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A photograph of two young people, a woman wearing a white hijab and a man, both looking intently at a red tablet held by the man. They are in a classroom-like setting with other people blurred in the background. A large purple diagonal shape covers the bottom half of the image, containing the title and other text. A geometric pattern of colorful triangles is visible on the right side of the purple shape.

► Digitally empowering young people in refugee and host communities What is possible?

A mapping study in Kenya



Kingdom of the Netherlands

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Preface

The number of forcibly displaced persons worldwide is increasing due to persecution, conflict, violence, climate change or human rights violations. The COVID-19 pandemic has forced the already marginalized refugee and displaced communities further into poverty. Women and girls are facing increased exposure to gender-based violence and worsening gender inequality, access to education and training has been further reduced, and people are under increasing pressure to return to unsafe or unstable situations. Border closures and lockdown measures have led to a dramatic decrease in mobility for these populations. Action is urgently needed to mitigate the plight of these affected persons. There is a window of opportunity for improving the management of the forced displacement crisis.

A joint and fully integrated partnership programme has emerged toward responding to this context. The PROSPECTS Partnership Programme brings together humanitarian and development actors to redefine responses to forced displacement. The United Nations International Children's Emergency Fund (UNICEF), the United Nations High Commissioner for Refugees (UNHCR), the International Labour Organization (ILO), the International Finance Corporation (IFC) and the World Bank are working to respond to forced displacement in the Middle East, North Africa and the Horn of Africa, in collaboration with and supported by the Government of the Netherlands.

Young people have been one of the groups most affected by displacement. Young people between the ages of 18 and 24 represent 13 per cent of the global refugee population (compared with 11 per cent of the world population and 9 per cent of international migrants) and half of the refugee population is under the age of 18. Globally, one-fifth of young people currently have NEET status, which means they are not gaining experience in the labour market, nor are they receiving an income from work or enhancing their education and skills.

Young people are important beneficiaries of the PROSPECTS project, and all five of the PROSPECTS partners. Youth are targeted across the three main outcomes of the PROSPECTS project, although the outcomes related to (1) education and learning, (2) employment and livelihoods, are particularly relevant for youth. For the ILO, the strategic framework for engaging youth is articulated in the 2012 ILC resolution: A Call for Action on Youth Employment. The Call points to five thematic areas of action: employment and economic policies for youth employment; employability – education, training and skills, and the school-to-work transition; labour market policies; youth entrepreneurship and self-employment; and rights for young people. The ILO coordinates the Global Initiative on Decent Jobs for Youth where youth in fragile situations and youth in the digital economy are two of the eight thematic priorities.

In Kenya, PROSPECTS has a geographical focus on Turkana and Garissa counties, and the digital economy has emerged as a key sector with potential to contribute towards the creation of decent jobs, especially for Kenya's youth. This presents an opportunity for refugees to access jobs in the digital labour market through acquisition of market driven digital skills. To achieve this, the ILO and UNHCR are working on a project towards a digital revolution for refugee and host community youth in Kenya underpinned by three interrelated outcomes: i) boosting market driven digital skills; ii) easing youth transitions to jobs in the digital economy through enhanced labour market intermediation services; and iii) supporting digitally skilled youth to access quality jobs in the digital economy.

In light of the above, the ILO conducted the mapping study "Digitally empowering young people in refugee and host communities – What is possible?" to inform practitioners in the field, including the programme staff and development partners, in the design and implementation of activities. The study, presented here, seeks to identify good practices, capture lessons learned, and take note of potential areas of innovation by employers, training and young people themselves with a view to enhancing decent work in the digital economy in Kenya.

► Acknowledgements

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► Abbreviations

BCSD	Broadband Commission for Sustainable Development	MOICT	Kenya Ministry of Information, Communications and Technology
ICT	Information and Communication Technology	NGO	Non-governmental organization
IFC	International Finance Corporation	NRC	Norwegian Refugee Council
IHRC	International Human Rights Clinic	OECD	Organisation for Economic Co-operation and Development
ILO	International Labour Organization	S4YE	Solutions for Youth Employment
IT	Information Technology	UN	United Nations
ITU	International Telecommunication Union	UNHCR	United Nations High Commissioner for Refugees
IRC	International Rescue Committee	TEAMS	The East African Marine System
KNBS	Kenya National Bureau of Statistics	TVET	Technical and Vocational Education and Training

Background to the mapping study

► How is the digital economy important to decent work?

In the new normal of the economies and societies impacted by COVID-19, participation and inclusion may be more challenging than ever. One of the many revelations of the disruptions of the past year has been the digital technology imperative to bring people together and to keep people included – or to include people for the first time. Whether that is a new way of engaging in the workforce, new ways of learning or just to stay mentally connected with family and friends, the digital doors have swung wide open to a changed vista of participation and inclusion.

For certain populations experiencing exclusion of one type or another, such as youth, especially economically challenged youth, but also women, persons with disabilities and refugees, the digital opportunities are changing their world as much as it is changing the world beyond them.

Digital work is becoming increasingly important as a potential pathway to socio-economic development and unemployment alleviation. This may be especially the case for Africa, which is the continent with the youngest population and high youth unemployment rates.¹ Research on West Africa suggests that digitization tends to reduce youth unemployment,² and openness to the global market has a generally positive impact on the youth unemployment rate across Africa.³ One prime example of this is online platforms, such as digital labour and e-commerce platforms that offer a potential to bridge or circumvent major constraints to job creation for Africa's youth. A just-published International Labour Organization (ILO) report on digital labour platforms confirms that technological innovation is transforming lives in both developed and developing economies: "Digital labour platforms are a distinctive part of the digital economy, allowing individuals or business clients to arrange a ride, order food or find a freelancer to

1 Tsibolane, Van Belle and Mudavanhu, 2018.

2 Azu et al., 2020.

3 Awad, 2019.

develop a website or translate a document, among many other activities and assignments, and by connecting businesses and clients to workers, transforming labour processes with major implications for the future of work.”⁴ Since March 2020, the COVID-19 pandemic has led to an increase in remote-working arrangements, further reinforcing the growth and impact of the digital economy.

The Rockefeller Foundation suggests that “the digital economy holds significant potential for creating formal jobs that are accessible to historically marginalized youth.”⁵ This includes formal jobs with higher wages and long-term stability and informal jobs in such areas as online work, impact sourcing and e-entrepreneurship. In theory, at least, youths are best placed to succeed in the digital economy because they are most likely to have basic digital literacy, a familiarity with computers and smartphones and a willingness to absorb new skills. In reality, however, success in job creation for the youth through digital economic inclusion depends heavily on external support in upskilling, connectivity and suitable infrastructure.

Major normative instruments and tools of the ILO seek to foster the benefits of the digital transformation, while broadening the discourse from automation and job destruction to job creation opportunities brought about by technological change. The ILO Centenary Declaration for the Future of Work (2019) calls on ILO Member States to: “Promot[e] sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all through ... policies and measures that ... respond to challenges and opportunities in the world of work relating to the digital transformation of work, including platform work”.⁶

There are many country experiences of pro-employment digitalization policies, as well as programmes aimed at integrating young people and other jobseekers into the labour market. This report summarizes a recent mapping in Kenya to assess what is possible in terms of building an inclusive digital economy that can help empower young people, especially young women and men in refugee and host communities.

What is a digital economy and digital labour?

A digital economy “incorporates all economic activity reliant on, or significantly enhanced by the use of digital inputs, including digital technologies, digital infrastructure, digital services and data. It refers to all producers and consumers, including government, that are utilising these digital inputs in their economic activities”.⁷ The rise of the digital economy is associated with the development of a number of software technologies, such as artificial intelligence, cloud computing and blockchain.

The digital economy encompasses a wide range of jobs and forms of work. Definitions of what constitutes digital labour thus vary but include at the least the following forms of work: online freelancing in such areas as web design or translation done as *ad hoc* contractor; crowdsourcing or microtasking of work to a large pool of anonymous microtaskers over the internet; work on location-based mobile platforms in such areas as ride-hailing or delivery; and more traditional employment in strictly digital fields, such as software engineering and computer programming. Although the gig economy has come to dominate the literature on digital economies in international development, there are many decent jobs in digital fields, locally or remotely based, that are not gig work and offer decent working conditions.⁸

As the Organisation for Economic Co-operation and Development (OECD) points out, benefits from the digital economy are becoming more inclusive and broader: “New industries are being created within the digital economy, along with a variety of new products and services. The adoption of new technologies is

4 ILO, 2021.

5 Rockefeller Foundation, n.d.

6 ILO, 2019.

7 OECD, 2020: 5.

8 Hackl, forthcoming.

also creating well-paying jobs for professionals of diverse backgrounds, translating into improvement in quality of life, increased connectedness and other auxiliary benefits to citizens.”⁹

The development of digital platforms to date has provided new entrepreneurial opportunities in the digital realm that enable the creation of new products, services and processes while transforming erstwhile offline labour processes and business models.

However, the growth of the platform industry concentrates in certain parts of the world, while developing countries have emerged predominantly as users of such platforms. Developing countries continue to face challenges, mostly due to the shortcomings in digital infrastructure, like many individuals cited in the mapping study, as well as inadequate financial infrastructure, human resources and institutional capacities. Examples include insufficient access to capital and unavailability of a technologically skilled labour force, as well as the lack of a favourable policy and regulatory environment for technology entrepreneurship.

►► New industries are being created within the digital economy, along with a variety of new products and services. The adoption of new technologies is also creating well-paying jobs for professionals of diverse backgrounds, translating into improvement in quality of life, increased connectedness and other auxiliary benefits to citizens

► Organisation for Economic Co-operation and Development (OECD)

The impact on jobs

The wide use of the internet in a digital economy leads to the creation of new jobs. Some jobs directly tie to the technology (engineers, networking specialists, hardware), while others extend to the ecosystem (mobile telephone application developers, data scientists, community specialists in social networks). Most importantly, the internet can lead to job growth in traditional occupations by supporting the creation of new businesses (entrepreneurship) or the expansion of existing firms (growth from tapping into foreign or new markets or more effective marketing).

Technology also transforms work practices in existing jobs. The introduction of new communication technologies means that work processes can be adjusted but also that workers must learn new skills to take advantage of the new technological advances. This transformation is partially driven by the way the internet makes it possible to outsource different parts of a production process. Transformed jobs can also outsource jobs to other domestic firms.

The internet also permits global outsourcing of tasks to more specialized locations or workers (offshoring, for example), allowing firms with access to the internet to benefit from different cost and productivity conditions or from the availability of specific skills or firms. This implies some direct job losses in one country, but job gains in another.

Greater use of the internet through a digital economy ecosystem can also lead to the loss of certain jobs as technology replaces tasks formerly carried out by individuals (such as online travel booking is increasingly replacing travel agents).¹⁰

9 OECD, 2020.

10 *ibid.*

Why look at Kenya?

Among the many countries that have seized the digital moment, Kenya stands out for its mission to be “a nation where every citizen, enterprise and organization has digital access and the capability to participate and thrive in the digital economy”.¹¹

Kenya now has one of the most advanced digital infrastructure networks (public and private) in Africa. This is a result of early liberalization of the telecom sector, improvements to its national grid and strategic regulatory interventions to support an enabling environment. Access to digital financial services has been instrumental to Kenya’s digital economy success story to date – enabling individuals and businesses to transact online in unprecedented numbers. The country’s entrepreneurship ecosystem is known for its dynamism and high-risk appetite, turning increased access to digital technologies into new businesses, transforming traditional industries and increasingly driving jobs growth, especially for the young population.¹²

But to fully harness the benefits, the Government’s 2019 *Digital Economy Blueprint: Powering Kenya’s Transformation*, emphasizes how “ecosystems need to be built and supported that facilitate the use of digital technology to create opportunities and to solve problems”.

The Blueprint encompasses five pillars of a digital economy: digital government, digital business, digital infrastructure, digital innovation-driven entrepreneurship and digital skills and values. Its purpose is to create a regulatory framework for investments and innovations, encourage a smart society and networks and strengthen privacy and data.

Kenya now has the ability to leapfrog historical agricultural-based growth and move to a more sustainable form of growth based on local entrepreneurship, education and expertise in technology and invention. Although Kenya is relying heavily on digital technology to transform all its sectors, there is little information on the effects of the digital revolution on the labour market and its impact on decent job creation, especially for the country’s growing youth population. What is known is that between 2018 and 2019, the value of the ICT sector in Kenya grew 10.3 per cent, showing progress towards a conducive environment for a digital transformation, facilitated by the availability of affordable broadband, internet enabled devices and mobile money platforms.¹³ In 2019, 39.7 per cent of Kenyan industries had reportedly taken up new technologies (robotics, artificial intelligence, the internet of things, cloud computing and big data analytics), while one quarter of industries were engaged in e-commerce.¹⁴ Digital labour platforms are a small but growing subsector of the digital economy. The NGO Mercy Corps estimates the number of digital workers in Kenya at 36,500, earning a total of \$109 million in 2019.¹⁵

►► As digital technologies become the cornerstone of our daily activities, [g]overnments, businesses and individuals must adapt to this new reality. Kenya has embarked on its digital transformation journey, to ensure that the digital economy benefits become our reality, and it is our hope that all of Africa will walk this journey, too

► Digital Economy Blueprint

11 Mission statement in the *Digital Economy Blueprint: Powering Kenya’s Transformation* (see Government of Kenya 2019).

12 World Bank, 2019.

13 KNBS, 2020.

14 *ibid.*

15 Mercy Corps, 2019.

As Kenya is discovering, the digital economy can unlock new pathways for inclusive growth, innovation, decent job creation and poverty reduction. Facilitating digital transactions – financial, economic, professional, social and environmental – nationally, regionally and globally requires ecosystems and, of course, universal broadband access. In Kenya, “universal access initiatives have provided enabling infrastructure and frameworks to connect every Kenyan and every government and public facility”, such as hospitals, schools, police stations and prisons.¹⁶

The positive trends in the Kenyan digital economy also call for consistent investment and attention to curve inequalities and foster economic inclusion and decent job creation, including for vulnerable populations, such as refugees and other displaced persons. These challenges include the unequal spread of internet connectivity and inequalities in digital skills and literacy, alongside the obstacles that refugee populations face in accessing employment, including in the digital economy. The inequalities stem from discrimination, stigmatization, structural disadvantages in the labour market, restricted financial inclusion, a frequent lack of identification documents and other socio-economic challenges that result from the wider condition of forced displacement.

How digital inclusion can work for youth...

Young people (compared with other age cohorts) are sufficiently agile to take advantage of digital transformations because of their high ambition for ICT-related employment, their access to the internet and their digital skills. An example of this is in digital platforms, where a majority of workers on both online and location-based platforms are younger than 35.¹⁷ Tens of millions of jobs for people with advanced digital skills are likely to emerge in the coming years within radically changing supply chains, the global shift to electric vehicles and other uses of clean energy and the expanding gig economy (among other coming transformations). Some economies already predict a talent gap for workers with advanced digital skills and others rank ICT specialists among their fastest-growing job opportunities.

However, currently there exist deep restrictions preventing young people from accessing the opportunities and promises of the digital economy. At the macro level, these include low internet access, weak technology infrastructure and unreliable power supplies, lack of suitable payment systems and lack of regulation. At the individual/micro level, they include low education levels and IT skills, lack of experience, low self-efficacy, discrimination and economic exclusion, informality and exploitation.

...and for young refugees

For young refugees, the challenges are even more pronounced. But they also have unique advantages.

The highest levels of displacement on record are taking place around the world. In recent years, forced displacement has increased in scale and complexity. While forcibly displaced persons experience specific vulnerabilities, including psychological trauma, lack of opportunity and protection risks, host communities struggle to pursue their own development efforts in an environment that has been transformed by a large influx of newcomers.

According to the United Nations High Commissioner for Refugees (UNHCR), Kenya hosts hundreds of thousands of registered refugees or asylum seekers in several locations.¹⁸ The Kenya Citizenship and Immigration Act 2011 and the Refugee Act 2006 support the right to work for refugees, but with the persistently high unemployment rate and poverty level in Kenya, work opportunities remain scarce. Limited mobility due to the encampment policy, legal status, education and financial services access are compounding the constraints.

¹⁶ *ibid.*

¹⁷ ILO, 2021.

¹⁸ See <https://www.unhcr.org/ke/kakuma-refugee-camp>.

► Refugees in Kenya

The Kakuma refugee camp and the Kalobeyei integrated settlement (three villages) in the north-western region is home to around 196,050 registered refugees and asylum-seekers (as of March 2020). Of them, nearly 44 per cent were aged 18–59. The camp was established in 1992 following the arrival of the “Lost Boys of Sudan”. At that time, large groups of Ethiopian refugees fled their country following the fall of their government, along with Somalis who had fled civil strife in their country. With an influx of new arrivals in 2014, Kakuma surpassed its capacity by more than 58,000 individuals, leading to congestion in various sections. Following negotiations between UNHCR, the national government, the county government of Turkana and the host community, land for a new settlement was identified in Kalobeyei, 20 km from Kakuma town.

The Dadaab refugee complex (three camps), in north-eastern Kenya, has a population of 218,873 registered refugees and asylum seekers (as of July 2020). The first camp was established in 1991 with refugees fleeing the civil war in Somalia. A second large influx occurred in 2011 when some 130,000 refugees fled drought and famine in southern Somalia. Many of the refugees earn a livelihood through employment as incentive workers for international and local organizations, petty trade, cash remittances from relatives and friends abroad as well as engagement in small and medium scale business enterprises (traders, vendors, motorcycle riders, tailors).

As of 31 March 2020, there were 81,024 refugees and asylum seekers residing in Nairobi and other urban areas. They typically work in the informal sector as casual labourers, petty traders, small business owners and semi-skilled workers.^a The few who are better off run small to mid-size businesses or are formally employed.

Source: See <https://www.unhcr.org/ke/kakuma-refugee-camp>.

a See <https://www.unhcr.org/ke/livelihoods>.

This overall restrictive context lends particular significance to digital livelihoods, home-based work and e-commerce on platforms as a viable alternative for young refugees. As Kenya’s National Information, Communications and Technology Policy¹⁹ underscores, ICT is the enabler or foundation for socio-economic transformation. The policy recognizes the role of science, technology and innovation in the modern economy, in which knowledge is central to boosting wealth creation, social welfare and international competitiveness.

► Methodology

Mapping youth employment opportunities in Kenya’s digital economy to inform policies and programmes

The ILO conducted a mapping of youth employment opportunities in Kenya’s digital economy to look at how the digital economy can drive decent job creation for youth, including for refugees and host community members. Understanding what is possible and what are the avenues available in a digital economy can inform policies and programmes for strengthening job creation for youth, both in wage and self-employment, as well as the content of national systems to deliver demand-driven digital skills training.

¹⁹ MOICT, 2019.

The mapping was coordinated by the Employment, Labour Market and Youth Branch and is a contribution to the PROSPECTS programme, a joint initiative with the Government of the Netherlands, the International Finance Corporation, UNHCR, the United Nations Children's Fund, the World Bank and the ILO. PROSPECTS aims to help transform the way governments, the private sector and various organizations respond to forced displacement crises.

As a PROSPECTS partner, the ILO brings expertise on stimulating labour market demand and immediate job creation through employment-intensive investment, local economic and business development and promotion of specific value chains and market systems. It also contributes expertise on technical and vocational education and training and on the recognition of prior learning for certifying the skills of refugees. This expertise aims to better ensure access to the labour market and methods for assessing labour market demand and to provide the skills needed by employers to refugees. The ILO also leverages its leading role in the UN Global Initiative on Decent Jobs for Youth²⁰ to intensify evidence-based action for youth employment, capitalizing on the experiences of its partners in relation to digitalization and humanitarian initiatives to assist the transition of refugees into quality jobs.

The mapping of youth employment opportunities in Kenya looked at the labour market within the digital economy to assess job opportunities that could be leveraged by youth in remote areas, including in refugee and host communities. The nature of these jobs could be in any industry requiring digital skills, including in the gig economy, both through online jobs (such as freelancing) or location-based jobs (such as a delivery driver). Although many digital jobs currently suffer from decent work deficits, this study focused on opportunities whereby young people can earn a decent wage and benefit from safe and healthy working conditions. The study also looked for gaps where the ILO and partners could steer initiatives on decent jobs creation in the digital economy for young people in refugee and host communities.

Kenya's success with its Digital Economy Blueprint and the ICT Policy will depend on the availability and the adequacy of skilled human resource capacity. The mapping thus also looked at the skills demand in the digital economy generally, for the purpose of advising which skill sets can lead to which type of employment for young people. The study also considered how the vocational training pipelines meet the needs of the labour market within the digital economy and how they can be adapted to meet the skill needs of refugee and host community members. This includes vocational programmes within the ICT sector built to provide job-specific technical training that responds to gaps in the digital economy.

Mapping study methods

The mapping study involved a desk research and interviews with 30 individuals over a six-week period in June and July 2020. Three research questions guided the study:

1. What challenges and opportunities does the digital economy offer to young people, including refugees and local youth (host community members)?
2. What sectors and subsectors within the digital economy have the greatest potential to drive decent job creation?
3. Who are the main actors providing digital services to refugee, displaced youth and host communities?

The individuals (including refugees from Kakuma and Dadaab and host community members in the surrounding areas) who were interviewed consisted of:

- ▶ six digital labour platforms;
- ▶ nine thought leaders or decision-makers in the government, non-governmental organizations and financial institutions;
- ▶ seven training and learning specialists;
- ▶ eight youth carrying out work requiring ICT skills or employed with a digital labour platform.

²⁰ See www.decentjobsforyouth.org.

The goal of the interviews was to understand the factors and institutional environment that need to be put in place to match labour supply with labour demand in the digital economy. This included specific legal, regulatory and practical constraints that refugee and host communities face when seeking access training opportunities and to connect with employers and jobs.

Also presented here are examples of solutions in the current regulatory environment. The interviews explored the relevance of innovation hubs or ICT centres of excellence as catalysts of innovation and entrepreneurship among youth in resource-constrained environments.

► Mapping study findings

Challenges of labour market integration in the digital economy for young refugee and host communities in Kenya

According to the mapping study findings, the following eight factors present major hurdles to the integration of youths from refugee or host communities into the digital economy.

Low levels of employment

In Kenya, 70 per cent of the 27 million population aged 15–64 were active in the labour force at the end of 2019.²¹ At 4.9 per cent, the national unemployment rate at the end of 2019 was relatively low, although these figures are likely to have increased substantially as a result of the COVID-19 pandemic.²² Youth unemployment rates at that time were substantially higher, with 34 per cent of young Kenyans who were eligible for work without a job in 2020.²³

The employment situation for refugees in Kenya is characterized by the unique feature of inactivity. For example, according to a 2019 World Bank and UNHCR report,²⁴ among the refugees in Turkana County, 39 per cent of the working-age population were employed, while the majority (59 per cent) were outside the labour force, a classification that includes students and persons caring for household members. The remaining 2 per cent – those who were available and looking for work – were unemployed. In comparison, 71 per cent of Kenyans have an occupation, 26 per cent are outside the labour force, and nearly 5 per cent are unemployed. Refugees that have managed to find work are mainly employed by aid agencies or small scale trading, work which has low levels of productivity due to the restrictions on movement. There are data challenges to classifying refugee employment status because some people engage in multiple activities and entrepreneurial endeavours without officially being classified as employed or unemployed or even as active or inactive.

Limited access to infrastructure

The Kakuma and Dadaab refugee camps are far from the capital, Nairobi, thus limiting easy access and increasing the cost to acquire supporting infrastructure like computers, stable internet and stable electricity.

21 KNBS, 2019.

22 *ibid.*

23 KNBS, 2020.

24 World Bank, 2019.

Around 40 per cent of refugees in the Kakuma camp, for example, have a smartphone, while nearly 15 per cent have an analogue phone. Of those with smartphones, nearly 92 per cent also have internet access, while only 64 per cent of people with a feature phone have connectivity.²⁵ Data costs and network signal strength are some of the most challenging factors to connectivity to the digital space. For digital work to gain ground in the refugee communities, infrastructure needs to be prioritized.

Stable internet connectivity was also highlighted during the mapping interviews as a significant hindrance. Wifi connectivity remains costly and out of reach for many Kenyans. This situation is compounded in rural areas, where electricity is also a challenge. Where the internet is available, physical infrastructure has prevented students from completing their courses. Around 60 per cent of the people who were interviewed for the mapping study said there is a need for training facilities and equipment, such as computers, laptops and projectors. It is hard to acquire skilled talent when basic infrastructure is lacking, the interviewees pointed out.

The interviewed youths in the refugee camps spoke of limited access to training facilities and computers due to lack of infrastructure. The facilities regulate the time for access or require a membership to access the computers and internet.

Mobility

The Refugee Act of Kenya 2006 provides the right to contribute to the socio-economic growth of the host community and the country as a whole by allowing refugees to set up businesses and obtain work permits. This right has proved challenging to exercise as a result of an encampment policy that impedes refugees' ability to move and conduct business. This has left refugee-run businesses vulnerable to dependency on local host communities, whom the refugees must rely on for the movement of goods and products.

The draft Refugee Bill 2019 offers some hope for change. The draft bill provides for an equitable share of social amenities between refugee and host communities in designated areas. This may make it easier to conduct business, but respondents in the mapping study did not feel it was a comprehensive solution to tackling the mobility challenge. The digital economy may mitigate the need for physical mobility but not eradicate it altogether.

Difficulty acquiring legal documents

The study participants from refugee camps indicated difficulty in obtaining legal documentation as a hindrance to their participation in the digital economy. It also impedes their ability to open a bank account or register for mobile money. Hence, they cannot apply for a job in the formal economy or get paid for work that may imply a digital payment in or beyond the digital economy.

Two documents have a central role in the lives of refugees living in Kenya: UNHCR-mandated refugee certificates ("mandate certificates") and government "alien cards" issued in Nairobi. In this report, "refugee documentation" refers to these two documents. If a refugee holds a mandate certificate (usually issued on a family basis), it means that UNHCR recognizes them as a refugee. If a refugee holds an alien card (issued on an individual basis), it means the government recognizes them as a refugee. Some refugees hold both a mandate certificate and an alien card, while others have one, and some have neither.²⁶ Since 2006, the alien card has been formally called "refugee identity cards" in Kenyan legislation. Depending on where and when a card was issued, it is also referred to as "refugee certificate", "refugee certification" or "alien certificate". Alien cards typically expire after five years and can be renewed. Although they can be challenging to obtain, they are common documents.

²⁵ OECD, 2020.

²⁶ NRC and IHRC, 2017.

Even though Kenyan law allows refugees to apply for a work permit, the process to acquire a refugee certificate (required for application of work permit) can take as long as five years. Anyone caught working without one could be subject to a fine of up to KSh300,000 (US\$2,772) or a prison term of up to three years (or both), as specified in the Kenya Citizenship and Immigration Act (2011).

Application for a business permit costs between KSh7,000 and KSh10,000 (US\$65 and US\$93), which is hefty for most refugees. Additionally, the information on where and how to make the application is not widely accessed or understood. As a result, many traders engage in non-licensed work and pay the fine if caught. It is unclear whether digital platform work is considered wage or self-employment in Kenya and thus which permit is required (if at all) to legally engage in it. Legal and policy initiatives are necessary to provide an enabling environment for the various actors in the digital space.

Limited access to financial services

M-Pesa is the most common option for money transfer in the country. Launched in 2007, it is a mobile phone-based money transfer service and payments and microfinancing services offered by Vodafone Group and Safaricom, which are the largest mobile network operators in Kenya. It has expanded to Afghanistan, the Democratic Republic of the Congo, Egypt, Ghana, Lesotho, Mozambique, South Africa and the United Republic of Tanzania. In Kenya, its registration through a SIM card is only valid for as long as an individual's refugee documentation is valid. If the identity card expires, so does the SIM card, which then prevents refugees from accessing the service. The Central Bank of Kenya regulates the M-Pesa.

Refugees no longer can register a SIM card with their alien identity document, nor are the refugee identity documents issued in 2006 accepted for SIM card registration. Camp-based refugees are allowed to register and use limited-purpose mobile money accounts that are disabled outside the camp. Urban refugees are barred from access to M-Pesa, which is a critical component of the country's payment infrastructure. In the past two years, the government sought to restrict bank access, requiring bank users to have a personal identification number from the revenue authority, which is extremely difficult for refugees to obtain because it requires a valid identity card.²⁷

Refugees in Kenya's camps have limited access to in-person financial services. There are some exceptions where agencies have made arrangements with local banks and allow refugees to open a bank account to save and withdraw money. However, even where these arrangements exist, access to credit remains difficult because refugees are unable to obtain the required formal documentation and collateral. Most digital lenders refuse to lend to foreigners, fearing they pose a repayment risk. Evidence shows that refugees access the vibrant digital lending marketplace only when registering their phone and M-Pesa lines with a borrowed identity card.²⁸

Despite constraints, humanitarian and development actors have worked closely with the private sector and regulators to introduce services that partly serve refugees' financial needs. The World Food Programme, in partnership with Safaricom, established a simplified M-Pesa model that operated as an e-voucher account with specified vendors in Kakuma camp. This is helpful for distributing aid, especially as mobile phone penetration among refugees is high: 98 per cent of refugees in the Kakuma refugee settlement have a mobile phone. Equity Bank has opened nearly 10,000 bank accounts for refugees in Kakuma camp and in Nairobi since 2017, although regulations introduced in 2019 have made this more difficult. For example, bank accounts are for limited use, such as humanitarian cash for work payments, and cannot receive payments for online. The UNHCR and ILO are working with the microfinance sector to increase availability of lending to refugee micro-entrepreneurs.

27 IRC, 2020.

28 *ibid.*

Refugees are prohibited from fully accessing M-Pesa – the most useful financial tool in the Kenyan market. The service is now a critical, national payment utility offering private and safe transfers, savings accounts, payment channels and credit. But the meaningful inclusion of refugees into the national financial system, via standard and digital financial services has been abandoned in favour of approaches that create one-way channels for digital payments to refugees for humanitarian assistance and incentive-based work. Although these channels are valuable for increasing the efficiency and scale of providing humanitarian assistance, they do not provide meaningful access to mainstream financial services.²⁹

Limited (or no) education

The education levels among the refugee population vary by gender and ethnicity or country of origin. For instance, in Kenya's Kakuma refugee camp and nearby town, 21 per cent of men have had no schooling, compared with a staggering 60 per cent of women.³⁰ Around 53 per cent of the Somali Somalis have had no formal education, while it is 71 per cent for the Somali Bantus. Among the people from South Sudan, 77 per cent of the Dinkas and 38 per cent of the Nuers have had no formal education.³¹ Even though education levels may be dismal, several organizations have been providing vocational and business training classes, which could mean that the education levels of those refugees who are considered available to work could be higher and the data may be incomplete.

According to the ILO report *Doing Business in Dadaab*,³² the majority of refugees registered do not have any formal education, with 54 per cent having no education at all and 11 per cent with only informal education.

The lack of formal education does not necessarily exclude a person from learning and participating in the digital economy, although the ability to read and write, communicate in international languages (like English) and having an acceptable level of soft skills would be considered bare-minimum skills.

Training specialists interviewed for this report indicated that limited knowledge of English is a barrier in digital skills because it is the language of instruction. Most of the jobs available to refugees and youth in the host community need an understanding of English to communicate with clients and to carry out tasks effectively.

Gender and cultural norms

Cultural barriers and unpaid care responsibilities affect women's participation in digital work globally. In the refugee and local host communities, where women are expected to cater to domestic duties, it is difficult for them to attend trainings and gain new skills. One of the digitally enabled occupations with potential for young women's employment is online translation and interpretation. Yet many young women refugees marry at a young age, which rapidly exposes them to various domestic responsibilities and limits their ability to fully participate in a training or a job. And some of the online interpretation jobs require accommodating working hours in other time zones, which is often difficult for women because of house chores and the risks of circulating at night.

Another challenge, both globally and found within the refugee camps, is how to engage more girls to enrol in ICT courses. To increase the participation of women in the digital economy, the pipeline of girls taking ICT courses must increase. This will require that class environments accommodate the many roles expected of girls within the community. According to one of the training specialists who was interviewed, there is concern among parents to allow daughters to attend courses that include boys. And girls tend to feel timid around boys, which affects their confidence level in a course.

²⁹ IRC, 2020.

³⁰ IFC, 2018.

³¹ *ibid.*

³² ILO, 2019.

Another interviewee highlighted that some of the female trainees said that they did not think they could grasp the digital skills concepts because they are intimidated by technology. Ideally, the class environment should not frighten female participants but instead encourage curiosity and experimentation and reward growth. This means that classes for female students may need to be more flexible and be scheduled over a long period of time to accommodate the work-life integration. Having a female-only environment also should be considered to create a comfortable space that allows for intimate, important conversations that might not otherwise happen.

A community approach to training should be incorporated. This means involving community participation in the design and development of a curriculum, encouraging women to undertake community technology projects during a training and involving the community when marking milestones in the programme, like graduations.

Concerns of potential employers

Private sector employers included in the mapping study (largely those with online and digital work platforms) indicated that their main concern when deciding if they can work with refugees is the return on investment. Some of the challenges they mentioned include a lot of paperwork needed to work with refugees, and ensuring that they possess the required basic digital skills. The interviewees from the platforms explained that they carry out their own specialized training or onboarding for their workers to ensure quality work is delivered. They also mentioned that the nature of microwork requires constant training because the tasks change frequently to meet a specific client's needs. They also need assurance that their workers have access to digital devices that they can work from. Some companies provide the devices, while others assume their workers have access to these devices.

An overview of jobs and skills initiatives in the digital economy

In today's modern world, the majority of sectors and occupations entail some form of interaction with technology. Workforces are becoming increasingly "digitized" and economies are starting to capture the opportunities that come from the modernization of sectors and companies. Young people stand to benefit substantially from this transformation: They are more connected to the internet, more aware of advances in technology and aspire more to jobs in the digital economy.

The COVID-19 pandemic-imposed distancing, teleworking and other confinement measures have accelerated the speed of the digital transformation taking place. While this increases the risk of expanding digital divides, government, business and international organizations are seeing it as an opportunity for greater social inclusion and economic empowerment.

The digitization of the workforce includes several dimensions:

Workers use of digital tools

Across all sectors in an economy, more and more workers are using ICT applications and equipment, much of it tailored to workplaces. Digital tools have become an essential part of running a business in any industry and include e-mail, instant messaging, enterprise social media tools and virtual meeting tools. Many workers need to be equipped to use these technologies.

Digitally skilled workers

Workers must have digital skills to work in nearly all facets of the ICT sector. But they also are needed in other sectors for their innovation and creativity capacity and their ability to use digital solutions, products and services.

Tech- and innovation-driven entrepreneurship

Businesses use the new digital technologies, particularly social media, mobile telephone, analytics and cloud solutions to respond to market needs. They use digital technologies to improve business operations, invent new (digital) business models and sharpen business intelligence. They also engage with customers and stakeholders through new (digital) channels. Examples of innovation-driven entrepreneurship include e-commerce and online shops, selling technology hardware and technology services.

In addition, the sector of technology driven manufacturing was mentioned as a promising growth area for Kenya, with companies like Gearbox at the forefront.

Digital labour platforms

Online web-based platform jobs

In an increasingly integrated global economy, digital technologies are enabling firms to segment work in new ways and to increase the use of temporary labour. With innovative online platforms, new intermediary firms are connecting individual providers with individual customers, turning some full time, long-term jobs into an uneven flow of “on-demand” tasks. Examples of these online jobs include graphic design, photography, videography, research, writing and software programming.³³

Location-based labour platforms

Location-based platforms mediate various services, such as taxi and delivery services, which often continue to operate in parallel with traditional labour markets. Other such mediated services include domestic, care and home services, with individual workers providing labour services in the home of individual customers.

Business process outsourcing

Business process outsourcing is the practice of contracting a specific work process or process to an external service provider. It usually fills supplementary – rather than core – business functions, with services that could be either technical or nontechnical.

The traditional business process outsourcing model implemented in Africa involves call centre services in which agents represent multiple companies in different businesses. In call centres around the world, computers are replacing human customer service agents. Eventually, drivers in car-sharing companies could be replaced by self-driving cars. Automation is putting low-skill jobs at risk of being eliminated and innovations in autonomous vehicles, robots and speech recognition will continue this trend.

In the modern age, machine learning, artificial intelligence and robotics are advancing at a rapid pace. Artificial intelligence is changing the conventional way of data entry by making it more responsive, faster and safer while maintaining a high level of consistency. However, the rapid adoption of artificial intelligence is also leaving thousands of people jobless, especially in business process outsourcing. Some business outsource firms are training affected workers for jobs that require complex decision-making and critical thinking. For lower-skilled workers, data processing offers a new area of possibility. Machine learning, which allows computers to teach themselves without being programmed, requires massive amounts of information to be labelled and cleaned up before processing, which only humans can do. The market needs in the high-tech sector offer an opportunity for business process outsourcing workers in the emerging area of data labelling and annotation services. Several online platforms have been set up to curate, aggregate and distribute these kinds of business process outsourcing jobs.

33 OECD, 2016.

Job opportunities in the digital economy

The interviewees from the refugee and host communities described the following jobs as potential opportunities and sources of income in the areas where they reside.

Jobs requiring basic digital skills

1. **Transcription** – a business service that converts speech into a written or electronic text document.
2. **Translation** – the process of translating words or text from one language to another. With relevant infrastructure and proper training, refugees and some host community members can (usually) speak two to three languages, which makes them a good fit for call centre personnel targeting that demographic.
3. **Data entry** – the process of inputting data or information into a computer system using such devices as a keyboard, scanner, disk and voice.
4. **Data labelling and image tagging** – in the context of machine learning, this is the process of detecting and tagging data samples. Image labelling is the process of recognizing different entities in an image. The impact sourcing industry powers microwork, with labelling and tagging jobs that are low effort yet of high value to global companies that need manual data processing. An increasing number of companies are consistently looking to outsource this job to workers in low-income economies. Refugees with the necessary knowledge and infrastructure could largely benefit from this growing demand.
5. **Online customer service** – is any service that helps customers solve problems. This is done by customer support agents whose primary goal is to assist customers. Such a service is usually connected to a business or brand that sells products and offers support.
6. **Typing** – is the action or skill of writing something by means of a typewriter or computer and leads to documentation, typically.
7. **Writing** – the activity or occupation of composing text for publication.

Jobs requiring intermediary digital skills

8. **Digital marketing** – the component of marketing that utilizes the internet and online-based digital technologies, such as desktop computers, mobile phones and other digital media and platforms to promote and sell products and services.
9. **Virtual assistant** – a person who provides various services to entrepreneurs or businesses from a remote location.
10. **Content creation** – developing information for any media and most especially for digital media for an end-user or audience in specific contexts. It includes creating mini documentaries for organizations locally or abroad, or developing podcasts and photographing for both global and local clients.
11. **Videography and editing** – the process and art of making films.

Jobs requiring advanced digital skills

12. **Graphic design** – the art or skill of combining text and pictures in advertisements, magazines, books, reports, brochures, posters, leaflets, product packaging, and so on. Youth can create visual concepts using computer software or by hand, to communicate ideas that inspire, inform and captivate consumers and readers.

13. **Software programming** – the act of writing computer code that enables computer software to function. Although this requires more technical skills, it provides great opportunity to service clients from across the globe remotely, starting with the local environment. A software programmer figures out the process of designing, writing, testing, troubleshooting and maintaining the source code of computer programmes.
14. **Data science** – an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from structured and unstructured data. Data science is related to data mining, deep learning and big data.
15. **Technical trainers** – persons critical for transferring knowledge, be it in digital skills or in servicing digital hardware. The quality of trainers will determine the quality of talent produced, which in turn will determine the success of a training.

Digital labour platforms – Potential opportunities for refugees

Digital labour platforms have expanded over the past decade in Kenya, transforming how Kenyans can access work. With a high youth unemployment rate and limited job creation in the formal economy, the gig economy is increasingly providing alternative economic opportunities. Kenya is witnessing a rapid growth of digital and online work platforms that are transforming how the country's workforce accesses job options. Today, platforms are opening new markets, reducing barriers to entry and scale, building trust between clients and digital workers and providing workers with a broader range of job opportunities.

The emergent nature of Kenya's online and digital work economy, coupled with the absence of consolidated data on the country's informal economy, present significant challenges to determining the size of the online and digital work economy. Research by Mercy Corps³⁴ used a rigorous, conservative approach that combined analysis of government statistics and other data, stakeholder interviews and testing of findings with major platform representatives and experts to arrive at the total size of the sector. Results suggest that, as of 2019, the online and digital work economy was worth US\$109 million and employed a total of 36,573 workers. The ride-hailing (at US\$45 million) and online professional work platforms (at US\$55 million) accounted for the largest portion of the online and digital work economy by both value and number of workers. Online rentals and blue-collar matchmaking platforms accounted for US\$5 million and US\$3 million, respectively.³⁵

The mapping study identified ten platforms as having worked with or planning to work with refugee and host communities in Kenya to access jobs in the digital economy. See Annex II for a description of the ten platforms and providers. Most of the jobs they offer can be accessed online and/or remotely.

Skills required in the digital economy

Digital skills exist on a spectrum, from basic to more advanced, and encompass a “combination of behaviours, expertise, know-how, work habits, character traits, dispositions and critical understandings”.³⁶

In the world of work, digital skills qualify young people for jobs in conventional sectors, open doors for them to participate in emerging sectors and even to start their own businesses. People with more advanced digital skills can take advantage of an even wider range of opportunities brought about by ongoing advances in digital technologies, platforms and devices.³⁷

³⁴ Mercy Corps, 2019.

³⁵ *ibid.*

³⁶ BCSD, 2017.

³⁷ ITU, 2018.

The kinds of digital skills required to succeed have changed rapidly over the past decade. Nowadays there is a need to continually review and update the digital skills being taught as a result of new technologies and innovations – artificial intelligence, big data, blockchain, cloud computing, the internet of things, machine learning and mobile applications. This fast-changing backdrop makes it important for countries with existing digital skills training programmes to update their strategies.

Digital skills levels: Basic, intermediate and advanced

Many frameworks classify and measure digital skills. While definitions and typologies differ, “digital skills” generally refers to students, workers and people of all ages having and applying competencies, knowledge and attitudes to learn, earn and thrive in digital societies. Digital skills most commonly comprise a continuum of basic, intermediate or advanced skills.³⁸

Basic digital skills

These are the skills needed to function at a minimum level in adopting and integrating ICT at home, at work, in education and for recreation. They are foundational skills for performing basic tasks, and there is a growing consensus that basic digital functioning corresponds to foundational literacy, taking its place alongside traditional literacy and numeracy.

Intermediate digital skills

These are the skills needed to use digital technologies in more meaningful and beneficial ways, including the ability to critically evaluate the technology or create content. These are effectively job-ready skills because they encompass the skills needed to perform work-related functions, such as desktop publishing, digital graphic design and digital marketing.

Advanced digital skills

Advanced skills are those needed by specialists in ICT professions, such as computer programming and network management. Globally, there will be tens of millions of jobs requiring advanced digital skills in the coming years. These include artificial intelligence, big data, coding, cybersecurity, internet of things and software engineering. Some economies predict a talent gap for workers with advanced digital skills, ranking ICT specialists among their fastest-growing roles.

Training programmes linking refugees to the digital economy

When any significant new technology emerges, workers and users need new skills to capture the potential productivity gains. This phenomenon accelerated with the first Industrial Revolution and continued to gain momentum since then, most apparent with the expansion of internet connectivity.

When looking at the diverse youth employment opportunities within the digital economy specifically for refugee and host communities, it is imperative to also look at the skills required to carry out these tasks effectively. The conversation around the acquisition of relevant digital skills is central to the discussion of leveraging opportunities in the digital economy, whether in the creation of new jobs, the transformation of existing jobs or outsourcing jobs to new markets.

Kenya’s Digital Economy Blueprint recognizes digital skills as a requisite for benefiting from any technology, across all sectors of the economy and at all levels of the skills spectrum. Digital skills enable a person to leverage access to digital technology by equipping them with the literacy and know-how to use it. It enables them to participate in and create with this technology. The mapping identified seven organizations in Kenya implementing vocational training initiatives and programmes for the refugee and

³⁸ Framework and definitions excerpted from ITU’s digital skills toolkit, <https://www.decentjobsforyouth.org/wordpress/wp-content/uploads/2018/04/Digital-Skills-Toolkit.pdf>.

host communities to help meet the labour demand in the digital economy. These programmes train young people in varying digital skills: basic, intermediate and advanced. The subjects range from graphic design to software programming to the basics of artificial intelligence.

Examples include the UNHCR Instant Network Schools, which support digital learning for mixed-age and ability school learners, in partnership with Vodafone Foundation.

A number of social enterprises are also intervening, such as Village2Nation, whose core mission is providing access to competitive digital skills to young people living in remote areas of Africa.

Non-governmental organizations are the most common service provider in Kenya. They include Learning Lions, which operates to enable young adults in rural areas of Eastern Africa to work and to live a life full of opportunity while remaining in their home area. The Xavier Project provides educational livelihood and community capacity-strengthening initiatives by working with community-based organizations to empower them to implement projects. And the Norwegian Refugee Council partners with the International Trade Centre to offer the Livelihoods Partnership, which is a pilot project in the Dadaab camps to harness the IT skills of refugees. See Annex I for more details of these and other skills-training providers.

Job matching and technology innovation hubs

Once the existing skills of refugees have been determined and necessary additional skills attained, a challenge in the employment of refugees will be to match employers seeking to recruit candidates with specific skills to those refugees who possess them.³⁹

The internet is transforming how youth seek jobs and employers seek workers. In advanced economies and increasingly in low- and middle-income countries, the delivery of employment services has been revolutionized by the use of the internet to post resumes and job announcements. Counselling and other individualized services are also increasingly carried out online.⁴⁰

As ICT continues to transform societies, the lines between online and offline networking approaches will continue to blur. Online job-matching platforms may not fully substitute for offline networks and connections. Even in advanced economies, analogue professional networks remain the main avenue to a job. However, online networking and job-matching platforms can be complementary to offline approaches. For example, LinkedIn is a networking site that combines professional networking with standard intermediation services for employers and workers.⁴¹

Online platforms dedicated to job matching refugees with employment have been successfully tested within countries (such as Jobs4refugees in Germany) or across borders (such as Talent Beyond Boundaries). Dedicated professional networks have been established (such as Science4refugees by the European Union) and existing networks have opened their web portal to refugees (such as the Welcome Talent programme by LinkedIn). These are models for Kenya and other countries to consider.

Technology innovation hubs

An innovation hub is a place that provides facilities to nurture new ideas and help develop inquisitive perspectives among today's youth. These hubs serve as springboards to help societies and economies face future challenges and meet the rising aspirations of the growing population. Several hubs on the African continent provide targeted, internal mentoring programmes to young people. Building on its draft ICT policy, the Government of Kenya plans to set up ICT centres of excellence, which are similar to innovation hubs, to promote capacity-building and innovation across the country, including the refugee-hosting areas.

³⁹ OECD and UNHCR, 2018.

⁴⁰ S4YE, 2018.

⁴¹ *ibid.*

Lakehub is a technology innovation hub in Kisumu, Kenya that provides open space for entrepreneurs, technologists, investors and makers. They are successfully building a technology ecosystem or digital microeconomy in Kisumu, away from main tech city in Nairobi.

The Global Disability Innovation Hub is building a support system for entrepreneurs and start-ups in the assistive technology space. They believe assistive technology is a means to access dignified livelihoods as well as social and economic participation. According to its representative who was interviewed during the mapping study, the hub provides innovation and mentorship advice to entrepreneurs, policymakers and students in the digital economy.

According to the GSM Association (an industry organization that represents the interests of mobile network operators worldwide), a large number of hubs across the continent have been supported by mobile operators and internet providers due to their close involvement in the digital space. While mobile operators are among the frontrunners in corporate partnerships in terms of enabling the ICT infrastructure upon which digital services are implemented, they also have been investing in tailored programmes over the past couple of years. Large tech companies are also supporting the ecosystem by establishing a physical presence in countries.

As provided for in the National ICT Policy (2016), to increase the diffusion of ICT knowledge, the government will establish an ICT centre of excellence network with nationwide coverage to promote digital economy capacities and innovation. While still a concept in proposed mode, the function of the ICT centres of excellence will be to rectify gaps in ICT capacity, knowledge and innovation.

Recommendations and looking forward

► Strengthening the digital economy ecosystem for young people in refugee and host communities

Recommendations

Kenya's Digital Economy Blueprint lays out a six-point policy focusing on the development of ICT infrastructure, leveraging mobile platforms to build applications, creating local content, building human resource capacity, developing public-private partnerships and opening up employment opportunities for youth. Based on that policy's ambitions and building on the mapping study findings, the following three recommendations would help strengthen the digital economy ecosystem, not only for Kenya's refugee and host communities, but beyond.

Recommendation 1: Support training institutions that are building a pipeline of digitally skilled refugees and local youth in the Kakuma and Dadaab communities and the surrounding host communities.

Strengthen partnerships among training providers.

Development and social partners, along with the local and national government, need to work together to ensure that technology courses taught in the training institutions match the demands of employers and small businesses offering opportunities for digital related work. Both the supply of and demand for skills need to accommodate the local economy in the refugee camps and the host communities.

This includes finding durable solutions for digital skills training. There are many short-term ICT training and placement initiatives, mainly implemented as pilot projects or for short periods of time with an impact that is hard to quantify. Several initiatives are training refugee and host community members to sell their

items online. But there was indication in the mapping study interviews that training is of poor quality. One training implementer mentioned that they had to retrain their beneficiaries in basic digital skills and English literacy, despite some of the beneficiaries saying they had already undergone digital skills training. For a trainee to gain digital skills, they need to have a basic grasp of reading and writing in English, especially in the Kenyan context where the language of instruction is English and most of the clients targeted by the online and digital work platforms communicate in English.

■ ■ ...when you are doing the screening, you find somebody has like ten certificates and these ten certificates are around information technology. But can they even switch on a computer?

► Training manager interviewee

One idea is to create a technical working group in which implementing partners, who are working on creating youth employment opportunities in the digital economy within the refugee camps of Dadaab and Kakuma discuss both the demand and supply side of youth employment, in order to improve training relevance and quality.

The framework for such a working group could take the shape of a conference or webinar that targets implementers working on training in digital skills, basic education, and core skills for the 21st century, together with implementers working on ensuring that youths can access jobs and opportunities in the digital economy. The goal of this framework of implementers in the digital economy would be to ensure that there is an agreed level of quality on the training programmes and online learning platforms. This would facilitate peer learning, whereby organizations can leverage each other's strengths to provide collective learning, at least in the form of joint curriculum reviews, for example.

► Foundation and core skills for the 21st century

Training in digital skills needs to go hand in hand with foundation and core skills for the 21st century. The term refers to a broad set of knowledge, skills, work habits and character traits that educators, school reformers, college professors, employers and others believe to be critically important to success in today's world, particularly in contemporary careers and workplaces. These skills can be summarized into the "4Cs": critical thinking, communication, collaboration and creativity. These skills prepare refugees and local youth to effectively navigate the global society.

If an organization decides to close its programme, there can be continuity of the initiative for the beneficiaries by tapping into the community or network of implementers. This network would contain a repository of various initiatives carried out within the camps, which would help funders and partners easily identify with whom to work.

It is further recommended to assist local organizations and training providers in strengthening their training offerings, to ensure career and skill growth for youths and continuity of initiatives. As a UN agency working on creating livelihood opportunities in the same area of interest, the World Food Programme should be included in the discussions among PROSPECTS partners, especially in relation to contracting and alliances with the private sector.

Support gender-responsive initiatives.

Emphasis needs to be directed to initiatives supporting women's participation in the labour market, including in the digital economy, paying special attention to the social norms in the communities. Partners should consider designing and supporting women-only spaces that accommodate the specific needs of women, especially when introducing technology skills and employment opportunities that may disrupt women's traditional activities in the community. Such spaces should offer support structures for women as they navigate their gender roles within the community while seeking livelihood opportunities. For example, such a workspace could have a day-care facility that either a local NGO operates or is managed by women from the refugee or host communities, thereby promoting the care economy. This would respond to the needs of the beneficiaries to get training or to earn an income while taking care of their role as caregivers in the community.

►► We did try, but the numbers [of the girls] were not enough. But this was part of the recommendation that in future probably, if you have a partner exploring working out of such environments, explore the possibility of having an all-girls classroom so that they are more confident and probably their parents can allow them to come into that environment where they are assured that they are not going to be seated [next] to any boys.

► NGO partner interviewee

Recommendation 2: Incentivize digital work platforms to create livelihood opportunities for refugee and local youths.

Support partnerships between employers and training institutions.

It is important to strengthen the relationship between training institutions and employers. On the one hand, employers possess information crucial to shape training content in a way that connects and responds to the skills needed by the productive sector. On the other, employers can take a key role in strengthening the development of knowledge and skills among young trainees through work-based learning opportunities. A meaningful exposure to the world of work will go a long way in building up technical and core work skills among youth, while enabling ample time for youth to train, practise and maximize their opportunities in the digital economy.

To reduce entry barriers to training and jobs, mainly in the context of digital work platforms, it is crucial for companies to review their processes, work with the government to reduce the amount of paperwork needed to work with refugees and provide clear information on the required (digital) skills. When possible, companies can upskill and reskill young workers to ensure they are equipped with the latest competencies to carry out increasingly evolving (micro) tasks. It is important for companies to make sure young workers have access to equipment and devices for both training and the delivery tasks of digital jobs.

A partnership framework can be set up that brings together private sector actors that have online job platforms and/or e-commerce platforms that will create the demand for digital work opportunities. The framework can link them to institutions focused on training in digital skills or digital entrepreneurship that will serve as the labour and product supply for the private sector companies. This partnership framework can provide legal advice and support to the private sector companies on how to work with government entities, refugees and host communities. This will call for reimagining public-private partnerships within the refugee context and between the various stakeholders involved. The collaboration should also expand from the quantity of jobs to include their quality to bring awareness and good practices on how to boost the quality of jobs offered by digital work platforms to young refugees and young people in host communities.

Recommendation 3: Work towards a supportive policy framework.

Encourage investment in infrastructure.

It is key for PROSPECTS partners to continue working and lobbying with private sector providers and the Government of Kenya to set up the basic infrastructure that will enable the digital economy to thrive within the refugee camps and the surrounding host communities.

An internet connection, access to a source of energy to power the devices and a secure workspace are the basic building blocks to equip local youth and refugees to access opportunities in the digital economy, irrespective of time and place. The laying of the first fibre optic cable on the Eastern Seaboard of Africa – the TEAMS cable – heralded a new chapter of cheaper telecommunication access for Kenya. The same can be applied in Kakuma and Dadaab camps and host communities to reduce the barrier to entry in the digital economy for the youth.

The ILO can engage with internet service providers and mobile telecommunication companies to set up connection points within the camps to increase accessibility and allow for refugees to select an internet connection that is most affordable for them. This is especially relevant since the eruption of the COVID-19 pandemic. The impact of the crisis has made online education and remote jobs the new normal. The accelerated digital transformation taking place in the world cannot be ignored within refugee camps and within the host communities if the youth are to take advantage of employment opportunities.

To power the devices that connect youth to the internet and to online jobs or that will help them develop digital enterprises, the ILO and the PROSPECTS team can engage with Kenya Power and Lighting Company and independent renewable energy companies. They will need to set up and expand a power supply to the refugee camps and the host communities.

An important feature of successfully carrying out a remote online job that is rarely emphasized is a reliable and secure workspace, such as through innovation and incubation hubs. Youth in refugee camps highlighted their constrained access to limited training facilities and computers that regulate the time for access owing to demand or the requirement to have a membership to access the centres that have the internet and computers. Initiatives between partners in the camps should support existing centres to expand their premises and acquire more computers. This would enable more young people to access a safe and secure space to carry out an online remote job or attend an online class. These centres should respond to the needs of female remote workers and learners by ensuring that they are comfortable and safe.

►► Decent, I guess for me, is relative. I think it will be a job that enables a refugee to be able to cater to their daily needs and not have to rely on assistance, especially [on] the side of food, medical treatment or services. A decent job would be one that enables them to put to good use the skills that they have so you are not pigeonholed in one career path just because that's what's available where you are or where you live. A decent job would be one that's open to both genders... We are also talking about jobs that would allow both genders or all genders [to] be able to work comfortably

► Youth interviewee

ILO and UNHCR's forthcoming collaboration in Kenya's refugee camps

Kenya's Digital Blueprint lays out the imperative of the government working with the private sector, academics, civil society and other specialist actors to create the ecosystem for driving knowledge production and innovation and to transform the country. Along with the host communities, the government's vision of a digitally enabled society should be inclusive of the refugee population, so that the residents can find dignified work and contribute to Kenya's economy.⁴² This policy will be incorporated and localized in a forthcoming collaboration between the ILO and UNHCR under the PROSPECTS partnership to build the digital economy ecosystem in the Kakuma and Dadaab refugee communities to create decent work opportunities for young people.

The collaborative project will rely on a comprehensive framework for investments in labour supply, demand and intermediation. On the supply side, it will aim to build young people's skills and capabilities to successfully engage in the digital economy. On the demand side, it will aim to create an enabling environment in which legal frameworks and policies are improved, where a conducive environment for investment and job creation is promoted and communities' resilience is strengthened. It will also support digitalization of existing business processes thereby creating demand for digital skills. For labour market intermediation, the project will seek to strengthen local delivery systems and capacities to support the transition of young people into productive employment and decent work.

Activities will include:

- ▶ A review and upgrading of the digital skills curricula in line with market demands and then integration into the instruction materials of schools and training institutions. And where appropriate, the digitalization of training material.
- ▶ Equipping young people with digital skills, delivered through education or training institutions or on-the-job through work-based learning opportunities (in person or remotely). Work-based learning opportunities will include traineeships and apprenticeship schemes.
- ▶ Modernizing and strengthening the public employment services that link young refugees and young people in host communities to jobs in the digital economy and other sectors.
- ▶ Youth-to-youth coaching services for young refugees and youth in host communities.
- ▶ The development of a Digital Jobs Council to foster dialogue among government and social partner representatives and young people as well as platforms and service providers to improve the quality of platform jobs and their ability to engage and match young jobseekers and young entrepreneurs from the refugee communities to jobs in the digital economy.
- ▶ The engagement of employers and digital platforms in the development and delivery of the My First Digital Job programme, to create work-based learning and work opportunities in the digital economy for young people.
- ▶ Linking young entrepreneurs in the refugee and host communities to e-commerce opportunities through training, strengthened links with value chain actors and increased capacity of incubation and business development centres.

42 See https://en.wikipedia.org/wiki/Triple_helix_model_of_innovation#cite_note-0-9.

Looking further forward

Closing the gap between Africa's youth and the digital economy will require interventions on the supply and demand side: building digital skills among the youth labour force while making more digital jobs available that match the skill levels of the supply. Intermediation will be required to address the skill mismatches, support youths and work with platforms and governments to drive digital economic inclusion. The service providers listed in Annexes I and II provide a starting point for expanding in Kenya's refugee camps and host communities.

These skills need to be combined with entrepreneurial initiatives, talent and universal internet coverage. As businesses move online and make use of e-commerce and other types of platforms to sell and move goods, opportunities for start-ups and access to finance also must be scaled up.

For young refugees, opportunities provided by the digital economy must be examined from a perspective grounded in the particular experiences of refugees, while also acknowledging the overlap between this particular position and the experiences of other people who are marginalized in digital economies for various reasons. Durable solutions need to be found that support more dignified, inclusive and comprehensive programmes for refugees and the communities that host them.

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► Annex I – Supply side: Organizations providing digital skills training for youth

The following organizations emerged in the mapping study as having worked with or planning to work with young refugees and their host communities in Kenya towards improving their digital skills.

- Village2Nation is a social enterprise whose core mission is to provide young people living in remote areas of Africa with access to competitive digital skills. The main impact metric they are targeting is not limited to setting up digital training centres but ensuring that every trainee can immediately leverage those skills and earn an income regardless of their remote location.
- Instant Network Schools was set up in 2013 by Vodafone Foundation and UNHCR to give young refugees, host communities and their teachers access to digital learning content and the internet. This works towards improving the quality of education in some of the most marginalized communities in Africa. The Instant Network Schools supports digital learning for mixed-age and mixed-ability learners within schools in refugee communities. Based on the contextual challenges, the content taught is sourced globally, including from the American-based Khan Academy as well as localized content aligned with courses in the Kenya curriculum for Kakuma and Dadaab camps. Classes covered are both in primary and secondary schools.
- Learning Lions is a non-profit organization enabling young adults in rural areas of Eastern Africa to work and to live a life full of opportunity while remaining in their home area. The students are equipped with IT and media skills and are encouraged to become entrepreneurs. By selling digital services online they become self-sustaining and can even employ new cohorts of trainees.
- The Xavier Project provides educational livelihood and community capacity-strengthening initiatives by working with community-based organizations to empower them to implement projects. The Xavier Project has developed the Community Enterprise Cycle, which works by supporting refugee-run organizations to improve livelihoods and income among their own communities.
- Norwegian Refugee Council and International Trade Centre Livelihoods Partnership implemented a pilot project in the Dadaab camp to harness the IT skills of refugees, upgrade their skill sets and generate incomes through the Refugee Employment Skills Initiative. They equipped members of the refugee and host communities with meaningful skills while promoting youth employment and entrepreneurship.
- Don Bosco Kakuma Technical Institute is a centre of hope and transformation that serves the youth in the Kakuma refugee camp and the local community to be self-reliant and regain their dignity. The institute offers a six-month and a one-year certificate in information technology.
- Jesuits Worldwide Learning provides computers or dedicated “learning labs” and internet connection, which is required for a learning management system. And they provide software to facilitate the learning environment. Established in 2010, the programme offers a diploma course in Liberal Arts and Community Service Learning, with a track in community and business development as well as courses in peace and inter-religious dialogue; primary teacher education; psychosocial case management; and training of trainers for English language learning.⁴³

43 See https://hubble-live-assets.s3.amazonaws.com/jigsawconsult/attachment/file/4/jigsaw_landscape_review.pdf.

► Annex II – Demand side: Organizations assisting young people to access jobs in the digital economy

The following platforms and training providers emerged in the mapping study as having worked with or were planning to work with refugees and the host communities in accessing jobs in the digital economy. Most of the jobs they offer can be accessed online and/or remotely.

- Action Africa Help International offers online jobs, digital literacy and digital projects.
- Ajiry is a web application designed to provide a platform for workers and employers to connect and network effortlessly, where there is no control from third-party clients.
- Amplio Ventures was formed out of Amplio Recruiting, a multi-city staffing agency helping US companies hire dependable employees from the refugee workforce. Amplio Ventures focuses on early-stage capital for businesses restoring refugee stability.
- Association for Aid and Relief, Japan provides ICT training.
- Danish Refugee Council provides basic ICT skills training, online job training and an online learning programme on Coursera and basic programming and coding.
- Don Bosco Technical Institute Kakuma offers a Crafts Certificate in Information Technology (digital skills) by Kenyan National Examination Council (TVET) and an internal certificate in computer studies (digital skills) by Don Bosco Technical Institute Kakuma.
- Fastagger is a service platform that provides image annotation services to artificial- intelligence-driven companies. Their goal is to accelerate artificial intelligence applications by providing access to high-quality data-enhanced human interaction. Their clients include organizations implementing artificial intelligence in their business, such as conservation research, drone utility monitoring and insurance.
- Fiverr is an online marketplace for freelance services. The company provides a platform for freelancers to offer services to customers worldwide. Fiverr also offers on-demand professional courses that the world's leading experts teach.
- Film Aid Kenya offers filmmaking training, communications and journalism training (digital journalism).
- Jijenge Academy is a data-labelling training school that increases the income of underprivileged high school graduates in less than four months. They also train youth in computer literacy, business process outsourcing and employability skills. Data labelling, in the context of machine learning, is the process of detecting and tagging data samples. Machine learning and deep learning systems often require massive amounts of data to establish a foundation for reliable learning patterns. The data they use to inform learning must be labelled or annotated based around data features that help the model organize the data into patterns that produce the desired answer.
- Microverse is an online platform for remote software developers. At Microverse, students learn by pair programming and collaborating with other students in real time, mirroring a distributed team in a real company. Their approach to learning not only provides students with an accountability partner and global support network but also helps students learn remote workflows and acquire the collaboration and communication skills necessary to join a global company.
- RET Americas offers computer coding, computer digital and animation skills training.
- Samasource employs low-income workers in developing countries to classify data, among other tech work. Its mission is to expand opportunities for low-income individuals through the digital economy. One of the first organizations to engage in impact sourcing, Samasource trains workers in basic computer skills and pays a local living wage for their labour. Additionally, Samasource provides health and wellness education, professional skills development, a scholarship programme to assist with continuing education costs and a programme to provide microloans and mentorship to aspiring entrepreneurs. Some of Samasource's clients include Walmart, Google, General Motors and Microsoft.
- Startup Lions is an impact-sourcing service provider, start-up incubator and co-working space provider that enables talented youth living in rural Africa to make a living by selling Fair Trade digital services to international customers.
- Upwork, formerly Elance-oDesk, is a global freelancing platform in which businesses and independent professionals connect and collaborate remotely. Upwork has 12 million registered freelancers and 5 million registered clients, and with 3 million jobs posted annually, it is the largest freelance marketplace in the world.

► Annex III – Matching supply and demand in the digital economy

Training duration	Providers	Employers	Location	Type of jobs
Basic digital skills (up to 1 or 2 months of training)				
4–6 weeks	Village2Nation		Lamu	Digital marketing Content creation
2 weeks	WFP	Fiverr	Kakuma	Image annotation Data labelling Address searches
2–3 weeks	Cloud Factory	Cloud Factory	Nairobi Mombasa	Image annotation Data labelling
1 week	Fastagger	Fastagger	Nairobi	Image annotation Data labelling
1–3 weeks (to be decided)		Amplio	United States	Image annotation Data labelling
2 months	Jijenge Academy	Jijenge Academy	Kibera	Image annotation Data labelling
Intermediary digital skills (3–7 months of training)				
6 months	Samasource and Norwegian Refugee Council and International Trade Centre Livelihoods Partnership	Samasource	Dadaab Kakuma	E-commerce merchantry Digital freelancing Content creation
6 months	The Xavier Project		Kakuma Nairobi	Web development Mobile applications development Transcription Data entry Translation
5 months ⁴⁴	Upwork	Upwork	Kakuma	Digital freelancing
3–9 months school term or calendar	Instant Network Schools		Dadaab Kakuma	
6 months	Lakehub	Upwork Microverse	Kisumu	Software development
Advanced digital skills (8–12 months of training)				
9 months	Learning Lions	Fiverr Startup lions	Lodwar	Graphic design User experience design Software development Content creation
6 months –1 year	Don Bosco Technical Institute		Kakuma	Software development Hardware technician
ICT expert (diploma or degree)				
A year or more	Universities, technical colleges	Highly skilled jobs	Global	Full stack developers (mobile and web platforms) Data scientists Cybersecurity experts Internet of things engineers

⁴⁴ See <https://www.intracen.org/news/Leveraging-technology-and-trade-to-create-jobs-for-refugees-and-host-communities-in-Kenya/>.



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