Working paper

Strengthening youth livelihoods and enterprise innovation in Africa's digital era

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Key messages

The growing number and diversity of digital platforms in Africa are opening up new livelihood opportunities to the continent's young workers. However, these might not be sufficient to meet youth employment needs. Covid-19 has boosted some sectors while eroding others that require in-person engagement. Addressing those issues will require a stronger digital and start-up ecosystem to enhance innovation and the viability of African digital platforms.

Gig-matching and job-matching platforms offer young people flexibility, low barriers to entry into the job market and an alternative to informal employment, though job quantity often prevails over job quality. The pervasive effects of Covid-19 have exposed the urgent need for platforms and governments to provide gig workers with basic job and social protection.

Governments could do more to build and sustain the ecosystem within which digital employment solutions can scale. This means focusing on internet connectivity, infrastructure development, digital skills and a suitable regulatory framework to facilitate innovation while managing risks. Programmes to support small and medium enterprises (SMEs), including tax relief and awareness campaigns, are other important ecosystem components.

For young people to thrive in the digital economy and scale up their businesses, access to finance remains a key element to move to the next stage. While Covid-19 has accelerated the move to cashless transactions, financial exclusion remains a reality, especially for vulnerable groups. Financial literacy and youth-sensitive financial initiatives and services are needed to overcome these barriers.

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About this publication

This publication is part of the Youth Forward initiative supported by the Mastercard Foundation. This paper is part of a mini-series of research work on youth and digital technologies. The first working paper, *Advancing youth-centred digital ecosystems in Africa in a post-Covid-19 world*, was published in March 2021.

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Acronyms

ACRC	African Cybersecurity Resource Centre
ADFI	Africa Digital Financial Inclusion Facility
BVN	bank verification number
DFS	digital financial services
eKYC	electronic Know Your Customer
FiDA	Partnership for Finance in a Digital Africa
FSP	financial services provider
GDP	gross domestic product
ICT	information communications technologies
IT	information technology
M&E	monitoring and evaluation
MSMEs	micro, small and medium enterprises
MSEs	micro and small enterprises
P2P	peer to peer
SACCO	Savings and Credit Cooperative
SMEs	small and medium enterprises
SMS	short message service
VPN	virtual private network
VSLA	Village Loans and Savings Association

Introduction

Rapid technological advances are transforming the world of work, bringing both opportunities and challenges. With the Covid-19 pandemic, businesses around the world have had to accelerate digitalisation, reshape the way they are run and how they interact with the rest of the economy (GSMA, 2020). On the African continent, young people in particular are using technology to find jobs, advance their education, access financial services and become entrepreneurs. Youth access to technology is a catalyst for a range of positive socioeconomic outcomes, including civic inclusion, a digitally literate labour force, new employment and entrepreneurship opportunities, strengthening emerging sectors and reducing youth unemployment.

Young tech entrepreneurs in East Africa are coping with and adapting to the health crisis by seizing the opportunity to enhance the use of recently created apps that extend across a range of services, from linking police and ambulance services (Ntaasa emergency system app), linking market agricultural produce to markets (the Mkulima Young online marketplace) and delivering health solutions in innovative ways (Covid-19 tracing app in Uganda). Such platforms offer huge potential for bringing increased access to fragmented and informal work. Yet, protests against Uber and other digital logistics companies across the continent indicate that these platforms also pose threats to youth livelihoods. Similarly, the surge of digital money loans and money-lending apps, while providing great access to credit to youth traditionally excluded from formal financial services, is also posing ethical concerns with regard to the levels of over indebtedness and defaulted payments.

The findings and analysis of this working paper are based on insights from an online global consultation held on 14 July 2020 on Platform4Dialogue that are presented in the text as block quotations. Over 130 participants contributed to a series of online, text-based discussions, exploring young Africans' use of digital technologies in the context of the pandemic. Participants were selected via purposive sampling, considering the basis of their experience working with youth and digital technologies or by virtue of being young people themselves. To provide additional insights on underexplored themes during the consultation, a closed roundtable discussion titled 'Strengthening digital workers' resilience, youth-led businesses and tech innovation in sub-Saharan Africa' was hosted by ODI with support from the Mastercard Foundation on 13 April 2021. Key points raised during the roundtable are also captured in this working paper, and are illustrated by quotes from speakers and roundtable participants. This brief explores the linkages between youth livelihood and digital platforms, youth-led digitalisation and business innovation, and youth financial inclusion in the digital context. It is part of a series on Youth and Technology and follows a first working paper based on day one of the consultation: *Advancing youth-centred digital ecosystems in Africa in a post-Covid-19 world*.

The first section explores how the gig economy, through the diversity of platforms, is creating mixed livelihood opportunities and the challenges gig workers face as well as the impacts of the Covid-19 on platform work. The second section explores how Covid-19 impacted business innovation and what opportunities and policies are needed to create a youth-led business sector at scale. The third and final section looks into youth financial inclusion in the Covid-19 context and how digital technologies have and could further facilitate youth access to finance to develop their businesses.

1 Youth livelihoods and the gig economy

1.1 Youth employment and the gig economy

The binary construct of 'employment' versus 'unemployment' has long proved outdated for most of Africa; instead young people tend to develop and maintain 'mixed livelihoods' (Mastercard Foundation, 2015) by combining a 'portfolio of work' which juggles informal and formal wage labour, self-employment, agricultural and/or unpaid family work. Youth also tend to be underemployed and occupy more precarious jobs. This livelihood strategy has increasingly been seen as a 'logical choice' for most young Africans for the flexibility, risk mitigation and independence it affords (Mastercard Foundation, 2017). In the last few years, the gig economy has emerged to play a central role in facilitating this mixed livelihood phenomenon by expanding access to work, diversifying income streams and increasing learning opportunities. Platforms also enhance economic activity by providing the technical infrastructure for employers to advertise tasks to many potential gig workers, spanning geographic areas. Today, over 270 platforms in Africa are connecting young people to local work (Donner et al., 2020) and, in 2017, 4.8 million (1%–3%) adults across eight African countries[1] earned an income from platform work, as shown by the insight2impact database of digital platforms in Africa (insight2impact, n.d.). A large number of platforms in Africa are offering services to jobs boards and providing freelance and blue-collar employment opportunities, along with a more limited offer in the areas of domestic work, information technology (IT) skills and employee screening and payroll.

Gig platforms have the potential to modernise a country's economy and society, support innovative solutions to long-standing development challenges and create new opportunities and jobs. Online gig work is impacting employment opportunities in new industries by reshaping the nature of work and reducing barriers to entry and scale (Mercy Corps, 2019). Use of these platforms is high among young people in Africa who seek to enter the gig economy through leveraging reduced barriers to work and exploiting their strengths as increasingly digitally literate individuals. As consultation participants point out, young people are taking advantage of digital technologies to access jobs and gigs across a wide range of sectors, such as transportation, software development, advertising and entertainment.

> In Ghana, many young people take advantage of various IT and other technologies to pursue diverse livelihood support activities. Across transportation, software development, advertisement and entertainment, there have been creative uses of emerging communication and other technologies by young people (Michael Gyekye, Assistant Information Officer at the Ministry of Information, and Research Scientist at the Council for Scientific and Industrial Research, Ghana).

1 The eight countries are: Ghana, Kenya, Nigeria, Rwanda, South Africa, Tanzania, Uganda and Zambia.

> Generally, youth take up [any platform] that they feel they can work with. They often move from one venture to another depending on how they view its profitability (Anonymous consultation participant).

The last decade has driven the strong growth of the internet as a contributor to African nations' gross domestic product (GDP). A recent study found that Africa's internet economy contributed as much as $115 billion (4.5%) of the continent's GDP in 2020, up from $99.7 billion in 2019, and is likely to grow as internet penetration increases (Google and IFC, 2020). Kenya's 2019 National Economic Survey recorded 12.9% growth in the country's information and communications technology (ICT) sectors from 2017 to 2019, mostly led by the development of the digital economy. As the Ministry of ICT, Innovation and Youth Affairs says, 'Going digital is no longer simply part of how we conduct our day-to-day activities but the bedrock of our economic growth.' According to a Research ICT Africa policy paper (Mothobi et al., 2018), 1% of workers in Africa could be involved in microwork. Microwork is a series of small tasks which together comprise a large project and are completed by many people over the internet (See Box 1). However, geographic disparities exist and a more accurate picture of the state of gig work would require more recent data that takes into account the impact of Covid-19 lockdowns and increased digitalisation.

Although there is some emerging data on the share of platform workers in some countries across the African continent, assessing the real scale of platform work is challenging due to the nature of the work. Workers tend to have multiple sources of income: gig work can be either their primary source of income or a supplement to their primary income (Porteous, 2020). Platform workers' job diversification may also vary over time and across geographies. Disaggregated data per age is not yet available, but anecdotal evidence suggests that young people in Africa may be over-represented among gig workers compared to other age groups, probably due to the flexibility, relative absence of commitment requirements and barriers to entry offered by the digital economy. While gig work has also enabled some workers to move into entrepreneurship or upskill by gaining new qualifications, platforms should continue to institute strong mechanisms, such as formalising their upskilling approaches and establishing partnerships with skill builders and other actors in the development space to provide established pathways for growth (Donner et al., 2020).

The gig economy is increasingly providing alternative income pathways for young people and gradually shifting access to work opportunities from informal spaces to digital platforms. This is opening up new markets to a range of workers (Mercy Corps, 2019). However, not all platforms are equal. There is a huge diversity across what they offer and how they interact with youth livelihoods. In terms of the gaps, some consultation participants believed that the size of the market provided by gig platforms is just not enough to absorb the swelling numbers of youth searching for job opportunities. As the world's youngest continent, with almost 60% of the population under the age of 25, generating work for the 10% of unemployed and 19% of underemployed young people is a critical step for strengthening youth livelihoods in the context of Africa's Covid-19 economic recovery (ILO, 2020a).

The most immediate impact of digital economy technologies can be seen in the rise of gig-matching platforms, which connect jobseekers to jobs. This is largely because of their ability to organise and formalise otherwise fragmented informal work. This is significant in sub-Saharan Africa, a region where 80% of employment takes place in the informal sector (ILO, 2018). This has emerged most notably in the transport and delivery space.

Box 1 Defining terms of job-matching and gig-matching platforms

Microwork: small pieces of work or a series of microtasks, usually completed by many people over the internet, which come together to comprise a large and unified project. Usually characterised by online forum participation, data input and image tagging, performed quickly without the need for specialised skills. Workers tend to be paid small amounts of money for each task (Mothobi et al., 2018).

Gig work: work that consists of temporary, part-time, or project-based income-earning activities, often mediated through a digital platform. Gig work falls outside of traditional employer-employee relationship, and workers are hired and paid to complete a particular task or for a certain time period (also see Heeks, 2017 and Tsibolane et al., 2018).

Job-matching platform: a platform that matches jobseekers to full-time or part-time vacancies and internships based on their skillset.

Gig-matching platform: a platform that matches freelancers to gigs and one-off jobs.

Source: authors' elaboration.

> In Nigeria, we have to an extent a favourable amount of gig platforms which has helped the youths a lot, most especially in transportation and logistics services such as, OPay, Taxify, etc. This has proved to be a potential help increasing the income youths make from transportation. It has proven to be a success in Nigeria. If enhanced will provide more opportunity for unemployed youths (Ifeanyi Ofodu, founder of Raymadegroup, Nigeria).

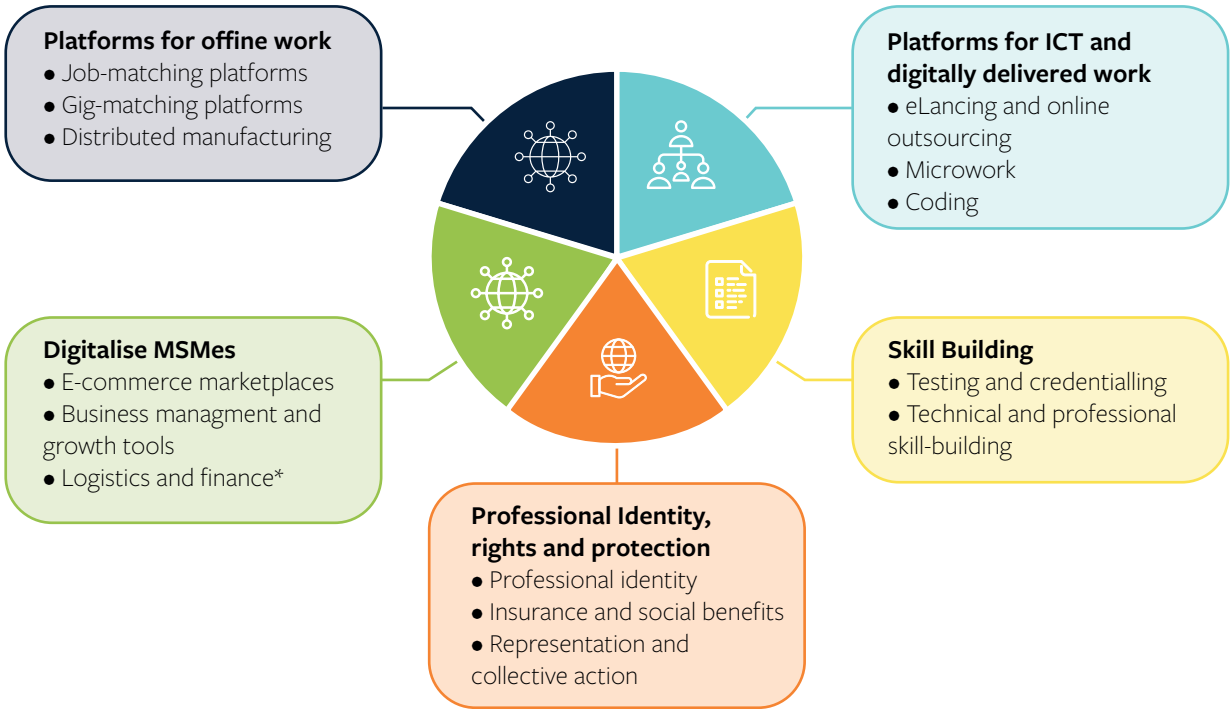
The growth of gig-matching platforms has generated new employment options for youth in emerging ICT sectors, including coding and online freelancing ('eLancing'). This has opened up economic opportunities to young Africans at both regional and international levels. For example, during Covid-19 international eLancing platforms such as Upwork or Fiverr registered a surge in their traffic, generating a 77% revenue growth in 2020 (Fiverr, 2021). Similarly, microwork platforms such as Samasource and CloudFactory have provided work to over 10,000 young

people. Platforms also provide a bridging function in terms of connecting workers to offline work through digital jobs boards (largely websites) for formal jobs; Jobberman, Fuzu and Shortlist are among the largest of these.

> The gig economy has been instrumental in youth employment, particularly those in the IT industry. What we have seen is that this sector has drawn a huge number of youth out of poverty and ensured they get a livelihood (Dr Juliana Kisimbii, The National Business Compact on Coronavirus, Kenya).

There is a spectrum of 'jobtech' platforms (see Figure 1) which vary in objective, level of digitalisation and targeted users (Mercy Corps, 2019).[2] The opportunities afforded to gig workers by platforms extend beyond connecting gig workers to the market or linking them to multiple sources of work, and include job-generation enterprises that are digitally enabled.

Figure 1 Types of digital platform: 'Jobtech'



*Adjacent sectors (Fintech, Agritech, E-logistics) are critically important but not considered jobtech unless jobs outcomes are key business components

Source: Mercy Corps (unpublished).

2 'Jobtech' refers to the use of technology to enable, facilitate or improve the productivity of individuals when it comes to accessing and delivering quality work (JobTech Alliance*, Mercy Corps).
* The JobTech Alliance is a recently launched collaborative initiative between relevant stakeholders in Africa that seeks to build the wider ecosystem involving various digital jobs actors in the region.

Existing literature on digital entrepreneurship found that Africans have been embracing digital marketing through tools like Facebook and Instagram to set up virtual store fronts, take orders and extend their networks. Data from a study in Kenya reported that 92% of micro and small enterprises (MSEs) who use digital tools rely on personal consumer apps, like WhatsApp. to carry out key business functions (FiDA and Caribou Data, 2020). As many consultation participants pointed out, digital platforms are not only providing gig work, they are increasingly being relied on by self-employed youth entrepreneurs. Technologies and social media platforms are becoming central to business growth and the key to reaching wider markets.

> Micro-entrepreneurs in West Africa have typically leveraged social media to do business anyway so not much has changed apart from the heightened use of digital tools now, as well as limitations in doing physical business or transactions (Aramide Abe, founder of Naija Startups, Nigeria).

> More and more young entrepreneurs are springing up within the rural area setup, I do not have the actual statistics to this regard but I can assure you that young people are gaining more access to digital platforms and advancing their lives through the[m] (Dr Juliana Kisimbii, The National Business Compact on Coronavirus, Kenya).

A young African carpenter works in a mask during the Covid-19 pandemic.
Photo credit: I_am_Zews / Shutterstock.com

Box 2 Ways in which digital platforms help youth into work

Digital platforms can provide the foundational infrastructure to overcome common barriers that limit youth access to work or reduce frictions between employer and workers. They can help provide:

Access and information

Vacancies (both short-term and long-term, and online or offline) are easily posted and accessed by jobseekers, without being restricted to their immediate localities.

Trust

Platforms can build a level of trust between clients and workers or service providers enabling them to transact. Through vetting, reviews of previous work or established standard operating procedures, platforms can reduce the trust deficit of interacting with 'low-skilled' youth workers.

Bias reduction

Automated algorithms, while bringing new risks, can also help to overcome hiring biases for certain groups, including women.

Payments

Platforms seek to integrate infrastructure, which removes frictions in experiences between customer and worker or service providers. Through the management of payments, risks of workers not being paid are reduced.

Assets

Platforms can reduce the asset or investment requirements to begin business, either through reducing the need to hold inventory or through leveraging existing or shared infrastructure.

Upskilling

Platforms are well-equipped to provide 'transformational skilling' opportunities for young people on the platforms, and often are required to in order to make up for the mismatch between their skills and customer demands (Donner et al., 2020).

Source: Mercy Corps (2019).

Research by the Partnership for Finance in a Digital Africa (FiDA) and Caribou Data (2020) found that micro, small and medium enterprises (MSMEs) that use more digital platforms were twice as likely to report their business as being in good health than those using fewer digital platforms

(FiDA and Caribou Data, 2020). While some of these platforms have faced falling demand during Covid-19 due to lower consumer purchasing power, many African e-commerce platforms saw growth as more customers moved online; Jumia saw a 50% growth in transactions in the first six months of 2020 (UNCTAD, 2021). Employment modelling conducted by Boston Consulting Group in 2019 suggested that marketplaces had the potential to generate three million new jobs in Africa by 2025, including 100,000 in direct employment, emphasising the possible opportunities post-Covid-19 (Porteous, 2020).

As Paul Breloff (CEO of job-matching start-up Shortlist) explained, beyond just developing research, efforts must be made to bolster the 'connective tissue' that connects the different stakeholders in the jobtech sector. Unlike other tech ecosystems in the region, conferences, meet-ups, WhatsApp groups and webinars are essentially non-existent in the space. Not only is there little communication and collaboration between stakeholders within the jobtech space, there is also little collaboration with stakeholders from the wider youth employment system. For example, few jobtech start-ups are equipped (either in terms of personnel or time) to establish effective partnerships with vocational training institutions or with government agencies. Stakeholders within the ecosystem have, however, come together recently to launch the JobTech Alliance, a collaborative initiative that seeks to build this ecosystem involving various digital jobs actors in the region.

1.2 Challenges for young people from digital platforms

> I see a big promise, but lots of frustrations as well for the youths [...] Gig work requires big economies or a dynamic one on an upward rise to accommodate the job needs of the youth; without that, I see lots of disappointment (Constantine Loum, Senior Lecturer at Gulu University, Uganda).

While digital platforms can help to bridge the employment gap for young people, the nature of the wider digital ecosystem varies considerably between countries, notably around accessibility and informality. Some consultation participants mentioned the importance of lowering internet costs and enhancing coverage so that the benefits of gig platform work can be distributed more evenly. Youth also noted that more training initiatives for professional, financial and digital literacy skills were needed to help them along the steep learning curve that could otherwise limit their participation on digital platforms, or even lock them out.

> I think that cheaper mobile phone connectivity would be one such opportunity so that messages/ information can be sent to people via their phones. One of the ways mobile companies in Uganda supported the gig economy and related processes was to reduce costs of transacting via mobile money (Anonymous consultation participant).

> Gig economy work does provide options for youth, and the number and range of those has expanded in recent years. The opportunities haven't been equally distributed – there are dozens of the gig platforms in Kenya, but few in Niger (Chris Czerwonka, founder and CEO of Mosabi, Sierra Leone).

The challenge of access and inclusivity continues to plague the growth of digital platforms even in the more established markets in Africa (Friederici et al., 2020). The digital divide that has been largely driven by poor infrastructure and lack of skills continues to expand the gap between urban and rural youth. Young entrepreneurs noted that it is critical for platforms to deploy blended models that can leverage offline interactions and thus build trust and drive the adoption of online solutions. Consultation participants mentioned this as key to improving access to technology and learning, taking into account different levels of technological penetration in different contexts.

> With multiple platforms cropping up each year, youth have to build capacity and skill sets to adjust and use these platforms which in most cases is cumbersome … This requires the youth to be proactive and with a lot of passion to catch up with the emerging trends in the development of the gig platforms (Anonymous consultation participant).

While gig work has rapidly emerged as an alternative income source, consultation participants noted that, while digital platforms provide new opportunities for jobs and innovations, these tend to be unequally distributed geographically.

> Reaching rural segments is incredibly difficult! What I have observed to work in crowding in rural micro-entrepreneurs in the digital e-commerce space is a blend of analogue and digital channels for engagement with these individuals … I think more of these blended platform models for engaging with merchants would allow for rural micro-entrepreneurs to better access the potential opportunities stemming from the digital ecosystem (Chernay Johnson, former Engagement Manager at Cenfri, South Africa).

> It has not been a 'high tech' solution that has made the difference for these health workers. It was our [offline] team in Nigeria communicating with them, our information on our mobile app, the health worker community and the suppliers' commitment to support them that led to these people now trusting online ordering of medical goods. Technology is a vital part of change, but people are the part that makes them successful (Lisa Basel, Head of Technical Services at Every1Mobile, South Africa).

Consequently, many gig platforms continue to operate mainly in urban areas – a phenomenon which most attribute to large market bases. Even where they try to expand, the majority of gig platforms will confine themselves to neighbouring geographies while maintaining the

large cities as their operational hubs (e.g. FUNDIS in Kenya). Most customers for digital products are almost exclusively located in the cities, close to the enterprises producing them (Friederici et al., 2020: 50). In some cases, however, there has been a silver lining as grassroots innovations have been encouraged. For example, Wasili launched a ride-hailing platform that targeted secondary towns in the Great Rift Valley in Kenya, which global platforms such as Uber and Bolt had largely ignored.

There remain questions around whether these platforms are really capable of creating sufficient jobs to match the huge need among the youth population in Africa. Existing research suggests that 93,875 gig workers in Kenya will earn income from digital gig-matching and jobtech platforms by 2023 (Mercy Corps, 2019). This may seem high, but it only scratches the surface of the employment problem when 500,000 to 800,000 young Kenyans enter the job market each year (Samuel Hall, 2017). Others question whether these platforms are really creating jobs at all or whether they are merely replacing existing jobs by moving them online. In an interview with Mercy Corps, one gig-matching platform representative explained: 'I'd guess that about half the gigs we match are substitutions, but half are jobs that actually wouldn't have been delivered otherwise.'

Quantity and quality of work

Despite the rapid mushrooming of platforms and the successful connection of workers to multiple jobs, both online and offline, the issue of quality of work emerged as key drawbacks for platform workers. Consultation participants also raised questions about income, profitability, and whether young people's livelihoods are effectively improving by embracing platform work.

> There are questions around the quality of work across gig platforms … we can harness the positives of flexibility, ability to determine their time, efforts and passion – but is it fulfilling? What is the end game? (Sikoh Gitau, CEO of Qhala, Kenya).

> Platforms can give access to more work, but to what end? Are [workers'] lives improving? Are their incomes improving? We don't want a race to the bottom (Neha Pandya, co-founder and Chief Operating Officer of FLIP Africa, Uganda).

This 'race to the bottom' phenomenon, as platforms attempt to maximise profitability by cutting worker rates and benefits, risks the quality of work offered on platforms (Mothobi et al., 2018). As a result of high competition and the imbalance between work supply and demand, platforms have in some instances resorted to providing low rates that do not match the value of the services demanded from workers. In South Africa, Kenya, Egypt and Nigeria, drivers have boycotted and threatened to leave platforms due to (such) poor working conditions. However, workers lack a strong voice to articulate their demands to the platforms, as most work in their own capacities. In some countries, drivers have formed informal umbrella bodies that champion their rights by

petitioning the government (e.g. Kenya Digital Taxi Association). However, these unions are poorly funded and are still a long way from being able to organise or influence labour law and policy reforms, or to change business models and approaches used by platforms. They are also still largely limited to a few gig work markets, mostly ride-hailing.

The precarious nature of livelihoods on gig platforms were also reported as a common theme by job-matching platform ROAM's CEO Hilda Kabushenga, particularly if not accompanied by professional development and upskilling: '[J]ob security will continue to be elusive for young Africans until we shift focus away from creating opportunities (whether gigs or permanent work) and move towards wholesome skills development that truly supports young people to be self-sustaining.' Beyond connecting workers to market opportunities, platforms could also provide value-added services to workers to enrich their experiences and promote worker growth within the platforms. One way of achieving this is by upskilling workers through on-the-job training or through gamified and incentivised digital learning tools (FiDA and Caribou Data, 2020). For example, the Lynk platform in Kenya provides such opportunities through its Lynk academy, which promotes on-the-job learning (Donner et al., 2020).

On platforms for ride-hailing or blue-collar workers, the supply of work does not often match demand, meaning limited or lower quality opportunities for workers, which in turn undermines some of the key flexibility benefits of these platforms (Caribou Digital and Qhala, 2020). For instance, ride-hailing workers interviewed for research by Mercy Corps (2019) in East Africa flagged that fixed-price models used by platforms often fail to consider their operational costs (such as petrol and time taken to complete a job) when setting prices, resulting in low earnings. In the case of SweepSouth, a participant emphasised the need to 'confront neocolonialism' in the platform space, where domestic workers, for example, were expected to work for extremely low payment.

Youth participants from the consultation also referred to discriminatory contracting practices that affected young people on global freelancing platforms. Workers claimed that platforms such as Fiverr and Upwork tended to open more opportunities for workers in specific geographies (mostly Asia, Europe and the US), compelling them to disguise their geographic location to be able to compete with workers based in the EU or US (Royer, 2021). Harmful stereotypes about the continent and underlying colonial legacies of racism arguably shape the limited interest in hiring African talent. In some cases, young Africans had to change their profiles or use virtual private networks (VPNs) in order to create the impression that they were based in the more 'favoured' countries and hence secure job opportunities (Njambi-Szlapka, 2020).

> The marginalisation comes in both ways, from the company Fiverr and from the clients. I have experienced this first hand when I tried freelancing with Fiverr. In creating an account your country is publicly displayed and all the gigs you post will show your location. The company doesn't really give African youths the pathway to get recommendations and stars

> for higher opportunity in the market, because of bad reputation in African nations for fraud and corruption, directly or indirectly affecting African youths signed up in Fiverr. Once a client discovers you're from Nigeria, etc., they back away rather than giving you the opportunity to exhibit your skills (Ifeanyi Ofodu, founder of Raymadegroup, Nigeria).

Participants noted that freelancers in Africa were paid less than their Global North peers, though rates were higher than the local market rate. In addition, assumptions that African digital workers are less educated and do not speak international languages seem to affect freelancers' bargaining power (Royer, 2021). While more evidence is needed to understand the roots of discriminatory practices, mitigating online discrimination would require a multi-pronged approach. Online platforms could: (1) better facilitate merit-based hiring practices; (2) examine the fairness of their algorithms; and (3) raise client awareness of the issue (Njambi-Szlapka, 2020).

Social protection

The Covid-19 crisis has undoubtedly exposed the vulnerability and lack of social safety net for gig workers across the globe, a reality that will extend beyond the pandemic period. The informal sector accounts for most of Africa's urban economy, notably among youth aged 15–24 years old (95.8%) and women (92.1%) (ILO, 2018). However, platform workers fall into a particular category of workers that does not fit within the traditional employment framework. Because existing labour laws fail to govern the worker–platform relationship, this puts platform workers in a weak position, vulnerable to potential exploitation and socioeconomic shocks. Although platform work provides an element of formality, it cannot be compared to traditional employment and legal frameworks. One roundtable participant referred to the UK Supreme Court ruling on Uber in early 2021, which dissolves the dichotomy of labour between contractor and employee. The deployment of the category 'worker' goes some way to recognise new models of work as it creates an obligation to provide workplace benefits for workers no longer considered 'self-employed contractors' (BBC, 2021).

> The law [in London] designates gig workers as workers, not employees, so African governments could adopt a similar approach, updating their legislation to acknowledge the evolution of work and recognise different models of employment (Luke Kannemeyer, Chief Operating Officer of SweepSouth, South Africa)

Unlike traditional employment arrangements, gig platforms are not required to provide their workers with additional benefits such as medical insurance, paid time off, sick pay, retirement benefits or other employee support provided in permanent and formal jobs. While many of these platforms have explored options for protections or benefits, with their competitors being in the prevailing informal sector that offers low rates and no benefits, few platforms have identified models for integrating such support. Jobtech and matching platforms are struggling to reach business viability while competing with the informal sector – which does not provide workers with

benefits or social protection. Thus, crises like Covid-19 or other illnesses and accidents during or outside work leave workers vulnerable. In most cases, it is up to the worker to sign up for social protection such as insurance and pension.

> Social protection for the informal economy in Africa is a myth for most. Given that our informal economy is largely unregulated – the gig economy makes this even more complicated … There exist examples where groups or associations of categories of informal sector workers, say farmers or market vendors or transport workers, have come together and created a social security scheme for themselves, which in a few instances like in Ghana have become linked to state run social security schemes (Anonymous consultation participant).

> Social protection is a crucial matter to many sub-Saharan African countries. Even in formal economy social protection is not 100% guarantee[d]. In Niger there's lot of progress to achieve yet. Particularly in private security. Security agents are working in a high risk but with low income and without insurance (Boukary Maman Daouda, Counseil de l'Entente [Council of Accord], Niger).

Gig workers are generally not covered by labour laws: regulations social protection, equal employment opportunities and labour standards remain weak, with digitally mediated economic activities often taking place outside the formal economy. There are multiple lessons that can be learnt from regulation in adjacent sectors such as fintech and medtech, as well as from more recent advances in the regulation of work platforms by governments abroad. Additionally, multiple platforms are seeking options to introduce benefits and services such as insurance. Safeboda and MAX Nigeria now provide accident and emergency medical insurance solutions for riders on their platforms (Gachoka and Winiecki, 2020), and Lynk has introduced insurance for their workers. As a roundtable speaker noted, more efforts could be made to link the data generated by gig workers' jobs and use of platforms to facilitate access to credit and social protection.

> The challenges are still in ensuring jobs are contributing to data points that can help [gig workers] access credit and social protection (Neha Pandya, co-founder and Chief Operating Officer of FLIP Africa, Uganda).

Overall, on the issue of social protection, collaborating with tech innovators and platforms to develop and adapt labour laws will ensure workers can access necessary social protection and benefits to meet their needs. Additionally, governments can institute and enforce regulation to enable platforms to deliver such benefits to the workers who often get lost in the current labour regime (Mercy Corps, 2019). Considering the diversity of digital labour in the sector and across geographies, effective platform regulation would make such benefits portable and pro-rated (where applicable), accounting for jurisdictional and cross-platform contexts. This would mean

that workers' benefits would be offered in proportion to time and engagement with the platform, making coverage for workers more commensurate to their impermanent, flexible and part-time periods of gig work.

> What we're really doing when we talk about system change is rewiring the system. What's interesting here is that the cabling has not been laid yet (Sharmi Surianarain, Chief Impact Officer at Harambee, Kenya).

1.3 Covid-19 impacts on digital platforms and youth livelihoods

> In Uganda for instance, many youth have joined transport apps such as SafeBoda, uberBODA, Uber, etc. During the Covid-19 lockdown, these were quite useful in facilitating supply chains between farms and markets and ultimately to the end consumers (Anonymous consultation participant).

The pandemic has been credited for bolstering the digital economy by catalysing a migration to digital work at an unprecedented scale. However, effects have been very mixed. While courier services and home delivery solutions witnessed sustained demand for services as a result of stay-at-home and travel restriction orders, other platforms (particularly those requiring in-person interaction) saw a dramatic reduction in demand for services.

A boda boda drives through the streets in Uganda, October 2019. Photo credit: bazanye / Pixabay

Ride-hailing platforms such as Uber, Little Cabs in Kenya and SafeBoda were significantly affected by stay-at-home and movement restrictions. In some cases, the pandemic resulted in either scaling back or entire closure of operations for platforms. Uber noted that it had lost up to 70% of its business in certain markets at the onset of the pandemic (Bloomberg, 2020; Lunden, 2020), with drivers preferring not to risk contracting or spreading the disease for minimal returns. Ugandan-funded SafeBoda, which began operations in Kenya in 2019, ended up closing its operations in the country, choosing to maintain operations in Uganda and Nigeria which were more established and resilient. The Uber and Bolt ride-hailing platforms also closed their local contact centres during the pandemic, making it more challenging for drivers to reach out to the platforms (Fairwork, 2020). There was also no evidence of platforms supporting workers about the absence of contractual situation as employee (ibid.). Covid-19 exposed the gravity of the social protection dilemma in the gig economy, especially in African countries. With governments instituting lockdowns, travel restrictions and limited working hours, many gig workers were left exposed and at risk of contracting the virus.

> In general the coronavirus outbreak has put gig workers in a vulnerable situation where they have insufficient personal protection, decreased demand, and lack of financial protection due to the non-binding nature of the job (Chris Czerwonka, founder and CEO of Mosabi, Sierra Leone).

Service delivery platforms like Lynk in Kenya and SweepSouth in South Africa experienced decreased demand, and workers who were put out of work turned to negative coping strategies in the absence of earning opportunities – especially where there was a reliance on platforms for work. For example, a Mercy Corps study into the impact on youth livelihoods revealed that 80% of respondents (gig workers on the platforms) had either delayed or skipped paying rent since the pandemic hit, and 88% had taken on debt in an effort to meet their everyday needs (Ngene et al., 2020). Over 82% of surveyed households mentioned cutting back on non-food items, while others revealed they have resorted to eating only one meal a day.

Some innovative interventions emerged as gig platforms rapidly adapted to the situation by putting in place measures to improve workers' ability to continue servicing the market, such as through non-contact delivery. In other cases, platforms went as far as providing recourse for workers who faced high risk at work or lost their jobs. In the cases of MAX Nigeria, the platform transitioned to contactless delivery for riders and created an information portal on Covid-19, making it accessible to customers, employees and drivers via their mobile platform.

Domestic work platform SweepSouth organised a crowdfund by clients – either making specific payments for cancelled cleaning assignments or making general donations to pay its workers who could not be given work due to lockdown regulations (Fairwork, 2020). In Kenya and Ethiopia, blue-collar worker platforms Lynk and Taskmoby – tried to diversify for workers by pivoting to services like disinfection and hygiene services (Mercy Corps, 2020).

Governments intervened in a very limited way when it came to supporting out-of-work workers. Even where governments tried, the vast informality of the gig economy meant that they struggled to extend relief measures due to the opaque nature of the industry. For instance in South Africa, most gig workers were not registered as independent businesses, so did not qualify for small business relief measures. And without formal employers to pay unemployment insurance contributions on their behalf, gig workers could not apply for unemployment benefits (Fairwork, 2020).

While the previous section shed some light on how platforms have generated livelihoods for young people and the related challenges related to the Covid-19 crisis, as well as other structural issues, the next section will delve into how digitalisation is impacting businesses and stimulating entrepreneurship, looking at lessons and opportunities from a market and policy perspective.

2 Spurring youth-led digitalisation and business innovation

2.1 Covid-19 impacts on business innovation

The digital revolution across the world has spurred the rise of digital entrepreneurship in Africa, especially in the wake of Covid-19. Increasingly digital capabilities are no longer a choice, becoming ever more central to business interactions. Consultation and roundtable participants mentioned how the crisis has been an opportunity for technology innovators to capitalise on the new reliance on digital solutions.

> This pandemic has changed things for good; companies no longer have an option to carry out digital transformation (Hon. Madam Nadia Abdalla, Chief Administrative Secretary, Ministry of ICT, Innovation & Youth Affairs, Government of Kenya).

> The take up of tech has been accelerated by the Covid-19 crisis, mainly among the urban youth and entrepreneurs (Aramide Abe, founder of Naija Startups, Nigeria).

> Young tech entrepreneurs in East Africa are coping with and adapting to the Covid-19 crisis by seizing the opportunity to innovate or enhance the use of recently created apps (Anonymous consultation participant).

Businesses are improving their productivity and creating new business models through adoption and adaptation of new technologies. The integration of innovations such as digital finance solutions like M-Pesa in Kenya is translating into transactions and stimulating trade for MSMEs, creating more efficient business environments. Safaricom's M-Pesa for Business service is reaching over 170,000 merchants in Kenya (Safaricom, 2020). Existing literature on digital transformations of business models shows that the types of activity most often discussed revolve around document management, management, marketing, finances, manufacturing, quality management and external communication, though less attention is being paid to other key business processes, such as payroll, workflow or logistics (Zavrazhnyi, 2020).

Consultation participants noted that the Covid-19 pandemic had brought an opportunity for businesses and individuals to embrace digital marketing and technology to deliver small and medium enterprise (SME) growth. For example, in Nigeria an oxygen and blood supply matcher, LifeBank, pivoted to provide Covid-19-relevant services by redeploying its system capacity to share real-time intensive care unit and ventilator data. Young entrepreneurs in East Africa coped and adapted to the

Covid-19 crisis by seizing the opportunity to innovate or enhance the use of recently created apps that work across a range of services. Annex 1 provides additional examples of how companies are adapting to the pandemic through both analogue and online innovations, ranging from testing kits or facilities and mask production to drone deliveries, 3D printing or solar energy.

Interestingly, while many tech-driven solutions celebrated their hybrid models as necessary solutions for Africa before the pandemic, Covid-19 pushed many of these to innovate and move more fully online. Jennifer Otieno, founder and CEO of EdTech, shares her experience: 'From my perspective, the biggest win of EdTech for skilling was not that any one company did amazingly well but that so many organisations pushed to experiment with new modes of delivery and evaluation, as well as the shift in how learners were willing to engage with virtual learning experiences (which they previously really shied away from). Often that's the narrative that's shared – you just can't do it with tech, it needs to be done in person. Now the narrative is shifting a bit to "there might be ways".

African experiences are diverse, and as Friederici et al. point out 'even though digital entrepreneurship has emerged in most large African cities, the extent and depth of activity varies immensely' (Friederici et al., 2020: 75). Measured by number of start-ups, Egypt, Kenya, Nigeria and South Africa account for about 60% of the continent's total entrepreneurial activity, with the next eight countries (Côte d'Ivoire, Ghana, Morocco, Rwanda, Senegal, Tunisia, Tanzania and Uganda) accounting for another 25%. Making up the remaining 15% of activity are the 42 other countries on the continent combined (ibid.). Innovations spurred from the Covid-19 crisis primarily surfaced from sectors such as health, financial services, education, support-related services and logistics (See Annex 1).

Entrepreneurship in Africa is heavily shaped by existing economic realities, and constrained by market opportunities and operational contexts, including poor infrastructure. For digital entrepreneurship to emerge and be scalable, it is clear that while access to the internet is most certainly an enabling condition (von Briel et al., 2018), it is not sufficient on its own. While there is great scope for innovation, few digital enterprise solutions have reached scale or commercial sustainability (even before the onset of Covid-19), and they remain concentrated in a few African countries, such as Nigeria, Kenya, Egypt and South Africa. To assist the development of this sector and create more entrepreneurship and employment opportunities through scaling of these digital innovations, efforts must be made to build the ecosystem that enables these platforms to thrive. Policy is needed to catalyse a successful, scalable and sustainable jobtech environment in Africa for a more inclusive post-Covid-19 world.

> These changes will only benefit economies favourable to digitisation, which invest in the required infrastructure and which introduce corresponding regulatory technologies (Tidjani Mamadou Bello, Community Liaison Assistant at the UN Multidimensional Integrated Stabilization Mission in the Central African Republic).

2.2 Creating a thriving youth-led business sector at scale in the 'new normal'

The UN's 2020 World Youth Report proposed that countries that are better at absorbing digital technologies also tend to have a higher share of youths in employment, education or training (UN, 2020). By helping individuals become more connected with each other online, technological innovations are opening markets and creating new opportunities for employment (Cisco, 2020). The digitalisation of the economy will continue to transform different sectors in the coming years, presenting an opportunity for young people to ride the wave and take advantage of the new economic environment.

> Each year, there are a number of platforms created to enable the youth to build technology innovations. [...] In most cases the youth I interact with adapt by engaging in peer to peer learning, online resources and gig groups like StackOverflow, GitHub, etc. (Anonymous consultation participant).

This is particularly valuable for youth who do not live in major urban centres where networking events, workshops and incubator opportunities are often clustered (DOT, 2019). New digital technologies are allowing social entrepreneurs to create innovative and disruptive approaches to social problems, and to gain access to training opportunities, mentoring and networks beyond their immediate locality.

> The digital revolution has spurred the development of a small but rapidly growing digital sector, with innovative entrepreneurs launching new digitally enabled services while creating 21st-century jobs. More significantly, digital technologies are gradually driving productivity gains in traditional industries through value addition in business processes (Hon. Madam Nadia Abdalla, Chief Administrative Secretary, Ministry of ICT, Innovation & Youth Affairs, Government of Kenya).

Yet, roundtable participants described the gap in financial support and digital infrastructure as a limiting factor for entrepreneurship. In addition, technology companies in Kenya are not reaching international market readiness due to a lack of capital, customers, appropriately trained staff and digital infrastructure. For such platforms to be successful, they need investment, business mentorship and training partners to support a well-functioning ecosystem with a strong customer base (Mercy Corps, 2019).

> The challenge for these young people is that innovations are costly yet African governments do not seem to have the intention and resources to support further development and expansion of the usage of these innovations (Anonymous consultation participant).

> The availability of power and low cost or free internet access is essential. This cannot be stressed enough (Aramide Abe, founder of Naija Startups, Nigeria).

To support upwards innovation, roundtable participants also mentioned the need for governments to include a comprehensive digital curriculum in schools to generate a positive pipeline of talent to spur digital growth, and a digital economy that produces job creators and not only job seekers.

> There is little focus on early childhood development in innovations and digitisations, or building curriculums to include ICTs and learning in schools. It needs an accelerated approach to meet the job the demands that are coming on (Mara Michelo, founder and CEO of Jacaranda Hub, Zambia).

> Covid dragged African continent into thinking about IT ... Education was caught completely off guard and now we need investment in classroom experiences. What we have seen is that there are sectors that need investing which are lagging behind in IT infra and investment. That's where the policy-makers ought to look now (Jeremiah Keeya Mwanje, Coordinator of Parliamentary Forum on Youth Affairs, Uganda).

Governments and policy-makers are critical players in advancing digital innovations, and countries have made significant strides in developing the components of their economy needed to support digital maturity. Participants in the consultation consistently emphasised the importance of internet infrastructure and additional investment in technological hardware to enhance digital readiness, especially in terms of fostering the conditions for developing new skills in emerging fields (Cisco, 2020).

One roundtable participant also mentioned the positive experiences of the Ajira programme in Kenya in supporting young people into digitally enabled jobs by providing them with a well-resourced space to train as entrepreneurs or builders of some of these platforms.

> There are good examples of government participation ... such as the leadership of the Ministry of ICT with the Ajira digital programme and Madam Nadia Abdalla's work in Kenya to proactively and effectively engage with youth digital entrepreneurs to support them and their business ideas (Alex Kamanga, co-founder of FUNDIS, Kenya).

Incubators, accelerators and other technology stakeholders are critical to enabling jobtech solutions to thrive, both from a business and an impact perspective. However, few are familiar with the challenges of the sector or equipped to adequately support start-ups in the space. As a start-up CEO from East Africa observed: 'No one really knows what works in jobtech yet ... we need operational research where start-ups share their experiences of what really works and doesn't.'

> Government has to create the framework to support IT-related opportunities for youth. In Kenya, the county government for example should ensure availability of sufficient bandwidth at affordable rates for youth-led enterprises. Innovation hubs should be established to support youth initiatives (Mary Kiguru, Country Director at Education For All Children, Kenya).

Lessons from the edtech and fintech sectors can be translated into the jobtech space, taking inspiration from and replicating the innovative energy generated through hackathons, ideathons and the swathes of entrepreneurs working together to create new solutions. Other interventions at state level can significantly shape the innovation ecosystem to be conducive for youth entrepreneurship. These include the regulation of services, the institution of favourable tax regimes and the provision of SME-specific support. Sensitisation to the benefits of digital technologies and raising awareness by governments across society to promote the existence and development of platforms and innovation opportunities will help youth harness the benefits of digitalisation. Several roundtable participants also expressed how government tax regimes should drive growth without stifling the sector, with recommendations such as working closely with industry experts and young innovators to determine appropriate tax structures.

> Taxation must not be too much so that these young people and entrepreneurs can grow their businesses. If the government over taxes them, they cannot carry out their business activities effectively (Catherine Kamau, founder of Vijana Tustawi and Youth Board Member of Digital Opportunity Trust, Kenya).

Co-workers at the iHub Nairobi, a working space for technology entrepreneurs in Kenya, 2013.
Photo credit: rvdw images / Shutterstock.com

> What I'm seeing is a general effort by governments … to lower the cost of doing business, cost of capital in their respective jurisdictions. This has been by way of tax reliefs, stimulus packages, lower financial transaction costs. Such interventions are rather broad and not specific to digital and/or young entrepreneurs though (Joshua Murima, Ecosystem Engagement Lead at Briter Bridges, Kenya).

> SMEs are not all the same. Start-ups have different resources which means government support needs to be specifically tailored (Ropah Musvaire, co-founder and CEO of Kweza, South Africa).

Discussions during the roundtable emphasised the need to develop frameworks to enhance partnerships and collaboration for innovation, and to understand the critical enablers, linkages and good practices necessary to enhance and strengthen Africa's digital innovation ecosystem. By sharing and making good practices more visible and accessible both within and outside Africa, countries and regions are mutually reinforcing their innovation ecosystems.

> Innovation is a systems issue, and understanding digital transformation capabilities and linkages within this system is key to building vibrant and competitive innovation ecosystems … It is therefore imperative to share regional and global knowledge, expertise and experience in strengthening ICT innovation ecosystems in the African context (Hon. Madam Nadia Abdalla, Chief Administrative Secretary, Ministry of ICT, Innovation & Youth Affairs, Government of Kenya).

> Digital policies need to be prioritised even for developing nations – we have learnt this from the Covid-19 pandemic. It is only now that regulators are introducing things such as taxes for international tech platforms coming into Africa (Aramide Abe, founder of Naija Startups, Nigeria).

> Building tech and digital literacy and harnessing the power and resources of private–public partnerships would be some key tenets of an enabling and innovative environment (Mallika Auplish, Senior Policy Specialist at the World Health Organization, Singapore).

A suitable regulatory environment is critical to giving these platforms the capacity to grow and to help the digital economy evolve while building a robust system that can protect the rights and livelihoods of digital workers. In partnership with the government and other actors, platforms can institute solutions that improve the decency of the work. For instance, platforms such as Sendy and SafeBoda in Kenya and Nigeria have partnered with platforms like ImaliPay and Pezesha to provide insurance services for workers.

3 Fostering young people's access to finance through digitalisation

3.1 Covid-19 impacts on youth financial inclusion

Globally, eight out of every 10 enterprises are informal (ILO, 2020b). They are usually unregistered, small-scale and employ 10 or fewer undeclared low-skilled workers. This includes unpaid relatives attached to the business, mainly women working in precarious conditions with no social protection, benefits or health and safety protections (ILO, 2020c). They are characterised by low productivity and low rates of savings and investment, as well as limited capital accumulation, and they tend to be excluded from Covid-19 crisis-related, short-term financial assistance programmes (ILO, 2020c). Overall, despite the provision of stimulus packages and support, 86% did not get access to government financial support due to limited information about the process and how to benefit from it. Many informal enterprises are set up and run by young people who are also likely to be excluded from public policies more generally. Similarly, working migrant and non-resident youths are at greater risk of exploitation and abuse, as they are mostly excluded from national social protection programmes (Compact for Young People in Humanitarian Action, 2020).

Prior to the Covid-19 pandemic, digital platforms were progressively adapting their business models to start offering complementary financial services (Dean, 2019a). This development has paved the way for greater interaction between platforms and financial services providers (FSPs) through the formation of physical networks, the standardising of transaction data and payments, worker pay, performance and incentives, as well as identity validation (Dean, 2019b). While bank financing remains the most common source of funding for start-ups, current credit constraints will require new and innovative financing models and solutions to facilitate access to enable MSMEs to invest, flourish and innovate, and also create jobs.

> There is therefore need to broaden finance options available to SMEs and entrepreneurs by improving understanding about the full range of financing instruments they can access in varying circumstances, and by encouraging discussion among stakeholders about new approaches and innovative policies for SMEs and entrepreneurship financing (Hon. Madam Nadia Abdalla, Chief Administrative Secretary, Ministry of ICT, Innovation & Youth Affairs, Government of Kenya).

The healthcare crisis and subsequent lockdowns disrupted economies and livelihoods, putting greater strains on financial inclusion gains worldwide. The closure of bank branches and lockdown-related restrictions on mobile money agents driven by Covid-19 restrictions put to the test FSPs' traditional banking practices and simultaneously created new opportunities for digital

financial services (DFS). Solutions – including digital savings and loans, chatbots for distance customer service and voice short message service (SMS) in local languages – are gradually being employed to assist a wider range of customers (Mastercard, 2020). Other examples include the provision of virtual mortgage applications, digital payments and digital onboarding for new account holders (Machasio, 2020).

> We have had an uprise of payment platforms, savings apps and money education influencers which have helped with youth education and access to finance. Services on platforms include payments and transfers, savings, loans, etc. Credit ratings are still a challenge as we are nowhere near developed as credit rating agencies are in the West. We have just a few if not one, and these do not cover the entire population. Also, the absence of records makes ratings more difficult. The rate of phone scams vis à vis platforms and payments has seriously increased and needs to be addressed from a policy standpoint in terms of security. We see telephone, SMS, WhatsApp and Telegram scams daily (Aramide Abe, founder of Naija Startups, Nigeria).

Financial exclusion can take many forms, including product, gender and location, as well as several other factors (Adelaja et al., 2019). Vulnerable groups – including women, rural poor and young people – were particularly affected by the socioeconomic impacts of the pandemic. Income declined for more than half of all households in most African countries while simultaneously increasing household and national debts made access to credit facilities more challenging (Tyson, 2020). From a financial inclusion lens, despite FSPs' efforts to implement changes to loan repayment initial terms and provide debt moratoriums, youth access to credit (which was already constrained) is now compounded by additional challenges (ibid.).

> That said, the youth have accrued significant debts due to the pandemic and unemployment. The banking industry is reluctant to offer the youth loan facilities due to the lack of collateral. It is an all-round unstable process; the financial institutions and the youth engage in a volatile environment. More needs to be done to expand on financial access, management of youth funding in African continent (Wavinya Mutwii, Researcher, Kenya).

While digital technologies have offered initial financial solutions in response to the Covid-19 crisis, supporting youth-led enterprises as part of governments' build back better strategies will require adapted financial products and services. Additional examples of those will be explored in the next section.

From cash-based to cashless digital transactions

Digital financial inclusion as defined by the World Bank (2014) comprises 'the deployment of the cost-saving digital means to reach currently financially excluded and underserved populations with a range of formal financial services suited to their needs that are responsibly

delivered at a cost affordable to customers and sustainable for providers.' As indicated earlier, unbanked, underbanked and traditionally underserved populations including young people have progressively gained access to formal financial services through digital means, moving away from fully cash-based transactions (Laurer and Lyman, 2015). While Covid-19 accelerated the trend towards cashless transactions delivered by alternative delivery channels (such as agents, mobile money, ATMs, electronic banking, mobile banking, cards and call centres) financial products and services still need to be delivered in a responsible and sustainable way to be inclusive.

Overall, two-thirds of the unbanked have a mobile phone, which presents a considerable opportunity for financial inclusion (Amars and Blakstad, n.d.). Despite evidence demonstrating the positive impact of mobile money in livelihood improvement and cost savings (Bruhn and Wieser, 2019), the diversity of country regulations of the industry lying at the juncture between banking and telecommunications tends to influence innovative offerings (Donovan, 2012). In Ghana, for example, the Electronic Payment and Financial Services Law allows banks to directly operate their own mobile money vending points, with the Payments Systems and Services Act overseeing payments systems and electronic money operations (Goldstreet Business, 2019). In Kenya, mobile money services fall under the control of the Communications Authority of Kenya, not under the responsibility of the Central Bank (Benni et al., 2020). While the Bank of Ghana has more autonomy to regulate the mobile money market, ensuring greater certainty to innovation investment (Goldstreet Business, 2019), fintech and telecom companies in Kenya operate under laxer regulations than commercial banks, allowing for more competitive prices and faster provision (Benni et al., 2020).

> Kenya is one of the world leaders in driving financial inclusion through the use of digital finance solutions such as M-Pesa, Mula, PesaLink and Pesapal. Kenya's M-Pesa disrupted the financial sector and significantly increased financial inclusion as well as opening up the possibilities of new business models and opportunities. Adoption of such innovations is facilitating transactions and spurring trade for corporations, small and medium enterprises and individuals. This in turn translates to improved and efficient business environments, increased accessibility, connectedness and better standards of living (Hon. Madam Nadia Abdalla, Chief Administrative Secretary, Ministry of ICT, Innovation & Youth Affairs, Government of Kenya).

In addition to making transactions cashless and boosting money transfers and payments regionally and internationally, mobile money is also allowing new business models to flourish. In Kenya, communication companies (Safaricom) and commercial banks (Equity Bank) are joining forces with global online payment platforms (PayPal and TransferTo) to ease financial transaction costs and facilitate access to global markets (Mercy Corps, 2019). In the medium term, the adoption of customer- and business-friendly digital payment platforms in terms of interoperability, security, fees and service quality will improve MSMEs and micro-entrepreneurs' capacity to fully participate in the digital economy. From this perspective, digital inclusion should also be recognised as an enabler for financial inclusion and enterprise development.

There is a general consensus that the pandemic encouraged cashless and contactless acceptance across sub-Saharan Africa and as a result changed behaviours for the long run. For example, Nigerian entrepreneur Uzoma Dozie, who recently launched technology-driven financial services company Sparkle, stated that the pandemic has helped drive greater acceptance of online business, which has enabled his operation to scale faster than anticipated (Jadesimi, 2020). Similarly, Olugbenga Agboola, CEO of fintech company Flutterwave, reported that lockdown allowed the team to set up an e-commerce platform aimed at supporting smaller shops with limited online capability to make the most of growing demand by integrating payments and delivery (Jadesimi, 2020).

However, while it can constitute a first step towards financial inclusion, having a mobile wallet is not sufficient to access the financial support necessary in case of emergency and unexpected expenses. This is even more acute for women in rural areas, as they are less likely to own a proof of identity and more likely to rely on their male relatives to access financial services including mobile money accounts.

Cybersecurity and cybercrime

Other factors reported by consultation participants include the role of social media platforms offering financial services, though these were not completely immune to cybercrime.

> The social media platforms I have seen that offer financial service are, for example, you can send money via Snapchat and Facebook so these are apps which have been very popular and you can send money to your contacts or friends. This could have benefited many youth in easily accessing and sending money to contacts but also runs a risk of cat fishing scams. (Sarah Boateng, founder of Investing in Girls Education in Africa (IGEAenterprise), Ghana).

The Africa Digital Financial Inclusion Facility (ADFI), a pan-African instrument of the African Development Bank designed to accelerate digital financial inclusion throughout Africa, has as two of its pillars infrastructure and cybersecurity (AfDB, n.d.). The volume of transactions conducted in non-secure platforms combined with limited financial literacy cost African countries $3.5 billion in 2017 (Dahir, 2018). Driving demand for expertise to find systemic solutions will be critical in the short-to-medium term. To tackle cybercrime and strengthen the resilience of digital financial ecosystems, a partnership with the African Cybersecurity Resource Centre (ACRC for Financial Inclusion)[3] was recently launched to create a platform monitoring cyber-attacks against FSPs and individual customers, roll out individualised advisory services and develop a pool of cybersecurity talents across the continent (AfDB, 2021). This follows efforts led by the Carnegie Endowment for International Peace through its Cyber Policy Initiative aimed at providing research and policy

3 ACRC is registered as a company under the ownership of Cyber4Dev, a consortium of two Luxembourg-based entities: Excellium Services and SecurityMadeIn.Lu.

advice to enhance the cyber resilience of financial institutions, and highlights the urgency of addressing this challenge globally, not just on the African continent (Carnegie Endowment for International Peace, n.d.).

Digitalisation of VSLAs

Existing evidence shows that the group model approach, through collective action, can help address young people's exclusion from financial services, improve youth livelihoods and drive economic growth (Löwe et al., 2019). Over recent years, development programmes have invested in the revitalisation of Village Savings and Loans Associations (VSLAs) and saving cooperatives. During lockdowns, some VSLAs ceased to operate, though others have adapted to the situation through their digitisation.

> Development partners have emphasised implementation of projects and beneficiary targeting by embracing the group model or cooperation. They have also embedded a VSLA approach to these groups as a tool for enabling access saving and access to loans for investment (Anonymous consultation participant).

Previous research indicates that the digitalisation of VSLAs operations can swiftly increase financial inclusion for underserved segments of youths by facilitating linkages between VSLAs and formal financial services, as well as government social programmes (Amars and Blakstad, n.d.). By way of example, the MOBIS service led by Ensibuuko provides savings and lending groups in Uganda with the opportunity to manage their records digitally by relying on mobile money (GSMA, 2018). It allows members of Savings and Credit Cooperatives (SACCOs) to deposit, withdraw and borrow from their SACCOs without attending meetings directly from their mobile device through mobile money and SMS. Digitalisation would also have positive impacts on efficiency (by bringing significant reductions in stationery costs and increasing loan repayment rates), on productivity (through reduced time spent performing SACCO-related tasks and time processing member deposits, loan repayments and generating report/auditing processes), on profitability (increase in revenues and number of members) and on sustainability (increase in return on assets and return on equity) (Wakyiku and Adong, 2018).

> Through VSLAs young people have been able to access affordable loans for investment. Access to affordable loans from the VSLA groups has potentially contributed to resilience of businesses. VSLAs have also been able to facilitate coherence of group activities. There is however a missing link and gaps that need to be addressed to specifically integrate tech into the methodology (Anonymous consultation participant).

> During Covid, there have been a range of adaptations. Where possible, groups have gone digital. Some did their pay-out at the beginning of the lockdown, rather than finishing the cycle. Some continue to save in-person using one-on-one interactions for social distancing requirements. Some are saving at home but texting each other to remain accountable for the amounts. I'm sure that there are even more innovations taking place (Karla Yoder, Technical Director, Economic Opportunities at Global Communities, USA).

3.2 Youth financial inclusion in a post-pandemic world

Youth-led MSMEs and financial inclusion

Acknowledging that MSMEs cover a wide range of enterprise size, structure and business models, resources and financial records, and that they have unequal access to the internet as well as diverse needs, could help in formulating better-adapted policies and programmes. Furthermore, while the proportion of women owning businesses in Africa is among the highest globally (Mastercard, 2020), women are also mostly excluded from the financial sector and rarely have bank accounts or credit/debit cards, leaving them with no means of accessing cash relief payments provided by the government, as these usually are transferred directly into bank accounts (Mastercard, 2020). Echoing this, prospects for the adoption of electronic Know Your Customer (eKYC) processes could smooth individual and MSMEs' access to banking and financial services through digital identity provision while complying with Anti-Money Laundering and Combating the Financing of Terrorism regulations (OECD, 2020).

Group of young Nigerian women in conversation over a laptop. Photo credit_ I_am_zews _ Shutterstock.com

> Governments through central banks and commercial banks have various initiatives to promote financial inclusion but the challenge they face is AWARENESS (not enough thought put into communications strategies and M&E [monitoring and evaluation]). The bank verification number (BVN) in Nigeria has encouraged more people to get bank accounts but there are still huge gaps. Other parts of the world can learn how reverse innovation can indeed work where there is limited infrastructure and resources. Nowadays, though, having access to mobile money does not necessarily require bank accounts which also means they are still unbanked (Aramide Abe, founder of Naija Startups, Nigeria).

Traditionally, the financial sector has been broadly indifferent to providing funding for social enterprises, with most funding being generated through grants from government, donors, foundations and private companies' corporate social responsibility undertakings (Navarrete Moreno, 2017). This, coupled with the large number of young entrepreneurs with no financial profile, assets or collateral, makes it challenging for youth to secure loans. This is even more acute during the start-up phase when young entrepreneurs tend to have no access to performance indicators, along with emerging business plans that can appear too risky (DOT, 2019). Designing youth-sensitive financial services that consider those barriers could help boost youth entrepreneurship and the Covid-19 recovery.

> Right now in Uganda, Bank of Uganda has ordered all commercial banks to lower their interest rates to accommodate these Covid effects. Personally I suggest that youths-targeted financial systems be introduced to allow for their financial inclusion and innovation; there should be a system that is properly monitored by youths or senior professionals to guide their success; otherwise it is a hard deal yet for youths to access money for their innovative ventures (Constantine Loum, Senior Lecturer at Gulu University, Uganda).

Youth entrepreneurship programmes supporting youths in accessing financial services noticed that prior to the health crisis, the trend was towards saving – even if marginal – rather than loans when it came to business investments. This also goes alongside training advice provided to youth regarding their strategies to scale up their business and, most importantly, manage cashflow – a skill often underappreciated and often absent among MSMEs. Insights from participants suggested that crowd-funding also represents an opportunity and possible source of capital for small businesses unable to access traditional banking support.

> In our work with youth in Ghana, there was much more interest in savings than credit. And the credit that most were comfortable with were the small amounts offered by mobile platforms (Karla Yoder, Technical Director, Economic Opportunities at Global Communities, USA).

> I think that for very small and micro-entrepreneurs they would rather save to invest. Credit for livelihood investment is really only of value to those that have grown businesses to some level. Our research shows that mobile credit is mostly small amounts used to 'get by' until another payment or income comes in (Catherine Fitzgibbon, development policy consultant for Financial Sector Deepening Trust, Kenya).

> Cash flow is a major challenge, and it goes back to the fact that some business owners or informal start-ups might not have the right skills to manage cash flow or understand how that works ... Crowdfunding is an opportunity as a source of capital where traditional corporations and banks cannot support SMEs, but smaller agents can come together to offer alternatives (Ropah Musvaire, co-founder and CEO of Kweza, South Africa).

To encourage sustained investments, mobile money schemes and digital platforms need to be more focused on the provision of services beyond mobile top-up, basic cash-in and cash-out transactions or peer to peer (P2P) transactions by developing and promoting a wider variety of DFS). However, insurance subscriptions tend to be relatively low for young people, with only 9.1% in Nigeria and only 4% in South Africa, highlighting the potential for scaling up the reach of micro-insurances (OECD, 2020).

> Gig workers need capacity building, financial training and introduction to new digital platforms so that they can perform better and gain better credit ratings. In a looming recession, the challenges posed in financial inclusion are lack of funds availability, which will see many people failing to reach the set due diligence and credit rating, thus excluding them from benefiting from eventual borrowing (Dr Juliana Kisimbii, The National Business Compact on Coronavirus, Kenya).

Other types of support and financing structures to enable MSMEs and micro-entrepreneurs to innovate and thrive in the digital ecosystem are summarised in the following table:

Table 1 Type of support and financing structures for MSMEs and micro-entrepreneurs

Development of a robust digital market	• increased quality of financial inclusion • fair competition • resilient data infrastructure • advanced consumer protection • greater regional integration
Provision of immediate financial support for SMEs	• grants, loans, tax relief • payroll protection loans and reimbursements • extensions on debt, rent and utilities payments • support to reconvert production towards immediate needs

Source: Ministry of ICT, Innovation and Youth Affairs, Government of Kenya.

3.3 Designing human-centred approaches to financial inclusion

To facilitate affordable finance, governments, the private sector and development programmes must advocate for the provision of human-centred digital services that move away from predatory models. The surge in mobile phone banking loans and money-lending apps, such as Tala, Timiza or Branch that offer instant loan facilities with flexible payment schedules, have revolutionised youth access to finance in a way that formal FSPs were unable to. According to the 2016 FinAccess survey, 27% of Kenyans over 18 years old had accessed digital credit, representing more than six million borrowers (Central Bank of Kenya et al., 2016), and the M-Shwari platform in Kenya has more than 20 million customers and distributes over 70,000 loans per day (Benni et al., 2020).

> The pandemic has disrupted the economy in Kenya as well as the rest of the world. It is worse for the small businesses who use these apps for financing their business. These apps provide very little formalities in money lending; mobile phone for an online registration – no collateral. The apps provide easy access and the repayment period is the client's choice. Monthly or in every two weeks – with the pandemic, deferred loans are discounted. A report by the Central Bank of Kenya cites that some of the mobile apps are unregulated and this led to a shutdown of the services. Micro finance institutions are well within the lending regulations by the Central Bank. Then again, little research has been done on the mobile lending apps in Kenya (Wavinya Mutwii, Researcher, Kenya).

Products designed to enable reach-out and financial inclusion have simultaneously created new risks. These include new types of fraud, concerns about security, privacy or confidentiality, rapid access to high-cost, short-term credit, or new types of financial exclusion linked to lack of access to mobile phones or computers, lack of connectivity, or digital profiling for credit and insurance decisions (OECD, 2020). Other risks including increased personal debts and fraud; in Kenya, mobile money loans and digital apps loans average default levels of 18.1% and 9.4% respectively (Central Bank of Kenya et al., 2019). DFS such as insurance and investments provided by digital transactional platforms require adequate regulations by financial institutions and telecommunications to address these risks (Laurer and Lyman, 2015). And, because available information tends to be too technical or confusing for internet users, they also require greater education and outreach in terms of the information needed to protect themselves against fraud and to be aware of basic privacy principles (Monsees, 2020).

> With regards to cybercrime and scams issues, governments are ensuring that they enact cybercrime laws, train cybercrime specialists and hire cybercrime experts to deal with such eventualities. Kenya and Nigeria are doing serious clamp down on cybercrime and scams (Dr Juliana Kisimbii, The National Business Compact on Coronavirus, Kenya).

> Actually I was trying to express a bit of scepticism at digital credit being a panacea. I think there is an opportunity for the 'money opportunities' ... to lie across other products, like savings, digital payments, remittances and insurance. Digital credit is burgeoning in some markets, and the financial health outcomes for youth have often not been that great. There is a lot of resulting overindebtedness and a dearth of savings to buffer against times like the current crisis (Chris Czerwonka, founder and CEO of Mosabi, Sierra Leone).

Bypassing the advisory services usually provided in formal financial services in favour of digital credit risks putting young people in challenging situations, notably when they sign up to a service without necessarily being aware of the risks involved.

> An interesting aspect is the lack of privacy controls on some digital financial lenders. In Kenya we have heard that in order to access a loan, youth (possibly inadvertently) allow lenders to access all of the borrower phone/internet activity – and then use this to assess their credit worthiness. Many youth do not see this as a problem if it means they get the money. Indeed some reported 'gaming' the system, for example by posting lots of pictures of scantily clad women to get lots of 'likes' which apparently increase a person's creditworthiness by showing a high level of social capital! (Catherine Fitzgibbon, development policy consultant for Financial Sector Deepening Trust, Kenya).

Financial literacy is an essential feature of financial inclusion. Improving workers' access to finance can help them build their resilience, expand their capacity and potentially move beyond freelancing into micro-entrepreneurship. For example, Mosabi, a mobile financial edtech and life-skills platform in Sierra Leone, helps underserved emerging market citizens and MSMEs to improve decisions and behaviours relating to their businesses and money (Mosabi, n.d.). Training includes topics such as core business skills, money management and financial literacy – as well as upskilling on trade and digital skills for youth, informal entrepreneurs, MSMEs, gig economy workers, smallholder farmers and others. It also matches user profiles to DFS to provide resources for their journeys in the digital economy. For the recovery phase of the pandemic, those most excluded could be supported to develop coping strategies by means of a variety of media platforms using videos, podcasts and audio to encourage financial literacy and uptake of DFS as illustrated by a consultation participant below.

> Mosabi users benefit from our lessons to make better decisions and apply improved behaviours around household and business finances. Mosabi's microlearning translates into profiles and data analytics scoring that ensures users are matched to the providers and products that are best fit for their context, and that they meaningfully use those services to get value out of them. Scoring is based on preparedness (showing understanding of content) and risk (other alternative data collected on the individual's business activity, budgeting flows, income, etc.).

> And, rather than being a digital lender ourselves, we partner with local providers and then help guide our users like a 'digital coach' to decide from among them (Chris Czerwonka, founder and CEO of Mosabi, Sierra Leone).

Hence, linking financial literacy and business management training to access to credit is necessary to support young people to choose safe and prosperous practices relating to their business development:

> There has been access to credit for young people, but with little training on how to manage their finances. There is a need to focus more on financial literacy for the youth and business management skills. We have not trained on consultancy as a key skill. Youth entering into these ventures require these skills and how best to manage themselves (Mary Kiguru, Country Director at Education For All Children, Kenya).

While specific savings accounts or basic payment accounts are sometimes tailored to young people, such as tax-free accounts in South Africa (OECD, 2020), more needs to be done to cater for youth needs, particularly in the digital sphere. This includes adapted customer services and products. Additionally, digital FSPs and digital platforms offering financial services must capitalise on available data to refine their products and services and improving the customer experience (Rodriguez et al., 2019).

4 Conclusion

The gig economy is creating mixed livelihood opportunities for young people in the African continent. It offers an alternative to informal work, which is significant in a region where 80% of employment takes place in the informal sector. However, it remains unclear whether platform work will be sufficient to meet youth employment needs and absorb the youth bulge. The diversity of platforms facilitates young people access to a variety of sectors across offline and online work, enables youth entrepreneurship and provides skills-building opportunities. The Covid-19 pandemic boosted jobs and gigs on some platforms while others – where in-person engagement was required – lost opportunities as a result of lockdowns. The negative effects of the health crisis also exposed the gravity of the question of how to provide effective social protection in the digital economy. Some platforms have trialled some innovative ways to embed insurance and social protection products and services, but these have remained limited, and a large majority of gig workers have been left behind. There is a role for gig platforms to support their workers in building identity, rights and social protection, as well as improving digital literacy, and for governments to regulate and enable such an ecosystem to successfully operate.

The emergence of gig work and how young people access these opportunities suggests that the quality of work, as well as the level of livelihood generated, may not always respond to their needs or aspirations. This is further compounded by alleged discriminatory contracting practices and harmful stereotypes about the continent shaping the limited interest in hiring African talent over freelancers based in the United States or Europe. Such unbalances further erode work quality. While limited to some platforms, upskilling youth provides them with additional and transferable experiences and skills to access future work opportunities. Hence, greater investments in on-the-job-training will generate a better educated and more productive workforce while improving talent retention. The biggest challenge from the gig economy relates to accessibility, stemming from limited infrastructure, high internet cost and sub-optimal coverage, combined with a skills deficit among youth. These need to be addressed to allow for optimal platform participation. At present, gig platforms tend to mostly operate in urban areas and largely provide economic opportunities to urban youths.

Tech innovations open markets and have the potential to create new economic opportunities, including for those located outside urban areas, where support infrastructure is typically located. Investments in infrastructure to enhance and equalise internet connectivity in both urban and rural areas will help build an ecosystem within which the digital economy can scale, supporting the level of entrepreneurship needed to address Africa's youth employment challenge. While Covid-19 has triggered new opportunities for some entrepreneurs to innovate, it has also made it more difficult for others to pivot their business model to cope with challenges. The lack of financial support and the difficulties for micro-entrepreneurs and MSMEs to access it highlighted the need for government and development stakeholders to mobilise towards solutions such as tax relief, SME support programmes, and awareness campaigns targeted at MSMEs. Developing an effective

regulatory framework would facilitate innovation while managing risks, enabling incubators and accelerators that are often not equipped to respond to sector-specific challenges to realise their full potential.

The Covid-19 crisis has accelerated the move to cashless transactions. This has generated a surge of mobile credit and facilitated young people's access to finance, but has also created new risks such as reckless lending, fraud and privacy concerns. This is partly because digital credit often circumvents the advisory services traditionally attached to financial services, exacerbating consumer protection risks. It is also impaired by consumers' limited financial literacy, highlighting the need for programmes that can help to mitigate those risks. Besides, just having a mobile wallet is not sufficient to serve all financial needs. There is a need for mobile money providers to expand the range of their service offering, and for microinsurance to be scaled up. Overall, more action is also required to tailor financial services to young people's needs. While this was true prior to the Covid-19 crisis, responses to the pandemic have highlighted the critical importance of human-centred approaches and youth-sensitive financial services. Financial exclusion remains a reality, especially for MSMEs and vulnerable groups, such as women, who often lack proof of digital identity. Developing eKYC will be important to help overcome these barriers, given how financial inclusion is important to those operating in or willing to enter the digital platform economy.

Enterprises and, particularly, social enterprises and youth-led enterprises, struggle to access loans, as the absence of performance metrics in the start-up phase classifies them as too risky. There are also opportunities for boosting savings, for training to help manage cash flow and for crowdfunding. Collective financial services such as VSLAs help boost financial inclusion, and their digitalisation shows positive outcomes for boosting enterprise growth. There is scope for further developing these services.

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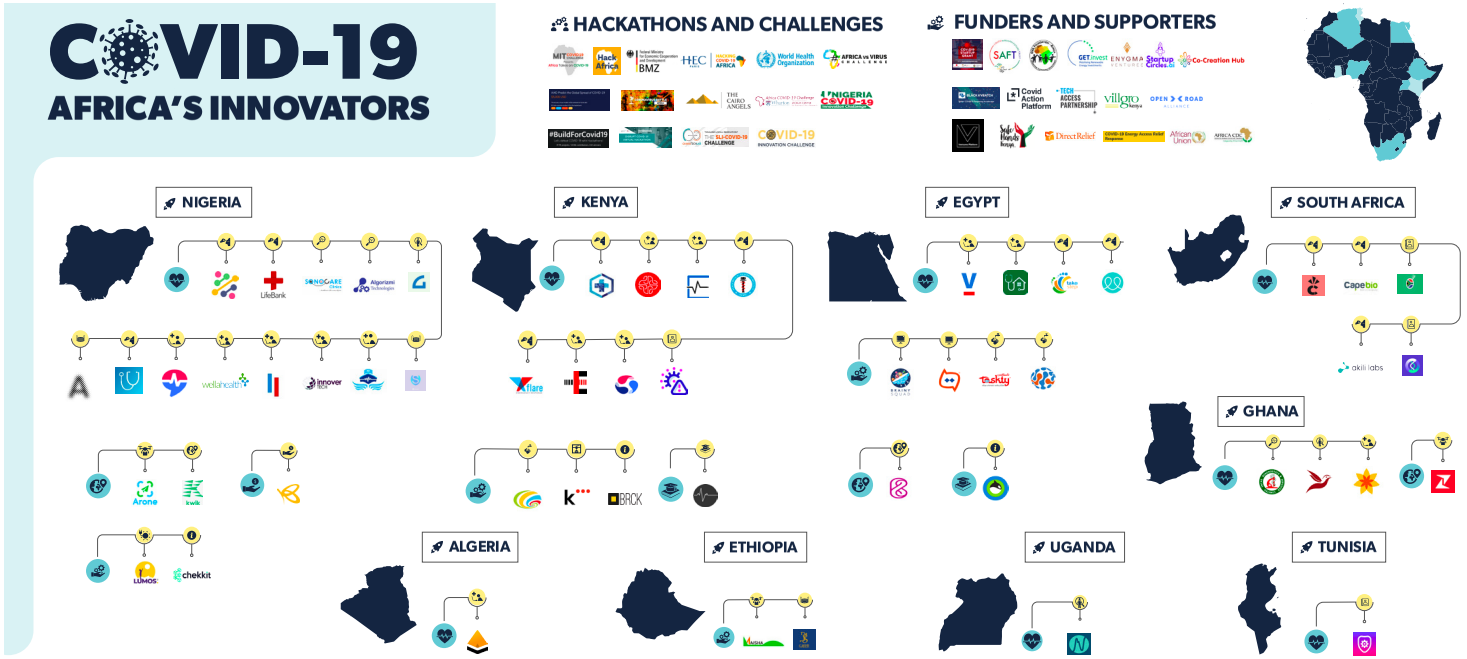
Appendix 1 Africa's Covid-19 innovations



GLOSSARY OF TERMS AND CLASSIFICATION

IN FOCUS

STARTUPS TACKLING COVID
Companies that are directly or indirectly pivoting or leveraging their product or service to combat the spread of the virus or provide support for those affected by Covid-19.

SUPPORTERS AND FUNDERS
Ecosystem builders, investors, funds or corporate agencies that offer monetary or business-related support to stakeholders seeking to stop the spread of the virus or offer solutions to those affected by Covid-19.

HACKATHON-RELATED INITIATIVES
Arrangers of hackathons and challenges to encourage innovators to find solutions to combat the spread of the virus or support those affected. Prizes typically include some funding and/or business-related mentorship.

CORE SECTORS

HEALTH
Prevention, diagnosis,testing, monitoring and treatment services related to Covid-19.

FINANCIAL SERVICES
Financial relief Initiatives set up solely for tackling Covid-19.

EDUCATION
Learning platforms for training health providers and providing them more information on Covid-19.

SUPPORT-RELATED SERVICES
Organisations, projects and initiatives that provide health information or support other organisations in trackling Covid-19 through a variety of services.

LOGISTICS
Transportation of medical equipment and personnel to tackle Covid-19.

HOW COMPANIES ARE MOBILISING

TESTING KITS OR FACILITIES
Organisations developing testing kits or providing safe facilities to get tested for Covid-19.

SANITISING STATIONS
Organisations providing sanitising stations and/or developing sanitation-related products in relation to Covid-19.

DRONE DELIVERIES
Organisations using drones to deliver medical equipment to rural areas in relation to Covid-19.

SOLAR ENERGY
Organisations providing solar installations at emergency health facilities related to Covid-19.

TELEHEALTH
Online consultation, electronic medical records and hail-a-clinic services related to Covid-19.

SOFTWARE DEVELOPMENT
Organisations developing software and/or offering consultation in support of other organisations fighting Covid-19 .

CONTACT TRACING
Organisations developing applications that trace people who may have been exposed to Covid-19.

SYMPTOM-CHECKER/TRACKER
Tools that track symptoms and help users make the decision on when to seek testing for Covid-19.

MASKS
Repurposed organisations to produce face masks and protective gear to help prevent the spread of Covid-19.

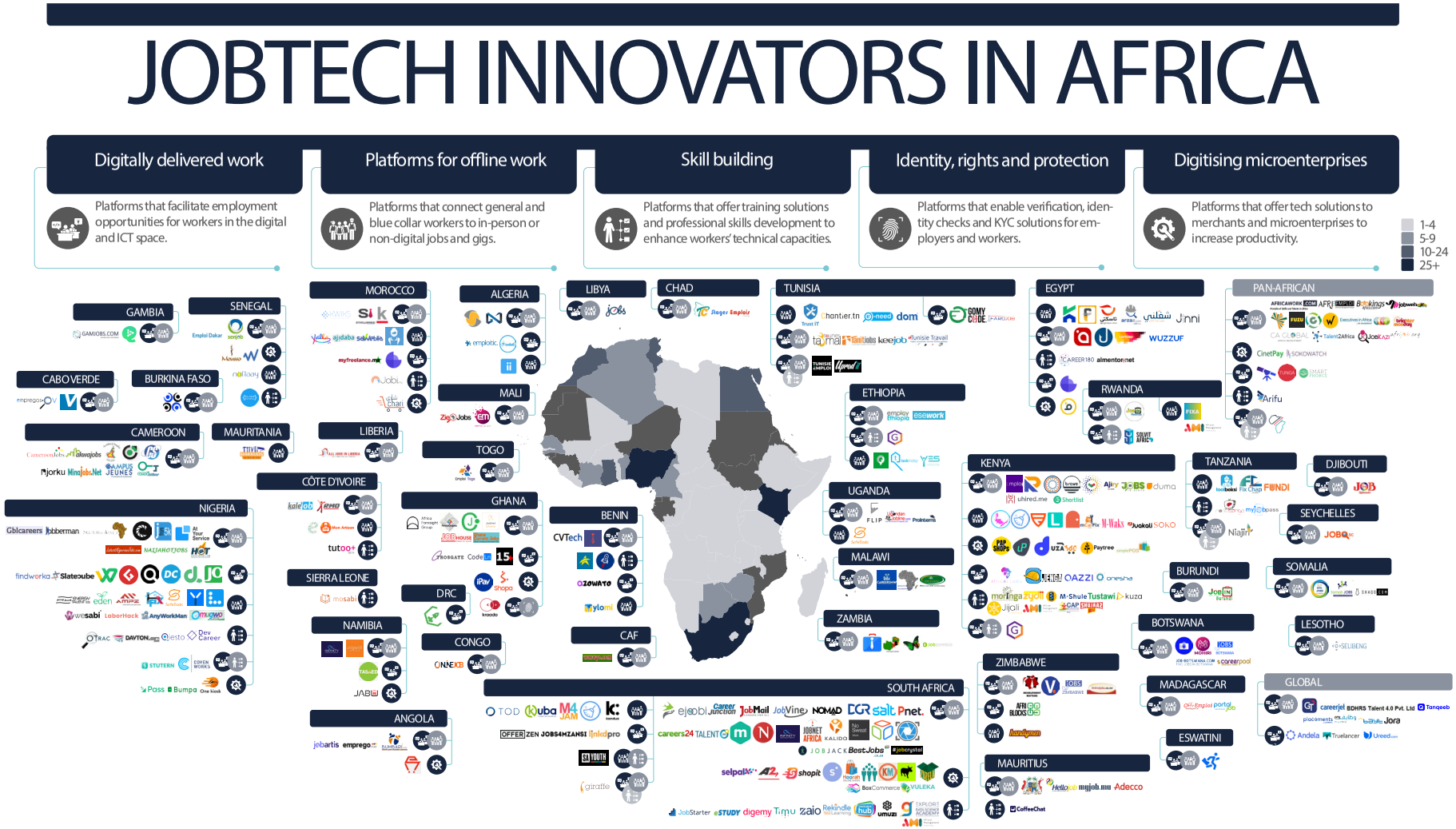
HEALTH INFORMATION
Organisations that produce educational content related to the virus, or that help transmit verified information on Covid-19.

3D PRINTING
Organisations printing medical equipment in relation to Covid-19.

DIAGNOSTICS AND MONITORING
Organisations providing diagnostic and monitoring services for Covid-19.

Source: Briter Bridges.

Appendix 2 Jobtech Innovators in Africa



Source: JobTech Alliance (adapted from map available at https://jobtechalliance.com/members/).