

Edtech can power Africa's growing education market

By Julien Deconinck 20 Dec 2022

There are existing education technology (edtech) markets established in other geographical regions for Africa to emulate. The rise in edtech in countries like India and China over the past several years has enabled governments to address the challenges they face in their education systems - namely, providing at scale and at a low cost, anytime and anywhere, quality, and personalised educational materials to improve each student's learning experience.



Source: Freepik

In India, which faces similar challenges to Africa in terms of lack of resources, availability of trained teachers and poverty, edtech was the third most funded sector in 2021, attracting \$4.7 bn in funding, reflecting the market size, which is expected to reach \$10bn by 2025. However, despite the challenges including student engagement and lack of connectivity, edtech is now an essential part of education in India and poised to create multiple high-value players. We see Africa set to follow the same path.

Edtech, the next 'leapfrog' opportunity in Africa

By 2030 Africa will be home to more than <u>40% of the world's youth</u>, presenting an incredible opportunity for growth. However, some governments are struggling to cope with the demands of providing quality education to such a large proportion of the population – despite spending a relatively higher proportion of their GDP on education – <u>about 5%</u> – than other world regions.

Despite this investment, households are increasingly contributing to education or enrolling their children into private schools – the World Bank estimates <u>21% of African children</u> attend a private school. Data pre-pandemic also showed that around 60% of children in sub-Saharan Africa between the ages of 15 and 17 were out of school entirely.



Along with a lack of adequately trained teachers and stretched financial resources, cultural disparities also pose a challenge. For example, although English, Kiswahili, French and Arabic are widely spoken in Africa, there are 140 languages spoken across Central and Eastern Africa alone.

Edtech, often delivered at least in part remotely, provides a solution as it responds far better to the problems posed by traditional modes of learning, with no commutes or overcrowding in classrooms. For a fraction of the price of private education, it allows students to learn at their own pace with access to high-quality educational content aggregated from contributors worldwide.

Edtech also covers the full spectrum of education, from K-12 to vocational education. Targeting Nigerian secondary school, Edukoya has a range of valuable features for learners including 24/7 exam preparation and homework tutoring, a data-driven question bank with step-by-step solutions and personalised performance tracking systems. Currently, the platform is offering free, supplementary learning platforms, as well as subscription packages with premium features, focused on K-12 learning and exam preparation. The learning experience is delivered through a 100 per cent online model which promotes self-learning and allows learners to save time, save money and improve outcomes.

ULesson offers tutorials for primary and secondary school learners spanning most subjects from international curriculum and helping students prepare international exams (WAEC, GCSE, A levels, BECE, GCE etc.) with a freemium model. In the app's premium version, students attend live classes and get homework helpers. The company has also launched one-to-one coding classes. The company markets its app to schools and individual users across Nigeria, Uganda, Kenya and Ghana.

Based in Kenya, Kidato is a full-time online school for K-12 students. Kidato classes have student-teacher ratios of 5:1 and teach the same rigorous British National Curriculum as other private schools but at a fraction of the price. It also offers a broad range of after-class courses based on students' interests.

Ethiopian company, Gebeya, has so far trained more than 1,000 software engineers, roughly a third of whom have found jobs in companies across Africa and around the world. This is yet another example of how edtech has also become a driving force in the availability of cheaper, remote access to vocational training.

Overcoming the digital gap

One of the major hurdles facing widespread edtech adoption is the lack of broadband internet. The cost of developing and distributing educational content is high, and many edtechs rely on expensive mobile network providers. Today mobile broadband is reaching ever more remote rural regions at a swifter pace. However, the World Bank estimates that \$100bn is

<u>needed</u> to provide universal, good quality, and affordable broadband access for the continent by 2030. As a result, internet coverage is expected to remain low in the years to come (currently only 27% in SSA).

Covid-19 exposed this lack of accessibility to edtech. Children in the developed world were generally able to access digital learning tools during the pandemic, yet in Africa, due to the lack of infrastructure, reaching children outside of a few countries proved to be difficult.



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Analysis from 2020 suggests that <u>19m out of a potential 450m</u> children in Africa were using some form of digital technology for their learning needs pre- pandemic, with users concentrated in a handful of countries that had the digital infrastructure to provide reliable digital learning – including South Africa, Kenya and Nigeria.

Where infrastructure is lacking, African entrepreneurs build the infrastructure themselves in order to sell their products. In South Africa, Syafunda sells and ships "Wi-Fi boxes" with their e-learning platforms to schools where internet is not available and Snapplify, Africa's leading digital educational content provider enables each student to meet their specific needs with the most relevant and up-to-date content. Snapplify has developed the capabilities to preload each student's tablets and PCs with educational content matching their specific curriculum. It has also installed pre-loaded wifi boxes in schools just like Syafunda, to overcome the issue of the lack of connectivity.

In addition, companies like Eneza and M-Shule, based out of Kenya, develop SMS-based products to engage learners who do not have a smartphone.

Bringing edtech inside the classroom

Beyond connectivity, there are other challenges to widespread adoption. For example, schools – public schools in particular – don't always have the budgets to implement digitalisation projects investing in hardware and software. Some also argue that students find it difficult to concentrate for long hours in front of digital devices and that physical learning processes can't be entirely replaced by online learning, especially for K-12 education.

Some schools, however, can disrupt learning processes and innovate, so that the outcomes are superior to traditional classroom-led learning.

With its network of 20 schools, SPARK Schools is the third largest school chain in South Africa for the K-12 segment. It's high-quality, yet affordable-to-the-many learning model blends teacher-led instruction with technology-based learning including adaptive software. This combined with innovative class layout and scheduling allow students to reach academic excellence at a fraction of traditional private school costs thanks to the resulting lower student-to-teacher ratio.

Nova Pioneer, with its network of 14 schools focusing on K-12 segment across South Africa and Kenya has a vision of creating generations of innovators and leaders who will shape the African century. Nova leverages technology by collecting data to inform curriculum delivery and track performance at individual and cohort level and by delivering direct learning programs such as athletics.

Africa's edtech will offer compelling investment opportunities

In 2021 investment in edtech companies stood at \$20bn, up from \$15bn in 2020. However, investment in EdTech in Africa attracted only \$20m in capital in 2020, barely 1% of the continent's \$2bn of VC money raised [9]. Edtech funding grew in 2021, with fundraisings including Spark Schools' series C led by Creadev and Finnfund, and ULesson's \$15m series B led by Founder Collective but was still miniscule compared to other verticals.

This pales with the scale of the opportunity. Today, more companies than ever are developing edtech solutions for Africa, and in fact more than two-thirds of edtech start-ups in Africa have been operating for under six years, in many cases for less than three. This crop of relatively young start-ups face what is already the fastest-growing, and soon to be the largest education market in the world in terms of number of students. While connectivity issues remain difficult, they are rapidly being addressed across the continent.

What this inevitably means is a far greater proportion of African venture capital naturally being deployed into edtech opportunities, and we would expect up to 5-10x more a year than currently committed to the continent to migrate into the space. While complex, the space offers regional and international investors a significant opportunity for long-term secular growth in a market still by and large starved of compelling solutions.

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