





# Talking 'bout a revolution

With rapid technological change driving the onset of the fourth industrial revolution, demand for digital skills training is booming, particularly in Africa, where more than 200 million jobs will require new skillsets by 2030. **Simone Rensch** explores a potential billion-dollar opportunity for the private market

Technology is changing the way humans interact, work and learn. Since the invention of the world wide web in the 1990s, the digital world has undergone an enthralling evolution, taking education with it, too. Students can complete entire university degrees online and meetings once hosted in secluded rooms are increasingly being held in the cloud. Due to such systemic change, the global labour market is expected to experience a paradigm shift as the skills required in future jobs will differ significantly to those needed in today's workforce. The World Bank estimates that most children currently in primary school will be employed in jobs that don't exist today, while many existing roles will be rendered obsolete by technological advances.

This is particularly challenging in Africa, whose population is set to grow faster than that of the rest of the world over the coming decades. Washington DC-based World Bank claims that by the end of this century, one in every 2.5 people will be African. Additionally, eight of the 10 fastest-growing economies are in Africa, where urbanisation is on the rise. Yet, only about 15% of young people aged 18 to 24 in Africa are enrolled in higher education, compared to 30% in India, 40% in China and more than 60% in the US and the UK. Furthermore, many Africans entering the workforce lack even the most basic of digital skills, such as internet searching and use of email, and, therefore, more training opportunities are needed. The World Bank's advisor for science, technology and innovation Sajitha Bashir tells *EducationInvestor Global*: "What you really want to move towards is at least all secondary schools [in Africa] teaching something about digital skills, which they often have in the curriculum. But it is not taught very well because often there isn't equipment, connectivity, or worse, the teachers don't know anything about it."

Herein lies an opportunity for the private sector.

A recent report by the International Finance Corporation (IFC), a member of the World Bank Group, and L.E.K. Consulting, the global consultancy, suggests that the gap in digital skills in Sub-Saharan Africa represents a billion-dollar opportunity for the private education sector to tap into. The study, published in May, predicts that by 2030, a staggering 230 million jobs on the continent will require digital skills, resulting in almost 650 million training opportunities, including employee upskilling and retraining, which at present is practically non-existent. There is, the report continues, an estimated \$130 billion revenue opportunity to provide digital skills over the next 11 years. The report estimates that 625 million people will require training, with nearly \$120 billion of the overall revenue opportunity in business-to-business and business-to-government markets.

Business-to-consumer opportunities, which will be more prevalent in the advanced skills space, is a smaller market, with an estimated 25 million people requiring training generating \$11 billion in revenue, the report, titled *Digital Skills in Sub-Saharan Africa: Spotlight on Ghana*, suggests. It states: "Private providers, governments and investors must consider how to tap into this demand and advance the digital skills agenda in Sub-Saharan Africa."

IFC's principal education specialist Alejandro Caballero, who co-led the research, tells this publication: "The opportunity is big for the region as a whole. We believe that urgent action is required and that the private sector has a role to play in addressing the challenge in digital skills, and it is something that cannot wait so economic growth is not compromised."

In a call of action to the private sector, the report says that demand is plentiful while supply is very low. Caballero adds: "We believe there's a commercial opportunity here; we believe there are commercial returns to be made through investing in digital skills in the region." ►



## ► Ripe for investment

The demand for digital skills training is huge – and it’s only getting bigger as Africa’s population is set to grow at alarmingly high rates over the coming decades. The report estimates that more than 40% of skills required for the workforce will change before 2022, with more than half of employees needing to learn different or more advanced skills. Maryanna Abdo, senior manager at L.E.K. Consulting, who co-led the research, explains: “Digital technology is really changing the way we live and work, and it’s happening at an increasingly-rapid pace. That will mean that many jobs will become obsolete and the skills that are needed for jobs are changing. At the moment, there is a significant demand-supply imbalance across Sub-Saharan Africa for digital skills, with many employers reporting that they hire only from abroad for digital talent due to an absence of skilled labour locally.”

She says that the sector is “ripe for investment and new activities”, and there is huge potential in Africa’s emerging markets. “Global investors and operators in education, whether or not they have a footprint in Africa or emerging markets, should take the opportunity for digitally skilling seriously.”

Although the public sector has a role to play in ensuring everyone has basic skills, which the report says should be taught in school curricula, the private sector has a part to play in providing skills training at a higher level. According to the report, which explores the models of seven programmes providing digital skills training around the world, there are a number of successful business models already out there. It highlights a general preference for short courses lasting three to 12 months, hands-on training, faculties with practical experience and industry links. Most of the training programmes featured in the report also include broader career skills and soft skills in addition to digital skills training – something that goes “hand-in-hand”, according to its authors. The report says that a “focus on graduate employability is absolutely critical for digital skills courses” and offerings should “align with market demand and employer requirements to ensure students gain the technical and soft skills required by industry”.

Abdo elaborates on this, saying: “We think there’s a lot of scope for private operators to offer the kind of programmes that you see flourishing across the US, such as boot camps and incubators, and micro-credentials in that space. There’s also potential for mainstream universities to begin to innovate much more strongly in the digital skills space and partner with private operators to do so.”

## Recipe for success

Africa is an emerging market with immense potential and the demographic and economic growth on the continent is a “recipe for any consumer-led business,” explains Sudeep

Laad, senior manager at L.E.K. Consulting. From hotel groups to consumer companies like Coca-Cola, Africa is a point of interest. “Education is one of the ultimate consumer goods that we know of. Demand is greater than supply, price growth is above inflation, and the profitability is high and there’s long-term revenue visibility,” he adds.

He explains that the number of education deals executed over the last four years has increased by 25 times in Africa compared to a decade ago, and the value of those deals has seen a similar increase. “If we map all the reported deals in the last four years, there has been close to \$1 billion in reported investment transactions in education,” he says. “There are deals across all sizes and shapes; you see deals at around \$100 million, \$50 million and a lot below \$50 million.”

Returns generated by providers of digital skills training, however, are less prolific when compared to those of operators in other sub-sectors of education, he adds. “Traditional K12 and higher education businesses have demonstrated profitability upwards of 25-30% on an operating basis. If dedicated digital skills businesses are thought of as vocational

businesses, one would need to overcome business model challenges [that shorter courses present]. In some business models of vocational education, the price points are a bit more subdued compared to K12 and degree-based education. As a result, there is less demonstration of high profitability, but vocational businesses can be made profitable if some of these challenges are overcome by having an employment/employer-centric approach.”

## Feet on the ground

The report suggests that African education providers currently offering digital skills training can expand, those that do not should consider developing new course

offerings, and providers situated outside the continent seeking to enter its markets should identify jurisdictions with a strong yet unmet demand for digital skills. Approaches could include joint ventures with local technology or education companies as a route to market, it adds.

This publication spoke to a number of digital skills training providers, including MEST, Moringa School and Digital House, which all suggest that there is a widening scope for new players to enter the digital skills market and that demand is peaking. Audrey Chang, who founded Moringa School, a coding school headquartered in Nairobi, Kenya, in 2014, explains the way that universities are structured in many African countries results in change happening at a snail’s pace, adding that boosting digital skills through higher education alone would take time. But there is room for the private sector to partner with institutions and universities, as well as opening up shop independently. “I think the opportunity to really grow as a skills provider is massive because everyone needs training. It’s not something you can get by without; everyone needs some form of training. It’s a massive opportunity,” she says.

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Wanja Gitonga, communications lead at Microsoft4Afrika, which runs a number of programmes on the continent, including AppFactory, an “apprenticeship factory” that recruits young developers and ICT graduates, and Interns4Afrika, a partner-based six-month internship programme which boosts digital skills, suggests that the digital skills shortage is not unique to Africa.

Gitonga says: “Globally, more than half the people on the planet lack basic access to the knowledge, skills and resources needed to participate in this new digital economy. With the onset of the fourth industrial revolution, bridging this gap is essential both for financial stability, economic prosperity and opportunities for personal growth.” She adds that the company is “on the look-out for partners and opportunities to expand” its work. The IFC/L.E.K. Consulting report also highlights that many of the programmes interviewed for research were actively seeking partnerships and investment.

Additionally, the Good Things Foundation, a UK-based charity helping people gain essential digital skills that has expanded into Africa, says more funding is needed to provide basic digital skills for adults – particularly women – and people in rural areas.

Whether looking to scale up existing digital skills training provisions, invest in new markets, or partner up with African organisations already working in this space, opportunities are in abundance, according to the report. According to those working in the market, it’s an attractive one and experts agree that tapping it efficiently could deliver attractive returns over time.

Speaking of the need for investment and the report, Caballero says: “This is a call to action. First of all, the economic growth in Sub-Saharan Africa can be hampered if not sufficient attention is paid to the digital skills agenda and, secondly, we need stakeholders to pay attention to this agenda. We’re not starting from scratch and there are models we can learn from.” ■



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