AFRICA
EDUCATION INNOVATIONS
HANDBOOK 2018

African Union

Driving Innovation For The Africa We Want

H.E. Mr. Moussa Faki Mahamat
Chairperson, AUC

H.E. Mr. Thomas Kwesi Quartey
Deputy Chairperson, AUC

H.E. Prof. Sarah Anyang Agbor
Commissioner for Human Resources,
Science and Technology, AUC

Dr. Mahama Ouedraogo
Director, Department of Human Resources,
Science and Technology, AUC

Dr. Beatrice Njenga
Head of Education Division, Department of Human
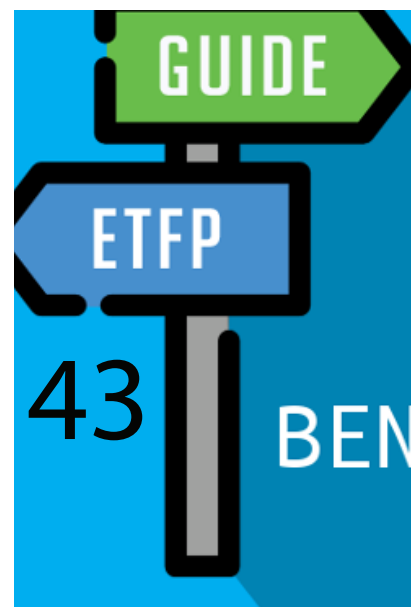Resources, Science and Technology, AUC

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Mavis Computel
A Mavis Talking Book (MTB) consist of a digital pen (Mavis Pen) and a specially printed book.

ETFP Guide
Online one-stop portal providing information on Technival and Vovational Education and Training (TVET) institutions and jobs in Benin.

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Foreword

This handbook documents 63 innovations in the words of the innovators themselves who were present for the Innovating Education in Africa Expo 2018. Education is undoubtedly the most important tool which we have at our disposal to realise our destiny as a prosperous, integrated, peaceful Africa, driven by its own competent citizens, representing an influential force in the global arena. the Continental Education Strategy for Africa provides a guiding framework for re-orienting our education systems so that education contributes to realisation of the aspirations of Agenda 2063. This requires that Education is managed and delivered with due focus on science, technology, engineering and mathematics; utilising ICT for ensuring quality and access; ensuring equitable opportunities for all, for male and female, rich and poor, urban and rural, locals and refugees; incorporating values for integrity, pan Africanism, respect for life, peaceful co-existence and responsible citizenship; promoting critical thinking and creativity, innovation and entrepreneurship; and taking cognisance of present and future generations. This calls for innovation in education development and delivery.

This is why this handbook is a part of a game changing process in education development in Africa. The handbook demonstrates the potential vibrancy of the education sector in Africa. There are many innovations that are changing education quality and impact, one classroom at a time; innovations that are promoting inclusion, one special needs child at a time, one drop-out teenage mother at a time; innovations that are facilitating the production of budding entrepreneurs and inventors… and I can go on and on. It is high time that these innovations are highlighted for dissemination and replication, and the innovators encouraged and rewarded.
This is why the Innovating Education in Africa Expo and the momentum it builds for placing emphasis on Education innovation in Africa is unequalled in value for its
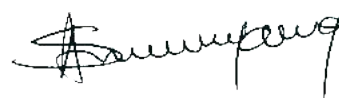
potential contribution to a revitalised quality, transformative and inclusive education on our continent for producing the human and intellectual capacity towards the Africa We Want.

The innovations and innovators in this first African Education Innovations Handbook were identified through a call for submissions in preparation for the first Innovating Education in Africa Expo, held in Dakar in October 2018. I wish to express my sincere gratitude to the government of Senegal for hosting this landmark event. Thanks are also due to the many Member States and Partners who came on board contributing ideas and as well as technical and financial support.

I would like to extend a bouquet of gratitude to all the departments and directorates of AUC for the various support they gave to facilitate the success of the Innovating Education in Africa Expo and all our stakeholders . Sincere gratitiude to the Chairperson of the AUC, H.E. Mr. Moussa Faki Mahamat for his continous engagement in facilitating the implementation of AU-HRST mandate. Thanks to the Deputy Chairperson for his support.

This Innovations handbook should contribute to raising the visibility of identified innovative practices and products in order that they can be supported, upscaled, replicated or further developed. I am pleased to note that we have in this handbook an impressive array of innovations and innovative ideas from over 40 African countries that have the potential to serve as reference points towards changing the face of education in Africa.

I invite you to look out for the next Innovating Education in Africa Expo, at which more innovations will be unveiled, to be included in the second edition of the handbook. Innovators and stakeholders are invited to apply to join the Africa Education Innovators Network by writing to owusum@africa-union.org.

H.E. Professor Sarah Anyang Agbor
Commissioner for Human Resources,
Science and Technology

what innovation means for education in Africa

Meeting Continental Targets for Inclusive, Quality and Transformative Education and Training in the 21st Century

"Appropriate platforms, frameworks and programmes, and policies have to be developed and implemented to enhance productivity and efficiency of Education."

Education and training remain among the bedrock of tools for human empowerment, inclusive prosperity and progressive development. However, this powerful agency of education does not happen by chance. It has to be planned and strategized through adoption of innovation in education. Current demographic trends in Africa have seen expansion of education systems without necessarily having the concurrent enhancement of productivity and efficiency, particularly with regards to improved outcomes in quality and equity in learning opportunities.

Appropriate platforms, frameworks and programmes and policies have to be developed and implemented to remedy this challenge. Innovative financing options have to be found. Education and training must be seen as everyone's business, and the government's debt of duty to its present and future citizens. Use must be made of every resource, indigenous, endogenous, international, new and emerging technologies to enhance the quality of education provision and learning outcomes. This must be done urgently in order that we achieve the goals we have set for ourselves in Agenda 2063 and SDGs, as unpacked in the Continental Education Strategy for Africa (CESA 16-25), whose mission is to "Reorient Africa's education and training systems to meet the knowledge, competencies, skills innovation and creativity required to nurture African core values and promote sustainable development at the national, sub-regional and continental levels." In this context, the African Union Commission, in cooperation with

NEPAD and Business Africa has launched the continental dialogue platform "Africa Talks Jobs - Equipping the Youth with Adaptive Skills and Education for Employment and Entrepreneurship" in 2017.

Innovating Education in Africa is therefore at the centre of CESA's implementation as education should remain relevant in the face of rapid societal changes to which it needs to adapt. Indeed this urgency of innovation and its adaptation has been realised in some quarters among education dreamers and providers. Amazing cutting edge innovations on micro and relative large scale are being piloted and pre-scaled. Some have arisen out of sheer need and social economic challenge, while others have been more deliberate. Reports abound on successful use of e-learning platforms both on mobile and desktop computers, that are transforming the lives of many by providing opportunities of access to education at all levels, which had once seemed beyond reach. This includes those who for social economic reasons could not afford schooling, persons with disabilities for whom conventional education methods cannot suffice for their education, child mums who have to take care of their babies during regular learning hours, and other second chance learners who cannot stop work in order to attend school. Innovations for promoting access include social innovations and strategies to rescue those who are denied opportunities, strategies to provide the support that poor parents need in order to release their children for school; strategies to broad-

en religious school curricula so that children acquire functional literacy and numeracy skills in the process. The list goes on of interventions that enhance the convenience of accessing learning. And it is not only concerning access that innovations are demonstrating potential. Areas of quality delivery and enhancing learning have been boosted through technological, social and fiscal innovations. Innovations for enhancing learning spaces in schools and campuses are engendering increased interest in education to achieve higher levels of retention and learning achievement. Innovative campuses have been designed for ensuring school safety with early warning systems. Education systems should have ways of tracking progress toward any goal they set for themselves and their students. Concerns have also been raised on the quality of education that learners receive. Many graduates present certificates declaring that they have successfully undertaken studies in STEM subjects such as physics and chemistry but with little capability. There are also several other challenges faced by teachers and provision of quality vocational training across Africa.

It is therefore important that education systems encourage innovation and adaptation coupled with good evaluation measures and effective coalition of partners in learning as called for in CESA 16-25. It is only then that improvements from innovation can be widely diffused as a virtuous cycle of promising education and learning outcomes.

Innovating Education in Africa Expo 2018

The Innovating Education in Africa Expo is aimed at raising the visibility of education innovators and innovative practices so that they can be supported, upscaled, replicated and further developed.

The first ever Innovating Education in Africa Expo was organised by the African Union Commission in partnership with AU Member States and several development partners across the continent. The groundbreaking event was aimed a show casing technical and social innovations in education and training across Africa in order to establish a multisectoral platform for experience sharing on relevant innovations that provide solutions to education problems in Africa.

The event was also aimed at raising the visibility of education innovators and innovative practices so that they can be supported, upscaled, replicated and further developed for the benefit of the continent.

The 2018 Innovating Education in Africa Expo was hosted by the Government of the Republic of Senegal from 4th – 6th October 2018 in Dakar, Senegal. The highly successful event was attended by Ministers and Senior Officials responsible for Education in AU Member States: Senegal, Botswana, Central African Republic, Djibouti, Zimbabwe, Sudan, Algeria, Malawi, South Africa, Chad, the Gambia, Guinea, and Madagascar. A range of AU partner organisations including UN agencies, international and national government and non-state organisations, private sector and individual experts were present. Over 300 attendees participated in the event.

The event was colourful and

innovative with a diverse range of interactive and creative exhibition sessions by organizations and innovators. Participants were provided with a platform to share their innovations and to network and collaborate. Exhibitions included documentation, software, hardware, video and audio clips and demonstrations on education innovation.

During a highly competitive pitching session, 10 of the top innovations that were selected for the event were ranked for cash prizes ranging from 4,000-l00,000USD, and training fellowships. The AU Education Innovation prizes were supported by the African Union Commission, One Campaign, Ford Foundation, UNESCO, Plan International and USAID and Ashoka Africa.

The First Prize of 100,000USD was awarded to Dext Technologies in Ghana, makers of "The Science Set" - A portable, affordable toolkit for students to perform over 25 science experiments. The Second Prize of 40,000USD was awarded to Mobile Labo Sarl in Togo, an organisation taking Practical Science Education to schools in rural communities using a vehicle. The Third Prize of 15,000USD was awarded to Nalibali in South Africa, an organisation promoting literacy in local languages for children through their fun-to-read periodical publication.

A number of plenary and parallel sessions were held, featuring presentations and discussions by prominent academics, policy makers, business actors and emerging education innovators, as well as representatives from development partner organizations. These included innovative approaches across the entire spectrum of education.

The Republic of Botswana offered to host the next Innovating Education in Africa Expo in 2019.

AU EDUCATION INNOVATION PRIZE WINNERS

2018

Meet innovators changing the face of education in their countries and continent

Charles Ofori
Ghana

Dodzi Aglago
Togo

Zinhile Nkosi
South Africa

Messa Blandine
Cameroon

Angelin Marius
Madagascar

The science set is an affordable, portable, and effective, practical toolbox (dimension) that provides practical experiential science education for students. It currently contains 46+ components that can help students perform 26+ experiments stipulated in their curriculum. What we are doing is giving every student their own portable science lab!

MOBILELABO is a laboratory for the manufacture of laboratory equipment and service delivery. By using a vehicle, we can move easily to schools to allow students to carry out practical work which is described in their science study texts for a small contribution from the school. We also support the training of teachers in the production and use of science teaching materials.

Nal'ibali's bilingual reading-for-enjoyment newspaper supplement is a 16-page, full-colour resource for reading club leaders, teachers, caregivers and children. It is released every 2 weeks during school terms (15x a year). Each edition includes 3 stories; activity suggestions for teachers and caregivers; motivational messaging and information about reading.

Our goal is to help struggling secondary students to get better grades and reduce academic failure by our easy to use online revision system. We're building a bank of 20 thousand multiple choice questions which learners could use to revise their lessons and improve on their grades. We are also building education telecenters for refugees and displaced persons.

Stop becoming... BE!! is using a series of structured and connected events and training programs to allow young people to acquire critical soft skills needed for thier career.
The program is implemented in two ways using an environment which is conducive to the development of soft skills and direct training on the acquisition of these soft skills.

AU EDUCATION INNOVATION PRIZE WINNERS

2018

Meet innovators changing the face of education in their countries and continent

Mamadou Coulibaly
Senegal

Nkosana Masuku
Zimbabwe

Doreen Kessy
Tanzania

Chizaram Ucheaga
Nigeria

Effry Kuyum
DR Congo

The Grandmother Project has developed the Innovative Program for Integrating Positive Cultural Values into Schools (IPCVS). The program goal is to improve the quality of education for children by making it more culturally relevant. Key IPCVS activities include: Grandmothers as teachers in classrooms; Story telling evenings; Intergenerational community forums.

FundoVR offers low cost excursions to schools in Zimbabwe through the use of Virtual Reality which immerses the learners in the environment as if they were physically present. We create a near to reality experience using media that is captured with 360 cameras and present it to the student in such a way that they accepts it as a real environment.

UBONGO creates engaging and locally relevant digital content for learners in Africa. We leverage mass media and mobile technology to deliver high-quality learning to African families using accessible technology. Our localized animated edutainment programs: Ubongo Kids, and Akili and Me are watched in over 5.1 million East African households weekly.

A Mavis Talking Book (MTB) consist of a digital pen (Mavis Pen) and a specially printed book. When the pen touches text or pictures in the book, the pen reads out the corresponding audio, including interactive games, quizzes, multi-language translations, etc. We program quality content, developed by experts, into the Talking Book in the user's language.

LIND KEY School is a complimentary entrepreneurship focused program that is contextualized to the existing school curriculua. After analysis and evaluation of the existing curiculum and pedagogical practices in a particlular school, LIND KEY School proposes a corresponding complimentary entrepreneurial education content and pedagogical approach.

EDUCATION TECHNOLOGY

ILEWEMI

Organisation: Ilewemi
Email: zukulp@gmail.com

Helping students find supplementary tutoring online

Benin

In view of the insufficient supervision of learners at school, resulting in low success rates for the various exams, many parents make use of private teachers at home. Similarly, young people after their studies face the problem of unemployment because they have no practical training. Our innovation solves the difficulty these parents of learners (school-children, students, and students) have in finding competent home teachers to mentor their children, or anyone who wants practical entrepreneurial training to find experienced trainers.

To solve this problem, we are setting up a web and mobile platform called ILEWEMI which is a market where those who are looking for course services or home training can connect with those looking to provide these services.

Through this platform, we offer parents of learners competent teachers for tutoring, preparation for exams and competitions for learners, psychopedagogical monitoring and practical entrepreneurial training. ILEWEMI presents an effective interface that optimizes the supply and demand of home-based courses through the proposal of competent and experienced teachers and trainers, located in the neighborhood of the learner and at a better quality / price ratio.

The platform also has course resources, corrected exercises and free practical advice for learners' academic success. ILEWEMI comes to respond to the problem of mentoring learners by offering them better after-school support at home and by helping to reduce the unemployment of young graduates. The development of the platform is almost complete but the service is already launched via its facebook page. (https://web.facebook.com/ILEWEMI).

The project currently covers two large cities in the Republic of Benin. Launched just two months ago, requests are growing and many come from areas not yet covered by our services. So it is necessary for us to extend the service to other areas. We plan to cover the sub-region within three years by offering videoconferencing courses and also online courses like the MOOCs.

ABC-CODE

Organisation: CAYSTI
Email: ak@caysti.org

Coding and robotics lessons for children in their mother tongue

Cameroon

Our goal is to give equal opportunities to every child across Africa to easily learn creative programming (coding, robotics) in their mother tongue without having foreign language as a barrier.

abcCode is a Fun, Intuitive, Adaptive coding environment and an intelligent e-learning platform initiating chhildren from 07 to creative programming and robotics in their mother tongue without having foreign languages (English especially) as a barrier.

We provide personalized Curriculum and training based on problem-solving & critical thinking approaches to develop childrens' creativity, autonomy, and self-conscience skills.

Beyond tech competencies and soft skills, abcCode reinforces the feeling of pride & cultural belonging among our learners as their language is now used as a practical tool to learn the alphabet of the future which is code. We guarantee equal access to quality Computer

Science classes in urban-rural neighborhoods thanks to our educational nano-servers accessible without internet.

Design for scale: abcCode is built for sustainability. There is no geographic barrier to have access to abcCode or E-Learning platform. Everyone having access to the internet can download/purchase it at https://www.abccode.org

EDUCLICK

Organisation: EduClick
Email: contact@kamerbigbang.com

Online bank of practice questions based on school syllabus

Cameroon

At EduClick, we're targeting gross unemployment rate caused by the educational system which is more theory inclined with little or no practice; Rigid teaching methods that do not allow the learner to feel fulfilled as a student as most learners see education as chores; Inability to provide the additional training necessary to obtain decent work or to transform skills into income-generating activities; Little or nothing is taught about entrepreneurship and self-employment in schools; The displaced and refugee camps are not equipped with learning material; and Absence of marketable skills for recent graduates and job seekers.

For the first segment of our target audience made up of secondary and high school students, our goal is to help struggling students get better grades and reduce academic failure by our easy to use online revision system. We're building a bank of 20 thousand multiple choice questions which learners could use to revise their lessons and improve on their grades.

For the second segment of our target audience made up of displaced and refugees, our aim is to build tele-education centers in their camps to help them access quality educational material at low cost and enable each obtain a secondary school qualification. We're currently making all school curricular from form 1 to upper sixth (both French and English sections) available on audio visual format. These courses will be published on our web platform and learning halls will be established.

For the third segment of our target made up of job seekers and recent graduates, we're building an e-learning platform with thousands of skills-based courses developed by African successful entrepreneurs for African youths. Here, users will be able to gain complementary knowledge, skills and competencies which would not only facilitate their inclusion into the decent job market but will enable them transform whatever skills they could get into money-making businesses.
We're building a service accessible with or without the internet thanks to an integrated USSD system.

The full featured product is available at www.educlick.africa

OASIS DIGITAL

Organisation: OASIS Digital
Email: geraud.bong@ecolialabs.org

An integrated interactive software and hardware solution for e-learning

Cameroon

Out of 100 students questioned, nearly 65 have difficulties in science subjects and 85% believe that it is too theoretical. Going digital can fill this gap, but our classrooms have no or little electricity or internet. Our 3 products/services are: OASIS, RESSCO and BRIDGE.

OASIS is aimed at the middle class urban areas. Here, students will have access to short review sheets covering the 3rd, First and Term programs. They will also participate in Tutorial 2.0 sessions on VR tablets and headphones, led by mentors.

OASIS will serve as a cybercafé during class hours and will be reserved for student subscribers from 4 pm.

RESSCO is a set of 6 sub-forums: Mathematics, S.V.T, Physics, Chemistry, Lecture and Exam Preparation. Students will post their problems and get answers in the form of a short video.

BRIDGE is a mini Offline and Offgrid multimedia station. It consists of a Raspberry pi 3 mini server, a mini video projector, a solar PowerBank and 10 hybrid touch tablets.

Schools will be able to obtain it through a loan-lease system repayable over 3 to 6 quarters. B to B and B to C. Parents will pay a monthly, quarterly or annual subscription for their children to take advantage of Oasis centers after classes. The centers will serve as cybercafé on tablets during the day and will be reserved for students after the end of classes.

Schools wishing to purchase BRIDGE stations will be able to do so on credit and pay part of the amount quarterly for 1 or 2 years."

EDUAIR BOX

Organisation: EduAir

Email: yannick.nkengne@eduairbox.com

Portable hub for providing e-learning content without need for internet

Cameroon

EduAir aims to solve low rate of Internet connectivity; The difficulty of access to textbooks in our universities, secondary and primary schools; The lack of library in our African schools which often are not present; The difficulty of access to scientific and literary journals in the field of research in a student environment; and The lack of collaborative digital tools to stimulate teamwork and idea sharing.

EduAir (formerly Kwiizi) is the name of the concept to provide a better education via digital technology with or without the Internet. Our work focuses on the design of portable and open media libraries in the form of Boxes giving access to millions of educational contents and offering an integrated communication system allowing learners to collaborate and make video calls within the local network deployed by the Box.

The EduAirBox has the following features:

Less expensive than a classic library in terms of cost and maintenance, this box and its digital library save space on your premises while containing more books than a classic library.

A school with an EduAirBox now has its own MOOC platform for its students and students and saves a lot of money on the development and production of MOOCs.

The Box has a collaborative private cloud that allows students and teachers to write documents as a work team to facilitate exchanges and academic research We offer tailor-made content according to the needs of schools and we update them constantly. You can add new content yourself to the EduAirBox.

EDF (Europe's leading energy company) trusts EduAirbox in its school equipment business in Africa. The Wikipedia Foundation (Wikimedia Foundation) has supported the EduAirBox team since we are now working to make Wikipedia accessible without an internet connection in our Box.

More than 50,000 schoolchildren use our Boxes at their school or university. We work with Jokkolabs and its incubator network in 10 countries in Africa to train young people in AgroBusiness via MOOCs produced and hosted in EduAirBox: an adaptation of our Boxes that was not planned before.

LINDKEY SCHOOL

Organisation: SPE sarl

Email: lindkeyschool@gmail.com

Complimentary entrepreneurship component for existing school curricula

Côte d'Ivoire

The following problems play significantly in slowed development of Africa: Educational systems focused on diplomas without skills development; Massive rate of school dropouts; Intellectual deficit among majority of actors in the informal sector; Lack of collective economic education for families which form the core of African societies.

To address these problems, LIND KEY School is providing a holistic values-based and entrepreneurial education targeting students and workers in the informal sector. The solution offered through LIND KEY School is a transversal and transdisciplinary methodology that is deployed through physical, digital, audio-visual and media according to the educational needs of each target group. We provide education for economic development, for actors in the informal sector and the rural world (craftsmen, small traders, farmers, pastoralists etc.) with an empowering method at no cost using an operational coaching strategy.

We also provide entrepreneurship education to families to strengthen the economic potential of family members through a pedagogy of collective intelligence. In addition, we provide "organizational culture education" is also provided at the individual and collective level to enable employees to know their role and their place in the organisation and community. LIND KEY School is a complimentary program that is contextualized to the existing school curriculua. After analysis and evaluation of the existing curiculum and pedagogical practices in a particlular school, LIND KEY School proposes a corresponding complimentary entrepreneurial education content and pedagogical approach.

The training of teachers allows them to aquire necessary skills for delivering the entrepreneurship content from LIND KEY School. We are currently working with Catholic schools in the city of Abidjan.

ENEZA EDUCATION

Organisation: Eneza Education
Email: rudolph@enezaeducation.com

Supplementary studies via integrated SMS, on-line and mobile applications

Côte d'Ivoire, Ghana, Kenya

4 out of 5 Adults in English-speaking Africa don't finish high school. According to UNICEF data, only 96% of the primary school students survive the last class of primary school. Out of the 32% of students who qualify to be placed in a secondary school, only 40% of them actually attend secondary school. This means that only a maximum of 12% of users get an opportunity to finish high school. Students in school still have problems acquiring textbooks/learning materials and individual feedback from teachers.

Eneza has developed a technology platform that allows primary and secondary students, their parents, and teachers to access local, relevant, affordable academic courses and study tools by SMS, on-line and mobile applications. With Eneza, students have the ability to supplement their classroom studies at home by taking lessons & assessments with individualized feedback on correct and incorrect answers. They also access additional sources of educational content/tutoring, such as Wikipedia and asking questions to live teachers. Users can access all these for affordable daily, weekly and monthly subscriptions charged from mobile airtime in partnership with mobile telecommunications companies like Safaricom in Kenya, MTN in Ghana and Orange in Ivory Coast.

An active monthly subscription allows a user to access all content from Grade 4 to Grade 12 without restriction on consumption or SMS messages. Eneza's platform is highly customizable to distribute different kinds of content within different industries. The platform can be used to engage people within the rural communities over mobile means, collect information based on user demographics and determine learning outcomes or measure metrics based on the use case.

With the platforms analytical tool, there is the possibility of getting real-time information on user engagement as well as facilitate communication through the use of relevant content over 1G and 2G phones without having to worry about the barriers of internet or cost.

MGCUBED

Organisation: Varkey Foundation

Email: muniratu.issifu@varkeyfoundation.org

Fully synchronous and live education content delivery using satellite technology

Ghana

The Varkey Foundation's 'Making Ghanaian Girls Great' (MG-Cubed) project uses innovative satellite-enabled technology to deliver quality education to marginalised students in Ghana and successfully address some of the country's key education challenges. Declining numbers of teachers combined with a rapidly increasing school population has contributed to a country-wide shortage of high quality teachers, which disproportionately impacts on the poorer, rural regions of Ghana where we also see the greater number of pupils never entering school (36%) or dropping out (27%). (UNICEF, 2015)

Since March 2014, the MGCubed Project has been operating the only live, synchronous, interactive distance learning programme in sub-Saharan Africa. With the support of DFID's Girls' Education Challenge, we employ a radically different approach to giving students and teachers access to quality education. The Project recreates a regular classroom

online, allowing classroom facilitators and children to speak with the studio teachers live, ask questions and respond to activities. The Project equips 3 classrooms in 72 schools with satellite-enabled, solar-powered technology. 10 qualified Master trainers located in 4 studios in Accra deliver live, interactive lessons in Literacy, Numeracy and Lifeskill Knowledge Remedials to over 200 Primary 3 – JHS1 classrooms each day. The Project also delivers Adult Training sessions to teachers, headteachers, district education officials and PTAs.

The MGCubed Project impacts 18,000 pupils by equipping them with life-skills and self-confidence to pursue fulfilled, and economically productive lives. MGCubed has proven that this innovative approach can lead to overcoming critical education barriers such as:

Enhancing the quality of instruction within schools to promote and embed student- centered

learning in the classroom. Combating at community level, cultural values about girls' educational potential.

Empowering girls through enhanced self-esteem, including self-conceptualisation and self-belief, and improving peer-to-peer relationships. MGCubed's approach has significant potential to be scaled up across sub-Saharan Africa to help the pressing need of access to quality teaching in the most disadvantaged areas, reaching the most marginalised pupils. The satellite technology makes remote places accessible, connects disadvantaged children with other learning communities (students get to see students in other class-rooms) and brings them all the benefits of being connected online from any remote class-room. The use of solar energy in delivering lessons enables communities to have access to power consistently without the cost of electricity."

EDUCATION REALITY

Organisation: Education Reality
Email: matkiyeng87@gmail.com

End-to-end technology solution to deliver personalised learning

Kenya

A critical bottleneck in achieving Sustainable Development Goal 4 is a massive teacher shortage in terms of quantity and quality. UNESCO estimates that 68.8 million teachers need to be recruited and trained in developing countries if the goal of universal enrollment in primary and secondary education is to be achieved by 2030 (UNESCO Institute of Statistics, 2016). At the same time, existing teachers are often poorly prepared. In sub-Saharan Africa and in the Caribbean, around a quarter of secondary school teachers have had no formal training (UNESCO, 2016). Our solution is a social enterprise that leverage virtual reality (VR) and augmented reality (AR) technology to bring scalable ,immersive, experiential and exponential impact in transforming national education, training and beyond.

We are enhancing a learner-professional relationship through practical, affordable and usable tech solutions by providing highly quality, affordable, personalized learning. The approach is an end to end information system that is based on application & technology solution to share actionable and real time content. We aim at connecting technology with people and bridging the knowledge gap and enhance the quality professionalism, education and training. The ability of one to decide how they want to consume information and how they want to interact with it enhances how the students learn.We also differentiate our-self through capability of of our VR /AR— which helps students to customize their own VR experiences not forgetting an easy-to-use interface through a selection of built in tools.

The content and VR experiences currently being developed and made available are siloed, selective, expensive, and unattainable platforms. Also, these VR experiences tend to be incompatible across different hardware devices when content is viewed.We are driven by democratization, retention,Measurement and scalability.

A WebVR of Instant, free access across all platforms to content that can be developed by many at the same time.This is so because the world has grown more fragmented and divided, we want to bridge cross-cultural gaps and create a dialogue from meaningful human connections. Art and empathy go a long way, and we think that the VR horizon for capturing and marrying both is uniquely expansive and valuable to achieve this.On the service side in education we want to offer curriculum planning, competence development, teacher education and consulting for technology intergration in the classroom."

EDO-BEST

Organisation: Bridge Int'l Academies
Email: ayodeji.okewumi@bridge.sch.ng

Tech-enabled education de-livery platform for teachers to increase learning outcomes

Kenya, Liberia, Nigeria, Uganda

Due to increasing population in Sub-Saharan Africa, 1 billion children will need access to quality education over the coming 3 decades. In Nigeria, 84% of children in the lowest economic quartile cannot read at all. Nigerian teachers continue to decry the level of support they receive as insufficient, and governments do not possess sufficient data to make informed policy decisions and efficiently manage resources.

Teachers need to be up-scaled with content knowledge to address shortfall in delivering learning outcomes, schools need to ensure quality assurance and improve operations, and administrators need credible data to inform decisions. Bridge is currently teaching children in Nigeria, Liberia, Uganda, and Kenya. Bridge's innovative teacher support methodology and tech-enabled education delivery platform addresses issues of quality within the classroom while keeping cost as lows as possible and affordable for any government. Education officials

in Africa can drastically transform their education system to reach hundreds of thousands of their primary students by simply better utilization of education budgets they already have. Knowing this, in 2018 in Nigeria, Edo State's SUBEB launched a first-of-its-kind pilot program Edo-BEST (Basic Education Sector Transformattion) with Bridge as the technical partner to support 1,500 teachers with digital content and empower them to use data and technology to drive increased learning outcomes in 260 public schools and 40,000 students in rural and peri-urban communities.

Following the successful adoption of the technology, this program was scaled up in September to reach 7,000 and 150,000 pupils in 612 public primary schools. This solution, which permeates the entire value chain of education delivery, comprises of a three-fold approach: (1) rigorous and effective teacher training using best-in-class pedagogical approaches that allow teachers to take control of the classroom

with positive reinforcement, removing corporal punishment, and making school interactive for students; (2) using technology to support teacher delivery and increase effectiveness of lesson planning through a Teacher Tablet; and (3) a digital dashboard for education officials to measure and use data to drive delivery of increased learning outcomes. In only 6 months time, the visionary government leading the Edo-BEST program has drastically improved classroom culture and teaching methodology, and created a path to accelerating literacy and numeracy for over 7,000 teachers and over 150,000 primary students. By 2019, all 1,200 schools in the State will be covered by the program and nearly 300,000 students will have a chance for a brighter future. This may be one of the largest, most rapidly scaled education program in government schools to date on the continent. This innovation is replicable and adaptable to suit the needs and requirements of any state basic education system in Africa.

NEXUSEDU

Organisation: NexusEdu
Email: ainalucas@aol.com

A multi-faceted software solution for school management

Madagascar

Education is seen as a major factor for personal and national development. But there are several problems in the education sector which include: lack of parental transparency and monitoring of their children's studies because parents may lack a reference point on the academic development of their children, the lack of communication between the various actors working in the field of education, whether between schools and students, schools and teachers, or schools and parents.

Our project consists the implementation of a software solution accessible to all, allowing the management of schools as well as the implementation of communications between the various actors present in the field of education, this software solution includes the-following main components: Office software for schools that can manage and establish communications for schools to students and parents of students, so school managers can use the software to perform tasks related to school management and once all these events are managed, they can communicate various information and changes to the various stakeholders; A website to host the various online services such as the reciving of various information from schools whose users (students, parents and tutors, teachers) are connected, the provision of free or paid online courses by teachers and schools, a search engine for schools, a support forum for students with difficulties following school subjects.

Our innovation aims to provide a school management system as well as communication accessible to all, our goal is therefore that any school can have access to our services regardless of financial availability whiles schools with more financial resources can also afford additional services. We aim to enroll as many users as possible in order to facilitate access and affordability for users, as the price factor is always one of the factors that discourages institutions from using information systems.

CULTIVIUM

Organisation: Cultivium Ltd
Email: yannick@cultivium.com

Personalised online learning and career opportunities finder

Mauritius

The problem is skills gap and unemployment. The cultivium is a 3 in 1 product (website, app, and physical object: recycled material either 3D printed or transformed into an IOT device i.e a cultivium) which aims at celebrating culture with tweaks of artificial intelligence,iot devices and connected objects.

The core here is inclusiveness and self esteem enhancements in that spoken words are recorded and processed by the artificial intelligence tool which would give way to methods or suggestions which adapted to the learners' profile. The website would also act as a mega database of learners and educators and social workers who would be notified through pus notifications based on diff-erent queries.

Users are profiled by having credentials such as experience through skills gap training opportunities and references attribution. For each opportunity matched, they obtain cryptocurrency and are guided by a virtual portfolio manager(another pat of AI) who would enable them to either re-invest or grow the virtual currency obtained.This aims at financial education and redefining networth through an approach considering education, self-esteem and social skills through inter-country communication i.e knowing a country's specific culture through the eyes of a local. By-products include : African-ium (Africa unified cryptocurrency), the profiler (AI-backed user database) and stash (encrypted communication similar to watsapp but hosted on blockchain)

Being a Tony Elumelu Foundation Alumni, I am connected with 4000+ entrepreneurs and the product can be scaled in all 56 countries.Mauritius and South Africa are being used as pilot countries and Luxembourg as Financial Hub to fine tune both legal and financial aspects through innovative labs.Trials will also be launched in Ivory coast from the 25th of November 2018 to the 3rd of December 2018.

Once the IP frameworks of each country would be known, the product will be gradually marketed there.

KAMALEON

Organisation: Kamaleon
Email: dayn.amade@kamaleon.co.mz

Making ICT accessible in rural areas using a vehicle fitted with computers

Mozambique

Statistically, very few rural communities have experienced the Digital Era we live in today. The Community Tablet was created to improve digital literacy in rural communities. This advocates e-learning as the way forward for Africa's development. Our strategy combines "digital inclusion" with "E-learning for both the young and the old."" The focus on education and literacy to providing a digital context is a response to the urgent attention and immediate deadline to attend to the widening gap of in the delivery of education in rural and disadvantaged areas.

The Community Tablet's impact in the rural environment is aligned with Sustainable Development Goal Number Four that has the object of providing quality education. Through the program "Creating the Mozambican Scientist of Tomorrow", we introduced the Community Tablet to rural communities in Mozambique (Southern and Central Regions) – providing the infrastructure to facilitate affordable access to ICT

and the Internet in communities with little or no digital literacy skills. We focused on civic education campaigns enabling local communities, students and farmers from various age groups to interact with our platform and connect to the web.

By promoting access to ICT, we strongly believe that the knowledge has been expanded amongst the participants. The topics are educational topicals are converted into short video cartoon animation where users can quickly assimilate the subject being taught. By also promoting interactive games where the learners have to apply what they watched in the videos into the quizzes. This is fun yet solid way to introduce them to internet as a an important research tool for the specific topics to enrich their knowledge. The Community Tablet aims to improve communications among educational institutions through live video conferencing classes and also pre-loaded syllabus content on video, ensuring a direct feedback

from the learners to teachers. Each quiz activity is monitored in order to provide data on the outcome of a particular taugh lesson.

The Community Tablet hopes to contribute to the 2030 Agenda by providing an innovative way to bring quality education to the rural communities in Africa. With over 5000 participants on a yearly basis, we are proud to inform that 35% of the Community Tablet users are female. Young children and women are encourage to share the messages conveyed in a particular campaign thus empowering them with knowledge and leadership as vital part of their local communities.

In partnership with interested partners, we have plans to scale up the both regionally and internationally. We would like to have available two Community Tablets in every province in Mozambique. In terms of improvements, we are researching into innovative ways to cater for population with disabilities.

KARATOU POST BAC

Organisation: ILAN Tech.
Email: contact@karatoupostbac.com

Mobile application providing information support services to students and prospective students

Niger

Many young people do not have access to the right information to orient themselves after their baccalaureate. Thousands of young people fail because of the lack of knowledge of the sectors in which they were oriented by default. Karatou Post bac addresses the following problems: Lack of information about possibilities after the baccalaureate; Lack of success models in the close circle; Choice of training that is inadequate with the job market; Difficulties for non-capital graduates (decentralization); Misunderstanding of the realities of the outside world. In all societies, education is a critical development tool. Every year, millions of young people face tremendous challenges in while embarking on their education to which we offer solutions.

The application Karatou Post Bac is downloadable on Google play Store and App Store. Once installed, students can take advantage of these features: Choose my sector: Allows young people to know the sectors, opportunities and have testimonials of young people who studied in the sector. Registration procedures: presents the education system, the registration procedures, the cost of living in different countries. Examples of pathways: inspiring young people and allowing them to project themselves and break down certain barriers of self-censorship. Interactive forum: place of exchange where young people ask questions, learn about housing, registration in partner institutions (Morocco, Tunisia, France, Canada) directly from the application Help in finding accommodation; Personalized orientation coaching by profile (future functionality). Soon karatou Post Bac will include: Resumes of final courses and Tips for solving the exercises.

Karatou Post Bac is available for download in all countries around the world. Today she is in French. It could be translated for scaling up in English-speaking countries. While waiting, for more impact in different countries we need to be supported for communication in different countries.

MAVIS TALKING BOOKS

Organisation: Mavis Computel
Email: chizaram@maviscomputel.com

Using "Talking Book" technology to deliver educational content

Nigeria

There is a shortage of quality teachers who can provide quality personalized/differentiated learning – especially in the mother tongues of the children According to the 2015 UNESCO Education for All Global Monitoring Report, 3.4 million new primary school teachers are needed to be recruited by 2030. Sub-Saharan Africa accounts for 67% of this number. Most of these teachers are not able to teach in the mother tongues of the children. Lack of adequate learning materials in both English and the local languages poses additional challenges to the teachers and pupils. All these lead to very poor learning outcomes. Mavis Talking Books™ - Everyone learning, Everywhere a Classroom™

Our solution focuses on using our Mavis Talking Books™ technology and Mavis Education Model to provide high quality, learner-centred education for all, irrespective of their literacy level and language. A Mavis Talking Book (MTB) consist of a digital pen (Mavis Pen) and a specially printed book. When the pen touches text or pictures in the book, the pen reads out the corresponding audio, including interactive games, quizzes, multi-language translations, etc. We program quality content, developed by experts, into the Talking Book format in a language that the user understands.

The Talking Book does not require the Internet to function. One Mavis Pen can work with up to 100 books. We started with Basic Education to lay a solid foundation. Our Mavis Education Model enables children using MTBs in a classroom to learn in small groups of not more than 5 pupils per group. An audio splitter connected to the audio port of the Mavis Pen and individual earpieces connected to the audio splitter enable sharing by the children. The children learn on their own. The MTBs serve as intelligent and tireless instructors, while trained teachers serve as facilitators, overseeing many small groups.

A small group reinforces positive peer pressure where there is collaboration and high degree of participation. Each small group can learn at its own pace. It can even learn a different subject. Multi-grade classrooms are also supported. These lead to highly improved learning outcomes. Recorded average test results before and after the using MTBs are about 30% and 82.5% respectively.

Our goal is to collaborate with key education stakeholders across Africa to provide quality basic education in the language the learner understands, at a fraction of the cost. This will be through the deployment of our solution through donor funded deployments, government funded deployments, direct sales to schools, NGOs, etc. We also plan to reach children in underserved communities across Africa through our chain of low-cost schools using the Mavis Education Model to deliver quality learning at school fees of about $7/child/month.

RODUCATE

Organisation: Robert & John Ltd
Email: fawosika@robertandjohnltd.com

Providing curriculum tailored online education for those without access to schools

Nigeria

Roducate continues to effectively impart education in accordance with the national curriculum. Roducate is achieving the following: Providing education to Girl Child, Boy Child & Youth on millions of internet ready mobile devices. It capitalises on 150 million active mobile phones as compared to 62,000 schools in Nigeria; Providing education to the 36% of Nigerian girls who are currently out of school; Providing access to the full curriculum/content for children who do not have text books for all subjects; Ensuring quality education irrespective of location, Improving examination success rates Helping teachers with standardise content. To combat this burden, we introduced a simple tool, our patented mobile learning application and youth empowerment platform called RODUCATE™.

Roducate enables "on-the-go" access to primary, secondary and university educational content in line with the West & East African curriculum. It is available on a wide range of devices offline/on-line, mobile USSD & mobile app. It also includes social welfare, mentorship, counselling and financial literacy ensuring a robust learning experience.The application was successfully deployed in October 2014 and is used by over 500,000 Nigerians on USSD Mobile service (dialling a shortcode) and 100,000 on the web. It is being used as the preferred complementary material for those who demand better education. It has revolutionised learning using several different "modules" and methods at very low / no cost to the learner.

The content in Roducate has been highly esteemed and approved by the Nigerian Education Research & Development Counsel (NERDC), National Universities Commission, Joint Admissions & Matriculation Board (JAMB) and the Ministry of Communications Nigeria. Roducate is also endorsed by Microsoft, United Bank of Africa, ARM Pensions, Glo Mobile, MTN, 9 Mobile & Airtel. Roducate is widely used and has earned numerous testimonies from students and teachers across the country. The current multiplier effect in Nigeria is celebrated across the country and used as a case study for inclusive education at its best. In the creeks of Bayelsa State for example, a region which has been afflicted with militancy, teachers have gathered student communities and used Roducate as a learning tool.

Our vision is to provide inclusive, quality education to millions of young people across Africa, with particular emphasis on disenfranchised and marginalised groups. Roducate has made a huge impact on education in Nigeria; and our vision is to spread this impact wider across Nigeria and Africa. Indeed, Roducate has enormous potential for greater impact and some examples of near future plans; partnering with Mobile Network providers across Africa for drive accessibility/uptake, Promoting Product across Africa, Adapting video content to various cultures, content availability in multiple languages and pop-up education centres.

FACETECH EDUTECH

Organisation: FaceTech Concepts
Email: phasetechltd@gmail.com

Robust online platform for delivering education content

Nigeria

Facetech Edutech Software is addressing the following problems: Poor Educational Infrastructure: This project addresses Poor Educational Infrastructure that automates class learning environment in delivering Educational lessons to the students. Boring Aspects of old system of learning: with the audio-visual aspects of the projects, it makes the learning process to be interesting. For students are loosing interest in the usual voice carrying method that has become a norm in our school. Cycle of lesson note writing where the teachers and student are becoming tired of continuous lesson note writing every day.

The Edutech software involve the analysis, design, building and deployment of a web based and mobile responsive application built on drupal content management system, which aim at automating the activities in the class learning environment in the school educational system. It consists of three menu navigations namely: All subjects: it has subject, class, term, and week filtered widget exposed to the users. It consist of subject note or text with images below it. Image gallery: this is the aggregate of all the images illustrations of the topics under a particular subject. Video tutorial: Video related to the topic can be uploaded and view by the student as a typical practical class experience.

Every Subject teachers come in to the class to project their notes, tutorials, examples and assignment to the students without unnecessary writing on the board. All subject notes are available on the software with the widgets filtering the subject, class, term and week. Inaddtion to this is the hardcopy of all the subject notes being presented to every member of the class, this rule out the stress that the students will pass through in writing his/her copy of the note. It could be used by Projection: through the use of projector, provision of a laptop and projector in every class of the school; By internet: placing on domain for each school.

The users ranges through all categories of learners including young children, disaster affected individuals, etc. Drupal content management system is highly scalable, flexible that could meet the demand of any advanced or required features in the future.

KEKCHOSE PLUS

Organisation: Kekchose Plus
Email: kek1@laposte.net

Using traditional and contemporary learning methods to increase learning outcomes

Togo

Kekchose Plus addresses the following needs:

Provides an interactive teaching experience by combining the traditional method of using the blackboard with a combination of audiovisual elements and the internet. Allow the ability to experiment, develop the student's imagination and creativity by making it more autonomous and participatory to the group, exchange of knowledge, including memory testing and proof of error, a possibility of self-assessment. Adapting the upcoming generation to the challenges of the future learning environment.

The process begins with the preparation of initial course content which is adapted to the teaching materials and equipment being used.

1st step: Design of the educational content according to the chosen subject.

2nd step: Allow the exchange in the class of ""how to treat the subject"" (the teacher guiding the debate and if necessary diffusing visual information or on the board) Work of group and synthesis by the students who have to agree.

3rd step: Audiovisual documentary on the subject, and resumption of the debate to refine the 2nd stage.

4th step: Answer the MCQ of the documentary and overall correction of it. At the 5th stage, individual duty on the subject then interactive corrections with passages extracted from the audio-visual content. Playful teaching methods can be applicable and subject to a reserved time. Self-asessment is possible via the computer device.

A pilot project was conducted in Togo with grade 2 primary school pupils in a village at the end of the school year on the subject "how to write an essay" with the theme chosen by the class "my village". A slide show served as audiovisual. Three main ideas for sustainability of the project are:

Pooling of resources through an educational database accessible to various schools, partnerships in development of learning materials and, training of trainers on the pedagogical method. used by Kekchose Plus.

Development and provision of a self powered mobile structure to be used as classroom for areas without acess to electricity.

Electrification of schools without access to electricrity using solar panels will allow the installation of the equipments which are needed for running this project.

E-KARANTA

Organisation: iDEVTech
Email: daouda.diaw@idev-ic.sn

Context tailored e-learning platform for training rural youth in agribusiness

Senegal

Our innovation is aimed at school dropout youth in rural areas and contributes to Senegal's economic and social development goal. Since many training schools are in urban areas, and to offset the gap between rural and urban areas, we innovate in rural areas by offering new opportunities to its young population to fight against the rural exodus and migration. Our project E-Karanta aims to be one of the answers to the support of the questions of qualification and employment of the young people by a formation or upgrade appropriate to the needs of entrepreneurial activities.

The solution revolves around improved traditional techniques in combination with ICT. We build our solution on the basis of an e-learning platform with course sheets that can be consulted face-to-face and remotely.
In the classrooms all the training material is made available in addition to a permanent connection of available trainers and a whole team dedicated to the cause. The courses are based on data sheets prepared by the trainers and specialists in the field with new farming techniques to complement the existing, the sheets are scanned and filed on the platform. On the sheet we have the cultural scenario with the different steps to integrate theoretically and put into practice during concrete works on the plots of culture including preparation and maintenance. Each stage is learned in the classroom and experienced in the field and specialists are online to share and reframe. So we create wealth conditions for young farmers by building their capacity through ICT. Modernize and make the agricultural business competitive with digital tools.

Create a new type of farmer tech-nologically able to better develop his agricultural activity. The orientations will depend on the potential of the market but also on the possibility to duplicate on the other rural sectors. A scaling up of this project is possible and even planned with the test phase and the pilot phases that will follow.

The project will take place in two phases: the first is the pilot phase where we will build the project, test and measure success before duplicating it in an extension and consolidation phase. At the end of the first 10 months and 2 months of evaluation of the pilot phase the center is working full time with theoretical training and practical experiences on the site. Objectives are identified as well as challenges but also an analysis of the profitability of previous sessions with the monitoring team.

OXYGEN TECHNOLOGIES

Organisation: Oxygen Tech.

Email: msahamadto@gmail.com

Delivering education content using Interactive Voice response (IVR) technology

Sudan

Education Accessibility is a real problem facing most African countries, So our solution developed to be a platform allow to audience to access for educational contents and materials from anywhere in anytime with cheapest possible cost.

Based on Interactive Voice Response we developed a telecom solution provide a language learning materials and content through a phone call and without need for smart phone or high speed internet.

Audiance can listen to content by make a phone call to the system, then the system will direct through menues till he reach his target language level and class. With partnership with local mobile operators in any country we can connect our platform with their network to make the service available for all mobile subscribers in that country. Based on daily subscription not exceed than half of a dollar, subscribers can enjoy the lectures all the day without

charge base on call duration.

Currently we have a subscription DB include more that 1 Million subscribers in our all language classes. So if we deploy and duplicate this platform in other African countries we expect a huge number of subscription in our learning services.

PRIMS ESCHOOL

Organisation: Prims eSchool
Email: robertdd@udel.edu

Maths eTutoring services and and student progress assessments

Uganda

Africa has some of the lowest math learning achievements in the world. Student math achievement is limited by low access to good quality teachers, outdated instructional and deficient teaching materials (International Mathematics Union (IMU), 2014:2). This situation is bound to become more acute as Africa currently has the fastest growing populations in the world (3%) and is expected to contribute to more than half of global population growth between now and 2050 (UN, 2015).

Elementary mathematics is a key building block for establishing a robust Science Technology, Engineering and Mathematics (STEM) sector on the continent. PRIMS eSchool is providing primary Math eTutoring services and online student progress assessments accessible via mobile services. Students whether living in rural areas or urban areas can access world-class lessons, books and live eTutorials that can improve their math learning achievement at very affordable prices. Our first country of focus is Uganda but hope to scale across sub-Saharan Africa.

PRIMS eSchool is seeking to democratize mathematics learning achievement in primary/elementary schools. Our eTutors are recruited from the best math teachers in each country and trained through a rigorous program to deliver an effective package that is able to address both the technical learning requirements and mental habits required for effective Math learning. Our eTutor also administer period diagnostic assessments that helps students, parents, and teachers to quickly and conveniently determine the individual and group Math learning needs and skills level. Our math eTutoring and Assessments services enable the early detection and support needed by young learners in pursuit of career prospects for Science, Technology, Engineering, Arts and Mathematics (STEAM).

Our scaling up model is highly correlated to the Mobile Phone, Mobile Money and mobile internet access penetration across the continent. Overall mobile phone penetration across sub-Saharan Africa has seen at a fast growth rate from 25% in 2007 to 44% in 2017. Mobile money transactions have also increased from nearly nothing a decade ago to approximately $20 billion per year (GSM, 2018). We shall provide our services via primary mobile phones but also other internet enabled computing devices such as tablets, laptops and computers. Payments will be via a mobile money platform.

YAAKA DIGITAL NETWORK

Org : Yaaka Digital Network
Email: yaakadn@gmail.com

Primary to University education content delivered online, offline and using custom tablets

Uganda

Today only 2/10 children are able to access quality learning in Uganda. Many children especially in rural areas and far to reach areas can't attain the same level of quality courses other schools attain. In some areas, it's the internet connection which may pose a problem to access wider material and that's why as explained below we developed an offline version for this innovation. Also the inadequacy of access to quality teachers is a big problem and one of the key areas we focus to on the platform.

Our innovation Yaaka Digital Network is easing access to quality learning multi-media material. Ranging from Nursery to university level , the platform has courses on all levels in accordance with the Ugandan syllabus. Our offline version of the product which can be installed on a computer and is accessible on our custom tablets enables all this access to material of learning without connection to the internet.

It can be set up as a Wireless Local Area connection to enable wider learning offline. We have an Instructor functionality that enables quality instructors input their course material to enable it get accessible by students across the globe.

We have just completed our Android student app and are in partnership with different Tech manufacturers to distribute our custom made tablets that come pre-installed with our offline version. We are also working with different teacher organisations country-wide and in the region to have their material digitized and available on the site to ensure that learners from every sphere of the world can learn and embrace this content.

E-SCHOOLS MODEL

A proven approach to transforming Primary/Secondary schools into ICT enabled schools

Organisation: UNESCO

Email: d.tererai@unesco.org

Zimbabwe

A national baseline study was conducted at the beginning of this project which showed the following general characteristics about Zimbabwean Primary and High Schools: 1. There was a clear lack of basic ICT skills. 2. Practicing teachers were not trained in effective use of ICT in their teaching. 3. There was a lack of adequate digital Instructional materials. 4. Access to computers and internet facilities in many schools was limited or non-existing. 5. There was lack of tools for effective monitoring and evaluation of ICT in education initiatives.

To solve this problem, UNESCO Regional Office for South Africa developed a conceptual guide called the eSchool model. An eSchool is defined as a primary or secondary school that utilizes new and emerging technologies to provide students a pathway to achieve success within a 21st century learning environment. Its key principle is the use of technology in the classroom for everyday learning. The vision of the e-Sch-

ool is to equip school leavers with knowledge and skills useful in an age of increasing technological advancement to enable them to contribute to national and international development. The eSchool model comprises 4 pillars

1. Technical Infrastructure: All learners should be provided with daily access to ICTs and adaptive technologies required to support their learning. All schools connected to the WAN and high-speed broadband Internet.(to date UNESCO has equipped 20 schools with relevant infrastructure) 2. e-Resources: Universal access to high quality digital learning resources provided in all schools to meet the needs of all learners(Development of Zimbabwe Repository of Open Educational Resources currently underway). 3. Capacity-Building: All teachers and school administrators should be proficient in the use of ICT and using them daily in their work (Zimbabwe ICT Essentials for Tea-

chers course developed and available for download on PC and Android. Teacher training is ongoing so that every teacher is able to digitize and gamify instructional materials) 4. Sustainability: ICT initiatives should be sustainable at school level (Monitoring and evaluation tools for educational technology initiatives have been developed).

Here is how the project can be adapted to other contexts 1. The Zimbabwe ICT Essentials for Teachers course was designed to provide teachers with competencies to integrate ICT into their teaching and learning. The course has an open license that encourages re-purposing as a workshop training manual or self training tool by teachers anywhere in the world. 2. The Zimbabwe eSchools model guidebook is available for schools that want to implement classroom ICT initiatives but don't know where to start.

FUNDOVR

Organisation: Phenomenon Tech.
Email: nkosana@phenomtech.co.zw

Providing low cost excursions to schools in Zimbabwe through the use of Virtual Reality

Zimbabwe

It is difficult to implement excursion learning and teaching in most Zimbabwean schools due to inadequate funds in the schools and the field trips being expensive, therefore learners lack exposure to practical applications of education in the real world. Learners are disadvantaged, especially rural learners who most of, do not know what an excursion is. The learners are therefore deprived of rich educational experiences and lack appreciation of education due to not experiencing how it is applied in the real world, affecting their performance, both rural and urban learners.

Phenomenon technologies offers low cost excursions to schools in Zimbabwe through the use of Virtual Reality which immerse the learners in the environment as if they were there themselves using our FundoVR innovation. Virtual reality (VR) is an artificial environment that is created with 360 cameras and presented to the user in such a way that the user suspends belief and accepts it as a real environment. Learners therefore get an opportunity to virtually explore an industry, chemical plants, educational sites or space without leaving the classroom. The FundoVR innovation achieves this by the creation of 360 content tailor made to suit curriculum needs and use of already existing 360 content in conjunction with virtual reality headsets to provide low cost excursions to the schools.

The FundoVR service is provided directly to the schools at a very cost effective price. This is advantageous in that the excursions (field trips) are brought to the learners virtually in their classroom. Learners in the deepest rural schools can therefore also explore and experience endless possibilities of science applications, such as engineering, astrophysics and be able to virtually experience significant educational places as if they were there themselves, without leaving their classroom. Students familiarise themselves with real-life experiences, whilst enhancing their understanding of theoretical and practical concepts as viewed during these virtual tours.

The innovation has shown high scalability through signing up 200 schools in Zimbabwe for its initial pilot program phase within a short space of time. This shows the potential of growth and scalability of this innovation. The innovation addresses an imminent problem to transformative quality education therefore accelerated funding and support would see this innovation being scaled onto neighbouring countries of Zimbabwe and a potential spread across more African countries. The low cost of the innovation, enables even rural schools to afford offering the service to their learners therefore increasing the viability of scaling the innovation.

STEM
EDUCATION
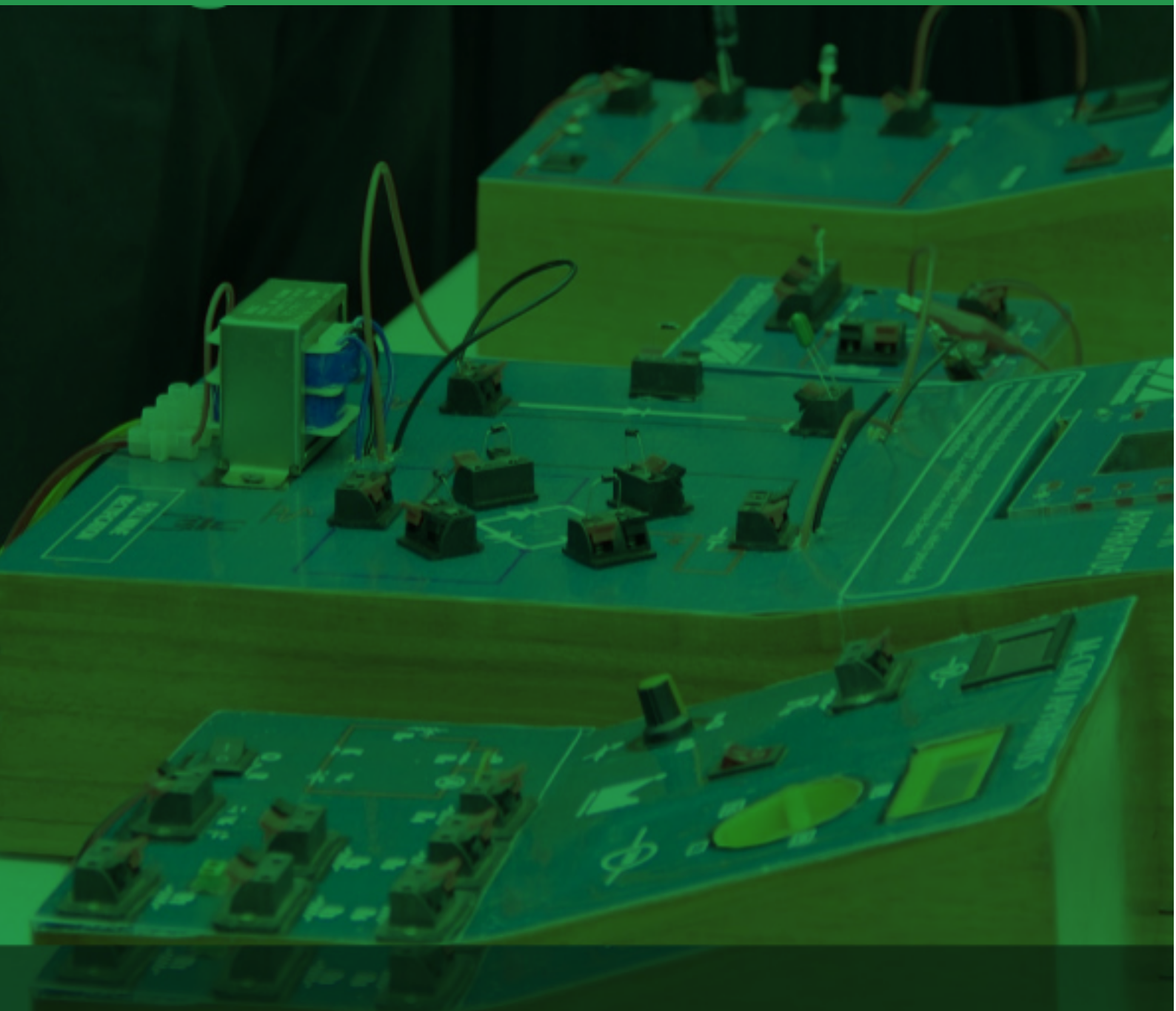
KNOW YOUR BODY APP

Organisation: Vlaby Platform
Email: m.n@vlaby.com

An interactive mobile application for children to learn human anatomy

Algeria, Egypt, Libya, Morocco, Sudan, Tunisia

There is a lack of Knowledge of children about the Systems and organs of the human body due to:
1. The difficulty of teaching science to children especially information related to the human-body.
2. Lack of visual perception of students about information related to the human body
3. Difficulty in understanding students' vital processes in the body
4. Children are not familiar with how to protect the human body
5. The high cost of educational materials on the human body and the lack of availability in most schools
6. Short tutorial time The teacher is not allowed to conduct interactive assessment and activities for students

"Know your bidy" is an educational interactive App for children which presents an explanation and display a bout the human body's systems and organs, with the possibility of rotating every organ at 360° through an easy and simple way

suitable for children, and anatomize every organ in an virtual lab to make them able to study its internal structure.

This app is the first application of the "Vlaby platform", which is interested in providing virtual labs for all students to allow them to do their laboratory experiments in a more secure and interesting interactive environment and save a lot of time, effort and cost to the teacher and the school during the Explanation of laboratory experiments. For children from age 5 to 15, It's available now in Arabic language, and soon will be available in English and French languages, Available for free on Google Play Store.
The sections in the App includes:
1. Discover you body: Discover the human body's system;- Three-dimensional show of the organs; Anatomize every organ in a virtual lab; Achievement exams on every system of the body.
2. Form your body: Interactive

activity for children which helps them to study the places of the body's organs.
3. The body processes: An interactive simulation for the vital processes that happen in the human body's systems.
4. Protect your body: The App gives tips with pictures to protect the human body's systems and organs.
5. Play and learn: The App provides educational games that measure the achievement of children from other sections of the App.

We are currently working on publishing the application in languages other than Arabic, such as French and English, to be suitable for publication in all African and Arab countries, We are also launching the vlaby platform, a platform that offers virtual labs for students to experiment with in an interactive environment that mimics the traditional lab.

MOBILELABO

Organisation: MobileLabo
Email: contact@mobilelabo.tg

Mobile science practice laboratories to schools in rural areas

Benin, Togo

If ""science can only be taught by having it done"", science education must be experimental, but about 90% of schools in Togo and Africa generally do not have a school science laboratory, or experimental teaching materials. Worse, some teachers do not master the use of certain materials and how to carry out some practical work. Finally, there is no African education market today, a company that can provide schools, teachers and students with laboratory equipment in almost every field of science.

MOBILELABO is a laboratory for the manufacture of laboratory equipment and service delivery. Thanks to his vehicle, he can move easily in schools (customers) to ""get"" students to carry out practical work (TP) described in their scientific manuals for a small contribution. It can intervene in the training of educators in the design and use of teaching materials.

We aim to reorganise the production workshop through automation to move from the current artisanal scale to an industrial scale. Construction of the biochemistry unit to separate chemicals from other materials and synthesize other products that can be used in other chemistry markets. Acquisition of molds for the production of volume measuring instruments such as beakers, test tubes; graduated test tubes etc ... We are also working on purchasing a new means of transport in order to provide more timely service to schools.

OLOMANGY

Organisation: Olomangy
Email: shimmaakhaled@gmail.com

STEM teaching program for children

Egypt

As we know, the teaching method of STEAM subjects in schools in Africa is very traditional and lags behind in new technologies and methods. Olomangy was therefore started 4 years ago to address this issue. it is a social enterprise based in Egypt which is working on simplifying STEAM subjects through learning by doing for students (3 to 14 years) and educators. Using non-formal methods, we have developed a mobile facility which contains STEAM instruments, activities, and experiments to engage students, teachers, and parents in practicing STEAM education. Our reach is 7500 students inside Egypt plus 1500 students outside Egypt.

We use a variety of tools like tech products; 3D printers, robotics, Arduino, microscopes, telescopes or any other devices which can help us teaching students in a practical way in addition to local simple materials like plastics bottles, papers, cartoons.

We have different programs to reach students and enhance their scientific knowledge through inquiry-based learning. The first program is STEAM festivals; it is a live environment to engage students in STEAM subjects in a funny, play-full effective way, they learn about new subjects like forensic science,3D printing, programming and so on. The Second program is Mentorship program for parents, teachers, and trainers; we facilitate workshops for parents, teachers, and trainers to teach them how to use online resources to search for new ideas, different ways, and tools to simplify STEAM concepts, and Gamification in Education. The third program is STEAM digital content and social media channels.

We are working on improving the quality of STEAM education To make our vision more sustainable, now Olomangy is working on a new project, we are going to train all the school teachers (especially limited resources schools) on how to simplify STEAM education using surrounded cheap wasted materials. This program will help the teachers changing their traditional way of teaching into practical innovative way with zero cost. In addition, our R&D unit is working on designing new science kits to provide students with different Science tools which can enable them to practice STEAM safely at home. Follow us :https://www.facebook.com/olomangy.

SCIENCE SET

Organisation: Dext Tech.
Email: antipem@thescienceset.com

Portable, affordable science toolset for practicing school lessons

Ghana, Kenya, South Africa, Zambia

For years, African governments, Educators and parents have raised concerns about the lack of practical science education at the basic level. In the 21st Century, STEM education presents greater opportunities for personal and socioeconomic development. This is particularly true for Africa. However, for millions of students, scalable, portable and affordable solutions that bring quality practical science education to the masses are woefully lacking, thereby leading to a lack of science experience beyond the blackboard and a resultant lack of understanding of scientific concepts and low interest in science.

The science set is an affordable, portable, and effective, practical toolbox (dimension) that provides practical experiential science education for students. It currently contains 46+ components that can help students perform 26+ experiments stipulated in their curriculum. What we are doing is taking a step beyond giving every school a science lab; we are giving every student a science lab! Imagine, every student owning a science lab that contains all the components and apparatus needed for science experiments. Now, imagine, if this science lab was small enough to fit in every student's bag! We have created it, we call it the Science Set and it will change everything! We have created a science education tool that will bring practical science education to every class-room. Just like the math set, we have created the science set. Simple yet revolutionary. Collaboratively working with various individual stakeholders (governments, non governmental organisations etc) it is easy to adapt the science set to curriculum of various countries with no or little modification. The science set is affordable and can easily integrate into any classroom enviroment without the need to build a science laboratory. This means ease of implementation, ease of maintaince and overall cost effectiveness.

In summary, the Science Set is feasible to upscale as it is easy to maintain; easy to use; easy to implementat; highly cost effective; and does not need a dedicated lab.

THE BOARD GAME

Organisation: Calculus EduAids
Email: ustyolam@gmail.com

A board game for learning languages and numeracy

Nigeria

Africa has a poor educational system; students lack a proper understanding of the fundamentals and basics in English language, French Language and Math. In Math, underperforming students have no flair for the subject. They struggle to remember facts, count, recall their multiplication tables, solve word problems and are slow in understanding and solving arithmetic calculations. Many students especially in the rural areas find English or French Language difficult to learn and speak. Though English is the official language in Nigeria, most Nigerians are not fluent in the language and can only speak their native language well.

The Board Game consists of a board, alphabet tiles, numbers tiles, sample call cards and a manual. When playing topics in the Languages, students spell words on the board similarly to the way Scrabble is played, these words are restricted to a given topic per game like only words that are nouns, verbs, adjective, 5 letters

or more and terms used in a health center can be spelt in a given game. In Mathematics, players form balanced arithmetic equations on the board. The equations include addition, subtraction, multiplication, division, fractions, squares and square root of numbers. In English Language, the Board goes beyond simply spelling words like in Scrabble, students are expected to pronounce words, explain the meaning of words, list synonyms and antonyms, spell long words to achieve high scores and recall difficult words. In Mathematics, the Board helps students by encouraging them to calculate on the spot. Students will have to think of different ways by which numbers can be combined to form equations. When playing multiplication and division for example, students will discover fundamental concepts like multiplication of numbers with multiples of 10 can be calculated by simply adding zeros or multiplying numbers by 6 will provide the same answer as dou-

ble the number multiplied by 3.

We tested the Board in January 2018 with some schools. Our observation suggests the game improves the cognitive reasoning of students and helps them to calculate math questions in their minds quickly. Students increased their ability to remember words taught in the classroom by spelling words they could recall on their own.

The Board Game can easily be produced for a large group of beneficiaries, all that is required is a manufacturer that will mass-produce the game. There is an estimated 2,000 distinct languages spoken in Africa, with the most common languages being English, French and Portuguese. Though the only available copies of the Board Game are in English Language, the Board Game can be adapted to teach and learn the grammar of many languages in the African Union. To increase the reach of our solution an app version of the Board Game can also be developed.

AEROSPACE ACADEMY

Organisation: Aerospace Academy

Email: ceo@aviationpalace.space

Standardised space science course for children

Nigeria

An average Nigerian lives on amount less than $2/day and cannot afford the huge cost of education. Our mission is to provide affordable and cheaper online education and create innovative solutions that help women and youths overcome barriers to education. Our target groups are in the range of 10-45 years, which according to CIA Factbook is 177,090,462; resulting in a percentage of 92.8% of the entire population, out of which we are targeting above 70%. We also observed that around the globe, particularly in developing countries, women and youths lack opportunities to obtain the education that they so desperately need and deserve.

We have developed an approved curriculum covering 65 lessons and subdivided in 13 lesson-packs. At the end of the pack, we have 10 selected multiple choice questions with 2 each from the 5 topics. During our mission students learn about the scientist and their research, particip-

ate in classroom experiments or activity that mirrors the research experiment on the ISS, and then do some type of an analysis and data gathering activity. These hands-on inquiry-based activities are supported by near-real time digital and video images downlinked from orbit. Also provided are real time images of a control ground experiment being conducted by BioServe Space Technologies, a NASA Research Partnership at the University of Colorado or elsewhere. Student research supports the work of the PI, while meeting the educational goals of the classroom and final student data is provided to the PI for review and, if appropriate, inclusion into research databanks. Our missions typically require several classroom periods which could involve Introduction of NASA mission, Principal Investigators (PI) and conducting the research (the heart of the mission) which may include: Hypothesis development; Classroom lab activity mirroring the actual research; Observation and photo or

video analysis; Data recording and submission; Formulate conclusions; and Evaluation

We have designed the course to be offered at a commitment fee of $1USD to ensure seriousness because researches have shown that most people don't value what they don't pay for. Our feasibility study showed that majority of our target audience spend most of their time on their mobile devices using various applications on the go than they do inside a conventional classroom, hence we decided to take our virtual classroom to every home where such facilities exist through our e-learning center and our mobile App.

Currently, our learning platform is hosted by the skill development center of Uganda. Our dream is to develop our e-learning center whereby we can host our platform and students can walk in to enjoy the facilities at their convenience.

SCIENCE LEARNING TOOLS

Organisation: Mitz Innovation Ltd
Email: veekev22@gmail.com

Locally produced affordable and portable physics teaching and learning aids

Tanzania

Practical understanding of the science subjects is crucial in crafting creative and innovative minds of students in secondary schools. However, achieving this milestone is the biggest challenge to most of the secondary schools in Tanzania. More than 2,000 secondary schools don't have science laboratories, and those who have it most of them are insufficient. This means more than 652,000 students every year are studying without having any practical experiences on the theories from the textbooks. This leads to incompetent graduates in science subjects' from secondary schools.

MITZ Innovations designs, builds and supplies affordable and portable Science Learning Tools to private and government secondary schools, technical training institutions and parents with secondary school level children in Tanzania. The model is designed to reflect the official secondary school curriculum as provided by Tanzania's ministry of Education and Vocational Training.

These products introduce a new way of teaching and learning science subjects. A way that equips youths with practical understanding of different theories and technical issues they face in class consequently resulting in improved competency. With an emphasis on girls, the end products of the project gives equal chance for experiential learning for both male and female students, eventually bringing down the gender imbalance in science subjects. By using Science Learning Tools, learning becomes interactive and interesting thus attracting more students to learn and understand science. These 'easy to use' learning tools are intended for schools, students and Technical training institutions at an affordable price to make them accessible to everyone. The benefits realized from using the Science Learning Tools include: Easy access and interaction with actual science components; Improved performance in STEM subjects; Increase number of scie

nce and technology professionals thereby enabling development. With our innovative learning tools we also provide the best interesting physics hands-on workshops and demonstrations to schools and at our lab office where parents pay a small amount for a time limited hands-on session. Starting with a physics subject the tools has so far benefited more than 1200 students through 20 workshops and 20 schools in Nyamagana and Ilemela districts of Mwanza region in Tanzania within 6 months.

We are seeking a fund of $70,000 for expanding the production and recruiting more workers in a company with a target of impacting 100 secondary schools (100 workshops) and 7,000 students in Mwanza region for the next year. We are envisioning to adopt this approach to other science subjects of chemistry and biology through Augmented reality and Virtual reality technologies so as to touch more areas in STEM subjects and speed up the impact.

SKILLS, EMPLOYABILITY, TVET

DIGITAL NATION AFRICA

Organisation: IBM
Email: jbmatogo@ke.ibm.com

An online incubation space for youth to launch digital solutions

All Countries in Africa

Many young african youth do not have the skills in the new emerging technologies such as Artificial Intelligence, Internet of Things, Coud Computing, Cyber Security, Blockchain and Coding. All predictions indicate that these technologies will be required to be productive in the digital economy. In addition, access to affordable platforms to learn, test and build solutions using these technologies are not available. For those that are able to learn these technologies, having a recognizable certification has also been a challenge to enable them secure opportunities.

The Digital – Nation Africa program is a platform that aims to provide African youth with digital literacy. The program will enable African youth, entrepreneurs and learners with the knowledge, tools, and skills to innovate, design, develop, and launch their own digital solutions. By providing high quality learning content, recognized certification, a platform to build solutions and connect users with opportunities D-NA aims at enabling young Africans ride the Digital Wave.

In addition to learning, users of the platform also get access to a cloud environment where they can test their skills by developing solutions in a sandbox environment provided onthe platform.

D - NA will also help African youth find jobs that best match their skills. D-NA is made available online through the website http://digitalnationafrica.com , users only need an Internet connection to access the portal and start the learning. All the learning content is available online in a self paced mode. Users also have the opportunity to test their knowledge by taking online certification tests.

D-NA is currently available in English and partly in Arabic. Work is on-going to make it available in French and other languages.

CVERI PROGRAM

Org : Univ. Abomey-Calavi
Email: yeloupaulin@gmail.com

Etrepreneurship training through a volunteering program

Benin

In Benin more than 3750,000 young people have a degree from the university but are unemployed. This is due to the educational system which is very theoretical and which does not transmit to the individual the aptitudes and the behaviors which allow him to be in adequacy with the requirements of the labor market or to undertake while being a model of citizen and a development actor. Young graduates do not know what they will do with their lives, they have no ability to create and run a business, private structures see them as incompetent and undisciplined and they wait in vain for State to recruit them.

To cope with this state of affairs, the University of Abomey-Calavi in Benin has created a Volunteerism for Entrepreneurship system that allows hundreds of gradu-

ates to be recruited every year to enable them to discover their potential and their abilities, develop self-esteem and self-confidence and have a clear vision of what they will do with their lives. At first, a volunteer is recruited and allowed to conceive an idea of a professional project. They are then sent to a welcoming structure that allows them to serve the community while strengthening their practical skills for the implementation of the project after the volunteering term. Before the end of the volunteer term, they are coached on how to turn their project idea into a business plan and mobilize resources to start their own business. In this way, from being an unemployed graduate, they are transformed into an entrepreneur within 10 months of volunteering. They also undergo a deprogramming and reprogramming of mindset which

when joined to the sense of service and self-sacrifice acquired through volunteering, allows them to become a new type of citizen and a player in the development of their country.

Before it started, this experience was written as a project with a well-established action plan and monitoring and evaluation. Progress and end-of-cycle project reports were developed and the impact of the project assessed and documented. New coaches are mobilized each year and trained and the label well saved. The team is fluent in French and English and has been asked to set up the national volunteering program of almost the same model. a documentary film was made to share the experience. The large-scale replication of this project depends only on the financial and material resources mobilized.

ONG AVENIR D'AFRIQUE

Organisation: ONG Avenir d'Afrique

Email: ong.avenirdafrique15@gmail.com

Mobile app with information on TVET opportunities

Benin

In Benin, general secondary education remains the most popular, to the detriment of technical education and vocational training which, by 2020, will make up 8% of the total secondary general education nationwide (PDDSE; updated phase3 / 2015). Nowadays, technical and vocational training is the keystone of success in a competitive professional environment where employment is becoming increasingly rare.

To gain access to vocational training that meets the job market, it requires prior knowledge of training oppor- tunities, choice and follow-up of the educational pathway.

To solve this problem, we have designed educational tools to raise awareness and communicate about technic- al education and vocation- al training in Benin. On be- half of these tools we have, the ETFP guide and paper version and mobile applica- tion available on play store and an awareness documen- tary to trigger children. He questioned the major play- ers in education who ques- tioned the conventional ed- ucation system. The targets retained are pupils, teach- ers and parents of pupils.

The issue of technical educa- tion and vocational training is at the heart of the con- cerns of all African nations. It is therefore important that each country can have a dig- ital portal that provides in- formation on TVET training available in all countries.

This application will be easy to be reproduced in other countries without major con- straints. May the objective be to make the TVET sub-sector visible and attractive at the continental level."

MUDIA

Organisation: The MUDiA Project
Email: dennis@mudia.com.ng

Connecting graduates to opportuities and jobs

Benin, Egypt, Ghana, Kenya, Nigeria, Rwanda, Senegal, South Africa, Zimbabwe

There are over 11 million people between the age of 15 to 35 are unemployed in Nigeria alone. Fact is countries lack talent! Education systems are not aligned with market needs, and the gap grows more and more each day.

The demand for highly skilled workers has increased while the demand for workers with more formal education and lower skills has decreased. Without talent, economics will stagnate, and global unemployment which is currently around 200 million people will increase.

"According to ""The Economist Corporate Network"", 65% of children entering primary school today will ultimately end up working in completely new job types that do not yet exist. With this being said, identification of future market requirements has become one of the most important factors to avoid the new economic crisis.

We are conducting job market analysis and working with companies to identify the next generation of jobs. We, in turn, provide access to information, knowledge, and skills to our beneficiaries.

The MUDiA Project's headquarter is located in Benin-City, Nigeria. We opted to have a majority of our impact in underserved cities. In larger cities, react is high but the impact is low, a single individual could be attending multiple training programs all doing the same thing. In cities like Benin, there are fewer companies who conduct training programs and none of them are conducting skills training based on job market data analysis.

THE HANDS PROJECT

Organisation: Alison Consults
Email: eocecem@alisonconsults.com

Training curriculum to instill entrepreneurship skills in vocational graduates

Botswana, South Sudan, Tanzania, Uganda, Zambia

Over the last one decade, Africa has witnessed the establishment of TVET institutions and or even innovation hubs in an effort to foster employable skills amongst the youth and other under-served populations. Uganda alone has over 600 registered TVET institutions, graduating at-least over 78% of those enrolled. Yet until now, there still evidence of a mismatch between employable skills and jobs in the market; TVET institutions among other vocational hubs have lacked a means to efficiently integrate experimentation and design skills into their curricula that are entirely embedded on building skills, which kills innovation in the product market.

Alison's Solution, The HANDS Project is a hands-on three-in-one curriculum that helps TVET graduates to integrate both design skills and social entrepreneurial skills into their already acquired building skills, while using the design cycle to help them to assess community needs as they design for and with them. The result is a self-reliant innovative TVET graduate; at the pivot of the HANDS Project is non-segregated curriculum with a positive result regardless of prior training or education level.

This curriculum is practically taught in 10 days, as opposed to other term-long curricula in the vocational settings. It motivates creative confidence amongst TVET graduates. 8,000,000 youth, 38% of Uganda's youth population have interfaced with TVET curriculum.

The HANDS Project will reach 60 TVET institutions by end of 2019 and 150 by 2021. As the "skilling Uganda" Agenda seeks to reach more youth and under-served populations, TVET institutions are getting integrated into rural innovation centers, giving them more leverage. A recent Government interest on Alison's solution has given it a 400 TVET institution ambition by 5 years. As it enters new markets in the quest to improve access to demand-driven TVET learning for 22,000,000 people in Africa by 2025, Alison will franchise solution to local providers.

SKILL STUDY

Organisation: COSDEF Group
Email: javnyuy@cosdefgroup.com

Online platform for providing vocational and skills training

Cameroon, Malawi

Africa currently has 60million people who need university or post-matric education and if Africa starts building tertiary learning institutions today, it would probably take around 200years for there to be enough institutions available to meet the current demand. Recent trends show that by 2030, over half of the world's young people 825 million with majority of them in Africa will lack the basic skills needed for employment. The problem of inadequate access to higher education by millions of young Africans and the skill gap and skill mismatch across the continent especially in rural and semi urban areas is the problem SkillStudy is addressing.

With the challenge to build the needed infrastructure to provide education and skill competencies to Africans, Skillstudy e-learning web & mobile application technology is designed for universities, training institutions and inde-

pendent expert facilitators to use to deliver skills to learners across Africa in an accessible and flexible way through any digital device. SkillStudy is committed to ensuring that African young people everywhere are equipped with the tools to operate in the present and future workforce through our digital platform where Africans can access skills on the go through mobile devices.

Through SkillStudy we are creating opportunities for young Africans to learn and acquire skills that previously weren't. SkillStudy is becoming a favourite platform in bridging the huge gap of skills transfer from the west to Africa, it is the right tool that universities and training institutions are using to take their programs beyond the school walls to reach young people that can't afford full classroom structured education. We are therefore changing the way knowledge and skill is imparted

in Africa in the area of technological skills, enterprise development skills, employability skills, corporate efficiency skills, community development skills and life skills. SkillStudy which aims at accelerating learning and relevant skills acquisition across Africa to bridge the gap and deliver learning and relevant skills has the potential of up-scaling across the continent. We have and are building an agile learning technology with all the 54 African countries in mind.

During the test phase of the innovation 6 months ago, we tested in 6 African countries with remarkable success recorded with over 150 learners taking courses after 60 minutes of test announcement. With the growth of mobile phone and internet penetration in Africa especially in rural and semi urban areas, we will up-scale with ease and strategy.

PITCH AFRICA

Organisation: StartUpAfrica
Email: erastus@startupafrica.org

Entreprenurship education and competition program students

Kenya, Tanzania, Uganda

Few of today's successful entrepreneurs benefited from formal entrepreneurial education. Success and failure were separated only by passion, hard work, and trial and error. Today, there is an emerging science of entrepreneurship that offers guidance when searching for viable business models. This science, based on lean startup methods, has been widely adopted by members of the most vibrant startup communities and championed by the National Science Foundation.

Working in teams of 2-4, students develop a novel business concept following the lean startup approach and are supported by a video-based curriculum, team adviser, and community mentor. Competition deliverables include a written concept and live pitch portion that address fundamental aspects of the business model: customer, problem, solution, unique value proposition, revenue model, team strengths, and validating evidence. StartUp Africa offers a broad array of educational opportunities for youth through the Pitch Africa. Three key learning objectives guide the development and implementation of program offerings: 1) develop students' entrepreneurial mindset so that they begin to notice problems and recognize opportunities, 2) improve students' understanding of how to formulate ideas efficiently, search for viable business models, and systematically build organizations, and, 3) connect students with networks wihtin Africa and internationally of like-minded others, as well as mentors and enabling resources.

Upon its completion, Pitch Africa is intended to inculcate new skills, expand job opportunities and build networks for the participating students. Africa's youth live in a continent of abundance, but yet, their unemployment rates is among the highest across the world. At StartUpAfrica, we are raising awareness of entrepreneurship as a viable career path and engaging them in world-class educational programming. The program empowers youth by giving them the skills, technological knowledge, connections, and access to resources needed to thrive in a rapidly changing world. StartUpAfrica will implement an expansion and enhancement of the Pitch Africa that will establish the ecosystem necessary to enable youth to become innovative problem solvers. Goals towards this include expanding the Pitch Africa footprint across the African nations, enhancing the digital and technical aspects of the curriculum, and increased collaboration with entrepreneurial and educational community partners.

Building on the positive experience of the past few years, StartUpAfrica intends to roll out an Africa-wide program, in 2019 starting with 9 countries to take our platform on a pathway to employability or self-employment to scale.

MWEVA

Organisation: Mweva
Email: admin@mweva.org

Web Design skills to students in rural schools

Kenya, Tanzania, Uganda

The youth population has taken the biggest brunt of unemployment as they register the highest number of unemployed. The marginalized and disadvantaged communities including girls, disabled, school dropout, youth from rural areas face even more unemployment challenges as they have the high Not in Education, Employment or Training (NEAT). The problem of youth unemployment is right across the African continent. We therefrore engage with different stakeholders to understand and find an approach that can help to roll out ICT, Quality Education, and Entrepreneurship skills to marginalized communities that is easily adaptable to other places, that is cost effective and can reach many countries.

ICT, Quality Education and Entrepreneurship training empower the youth to learn skills that propel them out of poverty, leads to the creation of jobs and enlist youth to available job opportunities.

ICT is a vital tool to empower the marginalized communities, we have a cluster of mobile training teams that provide ICT training to the underserved communities. We use laptops as they are portable to carry to villages, schools, community centers, organizations, youth groups, women program, disabled communities and other disadvantaged groups. We teach the following ICT skills: Web Design, eCommerce, Multimedia Production and games development. We provide computer training skills to teachers in rural schools, this helps them to become proficient in the use of Microsoft Application Office. We teach Web Design skills to students in rural schools, this is a lifelong skill that inspires them to become future web developers and design website in school holiday as a source of income. We teach children computer coding using Scratch, a computer games development application

to inspire them to become future software developers, computer programmer or aim to work in any computer related sector. We teach unemployed youth, girls and disabled community skills in e-commerce, Digital Marketing, business startup, tourism, and leadership skills. Africa is faced with a high unemployment rate, especially among the marginalized and disadvantaged communities. This is as a result of a shortage of skilled personnel, shortage of a vocational training institution and slow in adopting technology as a tool for social and economic development.

We have partnered with youth organizations like the Scouts where we teach them ICT skills and the participants go to disadvantaged communities they live in to teach them the new-found skills. in 2019 we hope to start ICT training programs to marginalized communities in West Africa.

STOP BECOMING BE!!

Teaching soft skills in an innovative way

Organisation: SEEDS LearnShare
Email: seedslearnshare@gmail.com

Madagascar

Many countries are investing in a new form of education. In addition to producing young people who are competent in their respective fields, this education also produces young people with what are called soft skills. In contrast to the hard skills that ensure a person's ability to be productive, soft skills provide the ability to manage what contributes to that productivity and its sustainability. We are talking here about the ability to manage: the ""self"" that produces, the resources that are used, such as collaborative relationships, and the continuous improvement that is a source of sustainability. Educational programs such as the Montessori Method, Khan Academy and School Entrepreneurship have been developed around the world, but are not fully applicable in many African countries. Such a program was born in Madagascar. It has been proven for over a year. An association called SEEDS LearnShare and a personal devel-opment program named: Stop becoming ... BE !!! Through events and training, this program allows the individual and/or collective acquisition of these soft skills, in 5 steps: 1) My personality my choice (the intrapersonal), 2) Growing up with my relationships (interpersonal) 3) Extend my possibilities (open minded-ness) 4) Make my first steps (the direction realization) 5) My mind, my present (continuous improvement and sustainability).

It allows those who benefit from it to develop interdependence: an individual production capacity multiplied by a collaborating capacity and infinite development. The world of the 21st century is so dynamic that it only takes one event and everything changes. Economy and finance, trades and education, culture and society are constantly changing. Skillful governments, like Quebec, are investing huge resources to ensure that their young people are able to integrate, support and reinforce this constant evolution. They realized that traditional skills-producing education alone can not achieve this goal. In Africa, we are not there yet. Our youth struggles to see, follow and enjoy all these opportunities.

Stop becoming ... BE!!! is implemented in two ways: the creation of an environment conducive to the development of soft skills or direct training on the acquisition of these soft skills. For the moment, we are starting to experience events like the challenge hunt, as the training has already proven itself. We focuing on developing the first cohort from this program who will become the mentor of the next cohort and likewise other cohorts; hence the name of the SEEDS LearnShare association or the seed that learns and shares. Schools are therefore the best way to scale both nationally and internationally.

HETAVED DIGITO EDU-PRENEURSHIP

Org: Hetaved Skills Academy
Email: kofizino@gmail.com

Online platform for training and mentoring digital and social entrepreneurs

Nigeria

The HETAVED Digito Edu-Preneurship Concept is a digital educational model that uses the digital tools and skills to make education accessible and affordable to all. As a unique educational innovative solution, it runs as a tuition free Learning- working and earning system to train, mentor and empower future digital and social entrepreneurs.

Our concept also leverages on strategic public and private partnership towards a holistic solution to education decadence, lack of digital knowledge and poor entrepreneurial education for the present and future African youth. Thus, our innovation uses both traditional and digital skills and tools to attract and empower the youth youth and women. Our approach is both offline, online and digital skils focused platform for driving inclusive education. To cure and solve the problems of lack of digital knowledge and entrepreneurship education, we have innovated and implementing the HETAVED Digito Edu-Preneurship model. This is a unique digital revolution for training and mentoring digital and social entrepreneurs even after school graduation.

Our digital educational concept is tailored on Learning-Working and Earning which make it affordable and attractive the average youths especially those from very poor backgrounds who are now able to access quality education through the digital space and tools.

We have scaled this project from Delta State to other parts of the region successfully; Program is always and easily available 24 houses; Program could be managed easily with Teacher and students relationship due to 24hour presence; The land and most resources needed are easily found in most counties of the world especially especially, among the poor nations.

WAVE

Organisation: WAVE
Email: noella@waveacademies.org

Embedding soft skills in Secondary School curricula for improving employment prospects

Nigeria

90% of Sub-Saharan African youth will not attend university so more years of education would still only apply to a minority of Nigerian youth for the acquisition of soft skills. Despite a great deal of evidence that soft skills are important, in Nigeria and in many other countries, these skills have been omitted from contemporary education policy. Introducing soft skills training at a secondary level will increase incomes for secondary school graduates.

In a pilot, sponsored by the Ford Foundation, we trained 69 youth who had recently completed secondary school on soft skills and matched those who were ready to work to entry-level jobs. We trained them over the course of 6 weeks. The goal was to see whether our intervention would result in increased income. Our trainers were WAVE in-house staff who have experience administering our training curriculum. Because our curriculum is not yet accredited, we were unable to embed it into secondary school content. Instead, we offered the training as an optional class for students who had completed their final exams. We trained in the 5 skills that we have found most likely to lead to a young person getting fired: effective communication, time management, problem solving, teamwork and managing expectations, over a period of 6 weeks. 2 of those weeks involved job shadowing, where trainees were placed in internships with employers, so that they could put their new skills into practice. We had a control group of 174 age-matched youth who were eligible for our program, applied, but were randomly rejected. We checked up on students through phone calls and site visits to employers. In order to find youth in the experimental group jobs, we used a competency-based assessment post-training, to match them with vacancies for which they had the requisite competencies. 5-12 months later, we found that our experimental group earned 1.3 times more than the control group (NGN22,800 vs 28,833). They also had a higher employment rate (46% vs 19%). Soft skills are underestimated. In WAVE's experience, this is an expensive approach with casualties on both sides: youth & employers. Youth lose jobs, self-esteem & opportunities, and employers spend large amounts of money on training and recruitment costs.

We believe an effective way to teach soft skills is to embed it into the regular curriculum so that students can learn their soft and technical skills concurrently. In order to do this, soft skills curricula must be accredited and teachers trained on how to use it by:
- Cooperation with Governments to accredit a soft skills curriculum, train teachers, and integrate a new pedagogy into schools
- Development of a mobile app to remotely train, monitor and support implementers of soft skills training, which WAVE is currently working on.

VSOMO

Organisation: DTBi
Email: cfo@teknohama.or.tz

Online Vocational Education Training through Public Partnership

Tanzania

Disproportion between the number of students and the ability for Vocational Training Facilities was observed to be a big problem. While demand of vocational training increased, the training facilities remained the same or increased at a slower pace over a number of years in Tanzania. In this case a number of people who were ready and willing to pay for the trainings were denied with such an opportunity. So V-somo platform was created to enable the Vocational Educational and Training Authority (VETA) in Tanzania to increase a number of students who receive trainings in the Country.

Vsomo is a Mobile Leaning Platform that developed by DTBi through its startup company called Magila Tech in col

laboration with Airtel Tanzania for the Vocational Educational and Training Authority (VETA) in Tanzania with the aim of increasing the number of youth/people who enroll and receive training provided by VETA. Vsomo that is accessible through both mobile phones and tablets enabled a large number of people to receive training in different specialties. Below are some of the features of Vsomo. 1)Accessibility: Vsomo Can be accessed via your phone or tablets; Enable to access it from any location in the world 2)Flexibility: With Vsomo App you can study at your own pace; Also it allows you to switch languages (Swahili and English) 3)Quality Content: Vsomo provides students with content that are self-explanatoory and aligned to replicate real world

scenarios. V-somo online platform was developed by considering sustainability and universal factors to make it a best fit to deliver training for any sector and environment.

Since its inception, V-somo concept has worked well in delivering Vocational training provided through VETA. After a proof of V-somo concept, the same system has been customized to deliver an entrepreneurship education through youth program called Tanzania Digital Innovation Youth Empowerment program (TADIYE). In this program, youth including the marginalized young women are able to register and receive the entrepreneurship skills and knowledge through their smartphones.

HI 5

Organisation: Jobortunity
Email: kim@jobortunity.org

Teaching '21st century' soft skills to youth

Tanzania

In Tanzania, large numbers of young people are losing out on employment due to the lack of educational opportunities, experience and the right skills/attitude. At the same time, many companies struggle to find adequate staff. In 2017, a policy note by the Prime Minister's office for Labour, Youth and Employment stated: ""employers in Tanzania seem to be much more frustrated by the lack of soft skills than technical skills. These include qualities showcasing integrity, honesty, loyalty, and ethical conduct."" (GOT, 2017). Each year 900,000 young Tanzanians enter the job market that is only generating 50,000 to 60,000 jobs.

The Hi5 can change educational systems preparing youth for the job market, entrepreneurship and supporting them to connect effectively with the world around them. The approach is recognised by the Hotel Association of Tanzania and the government. Jobortunity translated the needs

of companies into a training program. It designed the innovative 'Hi5 approach' which empowers youth to become confident professionals with the right attitude, social and technical skills to be employable. In close partnerships with more than 75 companies, it trains youth on 3H (Heads, Hands & Heart) in knowledge, skills and attitude.

The Hi5 method specialises in attitude i.e. soft/social skills also called 21st-century skills, using one's hand to simply remember: 1)Thumb: Have a positive and professional attitude such as grooming, punctuality and accountability. 2)Index finger: Have a goal and direction including following instructions and planning. 3)Middle finger: Stand out and be proud focuses on self-esteem, confidence and knowing one's strengths and weaknesses. 4)Ring finger: Be loyal and a team player is about communication, problem-solving and conflict

management skills.
5)Little finger: Take little but smart steps includes life- and leadership skills and proactiveness. The Hi5 approach proved that it is possible to bridge the gap between jobless youth and companies needing professional staff simply by enhancing social skills and building characters. It includes a Training of Trainers Curriculum; 100 topics Soft skills topics; mentorship/leadership curriculum and counselling/coaching toolkit and a digital app connected to an innovative social data management system.

Jobortunity is receiving emails from NGOs, social businesses, private and government colleges wanting to incorporate the Hi5 approach into their educational programs. We believe that because it cross-cuts ages, job positions and education levels, that the potential is extensive. However, it requires to develop a strategic approach and system to ensure quality and effectiveness.

GIFTED HANDS NETWORK

Org: Gifted Hands Network

Email: giftedhandsnetwork@gmail.com

Empowering visually impaired women through training in breast cancer screening

Uganda

Uganda has more than 1.6 million people who are blind, 99.5 percent of them are not employed, society looks at them as non-productive people and misfits. In addition, Uganda has more than 50,000 women with breast cancer and more than 4,500 die each year because few health centers are available. For example, only two mammography units ere in Uganda and located only in the urban center Kampala. As a result, women go to hospitals for detection and find they are already in their advanced stages of breast cancer. Many of these women are referred overseas for treatment, but 99 percent of them cannot afford the treatment and transportation costs.

We recruit and train visually impaired women to become certified medical tactile examiners

that carryout the early detection and prevention of breast cancer using their genius, heightened and well-trained sense of touch to palpate. The training transforms their disability into an ability: the superior sense of touch of a blind woman can early detect breast cancer lumps much more effectively than a doctor and in return blind women earn a sustainable income and save lives of other women from carrying out early breast cancer detection. This project turns their blindness into an opportunity to create employment for themselves and to save the lives of other women. Remember when breast cancer is detected early through examinations, it can easily be cured by treatment methods available in Uganda that include chemotherapy treatment. There fore Gifted Hands Network

reduces breast cancer deaths and increase on the employability of the visually impaired women. This project currently has impacted and reached out to more than 2,000,000 women through its educative program called Breast Cancer Free Uganda Campaign. In this program we educate women on the causes, risks, effects and treatment measures for breast cancer once early detected. We encourage and advise them to attend to early breast cancer examination. We also carryout the early breast cancer examinations with our ministry of health. It has won both International and national awards. Within two years are looking at scaling up the project to Nigeria, Kenya and South Africa since these countries are also highly affected with breast cancer.

KIMULI FASHIONABILITY

Organisation: Kimuli Fashion
Email: kimulifashions@gmail.com

Providing vocational skills training to physically impaired

Uganda

Uganda has more than 1.08 million people with hearing impairments and 1.48 millions who are physically handicapped. 95% of whom are unemployed. These individuals are qualified, but the society looks at them as nonproductive due to the stereotypes which regards them as cursed, abnormal, slow and non-competent exposing them to vulnerability. In addition, according to National Environment Management Authority(NEMA), 600 tonnes of plastic waste are poorly disposed of in Kampala everyday and 51% is left uncollected ending up in drainage channels and unfit places causing flooding, water borne diseases, death and extinction of water living organisms

We create up-cycled fashion and increases on the employability of the physically impaired and deaf persons through training them with free hands-on skills of creative tailoring. Exclusion of disabled persons is a common chall-enge across the globe especially in developing counties like Uganda meaning that it's a global need to include them in all participatory affairs of their communities be it social, economic and financial inclusion.

Kimuli Fashionability creates up-cycled fashion and increases on the employability of the physically impaired and deaf people through training them with free hands-on skills of creative tailoring. Training them with creative tailoring skills turns their disability into an opportunity of creating their own employment while saving the environment from the dangers of plastic waste accumulation and toxins generated through burning. African fabrics are blended with waste materials. In the absence of hearing, deaf people for example often have heightened kinesthetic and visual abilities resulting in high quality products with love for detail. We give employment opportuni-ties to the deaf and have empowered 35 persons directly who are now self-sustainable. Many of their peers are seen as cursed or bewitched by Ugandan society and often kept indoors due to shame of the family because of their disability. This is why our sensitization programs which we conduct in schools and fashion shows create awareness to thousands to change their perception of disability, as well as waste. With our 2 slogans "waste is only waste if you waste it" and "disability is not inability", we also sensitize Ugandans to see waste differently: It is Kimuli's greatest resource and we inspire others to start small and grow big through up-cycling initiatives. Turning plastic waste into artistic fashionable garments and accessories which is a creative way affecting all corners of our planet currently means that it can be adopted in all continents as sustainably.

LITERACY, WOMEN & GIRLS EDUCATION

READING POWER

Organisation: Startup Reading Power
Email: augustinoagbemavo@gmail.com

Tricycle powered mobile library for schools in rural areas

Benin

Less than a third of the schools in BENIN have a library and the few existing libraries are concentrated in Cotonou or in the city center. This is a problem because the last census of the population revealed that more than 50% of students aged 6 to 14 live in rural areas; the mobile phone and the television became the main sources of distraction of the pupils and their level of expression decreases from day to day with the phenomenon of the abbreviations. Current solutions have failed because most students do not have easy access to books to better understand their classes and their level of expression is not improving.

We have deployed a mobile library (www.facebook.com/BibliobusReadingPower) in Abomey-Calavi. This consists of visiting schools in rural areas every two weeks with various books (textbooks, children's novels, comics)

that students borrow by paying 100f or 150f for two weeks of reading. To be certain that the books are read, each student who borrows a novel fills a reading sheet that he brings back. From 2016 to 2017, using our bike as a means of transportation, 4 schools were covered with more than 500 student readers. With the purchase of a tricycle, we went to 7 schools with 1266 readers from November 2017 to March 2018. 66% of subscribers are female and 68% are between 10 and 15 years old. With the evaluation done in April, we noted that 92% of students pay for reading by themselves and 95% of subscribers will upgrade to higher education. This shows their willingness to return to reading. The revenues earned cover our expenses for transportation, catering, maintenance and book purchases and generate a profit margin that is reinvested in the activity.
We are looking for a partnership

with international organizations to have a real bus, increase the number of books in order to cover all Benin in the long run. In 2017, our initiative was awarded at the Oscars of the Beninese youth and we are the winners of the Ashoka Sahel ChangemakerExchang Program thanks to the Bibliobus. Compared to a fixed library, the bookmobile is more advantageous because its implementation is easy, its impact is greater and its economic model is more profitable. So we can sign a partnership with the government to deploy Public School Bookshops.

The state cannot build libraries everywhere, but with its limited resources, you can deploy a Bibliobus with a strong social impact. We can also deploy Municipal Libraries in partnership with town halls, and then bring service clubs such as Rotary, JCI, Lions Club, to cover the cost of reading for students in difficult situations.

SEPHIS

Organisation: SEPHIS
Email: bohomeganne@gmail.com

Mentorship program to empower young girls through skills training

Côte d'Ivoire

The successive crises that crossed our country caused a devaluation of the education system . This had a negative impact on youth in general and girls access to education in particular and increase the gap of gender disparity. The elimination of gender in-equalities and women empowerment through education can significantly increase the potential of thousands of women. The aspiration then of the African Women of the Future program is to bring knowledge and practical solutions to young women in Côte d'Ivoire through projects by revitalizing girls access to quality education, and to help gender equality to become a reality in the country.

The African Women of the Future Fellowship is a training program for young women (positive discrimination), which aims at supporting throug education ambitious and brilliant young girls but also to achieve greater equality between the sexes. AWF is also a national , prestigious mentorship and leadership program translated into a scholarship and immersion program. Following a selective process, 24 girls from different geographical areas of Côte d'Ivoire will be placed in a center where they will receive intensive training for six (6) weeks on very specific topics, in an academic setting and led by qualified people in order to be leaders and competent women. These 24 young women will be placed in a training center from June August each year. The training will be in different forms: theoretical and practical. For the theoretical part, the 24 young women are trained by experts in the below areas: Women empowerment; Gender Equality and Social Cohesion; Leadership and Decision Making; Women's Rights ; Good Governance; Communication and Technology; Public Speaking; Civic Engagement and Development. The practical part is dedicated to exchange and experience sharing during high level meet-up with leaders of public and private sector. During the first edition, the first cohort had the privilege to exchange with the Ivorian Prime Minister, HE Amadou Gon Coulibaly, The Ivorian Minister Thierry Tanoh and the Chargé d'Affaire of the US Embassy Mrs Katherine Brucker among others. The impact of this program lies in its sustainability, which is why the partnership requests that will be established around this program must cover most of the session.

After their training each of the 24 Fellows will have to work with the next cohort of fellows as peer collaborators during the 6 weeks of training of these fellows. Thus, the generations will be interconnected (giving-back). the 3rd and 4th sessions of this program SEPHIS intends to develop the AWF program at the regional level, notably in Senegal and Togo. This work will be carried out through the SEPHIS ambassadors which have been established since 2015.

SMART LANGUAGE LEARNING PROGRAM

Organisation: ESC Fellowship
Email: escfellowship@gmail.com

Innovative program for learning a second language

Côte d'Ivoire

My innovation is addressing a major problem in francophone sub-Saharan countries in Africa which is the low literacy rate in regard to the English language. Meanwhile, no matter one s field of expertise, the English language is very much needed and serves as a vital tool to work and cooperate with foreign nations. There is no denial that, we do have as primary language the French language but, can increase our chances on the global market with English as a secondary language. The main objective of my innovation is not only to fill a void in Education but more importantly, solve a problem in order to contribute to socio economic development.

The innovation solution I am implementing is currently made up of four subdivisions which include, a revolutionary method of tutoring that eases the understanding and assimilation of the English language, a mobile application with the aim to create an Anglophone environment though living a francophone surrounding with the help of daily assigned tasks to users, the introduction of a virtual reality experience to users that makes interaction with native speakers and touristic visits to Anglophone environment possible with the help of a headset. Last but not least, is the subdivision related to an educational TV reality show that will be aired on our national African francophone television channels with the aim to promote the English language and draw awareness about the importance of English literacy in African francophone countries.
In addition, a voluntary activity called, ""Help and Train the Child-ren"" will be launched soon in order to reach children from underprivileged environments and assist them not only with basic needs but access to coaching and learning materials so far as the English language is concerned.

The innovation can be up-scaled in the current context and adapted to other contexts through technological means, the creation of adequate virtual reality modules so far as the English language is concerned, sensitization and training of professionals already involved in the tutoring system about the revolutionary method used to address the problem. This can be done through transferable skills. This method will ensure progressive and uniform social impact not only in my country but other African countries facing the same issue.

NUBI

Organisation: Nubi
Email: m.talosh90@gmail.com

Local language learning for children through play

Egypt, Ethiopia, Kenya, Sudan, Tanzania

The Nubian language is an ancient language, spoken in Egypt, Sudan, and in worldwide Nubian communities by approximately 10 million people. It is the most ancient written language in the world, whose letters are derived from ancient Greek. In Egypt and Sudan - where the vast majority of Nubians now live - there is no formal government, public, or private institutions which recognize and support Nubian.

The language is learned in family settings or in small, informal language courses or camps. Even today, there is no Nubian language curriculum, no formal school dedicated to teaching Nubian. The language is endangered as young generations NUBI organization was founded in 2017 specifically to promote the learning, usage, and safekeeping of the Nubian language, and by extension, the Nubian culture.

NUBI is developing networks within Egypt to create a first-of-its-type Nubian language teaching curriculum, and is already teaching Nubian to smart-phone owners through its application "NUBI." Nubian children are the segment of the Nubian population targeted for NUBI's learning package, a set of children's games specifically used for teaching the Nubian alphabet and language through play. As NUBI matures, it will expand its activities to promote Nubian through a library dedicated to collecting, safeguarding, and promulgating any and all materials (books, poems, short stories, songs) created in Nubian. Currently, there is no library anywhere safeguarding and disseminating Nubian language materials. Presently, the Nubian community in Egypt, Sudan, and worldwide

connects through informal clubs, sharing information on Facebook, Twitter, and other social media. NUBI is unique in its focus on teaching Nubian, especially to children. There are no competing or complimentary projects or programs to those proposed and now executed by NUBI. The entire Nubian communities of 10M people are the beneficiaries of NUBI's work.

There is no segregation by gender or age; however NUBI recognizes the importance of targeting children in its programs since children are susceptible to the draw of globalization (media, entertainment, and gaming) which distances them from their Nubian heritage. developing and promoting new product (NUBI Learning package) to help the Nubian children learning the language in easy way.

LITERACY FOR WOMEN

Org: Litteracy for Women
Email: abirisegun@yahoo.com

Literacy for women through community learning centres

Nigeria

UNESCO identified that 182 million Africans are illiterates, and two-thirds of them are women; In Nigeria, 65 million are illiterates, inclusive of 35 million adults. This is why Literacy for Adult and Education for Women Initiative (LADEWIN) as an NGO and NPO has the mandate of assisting the degrading educational system in Nigeria through provision of adult basic education for rural and semi urban communities. It aims at teaching uneducated adults how to read, write, spell and speak in English in order for them to live a better, richer and fuller life both as individual and as social units.

We help in solving educational problems in Nigeria through provision of free Adult basic Education, Skill Acquisition, and Empowerment for rural and semi-urban community residents. These are done through establishment of Community Learning Centres (CLCs)- in collaborations with the community and community hea-

ds, and locating the CLCs in the community provided venues (most especially), Government schools. Adult learners receive lectures 3 days a week, 6 hours a week for 13 weeks that makes a Term, and 3 Terms a year that makes a session, and are graduated after 3 sessions. Their lecture courses and curriculum are UNESCO Federal Ministry of Education recommended which are: Numeracy, Literacy, Sanitation and Health, Community Organisation & Social Reconstruction, Information & Communication Technology, and Skill Acquisition. We also organize leadership Seminars for both adult learners and facilitators. We embark on community sanitation in promoting preventive measures of communicable diseases. We go from houses to houses, shops to shops for awareness rally in order to enlighten the rural settler to be involved in our adult education classes. This is a practical involvement of the commu-

nity. By impacting knowledge in the lives of community members, bringing them together to discuss about the challenges faced at the community and the way forward, and helping to encourage them for been positive in their thinking.

Some of the impacts made in the lives of uneducated rural Nigerians are: Graduated 12 adult learners who are now abe to read, speak and write; 2 adult learners have gotten admission to higher institutions, in addition to 4, 8 and 12 learners who have written WAEC, Junior WAEC and Common Entrance Examinations respectively; Several rural residents have learns several skills ranging from Catering to Cake making to Soap making; As at August 2018, we have 4 active Community Learning Centers in rural communities in Nigeria, with an average of 60 learners per centers.

MOBILE MICRO SCHOOL-GIS INPUT

GIS equiped mobile micro-schools

Org: Rotel Foundation
Email: rotimimoses1@gmail.com

Nigeria

In Nigeria, over 10.5 million children are out of school and of this figure, about 60% are females. Globally, the rate of illiteracy among women is high, of the world's 774 million illiterate adults, 2/3 are women and among the world 123 million illiterate youths, 76 millions are girls. During my research last year on girl child education in villages, I found that there is high level of illiteracy in remote areas, and females in these places are vulnerable. Because we take education to their door mouth and empower them, the innovation has the capacity to scale globally. Goal 5 of the Sustainable Development goals is ACHIEVE gender equality and empower ALL girls and women. Goal 1 is end poverty in all its forms everywhere. Goal 10 is to reduce inequality within and among countries.

The innovation –Mobile Micro School-GIS Input (MMS-GISI)was designed to achieve all of the above SDGs. The innovation has the capacity to provide long life learning opportunities for girls and women to provide entrepreneurship empowerment for poor/marginalized girls and women from 4 years to 28 years, It is a collective understanding that girls and women are the most vulnerable in the society. The mobile micro school-GIS Input (MMS-GISI) is a new innovation. The MMS-GISI delivers a twin program: 1)Educating women and girls on how to read, write and communicate in English and empowering them with entrepreneurship knowledge and skills with major focus on those living in hard/far to reach settlements, slums/riverine areas and poor/marginalized communities. We go their settlements and establish learning boot camps, moving from settlement to settlements and slums to slums to deliver service and impact lives. Learning take place under trees, canopies or any open space. 2)Using GIS tools to bring the remote communities to limelight by taking its Geo-points and developing its map for easy access by stakeholders and NGOs when reaching them to provide further support.

The innovation is highly cost effective since our tutors are under graduates drawn from colleges of education. We also recruit individual for teaching practice or internship, and this category are not entitle to any payment, its voluntarily. With the innovation more so, more girls and women can be reached at once in their communities. Looking at other alternative available such as taking girls from their homes to the city for education opportunity is common, almost everywhere globally. This approach is not only expensive, but it is not reliable as over 80% of these girls return home after a while, and most of them complain of bully and neglect due to their age, background and inability to read, write and communicate in English. The approach is also highly expensive.

LITERACY BOOST & CVA

Organisation: WVI
Email: joseph_nzaly@wvi.org

Ehancing reading comprehension for children using an integrated program

Senegal

In Senegal, assessments and measures against benchmarks for learning achievement have revealed that less than 50% of learners in the second grade of primary schools have been acquiring reading comprehension skills in recent years. This sees Senegal falling short of the prescribed standard of 80% of students being able to read and understand. the observation is that: Many teachers have difficults to teach reading; The reading resources are inadequate and are not varied; Most parents do not invest enough in children schooling.

The innovation "Literacy Boost and Citizen voice and action (CVA)"" and aims to promote ability in reading comprehension among students 6-8 year-olds. It combines the teaching of reading skills in school and community with the progressive syllabic teaching method, which is based on 'knowledge of letters, awareness of phonemes, vocabulary, fluency and comprehension'. The basic components of Literacy Boost are:

1)Assessments: Baseline at the beginning and End-line at the end of the project, using Tangerine software 2)School component: training teachers on the five components of innovative reading, and creating a literate environment 3)Community involvement: two reading clubs per school at community level, creation of reading resources from local material with Bloom software, training sessions for parents on supporting children in the home In order for ""Literacy Boost"" to better support the teaching of reading and to achieve the anticipated outcomes, the programme requires rigorous adherence to educational norms and standards, particularly where reading skills are concerned. The World Vision CVA model will be used to engage communities, children and local authorities more deeply in order to improve the conditions for teaching reading. 4) Train the communities involving in Literacy Boost on the mon-

itoring of norms and standards that promote the teaching of read ing at school and in community 5) Train CVA groups to develop, vote on and then monitor the local budget allocated to education 6) Engage local government to help scale up sustainable approaches such as Literacy Boost

The project is adaptable to all contexts with the involvement of communities and school authorities. A pilot with project intervention classes and control classes is required to measure the gain of the project. Involve communities in data collection, data dissection and the recruitment of community volunteers. Depending on the context, one component can be implemented without the other: for example, run community-based reading clubs and local material creation only in the context of a teachers' strike or absence of school (crisis situation, nomadic populations) or engaging communities to influence decision-makers to support education norms.

NALIBALI

Organisation: Nal'ibali Trust
Email: katie@nalibali.org

Promoting the the culture of reading though fun stories in native language

South Africa

South Africa has 11 official languages. Most children learn in their home language until Grade 3, and in English from Grade 4. Yet by this transition year, 78% of Grade 4 children cannot read for meaning in any language. One key problem is lack of access to high-quality, high-interest reading material - especially storybooks - in children's mother tongue. 58% of homes have no leisure books, and only 7% of homes have >10 books. Just 17% of schools have a stocked library; many stay locked, have unsuitable titles, or do not loan books. Reading culture is also a challenge: only 35% of adults who live with children read aloud to them.

Nal'ibali's bilingual reading-for-enjoyment newspaper supplement is a 16-page, full-colour resource for reading club leaders, teachers, caregivers and children. It is released every 2 weeks during school terms (15x a year). Each edition includes 3 stories (2 can be cut and folded to make a book); activity suggestions for teachers and caregivers; motivati-

onal messaging and information about reading; news from the Nal'ibali network; and games and activities for children. Stories celebrate traditional storytelling and local authors, promote African values, and reflect readers' lived experiences. All content is bilingual (English and another language). It is available in 8 of 11 national languages. 33.8 million copies have been distributed since 2012. At present, 57% are given free to reading clubs, schools, libraries and community organisations, and 43% are distributed in Tiso Blackstar newspapers.

An external evaluation recently showed that demand is high; use is high; and the supplement is supporting behaviour change, although targeting of distribution channels could improve. The supplement is part of Nal'ibali's national reading-for-enjoyment campaign. It works in partnership with the Department of Basic Education and other actors. Through advocacy, training, partnerships, media campaigns and

high-quality reading materials, Nal'ibali is mobilizing a movement of literacy activists, supporting a network of reading clubs, and raising public awareness of the importance of reading. Since 2012, Nal'ibali has trained 21 084 people. 4 154 reading clubs are active across the country, reaching 120 656 children. The supplement is an effective, cost-effective innovation well-suited to scale or replication. At $0.11-$0.28 per copy (variable distribution cost), it can increase access to reading material quickly and affordably. Its bilingual format is relevant across Africa, where most children don't learn in their mother tongue. Its regular release supports reading habit formation, and its format supports taking books home. It is also used by adults, and can spread advocacy messages.

It costs ~$30 000 to add a new translation for 1 year. To scale, Nal'ibali would also need local distribution/implementation partners, and support for a sub-grant model.

BASSAREX APP

Organisation: Université de Lomé
Email: gnandix@gmail.com

Mobile app with unique program for learning to read

Togo

The two main problems are the adult illiteracy and the school performance of children due to the fact that they can not read and write in their mother tongue. Although the Speakers want to learn to read and write, they face certain constraints. Adults have trouble finding a common time slot to learn their language, because of the different activities of each other. For children, the government is unable to establish a language policy for the teaching of NAMC and many other local languages despite the importance of mother tongues.

The didactic content of our Bassarex application follows the logic of the syllabic method which consists in starting first with the letters of the alphabet, and associating them with each other to form syllables and then words. The interest of this method is that the lessons follow a progressive order adapted to a first learning of the reading. This is consistent with the main purpose of our application, which is to get the learner to first identify the letters and numbers and then reproduce them in different forms. Once this goal is achieved, the learner will be able to read any document based on what he has already learned.

The method of presentation of elements of the alphabet is the pictorial method of letters which consists of treating a letter as an image. This method consists more precisely of designing a didactic page for each element of the alphabet, where these elements appear in close-up like images. Its main advantage is to get the learner to focus on one element at a time, reducing the opportunities for distraction. This method also allows us to apply Mayer's multimedia design theory to the didactics of the alphabet, thus associating each letter with its pronunciation to allow the user to learn the alphabet under the same conditions as the visual vocabulary. The transition from one exercise series to another is marked by a feedback which depends on the score achieved in a given exercise.

When the software is fully developed, we will take the test to native speakers. After this test, we will integrate any changes before moving to the final version that will be distributed and installed on Android phones or tablets. The next step will be to design applications for the other languages of the country, on the same model, in order to facilitate the coordination of digitized learning of mother tongues.

EXPERIENTIAL LEARNING, INCLUSIVE EDUCATION, OTHERS

ROGER TECHNOLOGY

Email: ymove@lobe.ca

Inclusion for hearing impaired students in the classroom using technology

Ghana

In Africa , children who are born deaf or with hearing impairment, are children who are automatically dumbed and excluded from the regular education system because appropriate services that can help those children to speak and develop normally like all other children do not exist on the continent. The fact that those children do not have access to spoken language systematically excludes them from entering mainstream classes from a normal course of education. Even hearing impaired children whose hearing loss is not so important are prevented from entering mainstream classes.

Roger technology is a frequency modulation (FM) system that is made for speech transmission. In order for Roger technology to work properly, the child with the hearing impairment must necessarily wear a compatible hearing aid equipped with a Roger receiver. The teacher who gives the lecture or who animates the educational activities in classrooms must suspend the transmitter around his neck. The transmitter picks up the teacher's speech and transmits it directly into the hearing-impaired child who hears it clearer and clearer in his ear; therefore, he or she understands better the lessons in classroom. The child can also adjust the volume to make it more comfortable. Roger kit microphones are synchronized with hearing aids. The other students in the classroom can use one of these microphones to ask questions to the teacher or to the child; and the child with the hearing disability will hear all the questions and understand them, as well as the various interactions between the other students and the teacher through his hearing aid. For round table discussions, the child can use the same transmitter as a directional microphone and zoom in on the person he wants to hear better in his ear. This facilitates understanding of the knowledge taught, lessons and interactions during school and extracurricular group activities. In summary, this technology allows children without hearing impairments and those with a hearing disability to attend the same schools, the same classes (creation of inclusive classes) and allows children with hearing loss to have the same chances of academic learning and success as all other children. The following kit is required in order to provide a child or children with Roger technology in a school class: 1) A hearing aid for the deaf or hard of hearing child; 2) Roger transmitter for the teacher or any other instructors; 3) A Roger receiver built into the hearing instrument or attached to the hearing instrument; 4) A set of microphones to be made available to other students in the class; 5) A Roger charger to regularly charge the transmitter.

In addition to the Roger's Kit, a professional computer and hearing aid fitting software are also required by the hearing care professional for any necessary adjustments.

KABAKOO

Organisation: Kabakoo
Email: akwaba@kabakoo.africa

Learning through wondering

Mali

Our solution consists in giving the local population an opportunity for project-based learning with a strong experiential focus. Kabakoo is an open school for locally-grounded technology and innovation. We are an inclusive space offering opportunities to learn and experience innovation to a diverse range of people. We define ourselves as open school since we welcome every society member who is willing to engage in our learning and training activities. Following the precepts of place-based learning, Kabakoo aims at unraveling the links between technology and an improved quality of life.

Kabakoo means "to wonder" or "to be amazed" in the Bamanan language from West Africa. The act of "wondering" takes a centerpiece in our structure because of its importance in the process of growing knowledge. In fact, the ancient Greeks as well as Bamanan mythology from West Africa teach us that "wondering" is the beginning of discovery and knowledge. At Kabakoo, there are no educators, no trainers, no students, only wonderers. At Kabakoo, wonderers collaboratively learn and work towards the development of innovative solutions to local problems. Kabakoo's key defining features are ecological sustainability and inclusiveness. Ecological sustainability is reflected even in our architecture with local materials built with the ancient African technique of the Nubian vault and the use of upcycled furniture. In terms of inclusiveness, Kabakoo is located in a typical low-income neighborhood where the majority of the population in African cities actually live. Moreover, Kabakoo inclusively welcomes wonderers notwithstanding their educational background. Technology education in our African contexts happens in the midst of an epistemicide. Since technology and innovation are social practices, learning in such a context is bound to value mimicry over creativity which is howbeit paramount for solving human problems. These habits of imitation can be linked to a disregard for local knowledge. Similarly, local engineering practices and knowledge used in the informal sectors tend to be seen as less valuable. Hence, the problem we address is the apparent disconnect between technology education and local problems. Kabakoo aims at solving the lack of locally-grounded technology education in Africa.

The first House Of Wondering was launched in May 2018 in Bamako. And we are already noticing an increased demand for our model of technology and innovation education. Since Kabakoo explores how to address socioeconomic challenges by simultaneously leveraging locally-grounded knowledge and state-of-the-art tech, its goals and mission meets the aspirations of the Continental Education Strategy for Africa which calls, among others, for the promotion of local knowledge and more practical innovation training leading to creativity. This further shows that the concept of Kabakoo – The House of Wondering is fully scalable to other African contexts.

ÉCOLES LUMIÈRES

Org: Action contre la sècheresse
Email: rahimehab21@gmail.com

Model schools for entrepreneurship based education

Niger

The establishment of a financially self-sufficient educational institution "Ecoles Lumières" which must know how to balance the teaching of a vast study program and the desire to maximize the profit generated by the entrepreneurial activities within the institutions themselves schools will coordinate the teaching of traditional school branches and the management of small agricultural school enterprises. School businesses will be an opportunity for students to develop entrepreneurial know-how and business acumen, which will help them, when they finish school, find a job more easily or start their own business. The different skills coordinate a cognitive and motor know-how with professional attitudes and values. By combining all this, schools seek to develop a foundation of holistic skills and aim to make a student a ""rural entrepreneur"", and eventually,

an employer employing other members of his community. These schools enlighten through education and business training while illustrating how the teaching of a productive know-how helps the development of skills required in the labor market. One of the main advantages of the Ecoles Lumières is that it offers students the opportunity to receive an empirical education. Empirical education is considered a very effective teaching method for the acquisition of technical know-how and the assimilation of critical-thinking and experiential subjects.

The reason given for the recent modernization of the education system for technical and vocational training in particular is the need for a rapprochement between school and business, the ""rise in youth unemployment"". during the same period had dic-

tated the urgency of this rapprochement to the extent that too great a distance between the two milieus was rightly or wrongly designated as one of the main sources of the growing difficulties of young people to the active life. Ecoles Lumières will offer an entrepreneurial curriculum, incorporating existing standard or government programs, to ensure that teaching materials are appropriate and beneficial to students.

This program includes:
The revision of national / standard education programs; Creating lesson plans for each academic subject with learning solutions that incorporate entrepreneurial concepts and local examples; The establishment of a teaching structure for each academic subject; and Improvement of teaching methods.

TUTORS TEMPLATE

Org: Mega Arts Pluz Nigeria
Email: artistsrightsforum@gmail.com

Mobile application to support teaching

Nigeria

Our Innovation seeks to address the death of quality, reliable, Culture friendly, Educational resource that is Teacher targeted, oriented and directed in Nigeria/Africa, lacking in E-learning capacity.Tutors Template (TT) will address this gap by being a bridge builder and game changer in contemporary world of educational learning platforms for teachers. To enhance capacity of teachers where their training is inadequate by providing a wide spectrum of training tools and content. TT will make teaching easier,fun,help plan lesson notes better, and make the classroom a hub of interesting learning for teachers and pupils. To have better teachers for improved pupils.

Tutors Template 360 Degrees is a Digital, Mobile/Online Educators Empowerment tool, to train,update,upgrade and holistically enhance the capacity of English and Mathematics Teachers from 1st to 6th grade in Nigerian/African primary schools.

Tutors Template calibrates and fast tracks the teaching sensibilities of Tutors so as to improve learning ability of pupils.Tutors Template Apps contains,diverse Access to Curriculum Resource,Edu-Games,Proactive Classroom Methodologies and Scorecard which is a self assessment module for Tutors.TT is the ultimate game changer in today's world of E-Training for Tutors.It is culture/teacher friendly,affordable and inclusive in line with SDGs.TT's slogan is, 'Empowered teachers,Excellent pupils,Sustainable Education in Africa.TT will be developed by Seasoned Educationists,IT Content developers and Creatives.It will provide jobs forYouths,Teachers,Tutors, Marketers and Creatives.It will be sold through Mobile/Online platforms as well as MP3s, CD/DVDS. It is an innovation that is yet to be tested in the market at the moment,however we hope that investors,NGOs,Educational bodies and Governments will buy into it and subsidize it for their students when we bring it to the

market place and test run/launch in Nigeria.Tutors Template will be available online,on CDs and mobile Tablet platforms.It will be on mobile platform for subscription as well as Bookshops,IT shops,online platforms.Tutors Template Tablets with preinstalled Apps will be powered by sound cloud.

Tutors Template will add value to e-learning resources for Educators.It will reduce use of hard copy textbooks which is cumbersome and thus make teaching/learning fun,interactive and updating.TT 360 Degrees will update the capacity of teachers and make it easier for them to plan lesson notes better and also keep them abreast with the latest E-learning resources globally through online/mobile platforms.Tutors Template 360 degrees will be valuable educators resource that will be scaled up to other Sub Saharan African countries by interfacing with educational needs and gaps of educators in the countries.

SDELI

Organisation: SDELI

Email: easonye@s-deli.org

Promoting Deaf Literacy through the Documentation of Indigenous Signed Language Using Technology Innovation and Early Intervention

Nigeria

Over 75% of hearing loss in children (from birth to age 5) in Nigeria is caused by preventable health challenges. Children that become deaf at this age have little or no access to signed language, first because over 95% of them are born by hearing parents with no signed language knowledge, and second, because there is no early intervention program in place to facilitate early literacy acquisition through an indigenous signed language. This population of deaf children experiences language deprivation that results in very poor cognitive development and linguistic incompetence that negatively impacts their lives into adulthood.

In our four years of operation, we have sought to solve the problem of Deaf literacy in Nigeria by addressing the root cause of the matter, which is the promoting Deaf literacy through the indigenous signed languages and the implementation of early intervention program. We are currently creating a huge awareness among deaf and hearing signers, teachers of deaf children, families and legislators, the impact of which includes an increased knowledge of the problem and an increased expectation of the solution, which is the documentation of indigenous Nigerian Sign Language for Deaf education and the implementation of early intervention program for deaf children.

We will document the indigenous Nigerian Sign Language using technology innovation and make the signed language materials available to families of deaf children through Early Intervention program so that deaf children will have access to signed language in the early child development stage. We will also propose legislation for the indigenous Sign Language to be used in Schools for the Deaf across the country in place of the current Signed English version that hardly represents the culture of Nigerian deaf community. Our documentation materials will be made available online, in hardcopy materials and in softcopy applications such as phone memory cards, CDs, etc. The expected outcomes of this project include but not limited to the following: 75% of children with hearing loss in Nigeria (those that became deaf from age 0 to 5) will have access to language and a proper cognitive development and linguistic competence like their hearing peers.

Documenting indigenous Nigerian signed language varieties using technology innovation and distributing the documentation materials to families of deaf children through early intervention program is one sure way to provide language access to over 75% Nigerian deaf children with little or no access to signed language in their critical development age. It is one sure way to promote cognitive development, literacy acquisition and linguistic competence among deaf children in Nigeria and other African countries with similar situation. Every deaf community in Africa has the potential of having their indigenous languages documented.

GRANDMOTHER PROJECT

Org: The Grandmother Project

Email:

mamadoucoulibaly@grandmotherproject.org

Integrating positive cultural values in schools

Senegal

The 2014 National Conference on Education concluded that "the Senegalese school system should produce citizens who are rooted in their cultural, spiritual and moral values." This concern has been articulated by national educational authorities, the primary and secondary school curricula give very limited attention to cultural values and traditions. Parents are convinced that they should send their children to school but they are concerned that the positive cultural values that they cherish are not taught in those schools. In close collaboration with Velingara District Education Office, Grandmother Project – Change through Culture (GMP), developed an innovative program "Integrating positive cultural values into schools" (IPCVS). The program goal is to improve the quality of education for children by making it more culturally relevant.

Objectives of IPCVS are to: To integrate positive cultural values into schools; To strengthen communication

and collaboration between teachers and communities; To increase parents' and grandparents' involvement in children's education. Key IPCVS activities are: Teacher workshops: grandmother-teacher workshops; Development of teaching materials on positive cultural values; Grandmothers as teachers in classrooms; Story telling evenings and contests; Intergenerational community forums.

IPCVS is implemented in 54 primary and 3 secondary schools, with 8,256 pupils, 239 teachers and 156 grandmothers. Results of IPCVS: In 2015, an external review of IPCVS concluded that ICPVS contributed to: improved attitudes of communities toward schools; increased school enrollment; decreased drop-out of girls; improved behavior of children with peers and family; and decreased child marriage and teen pregnancy. Positive 2017 exam results: Results of the primary school completion exam show very positive results of IPCVS. The exam succ-

cess rate at national level was 57%, in the Kolda Region it was 57% and in the IPCVS intervention area it was an impressive 75%. The very positive exam results are mainly due to: increased mutual respect and collaboration between schools and communities. Families and communities across Senegal are profoundly concerned about the loss of cultural identity and values in children. The IPCVS program review stated: "The IPCVS model can be used throughout Senegal and in other countries". Ministry of Education official, Mme. Mbodj, stated, "We would like to see this program used in schools across Senegal.

We believe that the innovative IPCVS strategy can be scaled up within Senegal and adapted for use in other African countries. Across Africa there is concern about the loss of cultural identity and values among younger generations. Scaling up depends mainly on the commitment of national educational officials to make school more culturally relevant.

LE FOYER ARDENT

Organisation: Aide et Action Intl.

Email: sadia.ndiaye@aide-et-action.org

Inclusive space for supporting students with learning difficulties

Senegal

Le Foyer Ardent: an inclusive and participatory model of school support. It is a space equipped and equipped with furniture and a kit of solar lighting, to welcome, in the evening, pupils with learning difficulties and to bring them a school support and an educational catch-up in mathematics and reading with the support from community reporters. It is set up by the School Management Committee under the supervision of the Director. The beneficiary students are identified according to their performance after level tests.

The experiment allowed us to: 1) Improve student performance in reading (+5.6 points for girls and 6 points for boys), and mathematics (+10.1 points for girls and +12.4 points for boys) between 2016 and 2017 for both regions

2) Improve the conditions for the preparation of lessons by teachers 3) Increase the learning time of pupils, especially girls (relatively free from certain domestic activities) 4) Strengthen synergies between actors in the educational community: individual and collective commitment of parents, associations of mothers of pupils and interactions between parents and teachers for student follow-up.

Le Foyer Ardent is designed for elementary school students, but it remains an inclusive space open to middle school students, Koranic school children and the community (literacy and community meetings) Tests were conducted in two regions of Senegal, characterized by low enrollment rates (GER: 73.9% in Tambacounda), especially for girls (IPS: 0.94 in Kedou-

gou) and low school outcomes (thresholds of MSc in Mathematics 22% and 35.3% and Reading 82.5% and 32.7%). This situation is prevalent due to the illiteracy of parents, the lack of lighting and monitoring of school children by families, and the inexperience of teachers. Le Foyer Ardent intends to fill the gap of the absence of a conduisive environment for revision of school work at night for the families deprived of electricity.

The model of Le Foyer Ardent is easily replicable as its implementation relies primarily on local resources. Technical resources are provided by teachers and community trainers. In addition the costs related to the implementation of hangars or buildings, booths and solar kit remain accessible to communities.

TOA NAFASI PROJECT

Organisation: The Toa Nafasi Project

Email: operations@toanafasi.org

Supporting students with learning difficulties through a public-private partnership

Tanzania

The education sector in Tanzania faces a number of challenges to addressing the individual learning needs of students, particularly those with learning difficulties. While overt physical and mental disabilities are starting to gain recognition, less quantifiable learning impediments remain mostly unidentified. With a limited understanding of the subtle and complex needs of students with learning difficulties, teachers and parents often perceive such children as having behavioural issues. Consequently, these students are often unable to fully participate in and benefit from their education, entering a lifetime of marginalization and exclusion.

The Toa Nafasi Project addresses this situation by using its public-private partnership with the Tanzanian government and local communities to provide support for struggling students, their parents and families, and the teachers and administrators within the public school system. The Project is an educational program (not a separate facility) working within the government school system in Tanzania, where the majority of schoolchildren are enrolled. We offer a unique and innovative approach to support students who are in danger of being left behind due to their learning difficulties.

The Project strives to improve learning outcomes for all students in Grades One and Two but our focus is on the most vulnerable learners. We do not deviate from the national syllabi mandated by the Ministry of Education but rather ensure that everyone in the class has an equal opportunity to learn. We work with teachers and parents to identify which students are struggling, what the cause(s) might be and how best to help them. Our three-tiered approach of assessment, referral and curriculum modification has enabled significant development and improvement in students found to be struggling in the early grades of public primary schools. Assessment—The Project's staff, with the cooperation of school administrators, observe each student for social behaviours, adaptive abilities and motor skills, and test them for literacy, numeracy, and cognitive skills in order to establish their baseline aptitude. Referral—Our referral system utilizes local health professionals to treat those pupils who are struggling due to medical or psychosocial issues.

Our program is designed so that it can be introduced into any public primary school in the country. Ultimately, the goal is to be in all Tanzanian public primary schools so students who need assistance can easily access it. The Project works in four schools in the Kilimanjaro Region of Northern Tanzania and we will expand to another five schools in 2019, making a total of nine schools with 27 total tutors and around 1000 children. This will be the beginning of a consistent and on-going expansion process where we expect to eventually occupy schools in every district of Tanzania's Kilimanjaro Region and, eventually, every region in Tanzania.

INNOVATING EDUCATION IN AFRICA EXPO 2019
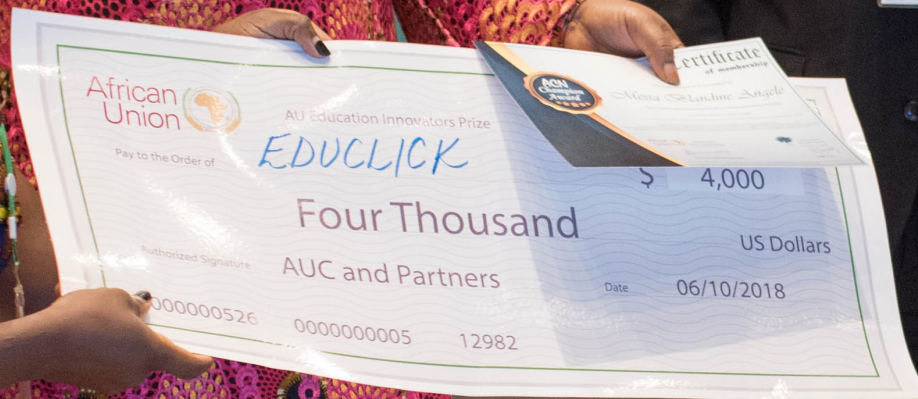
The African Union Commission appreciates the offer of the Republic of Botswana to host the next Innovating Education in Africa Expo 2019 to
celebrate Education Innovations in Africa.

Editorial Team

❝Dr. Beatrice Khamati Njenga

Head of Education Division at the Department of Human Resources, Science and Technology of the African Union Commission. She believes that Innovating Education in Africa is at the centre of CESA's implementation, as education MUST remain relevant in the face of rapid societal changes, to which it needs to adapt, and yet at the same time influence change.❞

Mr. Nicholas Ouma

Senior Youth Advisor at the Department of Human Resources, Science and Technology of the African Union Commission.

Mr. Mich-Seth Owusu

Program Officer at the Department of Human Resources, Science and Technology of the African Union Commission.

CONTACT US

Rosevelt Street, Old Airport Area
P. O. Box 3243
Addis Ababa, Ethiopia

+ 251 11 518 2056

owusum@africa-union.org

www.au.int