



Education Report 2021

An Analysis of the impact of COVID on
Education Access in Kenya and South Africa





CAN TECHNOLOGY DELIVER ON THE PROMISE OF INCLUSIVE QUALITY EDUCATION ACCESS?

Imagine a world in which every child had equal access to a world-class education. A world in which geographical location, economic background and social class did not determine one's quality of education.

This world was somewhat conceivable given the rise in online learning platforms in the last 19 months. The world found itself in a global crisis that required learners to study remotely and work online.



Online learning has created the opportunity to make access to educational resources more equal. Resources like e-books and online class simulations could become available to learners around the world and reduce barriers to quality education platforms.

However, the reality presented for many developing countries has been starkly different.

POTENTIAL FOR IMPACTFUL INVESTMENT



Our report zooms in on Kenya and South Africa as a specific case study for this. Both countries present a unique glimpse into the evolving space of education provision and its undeniable connection with technology.



We see the dynamic challenges in education as a strategic area of growth with the potential for impactful investment and development in the near future. Our report aims to unpack important touchstones around education and provide insightful solutions for these.



KENYA LIVED REALITIES VS RATINGS

Kenya has been hailed for its robust education system. Organisations like the World Economic Forum and the World Bank have rated Kenya as one of the top countries in Africa in education provision. However, the lived reality of many students in state schools has been inconsistent with this narrative.

It is reported that Kenya's education system is riddled with inequalities that affect the general quality of education that children receive. These inequalities include unfair access to education, inadequate funding from the government and unsafe school facilities. Additionally, large class sizes and poor quality teaching are characteristic in Kenyan state schools. A key contributor to these issues can be traced back to Kenya's socio-economic challenges that allows for poverty, corruption and political manipulation to have a stronghold over the country's educational progress.



KENYA'S EDUCATION SYSTEM CONT.

An example of an innovative solution to address Kenya's education inequality is the government's Digital Literacy Programme. This project was launched in 2013 with the aim of supplying 1.2 million digital devices to 23,951 public schools. This project would have bridged the digital resources gap between underprivileged schools and private schools. However, this well-intentioned project did not come to fruition. Instead, the government chose to build onsite computer labs for 25,000 public schools, which is still useful to many students' learning experience.

However, given the Covid-19 crisis that forced schools to shut down for months on end, digital devices like tablets would have been useful in the transition to online learning. This theme will be explored further in the section to follow.

Although, technology can contribute to effectively and at a more rapid rate solve some of the foundational challenges in the Kenyan education system, there are structural barriers that need to be considered in great detail.



SOUTH AFRICA ,ONE OF THE MOST UNEQUAL SCHOOL SYSTEMS IN THE WORLD

South Africa's education system is characteristically known for its shortcomings, especially in the public education realm. Rated as having one the most unequal school systems in the world, South Africa's challenges are intrinsically linked to the economic and political ramifications of the Apartheid legacy which still can be felt today. As part of the discriminatory policies during Apartheid, one's race, area of habitation and financial status played a significant role in determining where one would attend school.

Unfortunately, the same is largely true today. Thus, the quality of education has become a highly unequal commodity.



SOUTH AFRICA'S EDUCATION SYSTEM CONT.

Some of the key hurdles that are present in the South African education system include; overcrowded classrooms, unsafe sanitation facilities, inappropriately built schools, lack of transport to school and poor teaching quality. These issues hinder the ability for children to learn effectively and receive good quality education.

In 2013 the South African government attempted to implement a Minimum Norms and Standards framework to ensure all schools met the required standards for sanitation, electricity provision and overall building safety by 2016. Today, government statistics show that these standards have not been achieved. It is clear that these challenges still need to be addressed in a meaningful way.

STRUCTURAL ISSUES THAT NEED ADDRESSING

1.

Adequate
government funding
for public schools

2.

Smaller class sizes
and quality teachers

3.

Access to internet
and digital devices for
all learners

IN RESPONSE TO COVID-19 IN KENYA, OVER 17MN LEARNERS MISSED 6-MONTHS OF FORMAL EDUCATION

As the pandemic began to spread rapidly and reached the shores of many countries, governments were forced to make tough decisions to protect the lives of their citizens. One such decision was the closure of schools and in Kenya's case over 17 million children missed more than 6 months of formal education due to school closures in 2020 according to UNICEF.

In order to ensure that learners were still receiving an education despite the disruptions to their class time, the Kenyan government introduced a remote learning programme through digital modes of learning like radio programmes and online classes. In theory this adjusted form of teaching would allow students to learn from the safety of their homes. However, in practice remote learning became quite challenging for learners from underprivileged backgrounds. A persistent problem that these learners faced was insufficient access to the internet due to unaffordable data costs as well as unreliable electricity.



HOW THE PANDEMIC HAS AFFECTED KENYA CONT.

Another key challenge that became apparent was a shortage of digital devices to facilitate successful online learning, especially in more remote areas. These challenges essentially can be linked to socio-economic barriers.

One can observe that digital learning has reproduced poverty and inequality in the education system.

In hindsight, the Kenyan government's Digital Literacy Project discussed previously would have provided the necessary structure to help with the rapid and unexpected shift to online learning.



SOUTH AFRICA IN A COVID- 19 WORLD, BLENDED LEARNING & THE PLIGHT OF LEARNERS

Similarly to Kenya, South Africa experienced a series of lockdowns during the pandemic that led to the closure of schools. The challenge of overcrowded classes would no longer become an issue for learners as schools moved to some form of blended learning. Traditional face-to-face teaching would no longer be the norm. South African schools specifically implemented a combination of online classes, radio learning programmes, educational TV shows and rotational in-person and remote classes.

UNICEF estimates that up to 500,000 school children in South Africa have dropped out of school since the pandemic began in 2020. A significant contributing factor to the dropout rate is the level of poverty that has become increasingly worse.



SOUTH AFRICA IN A COVID-19 WORLD CONT.



With the introduction of blended learning, an immediate stumbling block for many learners was their inability to access affordable data and internet solutions in order to use their online school resources. South African data costs are characteristically high for the lower-income bracket of the country, which consequently affects learners who fall under this bracket. It is interesting to note though, that South African data providers are making an effort to provide more competitive data prices. It is too soon to tell how this will impact consumers but this effort will hopefully make data more accessible and further assist with online learning opportunities for all. Additionally, research from the Telkom Foundation shows that remote learning has actually contributed to a deteriorating level of academic performance among high school learners.

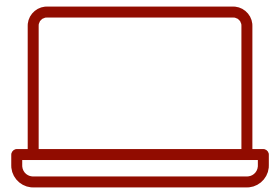
Finally, Covid-19 has exposed that some teachers lack technological know-how. It was discovered that teachers have varying levels of technological skills and infrastructure, which ultimately made it difficult for them to navigate their new online teaching platforms. Digital training is certainly an area that requires further investment to benefit the future of education provision.



WHAT EDUCATION NEEDS IN THE ERA OF COVID-19



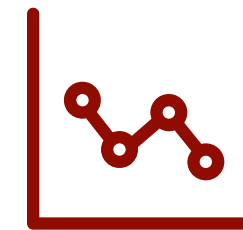
Digital learning has reproduced poverty and inequality
in the education system



Teacher and
student digital
training



Internet and
data affordability



Lowering
student dropout
rate



Technology is no longer a luxury but an essential tool needed to survive in today's digital world.

EdTech solutions have attempted to address some of the challenges mentioned previously and there is a sense of urgency to make meaningful progress.

Technology is no longer a luxury but an essential tool needed to survive in today's digital world.

Let's take a look at some of these solutions...



KENYA:

A JOURNEY INTO THE INNOVATOR'S
REIMAGINING REMOTE LEARNING

1. ENEZA EDUCATION



1MN

Learners
Reached



23%

Performance
Improvement

The “Ask A Teacher” offering gives learners access to ask a teacher any question that they have in real-time, this is accessed using SMS or USSD. The COVID pandemic led to Eneza forming a strategic partnership with Safaricom, a foremost mobile operator in Kenya to make the service free until May 2020, this led to more rapid adoption of the service given the removal of the affordability barrier. The continued success in Kenya led to Eneza expanding operations to Ghana and Cote d’Ivoire, the simplicity of the technology utilized made the offering replicable in contexts where, although smart phone adoption is increasing, the poorest often located in villages still use feature phones.

2. KIDATO



1885

Students
in Classes



509

Classes
Taken

Kidato's approach to innovation prioritises understanding the attention economy and designing education in a way that appeals to maintaining learner engagement. The platform uses gamification, a Youtube adjacent video design and a behavioural reward merits systems. The prioritization of ensuring that in design of the educational content learners are self-motivated to want to engage in virtual classes. The curriculum has been co-created with educators, and the virtual online schools prioritises a smaller teacher to student ratio, enabling personalized student attention.

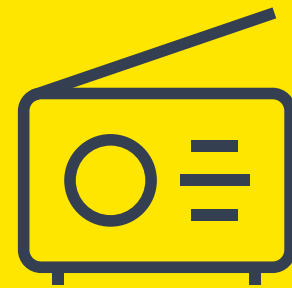
What distinguishes Kidato's offering is approaching education as a lifelong learning process, that is not limited to academics but also focuses on extra-curriculum activities that are proven to improve cognitive abilities. Kidato's online school teaches the same curriculum as private schools but at a fraction of the cost.

3. UNICEF INITIATIVE MR GOLDEN SUN



40K

Students
in Classes



10.000

Radios
Distributed

→

In Kireba an informal settlement UNICEF initiative to curb the effects of the pandemic on students being left behind has distributed solar-powered radios. This initiative to ensure that lessons are available on the radio is in partnership with the Kenyan Institute of Curriculum Development. The access to remote learning for learners who come from this community has historically been low, even in the event that a parent had a phone, they would take it with them on their daily errands, making the sharing of the device a challenge. The radio fills this infrastructure gap, additional in it being solar it circumvents the issue of not having electricity, which is a reality for innumerable underserved households in Kenya. Children in the community with radio's in their home have been encouraged to invite friends to listen with them, this has promoted peer-to-peer accountability and the ability to learn alongside

<https://www.unicef.org>





SOUTH AFRICA:

A JOURNEY INTO THE INNOVATOR'S
REIMAGINING REMOTE LEARNING

1. MS ZORA



500K

Learners
Reached



Partnership

with the SA Department
of Education

Ms Zora is an artificial intelligence based educational platform that offers students free classes by qualified teachers. The platform is available to all South African's with access to a computer and the internet. The lessons are saved for future reference giving the learners the ability to return to the content at a later time. The purpose of the platform is to equalise access to quality education irrespective of location, proficiency and socio-economic background.

However the adoption has been slower than anticipated, in a country with 12million learners only approximately 5% of learners have accessed the platform. A part of the use of artificial intelligence is to serve two purposes, i) to quickly provide teachers with information on at risk students and the areas that they are finding challenging and ii) to identify curriculum structural changes that could enhance the learning process. The AI also has the functionality to immediately mark papers, based on inputted answers by the teacher, saving teacher's marking time that can be reallocated to other value adding activities.

<https://mszora.io>



ms. **zora**

2. FOONDAMATE



150K

Learners
Reached



25K

Countries

The innovation was founded during global lockdowns where in South Africa student's who depended on going to school to access the internet, could no longer do this. Access to a computer and the internet continues to exclude 90% of African learners. The offering primarily focuses on high school learners who are capable of driving their own learning and understanding the information they may need for home work assignments and projects. Foondamate has identified internet in access as a contributing factor to the often poor academic performance in underserved schools, their offering aims to equalize the playing field.

The start-up uses platforms that students already spend a significant amount of time on as educational tools. Through texting a WhatsApp number or a Facebook powered chatbot a student is able to download past papers, search Wikipedia articles, get definitions of words and solutions for linear and simultaneous equations.

Foondamate also aims to remove a language barrier for students learning process and it is currently available in 10 languages, with the intention of increasing the number of languages offered.

CHALLENGES IN DELIVERING ON INNOVATION





WHO REPLACES TEACHERS?

The role of a teacher in the classroom and the development of learners in an academic setting is critical. A engaged teacher fulfils the role of i) motivating learners, ii) being available to assist learners with questions and insights and ii) gauge a learners emotional or behavioural state, amongst other roles. Although Edtech innovations have attempted to fulfil this role through – instant access to chatbots, online teacher guidance and tutors available to learners either via SMS or the internet.

An important consideration is that the nature of all these innovations require changes in three main aspects that we have identified; Firstly it then requires the parent to play a quasi-teacher role in providing motivation and monitoring if learners are actually attending virtual classes and completing daily requisite learning. Secondly, parents also need to be taught how to choose between different providers in the same way they would access schools. Thirdly, it probes both a challenge and an opportunity for innovators and policy makers, to rethink how an early childhood development focus area should be on capacitating learners with skills such as; i) bias for action, ii) accountability and iii) the capacity to drive independent learning.



SCHOOLS SERVE MULTIPLE ROLES THEREFORE A COMPELLING CASE FOR CHANGE IS CRUCIAL

There has been traction achieved by an array of Edtech players not limited to the brief cases presented in this study, however the adoption rate in comparison to learner numbers in South Africa and Kenya is still substantially low. A driver for that is contextually understanding the role of schools in these countries, especially for families that are in lower economic brackets.

The school acts often as a source of childcare, as parents have jobs and are unable to pay for child care services. Additionally, these schools provide meals for children, reducing the financial burden on their parents. For children often the school provides access to resources and in some instances a reprieve from household situations.



Any innovation for it to be adopted at scale requires a compelling case for innovation, that is convincing enough for all stakeholders to take part in the process of change.

This analysis aims to highlight the surrounding challenges that make change in Edtech gradual in South Africa and Kenya through a identifying the root-cause. This leads to a recommendation that will be discussed at length in the next section that, viewing Edtech solutions as existing in an ecosystem of innovators, government and development agencies is paramount. The second point for consideration is the merger of Edtech offerings to more effectively gain a critical mass, in terms of company size, networks and revenues, thus focusing on partnerships to more effectively serve communities.

UNEQUAL ACCESS TO CONNECTIVITY & DEVICES



58.9M

Total Population

103.5%

**Physicians per
1000 People**

36.5%

Internet Users

22M

**Active Social
Media Users**



54.3M

Total Population

108.9%

**Mobile Phone
Connections**

40%

Internet Users

11M

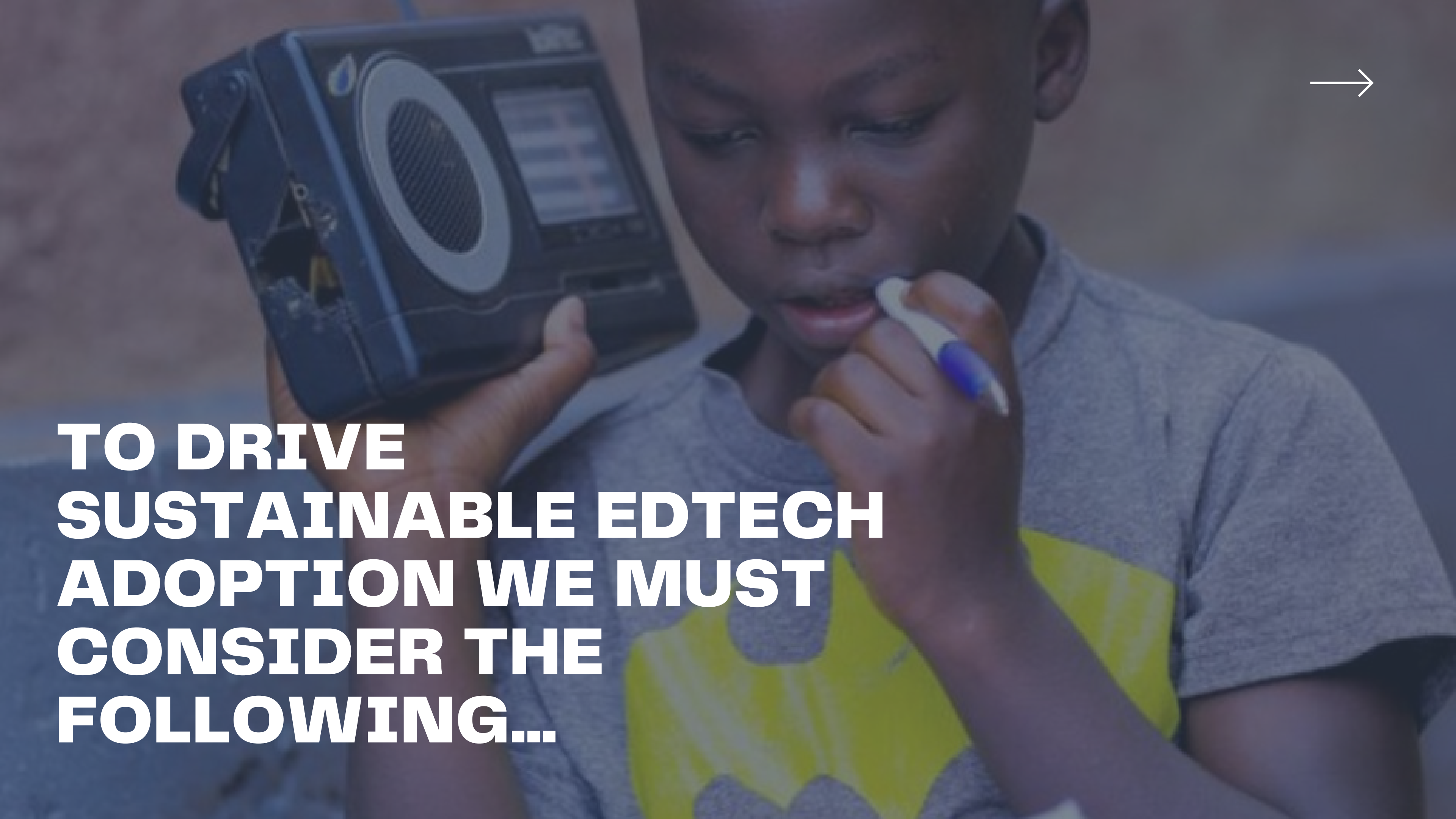
**Active Social
Media Users**

Note: This is based on the latest available data from 2010-2017 on the Word Bank Database



In Sub-saharan Africa 600mn people or approximately 2/3's do not have regular electricity access. Innovations backed by solar energy like the Unicef radio's initiative or the prospect of offline content becomes important in driving adoption of remote learning. In South Africa and Kenya mobile phone penetration has grown exponentially over the last few years, however internet usage has lagged.

In the case of South Africa this could be driven by data costs that are ranked amongst the top three in Africa. In Kenya's case the likely contributing driver is also affordability but additionally limited network coverage of areas in the country.



**TO DRIVE
SUSTAINABLE EDTECH
ADOPTION WE MUST
CONSIDER THE
FOLLOWING...**



THE DOTS ARE ALL CONNECTED WHEN LOOKING AT INCLUSIVE SOLUTIONS

The investment in the human capital is highlighted as the path to solving other development challenges faced by nations. Although this is true, the dots also connect backwards, meaning Edtech platforms cannot be successfully adopted if other socio-economic challenges are not addressed. These socio-economic exclusions faced by low-to-middle income households result in a lack of compelling reasons to adopt Edtech remote learning solutions, as these households then forego other benefits of in-person education for learners.

THINK HOLISTIC SOLUTIONS



**Infrastructure – Energy
Access/Cellphones**



Financial Costs



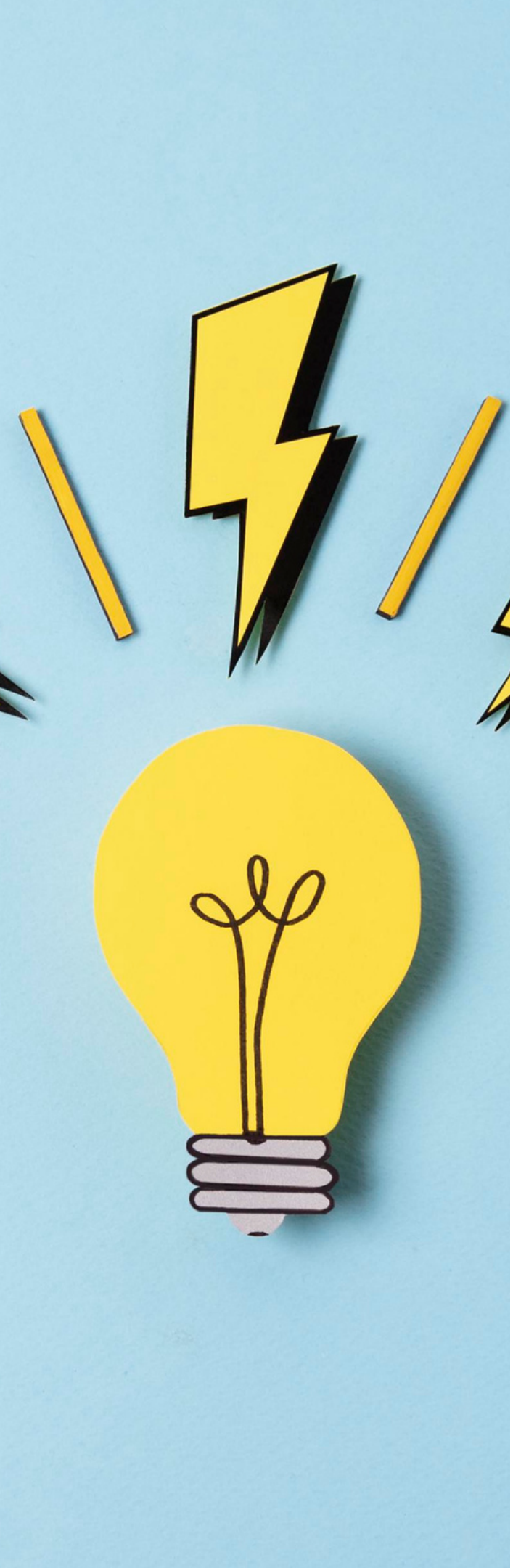
Digital Literacy



**Digital LitHousehold Challenges –
Poverty/Care Giveracy**



AFRICITY



Although Edtech innovators and ventures may not be able to directly address these issues, what these issues highlight is that ventures need to consider how strategic partnerships position them to better meet the needs of their clients and therefore increase adoption. The nature of the challenges in African countries require multi-pronged approaches and partnerships across industries.

For instance if Edtech venture X, partnered with MKopa, a solar powered mobile phone provider to sell phones to parents on their platform at a discounted (discount driven by volumes) pay as you go model, this would solve for infrastructure related issues related to energy and cellphone access.

This venture could also partner with a micro-lender, with whom the parent may have existing loans that have been serviced to act as surety for costs related to classes or platform use.

Finally, given that digital literacy for learners and parents is a barrier to the adoption of Edtech platforms, ventures already have the expertise to upskill all stakeholder's with the necessary skills to successfully experience the full benefits and value proposition that Edtech platforms offered.

This approach may have the potential to increase adoption and conversion of reluctant potential clients. A holistic strategy is at the center of the sustainable widespread adoption of Edtech innovations in South Africa and Kenya.

The more channels Edtech platforms use, ranging from simple to more advanced technologies the more touchpoints they give existing and potential clients. The diversity of touchpoints is the key to gaining a critical mass and making edtech inclusive.



BLENDDED LEARNING AS A BRIDGE TO REMOTE LEARNING



Blended Learning must be at the forefront of imagining building resilient remote learning Edtech solutions in South Africa and Kenya, which applies to other Sub-Saharan African countries given the similarity in barriers. Blended learning allows the behavioural change from in-person teaching to remote learning to be gradual, it facilitates the process of gradually allowing teachers, parents and children to develop the requisite skills overtime. The pandemic has shown us that learning in person may not always be possible, further it has highlighted the cost benefits that exist in the implementation of remote learning. Remote learning has the potential to save families from commuting, and the opportunity for accessing higher quality education that is not limited by their global locality.


There are far more innovations in Kenya that are mobile device powered compared to South Africa where increasingly access to a laptop or computer is required. To drive inclusive adoption of Edtech remote learning, prioritisation of creating products that can be used across feature phones, smart phones and desktops becomes important. The Behavioural Change necessary to develop the skills of self-directed learning for students can be cultivated through the use of gamification and storytelling, which have both proven successful in driving increased engagement.



CONCLUSION

The pandemic experienced globally has highlighted the vulnerabilities in numerous sectors and the tremendous impact of inequality, being further magnified by the restrictions on physical movements.

Education in access that exist both in Kenya and South Africa, was made more stark by the need to implement remote learning, which inherently in many cases excluded lower income households.



The barriers that became evident include digital literacy, unequal distribution of infrastructure and affordability. Even in instances where these are available to middle income households, a behavioural change was experienced by parents, who were now at home with their children and had to fulfil the role of teachers, in assisting with grasping concepts and ensuring tasks are complete. This raised the observation that perhaps, teaching learners, bias for action and increased accountability from a young age would lessen the expected load on parents in a remote learning world.

HIGHLIGHTS

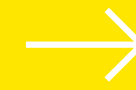


01



The prioritization of blended learning by innovators, schools and government to future proof access to education.

02



Modifying the power dynamic between teachers and learners, to promote learner driven learning.

03



Partnerships between NGO's, innovator and the government to ensure that the issues that surround a learners ability to effectively learn are holistically solved.

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