: registration meant access to new markets and buyers, training and skills, improved production practices and business productivity, access to credit, and increased bargaining power (Banga et al., 2021).

Drawing from the consultation, digital ICTs played two key roles in participants' adaptations to their businesses processes: (1) transforming marketing and communications; and (2) providing a platform to continue, and even make more efficient, standard business operations.

First, digital channels enabled some to market products to new customers. An example provided in the consultation (from a 32-year-old woman, self-employed, in Uganda) followed from a youth training other young people in handicraft, and then setting up a social media shop for them to sell their products. Online sales generated publicity and demand for more training classes.

Still, digital marketing did not overcome the reduction in sales brought about by the pandemic. One participant (a 35-year-old man, employed, living in Ghana) still noted a 20% drop in product sales even while using digital marketing for their recycled eco-friendly charcoal. Improvements to social media marketing skills and techniques could help to make it more effective. One female participant (27-year-old, employed, Uganda) identified this as a need among youth, and began to train young people in making infographics, videos and images to use on social media platforms, and to stay current in using new digital tools to improve online presence.

Turning to digital technology therefore enabled some young people to expand their networks and engage in new collaborations, indicating a potentially longer-term benefit for how they conduct their business beyond the pandemic. Some used LinkedIn to connect to potential new collaborators, and Zoom, WhatsApp, and Microsoft Teams for ongoing communication.

I used LinkedIn mostly when it comes to networking. I recall in 2020 during the pandemic, I connected with some colleagues, and we researched on issues relating to Covid-19. I also connected with vibrant youths who are passionate about SDGs and social change. Now I have these people as my networks and during youth conferences, we have a better way to deliver and make impact. So, before the pandemic, I didn't forge any relationship that really align with my interest but now I have been able to do that, and I am still improving on that (25-year-old man, self-employed, Nigeria).

The second main use of digital technologies identified in the consultation was to sustain and transform business operations, for example moving to online meetings or trainings, or switching to gig work. For some this was a necessity, whereas others preferred the flexibility offered by remote work. In one instance (see Box 7), a participant explained how cryptocurrencies provided a solution to a lack of donor funding, with crypto investments becoming a source of income generation in years preceding the pandemic.

Box 7 Cryptocurrency youth initiative in Uganda

Success Planet Network Uganda is an example of early engagement, by one consultation participant, to address a challenge of funding for youth development activities. Founded in 2015, Success Planet Network Uganda engages in a range of activities focused on issues around health care promotion, youth and gender. In the consultation, the 30-year-old Ugandan founder of the network explained that they used cryptocurrency investments as a basis for income-generating activity prior to Covid-19. By diversifying their investments, they were able to sustain income through gains and losses around investments, and contribute to their ongoing activities.

Even with many examples of youth deploying new technologies to adapt their business operations, barriers to effective and widespread use of digital solutions remain – namely, existing gaps in internet access and tech skills. Even when mainly using smartphones and free apps/platforms, fast internet connectivity remains a key determining factor for effective use (Houngbonon et al., 2021).

Access to network infrastructure and digital devices is increasing on the continent, yet reliable and cost-effective access to smartphones and data networks remains unequally divided, and even erratic for some communities. Adlem (2013) estimates 80% of the population across Africa lack any access to internet, with less than 10% of businesses operating online.

In this context, it is hard to ignore costs as a barrier. Smartphones and laptops are expensive, and when it is hard to meet costs of daily survival, thinking about ways to invest in/purchase digital equipment is hard. Beyond this, funding for building new businesses on the back of new innovations remains limited (*ibid.*), especially for youth enterprises. Financing was explained by youth in the consultation as a general challenge for their business start-ups, with few loans made available to young people.

This structural barrier is particularly hard when trying to develop or try out new ideas and solutions for local problems. Young people lack resources for initial investments, to gather underpinning data or evidence, and to provide a clear model for profit, which makes their business plans less appealing to investors.

Gender and rural divides

Consultation participants identified lower access to smartphones and reliable internet access among specific groups, specifically women, and in rural areas. Given digital communication was central to participants' business operations and market interactions during the pandemic, this was identified as a key barrier to business survival among these groups.

Youth also raised differences in people's ease and willingness to use digital technology. For some, those in rural areas were perceived to be less open to using technology. Another suggested that women tended to lack digital literacy, and were less familiar with how to use smartphones for business.

Most of the youths and women don't have smart phones because they can't afford one but most of those that have managed to buy one are ignorant about how to use them to generate income same applies to other gadgets. Pointing them to the right digital platforms may help them get inspired to innovate something new or use the available to make money. The digital platforms include; 1. media platforms (Facebook, Instagram, etc.) 2. Knowledge platforms (Google and Yahoo) 3. Media sharing platforms (YouTube). Some are on these platforms but don't know that they're sitting on money. Therefore training them on how to use these platforms right may help use these platforms and become digital entrepreneurs (32-year-old woman, self-employed, Uganda).

Consultation youth suggested more support is needed in training on how to use digital technologies in creative ways for business. One participant suggested that investing in talent could be a route to enabling greater creativity online:

I am currently living and working in an area with a very vibrant entrepreneurial ecosystem but the level of talent and exposure leaves a lot to be desired. If we could find a way to tackle the talent problem, the youth will naturally become curious about how they can use tech in the businesses and in their daily lives (28-year-old man, employed, Uganda).

To make digital technology more accessible is mostly financial, these youths and women need money to buy the smart phones first of all and need to be taught how to use the technology to build start ups or starts up something. What I realized is some of them have something but they have locked minds that don't know that technology can make it happen (32-year-old woman, self-employed, Uganda).

4.5 Opportunities to support youth businesses

Participants suggested different solutions to support young people in effectively utilising technology for business in their communities. These suggestions built on ideas for supporting community resilience by investing in skills development (for community-wide and innovative use of technology) and digital infrastructure.

Building robust network infrastructure was considered necessary to enable youth to harness the internet more effectively and innovatively. Equal access, particularly extending to rural areas, could be addressed by giving incentives to internet service providers (ISPs) to extend coverage to remote areas. This would generate opportunities to modernise the agricultural sector, premised on technological applications and ag-platform proliferation.

Investing in individual devices and people mattered for business. Some suggested governments could mitigate costs of digital devices for young entrepreneurs (e.g. through subsidies or taxes), or impose regulations on telecommunications companies to lower internet costs or provide discounts on digital commerce data packages.

Funding could also go to incubation centres to promote learning around digital technologies. Finally, investing in people, rather than material infrastructure, could be a way to encourage digital innovation and skills development. For example, one participant's suggestion was to provide peer-to-peer learning systems, where individuals are given phones and training, and then share skills with other youth in their communities.

5 Building back for the future

Writing in July 2021, the pandemic is not over. New variants are emerging in a context of gaping global disparities in access to vaccines, with a minority of world nations hoarding doses and accelerating ahead with their vaccine roll out while cases rise across the rest of the world.

However, a year into Covid-19, global attention has started to shift to what kind of futures might be possible post-pandemic.

By May 2021, some consultation participants indicated they were looking forward to the future after a year marked by uncertainty and fear. Drawing on lessons learnt about how to adapt to pandemic conditions, shifting the gaze to post-pandemic futures raises important questions for young people: what are their priorities for re-building what was lost, postponed or disrupted? More optimistically, what opportunities arise out of crisis for young people? And what will be the basis for resilient businesses and community well-being in the future?

5.1 Young people's priorities

Sustainable entrepreneurship with digital technology as part of innovative business strategies

The pandemic seemed to confirm for participants that employed work was precarious and quickly affected by crisis conditions. Some emphasised the value of entrepreneurship as this enabled an individual to adapt to evolving circumstances, unlike an employed position. However, this requires the skills and financial resources to deploy business tools available – specifically digital – and be able build a stable enterprise from an innovative idea:

To be able to respond to future shocks, my priority would be sustainable entrepreneurship. Digital application[s] that are user friendly can be of much help, because they are in most cases accessible, though these may be more focused to the youths since they have a lot of influence in the digital world and can teach the old generation, or can help in operating them (32-year-old woman, self-employed, Uganda).

Youth examples of adapting or creating new businesses constantly referred to digital technologies in multifaceted ways: as the basis for new services, conducting operations online, or reaching new markets. Many adapted to pandemic conditions using digital technologies in business, but this was not universally an option for those on the disadvantaged side of the digital divide. Future sustainability depends on expanding mass engagement with technology to ensure innovations can be developed and harnessed by all.



Youth use digital money and a wireless machine during the pandemic in Ghana. Credit: I_am_Zews / Shutterstock.com

Finance and funding youth innovation

Finance, while not the only barrier to successfully adapting businesses, was a common theme among young people in the consultation. Without finance for business activity or capital to access digital services, it was difficult to even consider investing in a business or making the most of online platforms or tools. Restrictions on movement and in-person activities during the first year of Covid-19 made access to digital devices and network services even more important, but inequalities remain.

I think the youth need more support in getting funding opportunities to enable them [to] have their ideas come to life, as most of them are not financially stable and parents or relatives can't risk funding our ideas so that they can come to life. Also youth need exposure to competition so that they are exposed to external funders, and people who are experts in some fields to direct them in improving their innovative ideas (21-year-old man, student, Uganda).

A holistic view of well-being and skills required to innovate

For young people in the consultation, resilience post-Covid-19 means developing stronger capabilities and creative mindsets with digital technology. For use in business, this requires more than basic computer skills. For youth to feel prepared to innovate and make effective use of

resources, they mentioned a need to develop critical thinking skills, learn how to adapt and use digital platforms in new ways, and build the confidence to be creative, as well as tend to their mental well-being and that of others. While young people proved their ability to adapt during the pandemic, they also noted that a lack of opportunities could dampen their confidence and motivation:

I think the pandemic has really changed people's response to mental health. People have come to realize its importance and are now paying more attention to that. People were going through depression during the lockdown as they were not used to just staying at home with no one to interact with to hide their pain or troubles and this came to light through some of our sessions. Definitely there should be more of such services in the future, to give people safe spaces to air the views, troubles and challenges because really, with no sound mind, who can innovate? (24-year-old woman, employed/self-employed, Ghana).

5.2 Supporting collective innovative futures

Consultation participants' overall suggestions on what support could help them thrive beyond the Covid-19 pandemic reflected their priorities around: entrepreneurship, mass access to digital tools and services, business finance, and creativity and motivation. Since young people have demonstrated throughout the pandemic that they can be resilient, government and non-governmental organisations (NGOs) need to listen to them to understand how to help them cope and build stronger futures, both from the pandemic itself and its multitude of effects (Ngutuku, 2020).

In terms of community-wide resilience, three sectors emerged as key focus areas for addressing future shocks: agriculture, education, and digital infrastructure.

Agriculture

The pandemic reaffirmed the importance of food security and an agricultural sector that can adapt to shocks. For example, one participant suggested:

I think what we need is to engage more people in the agriculture sector, people never faced the problem of hunger, and you know, when we have food [the] other things can come later. Our governments should put more emphasis on engaging youths in agriculture. As the most productive group in our population and this ensures food security (Anonymous).

Similarly, a participant from Uganda emphasised:

At a macro level we need to have, first of all, food security, then the government would do well to create storage units for both perishable and non-perishable produce in order to deal with the supply chain disruptions (26-year-old man, employed/student, Uganda).

This drew attention to possible investments in agriculture. Digital technology and youth innovation could be part of a shift towards a modern and agile agricultural sector that can more easily adapt to future shocks. Also, digital technologies might also help to mitigate gaps in adequate storage facilities for agricultural products, helping to keep track and preserve produce when supply chains are disrupted. Other potential uses include creating new markets or developing e-commerce platforms to sell products:

We need to train our youths in digitalised agriculture and promote developmental use of social media platforms like Facebook, Twitter, LinkedIn and Instagram – since during Covid-19 lockdown, they became the cheapest means of marketing and reaching to our customers. It increases visibility of farmers in the market (Anonymous).

Education

School closures and unequal access to virtual education platforms became key challenges for young people during the pandemic. This reflects findings from the AYFC in which education support, including building up infrastructure for online learning, emerged as a priority for youth (Nwachukwu, 2020). In some participants' communities, lockdown made inequalities more visible as a shift to online learning meant only those with access to digital devices and network connections could continue with educational activities. Investing in teachers and digital technologies at community level could help equalise educational opportunities in crisis situations, especially when movement and in-person teaching is restricted. Some participants reflected on how youth might have been more resilient if schools had invested in digital learning resources prior to the crisis.

With electronic learning, learners from all parts of Uganda would have been able to access quality, equitable and inclusive education regardless of location. We need to create an archive of educative content/Ugandan education syllabus to ensure sustainability of education (23-year-old woman, self-employed, Uganda).

Some participants emphasised that shifting to more digitally mediated education can address the inequalities experienced by young people during the pandemic. While it can be an intensive process (i.e. translation of content into digital forms, guaranteeing access to network infrastructure and digital devices), it could be transformational.

Digital infrastructure

Globally, digital devices and network connectivity has been fundamental to sustaining economic activity during the pandemic. One theme that emerged as critical for mobilising community-wide responses to shocks was investing in stable network infrastructure, low-cost digital devices and data packages, and policies friendly to digital innovation (see also Ngene et al., 2021). To harness new technologies for the future of business and services in African economies, keeping up with new innovations will require ambitious infrastructural investments.

I think availability of stable internet and other computer-related equipment can accelerate the rate of innovation among the youth. Since there is a lot of information on the internet that helps the youth research and become innovative in different fields thus solving most of the world's problems through digital innovation by teaching themselves from that information acquired from the internet (21-year-old man, student, Uganda).

5.3 Laying pathways for digital innovation

As part of their vision for post-pandemic transformations, consultation participants gave guidance on how to direct support to encourage individual youth digital innovation. They focused on two future priority areas: (1) financing mechanisms; and (2) support to use digital technology skilfully and creatively.

Calls for more financial support were based on the view that young people have ideas but lack resources to turn them into successful businesses. Therefore, without the right capital to invest in or implement business plans, young people's potential to innovate is hampered.

To me, youths need more of financial support if they are to promote digital economies. The most [sic] problem limiting us is financial constraints. Most of the rich people don't have innovative ideas but they steal them from innovative entrepreneurs who don't have [the money] to implement them (Anonymous).

Motivational support and financial support definitely would give me more confidence to innovate (26-year-old man, employed, Uganda).

Yet, this case study has shown how finance alone is not enough to lay the pathway to digital innovation, especially if factoring in resiliency for youth livelihoods and businesses. Supporting young people's confidence, creativity, and application of innovative digital ideas was considered

necessary for youth to effectively make use of ICTs. Motivation was important and could emerge from different sources, including learning from successful innovators, or being inspired by other youth in their communities.

Motivational support for me is talking to and interacting with the big big (sic), innovators in the country, for example Dr. Misaki who developed a rapid test for diagnosis of the novel Covid-19 among many others (26-year-old man, employed, Uganda).

Most of the sectors have opportunities for young people in my home country, but the challenge is the encouragement and support. Like development of different apps to solve real-life problems (28-year-old man, student, Uganda).

Different training models, for example hackathons or friendly competitions where youth can work creatively together, were understood to encourage young people's innovation and build their confidence and curiosity in developing digital solutions.

Organised events like hackathons can help in support and [give] encouragement. Some youths are sitt[ing] on good ideas and just need the right group or team to spark them off. The events can be both virtual and physical (Anonymous).

Beyond basic digital skills, youth mentioned training should include creative use of digital technologies for business, including new and emerging technologies (e.g. blockchain). For consultation participants, training included providing the space for youth to reflect on their innovative ideas in the context of community and market needs, and in relation to implementable business plans.

In most cases the youth have innovations that don't really solve their community problems, [but] research support helps identify those ideas that can actually solve the actual problems in our communities. Like for example virtual classes don't actually help in village schools because of the issues they have with electricity, lack of gadgets to support the classes and ignorance of how use them. So I have [to] think about what exactly can I do to help such schools to access education during various calamities (32-year-old woman, self-employed, Uganda).

Young people across continental Africa have proven they have the potential to become a dynamic foundation to post-pandemic crisis-solutions and innovative entrepreneurship. A combination of expansive infrastructural investment, financial support and training to build youth creativity and confidence with digital technologies might create the enabling environment for even more innovative use of technology, in everyday life and in the context of future challenges.

6 Conclusions

6.1 Reflections on young people's resilience

The consultation participants' narratives of their experiences during the crisis speak to what it meant to young Africans to survive the initial shock of Covid-19. Youth resilience, through adaptation and transformation, helped them cope with the crisis, and even thrive. However, the potential scale of future crises (e.g. consequences of the human-driven climate crisis), means individual resilience may not be enough to respond. Therefore, paying attention to remedying structural inequalities, both within Africa's diverse regions and across the world, will be critical to building collective resilience and setting up the conditions for young people to be well-placed to respond to shocks.

At the onset of Covid-19, immediate changes meant dealing with a decline in family income, closure of schools and workplaces, suspension of school feeding programmes, limited job opportunities, and physical distancing. Challenges affected everyone and tended to compound existing inequalities. In this context, community-wide resources, organisation and support were critical, and young people were part of the effective efforts to ensure those who were more vulnerable (e.g. along poverty, gender lines) could receive basic supplies and access health information. Where this worked well, digital technology complemented responses to disseminate resources and coordinate efforts.

In shifting from initial survival in response to the shock, the ongoing crisis and its effects required young people to make longer-term adaptations to their livelihoods and businesses. Having a base set of material resources that could ensure access to reliable internet or digital devices was a precursor to successfully adapting and sustaining businesses and trainings during the pandemic. Being resilient was easier for those with skills and access to technology, as they were willing and able to engage online, pivoting their business products or activities to digital markets or online forums.

Staying oriented to community needs was often part of youth resilience strategies. Reflecting on emerging needs and working with the resources available inspired new products or activities that met changing demand. Some consultation participants expressed excitement and optimism about their future possibilities. The pandemic demonstrated that they could deal with challenges, with some pursuing opportunities to upskill or shift to freelance work. The Covid-19 context helped some young people identify gaps in business products or services (e.g. a health app) that became the basis for new enterprise activity.

These stories show how the pandemic catalysed improvements in young people's skills and capacity for entrepreneurship. Those who thrived were distinguished by their ability to proactively adapt to the crisis and orient towards new business opportunities, often focusing on solving community problems and harnessing new networks.

6.2 Assets of resilient youth

Young people's ability to be resilient required a combination of individual, community and infrastructural baseline capital. For example, it was not enough for a young person to have access to affordable internet and a smartphone to be able to use it effectively in business. They also needed motivation and confidence to deploy technology in innovative ways, and take opportunities to partner with other youth and community actors in collaborative initiatives. During Covid-19, three forms of capital were consistently raised as central to different young people's resilience during the crisis.

First, human capital underpinned individual youth characteristics that oriented them to surviving and adapting through the pandemic. Resilient youth displayed self-motivation and were flexible, actively filling their idle time or switching their business focus, or engaging in local support initiatives. Second, community and social capital was important to coping with restrictions. This was not only fundamental to supporting youth in their individual efforts to cope, but also as a way for youth to be part of an inclusive, community-wide response to the pandemic.

Third, physical or material capital in the form of both access to reliable network infrastructure and pre-existing skills to creatively use digital technology for different purposes (e.g. marketing, freelance work, online training) underpinned many consultation participants' explanations about why they could adapt and remain active in business and education. Reliable technological access was important, but so too were prior opportunities to gain skills and apply their creativity to use technology in evolving circumstances.

6.3 Common challenges to resilience

Acknowledging the creativity and agency of youth in responding to the pandemic can be situated within a context of overlapping and intersecting structural barriers that ultimately determine their need for resilience. Attending to the diverse experiences of young people when building back better can actively reduce gaps in opportunity, such as the material and digital divides youth identified in the consultation.

Uncertainty remains, and in mid-2021, there continue to be challenges and inequalities in vaccine roll out,³ and the emergence of new waves of the pandemic (Schwikowski and Yiga, 2021). Therefore, pandemic conditions are likely to continue, with ongoing uncertainty about when youth can start to transition to a post-pandemic future. Gaining access to key areas of capital that can support adaptations to the crisis remain areas of concern – both for young people more generally and different vulnerable groups. This determined the different experiences of resilience that the Youth Forward consultation revealed.

3 See for example WHO (2021).

Youth experiences were differentiated along urban and rural lines, agricultural and non-agricultural sectors, gender, language, and disability. In May 2021, while many consultation participants mentioned their ability to take initiative and use digital platforms for work, training, and networking during the pandemic, they also identified that not all youth could do this. This drew attention to concerns on the challenges remaining around filling gaps in digital skills, and building confidence and ease for innovatively deploying digital technologies.

Yet, before considering the potential for a youth-led digital innovation pipeline beyond the pandemic, consultation participants emphasised the primary concern of inclusive access to basic resources. For some, unreliable and insufficient access to electricity, digital networks or devices and online connectivity set the parameters of the options available to them. Often, the main obstacle was lack of reliable physical infrastructure and financial support to translate ideas into workable business plans and enterprises.

Finally, with consistent and sustained encouragement, together with training on how to creatively approach and deploy technology, many consultation youth expressed confidence that the young Africans of today can create the solutions of the future. This case study has demonstrated how youth are both willing and committed to delivering innovations that help their communities – both in crisis contexts and beyond. Now they must be given the space and resources to develop their ideas – and even thrive.

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