



**INNOVATING EDUCATION IN AFRICA EXPO
SELECTED INNOVATORS FOR 2019**

ID	Name	Nationality	Email	Title of Innovation	Category
1	Susannah Farr	South Africa	susannah@goldyouth.org	Peer2Peer Systemic Scale	1st
2	Wakesho Nyaboke	Kenya	wakesho@e-limu.org	Hadithi Hadithi!	2nd
3	NGUANGUE EBONGUE JOSEPH	Cameroon	nguanguesejoseph@yahoo.fr	SCOLARYX Educational Box	3rd
4	Joshua Oodira	Botswana	zihno@classmate.co.bw; ozihno@gmail.com	Classmate	Top 11
5	Chancel MALANGA MATHOY	Democratic Republic of the Congo	Chancel.Malanga@eagle-sight.net; ChancelMalanga@gmail.com	KELASI	Top 11
6	George Boateng	Ghana	george.g.boateng@gmail.com	SuaCode	Top 11
7	Carlos Augusto Benedito	Mozambique	cbenedito@gmail.com	ACADEMYCUS	Top 11
8	AdeDamola K. McCarie	Nigeria	damola@ischoolcloud.org; damola.mccarie@gmail.com	The iSchool CLOUD Artificial Intelligence Virtual School & MultiBOOK Framework	Top 11
9	Lamine SARR	Senegal	lamine.sarr@nena-sen.com; sarr.lami@gmail.com	African Digital Libraries (Online and Offline) to Improve Access and Quality of Education	Top 11
10	Goodluck Chanyika	Tanzania	gchanyika@yahoo.com	Jumuisha Tanzania Initiative - Advancing Special Education Teachers' knowledge on Inclusive Education using ICT/Online learning to improve learning outcomes for students with disabilities in Tanzania	Top 11
11	SAMSON RWAHWIRE	Uganda	rbsjunior@gmail.com	Busitema University Lightboard for e-learning	Top 11
12	Bessan Eliezer Augustino AGBEMAVO	Benin	augustinoagbemavo@gmail.com	BOOKCONEKT.COM	Top 40
13	Sourou Jacob	Benin	bokinijacob@gmail.com	Support to the educational and vocational guidance of young people towards TVET with the mobile application ETFP GUIDE in Benin	Top 40
14	Agang K. Dithlogo	Botswana	agangdithlogo@yahoo.co.uk	The Clicking Generation	Top 40
15	Melissa Tafila	Botswana	melissa.tafila@gmail.com	CEA	Top 40
16	Emmanuel OUOBA	Burkina Faso	ouobae@gmail.com	EDBox (Education digitale box)	Top 40

17	Adam Sadou Elhadj Boulama	Chad	adamsadou8@gmail.com	Orientis: application to help school and vocational guidance	Top 40
18	Bouayom Anderson Djimadoum	Chad	info@label109.org	TchadEducationPlus	Top 40
19	Yeboue N'guessan Jean Raymond	Côte d'Ivoire	raymondyeboue@gmail.com	E-SOUKLOU	Top 40
20	DIVIN BONTE	Democratic Republic of the Congo	kurubonte@gmail.com	COMPUTER FOR DEAVES	Top 40
21	mohamed samir nada	Egypt	m.n@vlaby.com	vlaby (virtual lab platform)	Top 40
22	filimon gidey geberemichael	Ethiopia	gidey.filimon@gmail.com	አሃዱ (Ahadu) Mobile Based Student Attendance Controlling System	Top 40
23	Edouard Claude GNIAGOGNIE NIE OUSSOU	Gabon	claudeoussou@gmail.com	Scientia	Top 40
24	Maxwell Adew	Ghana	walexngng@gmail.com	ICT AFRICA	Top 40
25	Tonee Ndungu	Kenya	tonee@kytabu.com	Kytabu	Top 40
26	Francois Mark	Mauritius	fmark@igfxstudios.com	Immersive education	Top 40
27	Helvi Wheeler	Namibia	yambekachildren@gmail.com	People's Primary School (PPS) Interactive Tech Library	Top 40
28	Idriss LAOUALI ABDOU	Niger	idrisslaoualiabdou@yahoo.fr	Karatou Post Bac	Top 40
29	Ngunan Ioron Aloho	Nigeria	ngunanioronaloho@gmail.com	IVY	Top 40
30	UMUHOZA AMINA	Rwanda	dukatazeonline@gmail.com	dukataze online platform	Top 40
31	Solange MUKAYIRANGA	Rwanda	Solange.MUKAYIRANGA@VVOB.BE	Transforming capacity development of school leaders in Rwanda through ICT	Top 40
32	Mbangiso Mabaso	South Africa	baso@sisanda.net	Sirealities	Top 40
33	Palesa Innocent Mahlatji	South Africa	palesa@priyotech.co.za	Portable mini solar computer lab	Top 40
34	COMBETEY COMBEY DJIDJOLE	Tog0	sylviocombey@gmail.com	KEKELITHEQUE	Top 40
35	Kossikouma Victor AGBEGNENU	Tog0	contact@katecgroup.com	RETICE-PWCS	Top 40
36	Jackline John Seni	Tanzania	jackline@worldpossible.org	Remote Areas and Community Hotspot for Education and Learning	Top 40
37	Kaweesi Simon Peter	Uganda	kaweесimon@gmail.com	Careers Master	Top 40
38	Omoding Geoffrey	Uganda	omoding@sayans.org	Sayans Computer	Top 40
39	Daniel Mkhululi Nkuzuwalela	Zimbabwe	mkhululidaniel@gmail.com	Maw Technologies	Top 40
40	Edzai Zvobwo	Zimbabwe	edzai@mathsgee.com; edzaizvobwo@gmail.com	MathsGee.com	Top 40

DESCRIPTIONS OF INNOVATIONS

ID:	1
Name:	Susannah Farr
Nationality:	South Africa
Email:	susannah@goldyouth.org
Title of Innovation:	Peer2Peer Systemic Scale
Country/Countries of implementation:	Botswana, South Africa, Zambia, Zimbabwe
Number of years implemented:	2
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/286_Peer2Peer%20Systemic%20Scale_ICT%20Peer2Peer%20Innovation-gold-youth.jpg
Category	Top 3

Problem being solved

Half of young people in Sub-Saharan Africa, the largest part of the population, are born into poverty, growing up in communities that offer little hope. Far from having ethical role-models, they often don't believe that they have purpose, potential nor equal value to others. Resulting in: Youth un-employability and unemployment; Unbroken cycles of poverty fuelled by crime, orphanhood and increasing youth anarchy and lack of citizenship; Endemic youth risk behaviour(eg HIV; teen pregnancy; substance abuse; gender violence) leading to a growing unsustainable health and education burden. Africa's hope lies in investing in disenfranchised youth.

Description of innovation

gold-youth, an award-winning organisation with an evidence based solution, is creating a movement to embed long-term peer role models/ mentors into all schools and communities, changing the system of youth education and upbringing in Africa. We're transforming the role of youth from being passive recipients of negative norms to proactive social and economic change agents who assume the role of empowering themselves and their peers to lead tomorrow. Our theory of change is supported by rigorous evaluation, demonstrated by results. A digital training suite of resources and tools, Peer2Peer, has been designed as a DIY product for scalability of the good practices associated with the gold Peer Education Model, available online, through the Teachable platform, as a 'Digital Peer Education How To' with supporting guides & videos'. (https://gold-enterprises.teachable.com/?utm_campaign=purchase_notification&utm_medium=email&utm_source=student_mailer)

The Innovation tackles the complex social dynamics of poverty and its impact on education and youth development by increasing knowledge and skills that enable youth to challenge the determinants hindering their social behaviour, education and future opportunities.

Teachers and youth use the digital course, content and videos to implement peer education programmes with adolescents and tweens at grassroots. Peer Educators are taught to model positive decision-making and educate their Peers to make positive

choices, strengthen their school work and maximize community impact. We're developing a complimentary e-learning version of our accredited 'How to implement peer education' course.

Unique outcomes and Impact

Through Peer2Peer we have packaged the key curriculum and lessons from the gold Model's 15 year track record, with concrete results in social behaviour change, improved education and job creation across 123 communities. This digital/print toolkit has gone live in 2019 to serve multiple stakeholders, in their context. In a short time, its easy availability on the Teachable platform, has enabled youth and schools from four countries to access best practices, training manuals and videos, enabling them to implement structured peer education programmes. Approximate beneficiary reach in May 2019 will be 3840, and uptake is increasing.

Replication and Sustainability

Peer2Peer was designed for systemic scale, leveraging the best practices from the gold Model packaged into a tested DIY ICT product/ training suite for wide use by most crucial possible replicators (other CBOs, education system/government) and available for open dissemination. Our social enterprise business model allows for sustainable ongoing refinement, and improved scale, supported by on demand training and consulting services. Free licenses for government and NGOs have been successfully piloted. Peer2Peer is part of our system change rapid scale up plan for the quality assured gold Model as well as DIY Peer2Peer across Africa.

ID:	2
Name:	Wakesho Nyaboke
Nationality:	Kenya
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Title of Innovation:	Hadithi Hadithi!
Country/Countries of implementation:	Kenya, Somalia, Uganda
Number of years implemented:	1.9
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/101_Hadithi%20Hadithi!_two_girls_sharing_1000.jpg
Category	Top 3

Problem being solved

The foundation to every child's education is literacy, and yet even in the most developed countries, like South Africa and Kenya, only 25-30% of children in Class 4 can read fluently. This means that their education will be stunted, and they won't progress to secondary school.

If we can improve reading and writing right from the start of school, we will see benefits throughout a child's school life, and later in society and the economy at large.

Description of innovation

"Hadithi Hadithi!" means "Story Story!" and it's what a Kenyan grandmother calls to her grandchildren when she calls them around the fire to tell them a story. It's the name of our literacy app for children aged 5-8, and it's made up of hundreds of stories, written by teachers, read by actors, and illustrated by artists all over East Africa.

With each story is a set of comprehension, spelling and letter tracing apps that combine to make up the Reading to Learn pedagogy, shown to improve progress in reading and writing four times faster than traditional methods.

By teaching children to read in our own languages, by creating stories and illustrations that we can relate to, read in voices that are familiar to us, we can help millions of children learn to read and write fluently all across Africa.

Unique outcomes and Impact

Over the last two years, we have created five literacy apps in different languages for schools in Kenya and Uganda, that are now being used by tens of thousands of children. Our android version helps parents read with their children on their phones.

Last year, we created the first Somali literacy app which was designed for Dadaab Refugee Camp, with stories from their community. It was used by thousands of youth who had missed out on school.

Incredibly, we saw over four times faster improvement in reading fluency in our community education centres compared to other centres. Now that app is used in over 100 schools across Somalia.

Replication and Sustainability

When we began this project, we tracked down a US company that had similar apps to teach English. They wanted \$1 million to create similar apps in different languages.

Our technology allows us to create apps in any language for just \$40,000 less than 5% of what it would cost just five years ago. By using newer technologies and engaging Kenyan developers we can create world-beating apps right here.

We are already piloting in two provinces in South Africa that will be the foundation for Zulu and Xhosa apps, and we plan Nigerian versions in Hausa, Yoruba and Ibo. By 2022, there will be 10 Hadithi Hadithi! apps all across Africa.

ID:	3
Name:	NGUANGUE EBONGUE JOSEPH
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Title of Innovation:	SCOLARYX Educational Box
Country/Countries of implementation:	Cameroon, Chad
Number of years implemented:	1.4
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/200_SCOLARYX%20Educational%20Box_Mini%20Box%20SCOLARYX.jpg
Category	Top 3

Problem being solved

In Cameroon, 4 over 10 young people are out of school, tuition fees are extremely high at around 85% of GDP per inhabitant, only 54% of teachers deployed in secondary education are qualified, the security context comes more tarnish the following statistics especially as: The North is plagued by the exactions of terrorism, the East is stormed by refugees from the Central African Republic, the North-West and South-West are the scene of instabilities due to separatist inclinations. In addition, secondary education must also raise the issue of equity and quality. All that precedes depicts a reality: Quality Education is not yet effective.

Description of innovation

Our educational Box is a micro server containing the equivalent of 10,000 lessons available offline. Its administration is relatively simple and can be done by the Head of the School, the learner or a Parent. The Box SCOLARYX contains a Wifi card through which you can connect with a computer and access educational content without internet. This lightweight, powerful and inexpensive micro server locally contains the SCOLARYX Educational Software completely developed by our Engineers as well as all the educational contents necessary for the learners. The Scolaryx mini box also has HDMI access for classroom class screenings.

SCOLARYX can be used with a mobile phone or tablet as well, and thus enjoys the intuitiveness of mobile technologies to enable learners to feel the reality they are entering in the classroom. The diversity of educational resources (videos, animations, sounds, quizzes, games, etc.) offers learners an exhilarating learning experience.

Unique outcomes and Impact

In Africa, internet access remains difficult, especially in areas with low enrollment rates. Educational Box SCOLARYX is deployed to allow students to have local access to lessons and exercises without need to be connected to the internet.

To date, SCOLARYX is deployed throughout the Cameroonian territory and a pilot version is being tested in N'Djamena (Chad). Nearly 1000 learners trust us (mostly from risky areas), and have access to more than 10,000 educational resources including audio lessons, texts, videos. We have a network of 30 teachers who ensure the development of courses and remote monitoring of learners.

Replication and Sustainability

The Core of Scolaryx is a software developed by our engineers. It has been designed with the flexibility, adaptability and intuitivity necessary to make it reproducible whatever the context and the educational curriculum. This core does not undergo any variation from one country to another. We deploy the same design and build technologies and the same electronics to build the Box.

The only change to move from one country to another lies in educational programs that vary. It is then important to set up a network of Teachers for the elaboration of course contents according to the specificities of the pedagogic curriculum of each country.

ID:	4
Name:	Joshua Oodira
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Title of Innovation:	Classmate
Country/Countries of implementation:	Botswana
Number of years implemented:	3
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/302_Classmate_IMG_7288.JPG
Category	Top 11

Problem being solved

Current teaching is still using conventional approach which has proven to have gaps as evidenced by the decline in performance of students compared between Government and Private Schools. The continuous increase in student numbers has also created capacity and resourcing challenges that further impede in effective delivery of education. Examples include high teacher/ student ratios.

Majority of youths are on existing social media platforms for social or recreational use which may hinder their concentration on their studies.

Botswana is currently trying to develop and produce employment ready labor force by heavily investing in education

Description of innovation

Classmate is a 100% citizen owned, home grown solution created with the chief aim to innovate the way students interact with the academic curriculum, other students and career motivated materials.

With this application we will keep students engaged in the multiple streams of interactions available to them that make it exciting, comfortable, challenging and inspiring. The system is self-sustaining and dependent on the inputs of the students when interacting with each other as well as tailored Online content such as Competitions, Quizzes, tutorials, career fairs, promotions, inter student experience sharing in a safe, controlled and data secured platform

One of the major benefits and key selling features of classmate is the ability and the function to interact and connect students from, A - Rural and under privileged schools and those from B - significantly positive setting include private institutions. The system encourages them to share experiences, achievements, successes, challenges and indeed academic knowledge.

Students A – Benefits from the exposure and benchmarking from Student B.

This will allow them to widen their horizon, appreciate what lies ahead and indeed outside of their circumstances

Students B – Benefits from the exposure and benchmarking from student A

This allows for students the opportunity to mentor and motivate the less privileged and contribute to their moral fibre

Unique outcomes and Impact

Socially and morally responsible social media

Classmate utilizes existing policies and infrastructure and thus has minimal financial input from stakeholders.

With this application we will keep students engaged in the multiple streams of interactions available to them that make it exciting, comfortable, challenging and inspiring. The system is self-sustaining and dependent on the inputs of the students when interacting with each other as well as tailored Online content such as Competitions, Quizzes, tutorials, career fairs, promotions, inter student experience sharing in a safe, controlled and data secured platform

Replication and Sustainability

Currently we running the project with partnership of Botswana Telecommunication Corporation to enable schools with connectivity to access the platform across the country so we believe that if AU can adopt the model across all AU countries the project can up scale.

ID:	5
Name:	Chancel MALANGA MATHOY
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Title of Innovation:	KELASI
Country/Countries of implementation:	Democratic Republic of the Congo
Number of years implemented:	0.1
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/19_KELASI_Publication.PNG
Category	Top 11

Problem being solved

We have observed an ineffective communication between the actors of child-rearing. This has a negative impact on the child's performance at school, because the tutor has almost no physical time to devote to this follow-up.

Description of innovation

KELASI consists of setting up a web portal allowing schools to publish students' school activities as well as important news releases to tutors. Once this information is available on the platform, it will receive it immediately via an SMS notification or mobile app.

The KELASI platform consists of a web portal giving access to a database of data containing all of the student's school information, allowing it to be transmitted to the tutor.

To use the online app, schools must have an Internet connection and a web browser like Microsoft Internet Explorer. Parents must carry a simple mobile phone to receive SMS notifications and resubscribe through the USSD menu using electronic currency.

Information provided to the tutor includes school grades, absences and delays in classes, disciplinary breaches, child health releases and important school activities.

In our education system, this platform is in line with innovation, there are no competitors offering exactly the same services as ours.

Unique outcomes and Impact

The KELASI platform actively contributes to job creation in partner schools and EAGLE SIGHT. It also allows schools to generate additional revenue.

KELASI also contributes to increasing the efficiency of Dr Congo's education system by making it easy to access information related to the child's follow-up in his or her educational environment in order to promote real communication between the actors involved in his or her education for better supervision.

Its beneficiaries do not need the proven computer skills to take advantage of the Kelasi service.

Replication and Sustainability

We want to expand this service to a number of African countries in order to improve the education of young people on the continent.

The platform is designed to be easily replicated or extended to other countries.

The only setup is to configure the telecommunications companies in the platform. Because the core of the platform is hosted in the cloud.

ID:	6
Name:	George Boateng
Nationality:	Ghana
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Title of Innovation:	SuaCode
Country/Countries of implementation:	Ghana
Number of years implemented:	1
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/306_SuaCode_SuaCode%20Africa%20Poster.jpg
Category	Top 11

Problem being solved

According to the International Telecommunication Union (ITU), ICTs form the backbone of today's digital economy and have enormous potential to fast forward progress on the SDGs and improve people's lives. Africa lags behind the rest of the world in terms of digital literacy. According to SAP, less than 1% of African children leave school with basic coding skills. One cause of this gap is poor access to equipment such as computers for teaching and learning. According to research firm Ovum, there will be 929.9 million smartphones by the year 2021. Hence, smartphones provide a unique means of reaching the unreached.

Description of innovation

Our program, SuaCode aims to address Africa's digital gap by introducing students in Africa to coding through smartphones. SuaCode is a smartphone-based online coding course that aims to teach millions across Africa how to code by exploiting the proliferation and untapped capabilities of smartphones. SuaCode is run by Nsesa Foundation, an education nonprofit in Ghana whose vision is to spur an "Innovation Revolution" across Africa by training the next generation of African innovators. Learners in SuaCode are introduced to basic coding using their smartphones in the Processing language, an open-source interactive programming language based on Java. The course is peer-reviewed and based on Dartmouth College's Intro to Programming Course. SuaCode is currently hosted on Google Classroom, a free learning management system that can run offline and consists of lesson notes, exercises and assignments, which culminate in a final project - building a pong game. When a student signs up, she tries out the exercises using the app as she reads the lesson notes offline. After going through each lesson note, she completes the assignment for the lesson using the Android Processing Development Environment app and submits it for grading. At the end of the course, students that score the pass mark receive a certificate and exceptional students have mentoring sessions with our network of Software Engineers at top tech companies like Google and Facebook to help them proceed to the next step in their development. SuaCode also helps students continue their coding journey by recommending advanced courses like Data Structures, Algorithms, etc.

Unique outcomes and Impact

According to ITU, mobile learning has the ability to help break down economic, rural-urban and gender divides. We believe SuaCode will go a long way to bring coding skills within arms reach of people across Africa, literally into their palms. Soon, young people all over Africa will be spending as much time coding on their smartphones as they do on social media. The government and private sector are struggling to fill positions for people with coding skills. This skill set also presents excellent entrepreneurial opportunities. Hence, SuaCode is a unique solution to tackle the problem of unemployment for the 29.1 million youth across Africa.

Replication and Sustainability

Our main target market is the 54.2 million high school and college students out of the 203.2 million students in Africa. We have won two successive fellowships from the Processing Foundation to support this work. In 2018, we ran a pilot of the course with 30 students. In 2019, we plan to run 3 cohorts with 100 students and also to build an AI-powered automated system to give feedback to students and grade their assignments to make our solution even more scalable. In 2020, we plan to run 12 cohorts per year with a target of one hundred students per cohort. We plan to scale to 1,000 learners per cohort in 2021 and 10,000 learners per cohort.

ID:	7
Name:	Carlos Augusto Benedito
Nationality:	Mozambique
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Title of Innovation:	ACADEMYCUS
Country/Countries of implementation:	Mozambique
Number of years implemented:	1.4
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/165_ACADEMYCUS_academycus.jpg
Category	Top 11

Problem being solved

“Quality of Education Begins in The Management”

The volume of data generated in an educational institution is large and often the information is not processed and stored properly, which causes an overload in academic management and the secretariat, having a financial impact and generating bottlenecks that hamper the operation with other areas of the institution.

Without an effective school management software, many good opportunities are lost and too much time is wasted. In addition, non-standardized processes generate unsatisfactory results, which can lead to an imprecise and even misleading understanding of the situation.

Description of innovation

ACADEMYCUS is an all-in-one school automation system that is specifically designed to simplify the complexities faced in everyday school operations including academic, administrative and financial management.

The system suites almost every school or educational institution and it includes 19+ modules with 8 inbuilt users (Admin, Academic Director, Accountant, Teacher, Receptionist, Librarian, Parent and Student).

ACADEMYCUS enables all authorized users to search for information regarding students and school records, and assists the school in keeping all information related to the different departments of school in one place. The software system provides users with a login credentials for accessing files, documents and other school resources.

With ACADEMYCUS you can:

- Manage Courses and Batches
- Manage Subjects and allocate to teachers

- Manage Timetable
- Manage Student Admission
- Manage Employee/Teacher Login
- Manage SMS Alerts
- Manage Human Resources
- Manage Examination
- Manage Tests
- Manage Home Works
- Manage Fees/ Finance
- Manage Student/Parent Login
- Keep the track of information
- Provide access to parents
- Information on teachers
- Manage attendances
- Keep track of report cards
- Tracking of fees
- Managing admissions
- Managing Transport
- Track on assignments
- Manage Library
- Manage Inventory

Unique outcomes and Impact

With ACADEMYCUS, all information is digitized, organized and easily accessible, allowing the generation of follow-up reports for accurate analysis and assistance in decision making by the manager.

Bellow are the main Outcomes/Impact

- 1 - Immediate availability of student information in case of need
- 2 - Decision Making Based on Concrete Data
- 3 - Cost Reduction
- 4 - Efficiency in Financial Management

5 - Reduction of delays and / or non-payment of tuition and other fees

6 - Banking Integration of Payments

7 - Growth of the Trust within the Parents and the School

8 - Improvement of School Planning

9 - Student Attractiveness and Loyalty

Replication and Sustainability

To Upscale and sustain the system we plan delivery the system in 2 business models:

1 - CLOUD BASED or SaS (Software as a Service) - in which we delivery it to clients through the internet. So the clients do not have to install the software, update it, maintain it and integrate it. The vast majority of technical aspects are “taken care of” by us and the client can start using the SaaS product with little effort.

2 - ON PREMISE - The best option for those with concerns about data security, or want to integrate the platform into internal business processes, or don't want to diffuse efforts on multiple platforms management.

ID:	8
Name:	AdeDamola K. McCarie
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Title of Innovation:	The iSchool CLOUD Artificial Intelligence Virtual School & MultiBOOK Framework
Country/Countries of implementation:	Nigeria
Number of years implemented:	8.3
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/77_The%20iSchool%20CLOUD%20Artificial%20Intelligence%20Virtual%20School%20&%20MultiBOOK%20Framework_Impact-Academy-Suleja-Niger-State-Nigeria-Students-The-iSchool-CLOUD-Computer-Based-Exams-First-Time-2018.jpg
Category	Top 11

Problem being solved

Across Africa, the number of out-of-school children is escalating. Many among those that are in school are being tutored by incompetent teachers. As sub-standard private schools sprout up everywhere, it is rather impossible for governments to regulate, monitor and assess the quality of education from early years to primary, secondary and tertiary. And these non-government schools hardly use prescribed curricular and learning models. Textbooks that can be considered as adequate for learning in this age are way too expensive.

Description of innovation

The iSchool CLOUD Framework is a complete computerization solution for education.

By implementing simple but effective Artificial Intelligence and Virtual Reality concepts, It makes it possible for established schools to enroll hundreds of thousands of more students from outside their immediate geographical locations into their Virtual School programs.

This system allows standard schools to partner with individual tutors and smaller schools in remote locations and less-privileged areas, given them access to the schools' resources to use in their own classrooms.

For example, a village teacher that gathers his/her pupils under the shade of a tree can now connect to the virtual classroom of a bigger, established partner school (even in another country) and use their lesson plans and notes to teach his/her own pupils.

Not only that, these children (in remote, less-privileged areas) will be bonafide students of the partner schools as they will be enrolled into their systems and have all their leaning activities graded.

As for governments, The iSchool CLOUD now makes it possible for regulatory / supervisory officers to carry out their oversight functions remotely.

Inspectors can now sit back in their offices and access all crucial processes of all schools under their jurisdictions through the screen of their computers!

Also, The iSchool CLOUD is fast-tracking the evolution of textbooks with MultiBOOK Project. Presently, we are test-running the first 1,000 MultiBOOKs which are interactive, dynamic rich-multimedia contents for each topic in all major curricular for early years and primary / secondary schools.

Unique outcomes and Impact

Since 2010, we have put The iSchool CLOUD in some 23 private schools across Nigeria and it has helped most of these schools to cut their costs of operation by at least 50% while at the same time, helping them to increase their general efficiency rates by more than 100%!

Another area where The iSchool CLOUD is helping schools is the issue of teachers' incompetence. With the proactive AI assistance teacher feature, it helps teachers to avoid basic mistakes.

It also enables parents to get more involved in their children's day-to-day school lives as they can now take moments of work to check into their children's schools through the Internet!

Replication and Sustainability

Already, we have started giving out The iSchool CLOUD to schools FREE! The only payments involved are the costs of dedicated web servers (since it's cloud-based), set up and training. To replicate the solution across the continent, we have concluded a self-deployment system that will enable schools to register and start using the solution immediately. We have also started working on a web-based training portal.

To upscale The iSchool CLOUD, we shall be moving into the next phase of the project which the bold ambition to put know-it-all, always-ready-to-display-any-information robots in the classrooms as assistants to the human teachers!

ID:	9
Name:	Lamine SARR
Nationality:	Senegal
Email:	lamine.sarr@nena-sen.com; sarr.lami@gmail.com
Title of Innovation:	African Digital Libraries (Online and Offline) to Improve Access and Quality of Education
Country/Countries of implementation:	Senegal
Number of years implemented:	2
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/137_African%20Digital%20Libraries%20(Online%20and%20Offline)%20to%20Improve%20Access%20and%20Quality%20of%20Education_PropositionIEE-2019-Fren[4][1VF].pdf
Category	Top 11

Problem being solved

1. The issue

More than 65% of the African population is under 25 years old. This population will double to reach 2.5 billion in 2050. Their education remains one of the major challenges. It will be necessary to set up the material conditions for access to educational resources and documentation like libraries. The situation is very concerning because of the majority of schools in African countries do not have libraries or have insufficient documentation, especially regarding African content.

Description of innovation

2. Solution

Based on this observation, Nouvelles Editions Numériques Africaines (NENA) has produced a fully operational solution that can be scaled up across Africa. These are digital libraries of African content. Launched in 2017, the African Digital Libraries include two types:

1) Offline digital libraries on eReader

An eReader is a mobile device dedicated to reading digital books. NENA offers two eReaders, one for primary school level, the other for secondary level. It is now possible for schools to install a digital library, which is adapted to the curriculum, faster and at a lower cost than traditional libraries.

2) Online digital libraries

NENA has set up digital libraries available online on its platform. These are 9 digital libraries in law, social sciences, management, literature, art and culture, youth, accessible on the Internet by subscription.

More than 3,000 titles, in French and English, from more than 95 African publishers will be available before the end of 2019.

Unique outcomes and Impact

3. Results

Already two schools in Dakar with a few thousand students have acquired dozens of eReaders.

In March 2018, a Senegalese NGO opened the "Bibliothèque populaire du développement" with a digital room with the acquisition of 10 NENA's eReaders.

For online digital libraries, the Virtual University of Senegal is currently subscribing to all these libraries for its 4,000 students. The steps are underway at the 6 public Universities in Senegal for a subscription for 60,000 students.

Replication and Sustainability

From its conception, NENA's project is multilingual and pan-African. So it can be replicated in any country. Among the 40 publishers with whom NENA has signed a co-publishing contract, many come from other African countries (Cameroon, Ivory Coast, Guinea etc). NENA thus helps these publishers to digitize their catalog.

The viability of the project is based on the fact that since 10 years NENA has been digitizing and safeguarding Africa's scientific and cultural heritage in order to make it accessible and to ensure its transmission to future generations. NENA's digital libraries are destined to become a sustainable common good of Africa

ID:	10
Name:	Goodluck Chanyika
Nationality:	Tanzania
Email:	gchanyika@yahoo.com
Title of Innovation:	Jumuisha Tanzania Initiative - Advancing Special Education Teachers' knowledge on Inclusive Education using ICT/Online learning to improve learning outcomes for students with disabilities in Tanzania
Country/Countries of implementation:	Tanzania
Number of years implemented:	1
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/254_Jumuisha%20Tanzania%20Initiative%20-%20Advancing%20Special%20Education%20Teachers'%20knowledge%20on%20Inclusive%20Education%20using%20ICT/Online%20learning%20to%20improve%20learning%20outcomes%20for%20students%20with%20disabilities%20in%20Tanzania_Jumuisha%20Platform.jpeg
Category	Top 11

Problem being solved

After working for disability programs in Tanzania I realized; continuous staff development programs are not offered to special education teachers, there are shortages in special needs and inclusive education teacher training – the capacity institutions is low in relation to current needs. It is estimated less than 1% of teachers have any knowledge of special educational needs even these teachers lack pedagogical skills and knowledge involved in inclusive teaching and learning processes. The curricula are not designed in line with the principles and practice of inclusive education. Teacher education strongly emphasizes in general teaching.

Description of innovation

ASET-KIE (Advancing Special Education Teachers' Knowledge on Inclusive Education) under JUMUISHA TANZANIA INITIATIVE (www.jumuisha.co.tz), Jumuisha is Swahili word meaning "to include" hence inclusion. This comes as an online library and innovative learning network to support Continuous Staff Development programs among teachers in Tanzania, so they continue to learn even after they graduate and go into a teaching career. The platform has four types of disabilities – hearing impairment, visual impairment, physical impairment and intellectual impairment. For each type of disability, there are categories (teachers, parents, government workers and NGO staff). Under each category there are sets of questions based on their field of expertise, these are being classified as "Do you know" Questions which are in Swahili and English. For example, a teacher can click on the Hearing Impairment, and choose a question; Do you know how to instruct deaf students in a laboratory setting? Once he/she has clicked the question, it will open a PDF

with details and things to do while instructing deaf students in an inclusive laboratory setting. If the teacher feels the materials are not enough then they can write to the Jumuisha team on their experience in instructing deaf students in the laboratory, these will be evaluated and later be uploaded on the website. Basically, these will act as best practices from teachers across the country whereby other teachers can learn and apply the same in the classroom.

Unique outcomes and Impact

Initially, this innovation was presented as an application for the ADA international fellowship programme on Inclusive Education in the United States and was selected by the U.S Department of States as an outbound project and mentors from the University of South Dakota visited Tanzania for further support and the Gallaudet University has accepted to transcribe and use their online materials. Currently, at it's designing and inception stages, the innovation was redesigned and presented to students at the largest special education teachers' colleges in Tanzania (Patandi Special Education Teachers College and Sebastian Kulowa Memorial University

Replication and Sustainability

In 2018, the idea was selected for presentation at the 6th Annual African Disability Rights Conference on Inclusive Education in South Africa. This innovation can be upscaled and sustained by having the materials in a variety of languages – to suit the country's population, by enrolling volunteers to transcribe materials for the platform, involving the government education departments, advertise the innovation and seek support from stakeholders, encourage teachers to interact and use the platform. For its replication, research on gaps in the disability education sector and disability culture should be conducted in the respective country.

ID:	11
Name:	SAMSON RWAHWIRE
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Email:	rbsjunior@gmail.com
Title of Innovation:	Busitema University Lightboard for e-learning
Country/Countries of implementation:	Uganda
Number of years implemented:	1
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/136_Busitema%20University%20Lightboard%20for%20e-learning_maxresdefault%20(2).jpg
Category	Top 11

Problem being solved

Science and Engineering lectures often times involve drawings and equations and the current trend has been that chalkboards and whiteboards are used, however, the challenge is that the instructor or the lecturer gets disconnected from the learners when he turns his back to write the equations or drawings (Birdwell and Peshkin, 2015)

Due to the busy nature of the masses and the need for upgrading, the need for online learning or flipped lessons is projected to increase. The lightboard enables the instructor to solve equations while facing the learners and leading to increased perception and learning.

Description of innovation

The Lightboard is a glass board, which has light internally from LED strips along its edges. In order to record video lecturers for online learners, a video camera captures the presenter and his/her writing by viewing through the glass. The result is vivid, luminous writing floating in front of the presenter, who can now face toward the camera while drawing and interacting with the material on the board.

With the increase of the Internet speeds in Africa, It is highly possible to produce online live lectures at ago using state of the art lectures with the video camera. Previously, it was demonstrated by Dr. Rwahwire when Engineering Mechanics tutorials were recorded and filmed on the light board as shown in the links below:

1. <https://www.youtube.com/watch?v=x0-G4OLwBQk>
2. <https://www.facebook.com/kekensamedia/videos/940324609460975/>

Unique outcomes and Impact

The mass rollout of the lightboard in Africa's higher education system will be a new paradigm to the higher education sector.

Africa is a continent that needs its workers to be skilled as well as on the job and yet it is evident the majority of workers in Africa have no time for lifelong learning. The lightboard will enable live video lectures through streaming and the learners can be able to study online either through social media or from a web-portal.

Replication and Sustainability

The innovation can be upscaled through funding of setting up the model e-learning lightboard studio at Busitema University which will be a resource center for other universities and schools.

ID:	12
Name:	Bessan Eliezer Augustino AGBEMAVO
Nationality:	Benin
Email:	augustinoagbemavo@gmail.com
Title of Innovation:	BOOKCONEKT.COM
Country/Countries of implementation:	Benin
Number of years implemented:	8
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/127_BOOKCONEKT.COM_BOOKCONEKTCOM.png
Category	Top 40

Problem being solved

Less than 1 in 3 schools in Benin have a library, denying students the chance to gain crucial knowledge and language skills. Lack of access quality reading materials lead to poor academic performance and high school graduates often cannot express themselves clearly in either writing or speaking, compromising their future. Parents and young adult can currently access books by visiting libraries and bookstores, most of which are located in Cotonou and not accessible online. This means traveling in heavy traffic for hours and spending time searching products from store to store with deception when books needed is not found

Description of innovation

We are a social start-up that aims to improve literacy rates by providing affordable and universal access to quality reading materials. With one click, BOOKCONEKT.COM provides access to any books anytime, anywhere through a mobile and virtual library and bookshop. Users can either buy or borrow whether virtual or hard books with delivering at home.

Parents and young adults are our primary customers. They represent a market estimated at \$200 million. we are their preferred choice.

1. Low cost: Our website offers the lowest prices, and saves our customers the time and cost of travelling to bookshops or libraries
2. Convenience & safety: Kids can access products through our online catalogue without having to take public transport.
3. Variety: We offer academic books, romance, novels, comics, African and local productions.

4. Re-sell option: we are starting the first-ever Benin online book market (second hand) space where people can sell their used books and get income. Low income users will be able to buy used books at cheaper prices, and resell them later.

5. Single platform: We partnered with local bookshops to use our platform to reach more customers instead of building their own online presence. Moreover, we will offer advertising to publishing houses and authors to promote their productions.

Early-adopters of our website are 80% parents and 20% young adults or school students. We take advantage of a rapidly growing digital commerce market in Benin to overcome financial and geographical barriers to reading.

Unique outcomes and Impact

December 2017-January 2018: Initial landing page launched; \$50 profit and 30 books sold within 2-month test period

2017-2018: \$6050 raised from Tony Elumelu Entrepreneurship program 2017 and competition Get In The Ring Cotonou 2018

August 2018: BOOKCONEKT.COM launched, offering mobile bookshop and library including e-payment through MTN Mobile Money. In 6 months we received 5000+ visits and distributed 100+ books with \$300 in revenue and growing followers on Twitter and Facebook.

Partnerships: Agreement with Transportation Company, 5 famous publishing houses, 2 physical libraries.

Training: Mandela Washington Fellowship 2018, etristars.com 2018

Replication and Sustainability

We will just need to have sales team in countries. They will negotiate partnership with local bookshop and library to upload their content on the platform. Then, we will create an adaptation for each country like BOOKCONEKT.SN for Senegal. We will do like amazon or jumia. The sales team will communicate about the book-market place so that people upload their books to be sold. The book market place will be very useful as most of our population has a very low income.

ID:	13
Name:	Sourou Jacob
Nationality:	Benin
Email:	bokinijacob@gmail.com
Title of Innovation:	Support to the educational and vocational guidance of young people towards TVET with the mobile application EFTP GUIDE in Benin
Country/Countries of implementation:	Benin
Number of years implemented:	1.5
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/88_Appui%20à%20l'orientation%20scolaire%20et%20professionnelle%20des%20jeunes%20vers%20l'EFTP%20avec%20l'application%20mobile%20le%20GUIDE%20EFTP%20au%20Bénin_GUIDE%20EFTP%20BENIN.jpg
Category	Top 40

Problem being solved

In Benin, school guidance is reduced to general classics. The lack of guidance, the unavailability and / or the lack of access to information on offers of technical and vocational training require learners who wish to take vocational courses to move towards the general and others to drop out of school. This, in spite of article 55 of the law n ° 2003-17 of November 11th, 2003 on the orientation of the national education in Benin which says: «the right to the guidance advice and to the information on the lessons and the professions makes integrating part.

Description of innovation

We have set up a communication, attractiveness and awareness system on EFTP (Teaching and Technical and Professional Training), in order to change the mentality of parents, teachers and learners on the image of EFTP (EFTP CONTINENTAL STRATEGY, African Union, p21) in Benin, in other words it is the paradigm shift at the level of the players involved. It contains the following tools: the GUIDE EFTP and the Film-Documentary the choice of the Future. The EFTP guide is a collection of accredited technical and vocational schools and centres in Benin with their training offers following detailed modules, access conditions, practical advice and opportunities. It allows the learner to know in advance what to expect after training as an income-generating activity, a guarantee of total empowerment. It allows each learner to make a succinct and profitable choice capable of providing him with self-employment immediately after his training. Innovation is the virtual version with the mobile app that accompanies the paper version. Aware of the stakes and influence of ICT, our organization has thought to make a mobile application compatible with smartphones and Android available to the Education System and the people of Benin to make it easier to access the EFTP Guide. This app is available on Play Store. Just go to Google Play Store and type EtFP Guide, download the app and install it on your phone. It is in agreement with the Government's Programme of Action.

Unique outcomes and Impact

The various tools designed have enabled us to impact more than 8,500 school and out-of-school learners who are able to undergo technical or vocational training, 3,500 parents of pupils and 1,000 college teachers in Benin. We also have the agreement of the Ministry in charge of Teachings, Secondary, Technical and Professional Training of our country for the extension of tools throughout the country. The ministry's DEFI Pro project, aims for the same goals as we do so a partnership is in sight to meet the challenges related to school orientation in colleges.

Replication and Sustainability

Given these different aspects, it will be crucial for each country to have a guide to teaching and technical and professional training in mobile application for the paradigm shift at the level of parents, learners and teachers and to know also the opportunities related to TVET (entrepreneurship, practical skills for practicing a trade). To replicate this innovation in every African country, it takes political will and funding for the implementation of this innovative device.

ID:	14
Name:	Agang K. Dithlogo
Nationality:	Botswana
Email:	agangdithlogo@yahoo.co.uk
Title of Innovation:	The Clicking Generation
Country/Countries of implementation:	Botswana
Number of years implemented:	6
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/50_The%20Clicking%20Generation%20_image4.jpeg
Category	Top 40

Problem being solved

The lack of digital literacy and early child technology curriculum is a challenge in Africa especially for rural areas. In Botswana particularly, the current academic structures lack technology educational resources i.e. (computing equipment, tailored curriculum and communication infrastructure) especially in rural areas. Lack of these resources results in failure to deliver the much-needed curriculum to potential future technology innovators. Also, as a challenge there is evidence that the involvement of the girl child in science and technology fields is scarce as compared to their male counterparts.

Description of innovation

I am co-founder of The Clicking Generation- ICT Academy for kids and teens; a social enterprise that offers computing and technology curriculum to underprivileged kids and teens in both urban and rural areas of Botswana. The approved curriculum offers Science, Technology, Engineering and Mathematics (STEM) to learners who are future technology creators of socially relevant ICT solutions. The Clicking Generation initiatives employs age appropriate, interactive and fun filled exploration of technology based concepts for kids and teens.

The vision is to contribute substantially to ICT development and literacy among youngsters in Botswana in-turn birthing a generation of creatives and technology innovators. The goal is to close the existing technology education gaps by introducing kids and teens to computers, systems design and logic thinking while still in their exploratory ages. This instills interest in the learners to familiarize with the technology evolving around them. The digital economy and 4th Industrial evolution is upon us and young Africans should be equipped to contribute to the global digital economy.

Unique outcomes and Impact

The Clicking Generation will forge forward and inspire young people in our community further by sharing experiences and global perceptions through innovative platforms of engagement. As technology youth advocate for women and girls, we hope for more women

and girls to not only participate but have increased representation in the technology industry. We hope young people participation to the economy may be realized through the digital literacy efforts.

The impact to individual learners include enhanced memory skills, problem solving abilities, structured knowledge, increased creativity and overall academic success.

Replication and Sustainability

The dream in the next 5 years is to have The Clicking Generation expanding its operations to more rural areas and even spreading through the region. We hope to contribute in tackling the education crisis both locally and regionally. This will be possible through modelling the existing design to other rural areas and reach more demographics.

ID:	15
Name:	Melissa Tafila
Nationality:	Botswana
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Title of Innovation:	CEA
Country/Countries of implementation:	Botswana
Number of years implemented:	0.1
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/304_CEA_20190430_235714.jpg
Category	Top 40

Problem being solved

The Conexus Educational App (CEA pronounced “see”), a USSD based mobile app that was recently launched in Botswana to address the issues of accessibility, inclusivity and affordability to quality education. We want each student to succeed, achieve, make progress and excel, regardless of their cultural background, socio-economic status or geographic location.

Description of innovation

CEA helps students to revise material, assess and test their knowledge, compete with their peers in healthy in-app competitions, chat with their friends, ask tutors questions and get responses, it informs students about their world in the form of student news, alerts students about new developments especially in science and technology, it gives them access to the national syllabus and it provides them with fun facts about their learning world. Students receive immediate step-by-step feedback about their performance, including a generated report card (statistics) to extensively track and monitor their progress. Students also receive recommendations, to know which materials to revisit, and with practice, they can overcome these identified weaknesses. The app also provides students with exam prep strategies via exam/study tips to ensure they prepare well for upcoming in-class tests and/or national exams.

Internet connectivity in Botswana is limited and a handful of homes have a computer at home. On the contrary, mobile penetration is increasing exponentially. In other communities, the access to learning resource facilities (e.g. libraries) is either limited or unavailable; the same can be said for other communities across Africa. CEA however, welcomes and allows students to access curriculum aligned materials, at their convenience, wherever they are, via any phone, be it a feature phone or a smartphone.

Unique outcomes and Impact

During the first month of launch, we had over 15000 students subscribed and actively engaged. Students enjoy the dynamic and personalized learning experience and actively

participate without fear, and continually challenge other students (perhaps parents too) in the in-app student competitions. Companies and individuals offering tutoring services have also contacted us to implement the use of the platform for their tutoring sessions.

Replication and Sustainability

CEA will evolve into a Web based application, but will however maintain the subscription based model. It will include interactive, multimedia-rich content, such as audio and video content, electronic worksheets and games and also integrate the use of assistive technologies such as text-to-speech capabilities in order to meet the unique needs of students with learning disabilities/difficulties. The project can be scaled and integrated seamlessly into the education systems of other African states.

ID:	16
Name:	Emmanuel OUOBA
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Email:	ouobae@gmail.com
Title of Innovation:	EDBox (Education digitale box)
Country/Countries of implementation:	Benin, Burkina Faso, Chad, Comoros, Côte d'Ivoire, Democratic Republic of the Congo, Gabon, Mali, Senegal, Togo
Number of years implemented:	2.6
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/164_EDBox%20(Education%20digitale%20box)_EDBox.jpg
Category	Top 40

Problem being solved

Of all the digital revolutions, the e-education revolution is arguably the most strategic for Africa, as only a significant contribution of digital educational resources will support the need for education and training of hundreds of millions of young Africans. And yet this opportunity, which makes sense in a context of lack of schools and universities, seems totally ignored. That's why ED4free, which is committed to digital solutions, has designed the digital education box to provide access to tens of thousands of educational content, accessible without the internet.

Description of innovation

EDBox is a nano server that allows students, teachers and parents of students to access tens of thousands of educational content without access to the internet. Teachers can use these digital resources in the classroom.

Accompanied by a mini projector, EDBox can be used to simulate concepts that are difficult to represent, to show or demonstrate the functioning of a mathematical, biological, physical, chemical, etc. process. The box is also a library of downloadable resources that allow students to have documentary resources from all disciplines and formats from developed countries. This gives students equal opportunity in access to knowledge.

The pedagogical uses of this device are numerous: (self) teacher training, preparation of a course, courses in front of students, provision of free educational content for download on smartphones in wifi, for teachers, parents, students. They apply to schools, adult training center, universities.

Finally, EDBox also incorporates an open-access cloud that collects and distributes educational resources that will be accessible online and via nanoservers.

It is completely modular in that the content it hosts can be selected according to the type of education (primary, college, high school, higher education, adult education) and located according to the countries.

Technically, it's a Raspberry PI nanocomputer, with Raspbian as the operating system.

Unique outcomes and Impact

The impact of this technology is enormous from the point of view of access to knowledge and quality of education.

It allows learners to access content from all over the world and more accurately address themes with demonstrations, simulations and interactive activities. This probably contributes to a wider access to knowledge and allows a student to have the same educational content as his classmate who is on the other side of the world.

The effect this will have is an increase in the quality of education and a new chance of access to knowledge for those who were out of school.

Replication and Sustainability

Our technology has the advantage of being very modular in its design. EDBox is already used in several African countries and for each country, the content is contextualized, tailored as needed. The box is already showing its ability to reproduce and adapt. It adapts to all contexts and works with simple batteries for areas with no electrical current. These two links show EDBox in Côte d'Ivoire and Benin:

<https://youtu.be/DIP2FKbDfs4>

<https://youtu.be/Jw99r-jhqwE>

Site web : <http://ed4free.ovh/>

ID:	17
Name:	Adam Sadou Elhadj Boulama
Nationality:	Chad
Email:	adamsadou8@gmail.com
Title of Innovation:	Orientis: application to help school and vocational guidance
Country/Countries of implementation:	Chad
Number of years implemented:	36
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/168_Orientis:%20application%20d'aide%20à%20l'orientation%20scolaire%20et%20professionnelle_BIC%20presentation.jpeg
Category	Top 40

Problem being solved

The effectiveness of The Chadian education system is at a significant level. Indeed, the school completion rate is around 45%. However, this rate must be maintained or even improved. The major problem that could cause the completion rate to decline or not increase would be related to the orientation and follow-up of students throughout their studies. A misdirected student may have difficulty integrating into the university space and thus find himself in check. Hence the need to set up a guidance tool using new information and communication technologies.

Description of innovation

"The current changes in the economic and social landscape and the advent of Information and Communication Technologies have put the current system of orientation in the face of new demands. focus on the preparation of pupils and students, in order to lead them to a better education of choices.

Having the right information is the best way to make a wise choice, which takes into account all aspects of the student's personality but also the realities of the environment. Today more than ever, educational and vocational guidance plays an important role in the fight against failure, school dropouts and maladjustments; but also in the accompaniment of students and students in their personal and professional projects.

With this, the technology we provide to guidance counselors is an offline application that can help students make sound and consistent educational and professional choices based on their abilities, learning centers and skills. interests, and their attitudes and realities of the world of work. Composed of 5 modules, the application proposes to guide you in 4 steps:

- Aptitude test battery for the third and final class to trace the psychological profile of pupils and students;

- identifying the interests of students;
- Identify strengths and weaknesses of students;
- Defines the sectors and trades available to them;

Unique outcomes and Impact

The implementation of this application will significantly reduce the rate of failure, abandonment and academic inadequacies for good academic success, but will also guide gender person-oriented so that girls and boys have access to the same knowledge and opportunities.

Replication and Sustainability

Given its trilingual nature (French, Arabic, English), the application will be proposed at the international level while making improvements and adapting it to the socio-economic contexts and realities of the target countries.

ID:	18
Name:	Bouayom Anderson Djimadoum
Nationality:	Chad
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Title of Innovation:	TchadEducationPlus
Country/Countries of implementation:	Chad
Number of years implemented:	2
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/247_TchadEducationPlus_Image%203.png
Category	Top 40

Problem being solved

Chad is among the countries of Africa with high number of pupils per textbook: in 2012, 5 pupils per reading book, 4 pupils per book of calculus and 16 pupils per science book (Chad, State Report on the National Education System, 2016) Primary , only 4.4% of students have a reading manual and 3.6% in mathematics (PIET 2018-2020) Nearly 80% of students do not have a book. In high school, the situation is still very alarming. Irregularity in the school calendar and non-completion of content due to strikes is recurrent.

Description of innovation

Following the finding of a serious shortage of textbooks and a misallocation of existing ones to students and teachers and the lack of resources of the State to overcome this problem, the digital era, digital and of mobile offers an unprecedented opportunity to solve the educational divide, the disparities of content for public and private institutions more resource-rich, rich and poor children, we set up the project CHADEDUCATIONPLUS, which aims to improve access to course materials for primary and secondary education through digital and mobile We collect course materials from the best educational institutions, develop digital books (PDF) and stand-alone mobile applications free and free access via the project platform (<http://www.tchadeducationplus.org>), mini memory card for phone and the by Xender or Bluetooth. The project was realized with financial support from UNICEF for the pilot phase for the third grade during the 2017-2018 school year and for the development phase for the entire secondary school. the current year 2018-2019 and also with the help and partnership of the Lycée Saint François Xavier whose teachers have made the course materials available. "

Unique outcomes and Impact

3. Our pilot phase for the third grade improved access to digital and mobile classrooms for 1,000 students from two pilot CEGs (General Education Colleges) and the establishment of a library of 1000 papers course materials for students who do not have phones that

support digital media. And also more than 30,000 downloads of course materials in e-books and applications. The current secondary phase will improve mobile and digital access to classroom materials for more than 8,000 students from the two pilot high schools and the implementation

Replication and Sustainability

4. Innovation can be zoomed in, replicated and supported everywhere. There is a need for a quality school that can provide course materials to be digitized and developed into a digital book and application. All you need is programs or coders that can develop application course materials and e-books. A website developer to design the site to house the application and E-book course materials. Financial support is needed to implement the project.

ID:	19
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Title of Innovation:	E-SOUKLOU
Country/Countries of implementation:	Côte d'Ivoire
Number of years implemented:	2.5
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/196_E-SOUKLOU_AES1925.png
Category	Top 40

Problem being solved

In Africa, in terms of education-training, the plethora of class sizes (80-100 per class) makes practical training difficult for both teachers and learners; Which has the consequences:

- the difficulty of presenting documents or small objects to a class group
- the demotivation of learners and teachers,
- poor understanding of courses by learners
- non-rationalization of learning time
- the many photocopies (waste of papers)
- lack of interactivity in the classroom

Description of innovation

The solution is our AES 1507 device is an educational tool that presents itself as a desk lamp that films everything that happens on the desktop, transmits the image in real time by projecting it on a larger medium. In this way, all students will be able to access the content filmed on the teacher's desk.

In practical terms, how does our solution work?

In fact, during practical training sequences, trainers use the 3D digital device to project real objects (a technical object, manual, insect, experience, student's work or group work) on the board or on any other appropriate support, to avoid the crowds of students around them. In addition, the device is equipped with a video recorder that records the practical

course sequence. The film in this hands-on course sequence is published online or on a local computer so learners can re-visualize as many times as they like. In this way, they will be able to better understand what they have not identified in the present.

This solution revolutionizes education and training in that it makes it easier for teachers and students despite the plethora of classrooms; Teachers easily present technical objects to the class group; Teachers and learners are motivated as there is time savings for teachers and a better understanding of courses for learners; In addition, there is no need to make several photocopies to present images and the like.

Unique outcomes and Impact

We have about 15,000 students who benefit from our services in 04 institutions. The success rate is increasing in these institutions.

Our project has a positive impact on education and training in that it guarantees learners quality training despite overcrowded classrooms.

-The use of the device reduces the use of paper in schools by 40%. So we have an impact on the environment by reducing the misuse of paper in schools.

- Our business solution and strategy is tailored and accessible to all learners, even those in rural areas

Replication and Sustainability

Our medium-term goal is to have a larger manufacturing unit of the device in Côte d'Ivoire to serve all of Africa. To do this, we need 1 million euros. It should be noted that the need we meet exists in all African countries. The project can therefore be deployed across the continent.

ID:	20
Name:	DIVIN BONTE
Nationality:	Democratic Republic of the Congo
Email:	kurubonte@gmail.com
Title of Innovation:	COMPUTER FOR DEAVES
Country/Countries of implementation:	Democratic Republic of the Congo
Number of years implemented:	3.9
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/89_COMPUTER%20FOR%20DEAVES_link%20for%20my%20training%20story%20for%20deaves.pdf
Category	Top 40

Problem being solved

In the Democratic Republic of Congo, the deaf are subject edification, contempt, disrepute, lack of quality education.... allowing them to develop their multiple skills, in short, of any kind of underestimation.

These people do not have easy access to the necessary education. And even to be inserted into the professional world. off the latter possess extraordinary skills that can contribute to the development of our communities (countries)

Description of innovation

In view of this reality that this people is a victim; In March 2015 THE GESTE NGO broke new ground by setting up the first computer training program for deaf people in the DRC called COMPUTER FOR DEAVES.

In the DRC, the use of a computer, tablet or other gadget by a deaf person is a miracle. Because most Congolese laugh at them by saying, "Baba asombi devices, akobenga nani? Nani akopesa ye number" means "if a deaf person buys a mobile phone, who is he going to call? And who's going to give him his number?"

And the COMPUTER FOR DEAVES program is a way for the deaf to express their potential, their talents but also, a remedy that compensates for this precariousness of the latter.

In addition, it aims at their education on ICT, and their integration into the professional environment and the opportunities that ICT brings in the 21st century, The content of the computer training program consists of the introduction to Microsoft packages. office (Word, Excel, power point, Publisher) and the internet.

Said training is mobile that is, I as a trainer I travel with my equipment, I set up the training center in a part of the city where we find a strong population of the deaf, And at the end of the training, the deaf are able to work as an encoder, foreclosure operator, secretary in professional environments.

Unique outcomes and Impact

In Kinshasa from March 2015 to the present day we have already trained 450 deaf computer scientists, 150 of whom are integrated into professional environments both private and public.

Today, we have two deaf people who wanted to deepen their knowledge of computer science in a university institution in order to acquire officially the quality of engineer and this, at the ESFROCA within the confines of the INPP. Currently they are in the 3rd year of graduate option: Management and Maintenance Computer.

Replication and Sustainability

there are countries in Africa, which still underestimate this category of people in order to be able to reproduce this idea in Africa, it is necessary:

- 1.Start by identifying the countries involved
- 2.launch a study on the different problems facing education in these countries.
- 3.adapt Computer for deaves programs, according to the country's beetles
- 4.provide a budget or request funding to start the program

ID:	21
Name:	mohamed samir nada
Nationality:	Egypt
Email:	m.n@vlaby.com
Title of Innovation:	vlaby (virtual lab platform)
Country/Countries of implementation:	Egypt, Libya, Tunisia
Number of years implemented:	0.9
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/91_vlaby%20(virtual%20lab%20platform)_vlaby.jpg
Category	Top 40

Problem being solved

There are many problems in traditional science labs in most African schools due to lack of facilities, equipment and chemicals, lack of time and space for do experiments, and the risk of some experiments that may cause disasters in the lab, and increase the number of students in lab , all of which prevent students from benefiting from the practical aspect in schoolsso the teacher merely explain the theory on the blackboard without do in practice, and this negatively affects the students' understanding of the equations and laws, and makes education based only on Preservation and indoctrination rather than understanding

Description of innovation

Vlaby is an online educational platform that for virtual labs that allows students and teachers to do all experiments and laboratory activities in an interactive online environment that simulates the traditional laboratory and has all the potentials, laboratory equipment and chemicals in an interactive and customized manner for each student according to the curriculum and experiments in science, physics, chemistry,

We have provided many benefits to students, teachers and schools such as:

- Allow students to do experiments at any time, anywhere and any number of times
- Providing a safe, attractive and exciting environment for learning without the danger of traditional laboratories
- Save time and effort to the teacher while explaining the practical lessons by conducting them in the platform
- Providing financial resources to purchase laboratory equipment and tools in schools
- Encouraging competition among students through improvisation

So we have achieved our goal in facing the many problems found in traditional laboratories in schools and universities such as lack of tools and chemicals and increase the number of students in the laboratory

vlaby platform link: www.vlaby.com

Unique outcomes and Impact

Winning the Best Performance Award from the Cairo University Business Incubator,

The Vlaby platform also had a great impact on the students and the labs. Through the events and meetings we had with the students and teachers who use Vlaby, they showed their confidence and the great influence that Vlaby's use of understanding the equations and practical experiments

We have always sought to cover all the practical experiences of our students in the stages of learning before the university. We have achieved about 100 experiences to skip the Egyptian and Some Arab countries curriculum in the science of the preparatory stage in Arabic and English

Replication and Sustainability

vlaby is the first Arab platform in Egypt and the Arab world offers virtual labs dedicated to our curriculum, and science is one of the most important subjects that must be addressed in all African countries, so we have a great opportunity to expand in many Arab and African countries because we cover laboratory experiments in science A state of Arab and African countries and according to the language they study,

So our plan is some of the completion of laboratory experiments in Egypt and some Arab countries will try to overcome many of the experiences in African countries and in English and French

ID:	22
Name:	filimon gidey geberemichael
Nationality:	Ethiopia
Email:	gidey.filimon@gmail.com
Title of Innovation:	አሃዱ (Ahadu) Mobile Based Student Attendance Controlling System
Country/Countries of implementation:	Ethiopia
Number of years implemented:	18
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/138_አሃዱ%20(Ahadu)%20Mobile%20Based%20Student%20Attendance%20Controlling%20System_mobile%20based%20system.pdf
Category	Top 40

Problem being solved

Students reach their puberty stage or before that they may lose their focus on their education.

Description of innovation

To make parents aware of the result of their children's in school participation

To control the activity (attendance) of student

To avoid existing problem

Unique outcomes and Impact

Parents will be able view daily status of student.

Able to aware of the result of their children's in school participation.

Replication and Sustainability

by adding some features ,by using easy way on processing the system e.t.c

ID:	23
Name:	Edouard Claude GNIAGOGNIENIE OUSSOU
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Email:	claudeoussou@gmail.com
Title of Innovation:	Scientia
Country/Countries of implementation:	Gabon
Number of years implemented:	2.5
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/52_Scientia_STAND%20FINALE%202.jpg
Category	Top 40

Problem being solved

The problems that Scientia is addressing are the very high rate of academic failure in Gabon and Africa and the poor quality of educational content in Africa which is no longer in line with their needs of today and tomorrow.

Description of innovation

An efficient solution to guarantee academic success, Scientia is an easy-to-use platform accessible from your computer, tablet and/or smartphone connected to the Internet.

Scientia allows each actor of education (student, parent, teacher, administrative body of institutions and even the Ministry of Education) to have in real time all the information he needs to work effectively and thus guarantee the school success.

The platform is designed to monitor and evaluate the quality of the courses taught and the degree of assimilation of students. It also helps to identify and reveal potential student gaps, as well as to identify teachers' level of competence and ability to pass on knowledge.

The platform is also designed to bring parents back to the heart of their children's education by allowing them to follow the evolution and content of classes. They are automatically alerted by SMS alerts on absences, scheduled evaluations, homework, grades obtained.

We also provide help and support to teachers and educational staff with new technologies and future-ready skills content.

We work to grow the involvement of parents in the education of their children.

We also work to increase the use of new technologies in the education system.

Unique outcomes and Impact

The increase in the school success rate resulting from the improvement of the quality of monitoring and the quality of school content.

The empowerment of teachers and educational staff with new technologies and future-ready skills content with the support of Microsoft.

The growing involvement of parents in the education of their children.

The increasing use of new technologies in the education system.

Replication and Sustainability

Scientia is a web platform available everywhere in the world. We are also connected with an SMS provider who allows us to send SMS everywhere in the world. All the training and courses that we provide are available on the platform.

ID:	24
Name:	Maxwell Adew
Nationality:	Ghana
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Title of Innovation:	ICT AFRICA
Country/Countries of implementation:	Cameroon, Gambia, Ghana, Guinea, Liberia, Senegal
Number of years implemented:	4
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/54_ICT%20AFRICA_ICT%20AFRICA%20MOBILE%20CLASSROOM.jpg
Category	Top 40

Problem being solved

This innovation seeks primarily to ensure that every Child regardless of their geographic location has access to quality education. As such will enhance grass root education through the provision of an integrated ICT and digital curriculum for young people between the ages of 4 -35 by utilizing the solar classroom a sustainable ICT platform with an extreme Low Energy consumption, a power solution that mitigates the energy wasted by AC/DC inverter-based equivalents. The patent pending technologies allow you to deploy ICT and related systems in a fully off-grid configuration using direct and stored power from renewable energy.

Description of innovation

the Technology deliver a solar powered containerized facility to operate completely off-grid while improving educational through utilizing a sustainable ICT platform. Technology will deliver ECDL Foundation and SACE Endorsed Integrated ICT and Digital Literacy Curriculum for ages 4 – 35. in computer software and internet applications, programs to support the development of leadership, communication, entrepreneurship training and business development support. Practical experience in multimedia technology and video production. Facility Accommodate up to 40 learners Modular Building

Unique outcomes and Impact

1.5 million young people reached in 2014, over 2 million since launch

Engagement across 13 languages, in Africa

Global recognition from the young African innovation and Tech Museum of Innovation.

increase access for youth in deprived communities to learn computer science, empowering them to achieve more for themselves, their families and their communities.

Bridge the Education Divide, by investing in children's future and bring schools to our rural areas.

Replication and Sustainability

The EMIS software will allow us to manage and sustained the output/impact of the solution as well as the monitoring and evaluation. Our monitoring software will prompt us should there be any irregularities with system. The innovation can be upscaled and replicated by Embracing blended learning, Supporting start-ups and private sector innovation, Disrupting funding models to sustain quality, low-cost edtech innovation, Facilitating improvement through the introduction of policy documents and education laws.

ID:	25
Name:	Tonee Ndungu
Nationality:	Kenya
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Title of Innovation:	Kytabu
Country/Countries of implementation:	Kenya
Number of years implemented:	5
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/90_Kytabu_752DAB60-7DED-4A32-AB75-FA42E631E971.jpeg
Category	Top 40

Problem being solved

One of the biggest challenges in education is access to affordable, relevant textbooks in a convenient and timely manner. This is more often due to the distribution challenges Kenya faces, but also because most families cannot afford all the required textbooks a child needs at the beginning of the school term as required. Most students end up sharing textbooks in class or just listen to the teachers and have no reference points for revision or assignments once the class is finished. This lack of learning resource has been at the heart of low numeracy and literacy levels in most schools accross Kenya.

Description of innovation

Kytabu is a mobile application containing all the books required for students in primary and secondary school in the Kenyan education system. Using a tablet or smart phone, any student anywhere can easily download the free app, select the books they would like to use, download them to their device, and rent the book for as little as \$0.01 a day. With Kenya having a mobile phone penetration of more than 70% and a government program that put more than one (1) million tablets in low income schools, access to devices has been drastically reduced. This means that the Kytabu application has the potential to help more than 1 million students access all the learning reasources they would need affordable, conveniently and in anyt price range they are able to manage. Renting content as opposed to buying it outright reduces the pressure for parents, increases the accessibility for students and schools, removes constraints on teachers as the sole source of learning material and gives valuable insights to publishers and the government on the use of learning content by students.

Unique outcomes and Impact

Providing access to the learning content students need in the areas we have been adopted has increased the number of students that have books, amount of time the students engage with the content and each other on learning, the various forms of content they engage with (they have access to audiobooks, videos and interactive exams on the app)

and all this has improved their overall learning experience and performance in school. Giving student both the content and platform to driver their own leaning experience empowers them to take ownership of their learning trajectory and this improves as more students get on Kytabu and collaborate.

Replication and Sustainability

Because Kytabu is a mobile application, it can be scaled exponentially countrywide through the partnership of private sector stakeholders such as mobile service providers. To move from one country to another, Kytabu as a platform would only need to partner with the local country publishers to add their content to the platform for digital distribution. Instantly, the application can them move from Kenya to Tanzania, Uganda, Rwanda and even Francophone countries where the content is available in digital format. The growth of mobile phone access and mobile payments has given apps like Kytabu the framework to scale exponentially.

ID:	26
Name:	Francois Mark
Nationality:	Mauritius
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Title of Innovation:	Immersive education
Country/Countries of implementation:	Côte d'Ivoire, Mauritius, South Africa
Number of years implemented:	2
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/217_Immersive%20education_Afriedx.org%20Francois%20Mark.jpg
Category	Top 40

Problem being solved

One in Five Children, Adolescents and Youth is Out of School (UNESCO). Virtual REALITY has the potential to make learning more interesting and dynamic. VR can be leveraged to enhance pupils' engagement in the learning process, thereby contribute to contain and eventually reduce the dropout rate. Students will acquire knowledge in a participatory manner, instead of passively. VR is already well-known and highly exploited in the entertainment industry. We are persuaded that VR has a huge potential in education. It will not replace existing educational methods or systems but it will be a powerful complementary pedagogical tool.

Description of innovation

As humans, we have always used visually-based means to help us remember things. VR is the next logical step in the evolution of visual learning. According to the "Cone of Learning", developed by the National Training Laboratory, most students only remember about 10% of what they read from textbooks.

However, they retain nearly 90% of what they learn through teaching others. Virtual Reality is the medium that can enhance learning by making it more memorable. For example, Nqileni Village, the home of the Bulungula Incubator, is so remotely located that students are not exposed to the wider world. Now, Virtual Reality is giving the children the opportunity to explore the world and "travel" for the very first time in their life. VR is a great tool to teach geography, to mention but one instance. Students might have difficulties grasping the concept of a volcano looking at 2D photographs in school textbooks. They might not be able to grasp what the teacher is talking about, especially if they live in a country where volcanic eruptions are unknown. VR is a fantastic way to "immerse" students in the eruption of a volcano. By using VR students can improve their learning capabilities as well as their grades.

Please watch this video for more information: <https://youtu.be/ZRWe3f-8bnc>. In places, where internet access is very limited, our proposed solution enables teachers to use the offline mode.

And the introduction of Google Expeditions by AfriEDX at Père Laval School, St Croix, Mauritius.

https://www.youtube.com/watch?v=T1pCp7hS2_4

Unique outcomes and Impact

Through Google Expedition, we are have the merit of circumventing one of the major weaknesses of VR in the context of its utilization by children. Normally, the user is the only master in control of the VR headsets. Thus, as parents, we cannot always know what our children are watching. Given the nature of the internet, it is a wide-open door to risky, if not flatly undesirable, experiences. However, Google Expeditions offers us the means, ability including the safety to channel the user to the purpose of use and to have control over both contents and duration of viewing.

That's a big difference!

Replication and Sustainability

1. There is a strong training component to the project. Teachers are trained to contribute in the creation of VR educational contents using online collaboration tools that can be shared with other schools. The pedagogical model is reproducible and applicable over a long time.
2. The forthcoming Virtual Reality (VR) Demystified book that I'm writing focuses on Virtual Reality (VR) in education. Please visit www.demyztified.com for more details.
3. To sustain the projects, we are organising workshops for schools, teachers, lecturers, universities, students etc. Please watch our recent workshop:
<https://www.youtube.com/watch?v=i6n8BPrNPKQ>

ID:	27
Name:	Helvi Wheeler
Nationality:	Namibia
Email:	yambekachildren@gmail.com
Title of Innovation:	People's Primary School (PPS) Interactive Tech Library
Country/Countries of implementation:	Namibia
Number of years implemented:	1.7
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/27_People's%20Primary%20School%20(PPS)%20Interactive%20Tech%20Library_library%20concpt1w.jpg
Category	Top 40

Problem being solved

Although there are libraries in all Namibian schools, more than 80% of the school libraries lack adequate resources especially reading books to extend children's knowledge NengomashaT, Uutoni, W, & Yule, W (2012). Some of the factors contributing to the lack of functional school libraries in Namibian government schools include the deployment of untrained librarians, the lack of qualified librarians, and the lack of reading books.

These schools are attended by previously Socially Disadvantaged Children. There are not many ICT opportunities compared to elite schools 'Private Schools.'

Description of innovation

The People's Primary School (PPS) Interactive Tech Library project aims to increase the Namibian reading culture through enhancing reading experiences of children in Namibia. It has been exploring appropriate technology tools to improve reading experiences of children in Namibia. Investing in a Tech Library can embrace innovations in technology providing users with enhancements in electronic reading materials along with new forms of communication.

In some developed countries libraries are being redesigned to accommodate the students of the 21st century. While in Namibia, most public school libraries are utilized as storages which worsen the reading culture.

The PPS Interactive Tech Library is

- the first of its kind in Namibia inspired by a global movement of libraries of the future
- It contributes to Namibian Vision 2030
- was entirely co-designed by Namibian learners of PPS
- deploys technologies developed locally with and for the children

- is state of the art from an educational and technology perspective
- will be a model library for other schools in Namibia and all over Africa

<https://www.youtube.com/watch?v=Dee9P1nMTHs>

Unique outcomes and Impact

Technologies were codesigned with target vulnerable groups and Previously Socially disadvantaged people. The technologies consider the learners needs and preferences for examples: Treasure hunts which satisfy children's need of movements; spin the bottle reading game which promote individual, collective and socially reading, in a form of a game and a talking flower which incorporate emotional interactions. These technologies are low cost and are easily adaptable. They can be deployed in many other future tech libraries. The designed learning technology tools provide fresh opportunities for teaching and learning, in communities where I

Replication and Sustainability

The learners became co-designers, they learned extracurricular skills. The People's Primary School (PPS) Interactive Tech Library pilot is to be implemented in other schools nationwide. The PPS Interactive Tech Library project was endorsed by the Namibian Ministry of Education, the school Principal and staff.

Collaboration with NUST ensuring technology maintenance, and development through student's interns.

The PPS Tech library will be a model library for other schools in Namibia and the region.

Model can be replicated and implement in other schools nationwide and internationally.

ID:	28
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Title of Innovation:	Karatou Post Bac
Country/Countries of implementation:	Niger
Number of years implemented:	2.5
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/102_Karatou%20Post%20Bac_KPB%20overview%20niger%20fisrt%20copie.jpg
Category	Top 40

Problem being solved

In Africa in general, in Niger in particular, thousands of young people are failing because of a lack of knowledge of the sectors in which they have been steered by default. Some go from sector to sector before giving up. Karatou Post bac addresses the following problems:

- Accessibility problem and lack of information on post-graduation opportunities,
- Lack of role models in the close circle of some young people,
- Training choices that are not at the same time as the job market,
- Difficulties for graduates outside the capital to enrol (decentralisation),
- Ignorance of the realities of the outside world.

Description of innovation

Enabling young Africans to take charge of their future is the mission of the Karatou Post bac mobile application. It can be downloaded from the Google Play Store and App Store. Once installed, students can take advantage of these features:

- Choose my course: Allows young people to know the courses, opportunities and have testimonials from young people who have studied in the sector.
- Registration procedures: presents the education system, the registration procedures, the cost of living in different countries
- Examples of journeys: inspiring young people and allowing them to project and break down certain barriers of self-censorship through examples of inspiring journeys.

- Interactive forum: a place of exchange where young people ask questions, learn about education and housing,
- Registrations in establishments (In Niger, Morocco, Tunisia, France...) directly from the application. Our ambition is to
- Help in finding housing
- First-time arrival set-up service in different countries
- Personalised profile orientation coaching (future functionality)
- Scholarship offers.
- We organize orientation workshops in high schools and introduce the application as a complementary tool

Soon karatou Post Bac will offer:

- Senior course summaries and review quiz
- Tips for treating exercises
- Interactive learning game on school orientation
- Online application for the BTS competition in Niger.

Our proposal is unique in Niger, we continue to develop innovative services locally.

Unique outcomes and Impact

The Karatou Post Bac app is used by no more than 3,800 high school students and students in Africa. More than 86% of users are located in Niger. In 2018, we have accompanied more than 1500 young graduates in their post-graduate orientation, 17 students have benefited from our help in finding housing in France, Morocco and Senegal. Today, changes the daily life of Nigerians in their post-bac approach. Indeed, in the more than 200 reviews we received, our users (students and teachers) testify that Karartou Post bac allowed them to focus on their studies, they were inspired by the examples of courses.

Replication and Sustainability

In all societies, education is essential. Every year millions of young people face challenges that Karatou Post Bac brings solutions to. It is available for download in all countries around the world. Today, it is in French. It could be translated for scaling in English-speaking countries, we need resources to do that. In addition, we need support to finance communication campaigns in different countries and to enable young people from other countries to benefit from the most from our application.

ID:	29
Name:	Ngunan Ioron Aloho
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Title of Innovation:	IVY
Country/Countries of implementation:	Nigeria
Number of years implemented:	0.7
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/28_IVY_USHONGO.jpg
Category	Top 40

Problem being solved

Overtime, there have been recurrent campaigns by organizations towards raising awareness for, and promoting quality education, and ensuring inclusion in Nigeria. However, research has shown through appropriate monitoring and evaluation processes that majority of these projects have little to no impact on its intended beneficiaries, this is because, higher percentage of these beneficiaries can neither access, understand, nor relate to the message and its medium due to existing barriers such as; language, access to the Internet. Most children are also unable to read and write and have no practical learning nor educational interest.

Description of innovation

We strategically implement indefinite art and illustrative story telling as our tool to drive our message and penetrate our target communities.

We have created an illustration book and a short film adaptation titled IVY, which depicts the consequences of child marriage and importance of investing in education.

Our core focus is; indigenous theatre which involves role play, dance, music, and radio and interactive dialogues between project managers and stakeholders and the role play which will be presented by the locals of these communities in indigenous language for easier understanding. Because we understand language barriers as it relates to these communities, our project uses digital tools to translate this film and book which is an e-book and paperback production into indigenous languages for understanding. We create short films and short illustrative stories depicting the teaching we want and develop it to share people in rural communities usually for free. With our illustrative and visual stories, people are able to understand what is taught in clear, concise methods. Our project is quite innovative as it presents clear messages in the simplest and most natural form, entertaining and educating our beneficiaries.

Also the project psychologically compels her beneficiaries into owning these messages seeing as it are presented by day-to-day indigenous folks of these communities. Through

these specifically tailored indigenous art forms, the project will address issues bordering around but not limited to child marriage, HIV/AIDS, subjects in school curriculum, civic participation, human rights, science and coding.

Unique outcomes and Impact

August 2018, we reached over 10,000 people and distributed the illustration book to over 24,300 students in Nigeria, we shared digital pictures of the book on our social media pages and a sponsorship from an International nonprofit to distribute paperback copies of the illustration book to children in rural communities to 57,500 people and enrolled 31 children to school.

We made a short film adaptation which has been translated into indigenous languages and the film viewed at the InShort film International Festival, 2018 to over 11,000 people.

We reached over 100,000 people in Nigeria in 2019 and Gambia, Ghana have registered to replicate.

Replication and Sustainability

With the mobile app, as an unrestricted tool, people from different parts of the world can be able to access and share ideas, artists; will digitally share illustrative books, short films to translate theoretical texts into practical learning materials for children.

Teachers all over will be trained online, mentored, share ideas. Coding clubs opened in schools , a digital bookstore to access all materials from students on the app.

We have created a market that sells customized items to clients at a premium price. Items like shirts, mugs, stickers, caps, kitchen apron, exercise books, jotters and art pieces. Downloads of the app, fees paid.

ID:	30
Name:	UMUHOZA AMINA
Nationality:	Rwanda
Email:	dukatazeonline@gmail.com
Title of Innovation:	dukataze online platform
Country/Countries of implementation:	Rwanda
Number of years implemented:	1.7
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/267_dukataze%20online%20platform_dukataze%20picture.jpg
Category	Top 40

Problem being solved

In 2016, 17000 Rwandan girls experienced unwanted pregnancies: the number is equal to half of the total number of high school graduates in Rwanda and most of them are below 21 years old. Among them is also my cousin who fell pregnant at 16 years old. There are 4 many causes of this challenge the first one is the poor reproductive health information, low self-esteem, peer pressure and poverty.

Description of innovation

The challenge of teenage pregnancies matters a lot because it is negatively affecting the Rwandan girls towards achieving their full potential and thus as a change maker I decided to act on this issue by starting a social enterprise called SAYE company Ltd that created DUKATAZE

innovation, an online platform with an aim to empower girls between 14-25 years old mentally, socially and economically to fight against unwanted pregnancy. At Dukataze we are tackling 4 causes of unwanted pregnancy which are peer pressure, low self-esteem, poverty and lack of strategic reproductive health materials.

The Dukataze online platform has 6 elements. Our first element is E-Counselling: beneficiaries are allowed to ask for face to face counselling, video and phone counselling. The second element is sharing of stories that are related to reproductive health. The third element is career guidance: we youth to complete a form of hobbies and passion and share their contacts. Girls will then undergo online mentorship and finally we will connect her with an organization that will provide internship opportunities based on her choices. The fourth element is a window of opportunities where we post the available competition, summits, scholarship, job opportunities and trainings. The fifth element is the startup tutorial, where you can find the videos that can teach you how you can start your small project that doesn't require a high capital and we provide vocational skills through our tutorials. Our last element is online store or e-Commerce where we sell the products that are manufactured by girls so that we can increase their sales

Unique outcomes and Impact

we have impacted the lives of 365 girls, among them there include the young women who were affected by the teenage pregnancies, where we create the safe space for them to share their stories so as to inspire and educate young girls who are not affected. we work with university students from AKILAH institute of education, AUCA, KIST, children from love the kids foundation and children from 12 years basic education, where we open up the discussion about teenage pregnancies. we sold 1000 products of girls to fight dependency syndrome and poverty and we provided peer counselling to 65 girls. we organized two big events that targeted out beneficiaries.

Replication and Sustainability

We hope to be able to mentor 30,000 girls into peer educators from Rwanda, Burundi and Uganda by using our curriculum and they will impact 3000,000 girls by the year of 2022, this will reduce the gaps of parents who don't have time to talk to their children about their reproductive health and the girls who don't want to share their sexual life with their parents. We hope to empower unemployed 700 victims of unwanted pregnancies by using our startup tutorials to empower them to establish their small income generating projects. We see our innovation being able to sell 700,000 products that are manufactured by girls per month by the year of 2022.

ID:	31
Name:	Solange MUKAYIRANGA
Nationality:	Rwanda
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Title of Innovation:	Transforming capacity development of school leaders in Rwanda through ICT
Country/Countries of implementation:	Rwanda
Number of years implemented:	1.3
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/241_Transforming%20capacity%20development%20of%20school%20leaders%20in%20Rwanda%20through%20ICT_ICT%20for%20CPD%20of%20school%20leaders_VVOB2.jpg
Category	Top 40

Problem being solved

Rwanda Education Board (REB) developed two modalities for professional development of school leaders. The first modality is a Continuous Professional Development (CPD) Training Programme on Effective School Leadership, to equip headteachers with the competences to fulfill their roles. The second modality are Professional Learning Communities (PLCs) of headteachers to bridge the gap between theory and practice. The objective is to make the modalities mandatory for all headteachers in Rwanda at an affordable cost. With the support of VVOB – Education for Development, REB explores how to develop education leadership capacity in and through ICT.

Description of innovation

To provide cost-effective, flexible and personalized training, ICT is being integrated in both modalities of CPD of headteachers.

In 2018, 680 headteachers received a laptop to participate in CPD Training Programmes. The Training Programme is being re-developed for delivery in a blended modality: following a flipped learning approach, headteachers will learn the content online from their work place or homes. Face-to-face sessions will be reduced and dedicated to deepening the understanding of the content. Interactive learning activities are developed into an online learning management system (Moodle), including limited-connectivity alternatives. Trainees will be requested to compile an ePortfolio throughout the Training Programme for assessment of their achieved competences. The CPD Training Programme on Effective School Leadership is rolled out in three cohorts, reaching eventually 1360 headteachers and deputy headteachers.

At the same time, 234 Sector Education Officers (SEO), from 17 districts in Rwanda, received a tablet. A set of multimedia resources on educational topics will be available on the tablets. This digital library will be regularly updated and will support the SEOs to facilitate the PLCs of headteachers. The tablets are also equipped with eMonitoring forms

developed in KoBo Toolbox, to collect data on different aspects of the PLCs, including attendance of headteachers to the PLC sessions, topics being discussed and actions taken. A dashboard on the tablet will feed back information and will allow the SEOs to keep track on their respective PLCs.

Unique outcomes and Impact

Teachers and school leaders are two critical sets of actors in promoting the quality of education. Effective school leadership is required for the professional development of teachers and strong school leadership is fundamental to improve the quality of education.

When scaled up to the national level, this model of integrating ICT will transform capacity development of school leaders. It will reduce costs of delivery and allow headteachers to learn on their own pace, while giving them more ownership in their own learning.

Replication and Sustainability

The innovation is being implemented by key partners in a decentralized education system. The CPD Training Programme is delivered to headteachers by lecturers of the University of Rwanda – College of Education. These lecturers received a training on e-tutoring. Quarterly PLC sessions are organized by trained SEOs in each administrative sector. The SEOs received a training on the use of the tablets and eMonitoring. These ICTs support headteachers and SEOs to take their responsibilities and promote quality of education in Rwanda. The online modalities allow REB to establish mechanisms to monitor the CPD of headteacher countrywide.

ID:	32
Name:	Mbangiso Mabaso
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Email:	baso@sisanda.net
Title of Innovation:	Sirealities
Country/Countries of implementation:	South Africa
Number of years implemented:	1
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/284_Sirealities_Image-1.jpg
Category	Top 40

Problem being solved

80% of public schools in South Africa don't have a science laboratory that means 9.6 million learners will complete their science studies without acquiring necessary practical skills that they can use to get a job or be able to solve the challenges they face. The World Economic Forum cites that 65% of children entering school today will work in a completely new job type (which is STEM-related) that does not exist today. Failure to solve this problem will increase our youth unemployment rate which is currently at 38.2%.

Description of innovation

Si realities is a virtual science laboratory for science learners from Grade 4 to 12. It allows the learner to perform the experiments by just using the camera of their smartphone and tablet to project a virtual science apparatus in front of the learners. The learner can just perform the experiment just using tablet. Si realities aims to make science engaging, fun and accessible to millions of learners in Africa. Our approach is to make Si realities a self-learning platform that any learner could log in and begin learning on and off the class room.

Unique outcomes and Impact

In 2018 we have reached 200 learners who have indicated that Si realities makes them understand abstract science concepts and 59 teachers who said Si realities will improve the engagement in the classroom and it's easy to be integrated with the curriculum and the pace setter. We are currently piloting with 8 schools.

Replication and Sustainability

Si realities comes with two versions namely the personal version and the school version. The School version contains experiments that are curriculum-aligned and delivered directly to schools. While the personal version contains experiments from the school version with additional experiments from science experiments. It can be downloaded from popular App Store such as Google Playstore and Apple App Store. We want the learner to Explore, Experiment and Learn anywhere and anytime.

Our revenue model for personal version is based on freemium model, we also sell merchandise while the school version we make money through licences.

ID:	33
Name:	Palesa Innocent Mahlatji
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Title of Innovation:	Portable mini solar computer lab
Country/Countries of implementation:	Kenya, South Africa
Number of years implemented:	3
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/251_Portable%20mini%20solar%20computer%20lab_solar%20lab%20in%20a%20bag.png
Category	Top 40

Problem being solved

Teachers are expected to prepare students for the jobs of tomorrow as such the big question on every teacher's mind is how do I prepare my students to take advantage of the jobs of tomorrow? How do I use technology as a catalyst to improve the quality of education? Sadly, in countries such as South Africa only 40.9% of public schools have computer labs and only 28% of those computer labs are being utilized, mainly because most teachers are not computer literate. This problem results in many students leaving the education systems without digital literacy.

Description of innovation

a portable computer Solar-lab-in-a-bag that can convert normal classrooms into temporal computer labs empowering teachers to improve the quality of education by equipping them with digital literacy skills on how they can integrate ICT within their classrooms to adequately prepare students for the fourth-industrial-Revolution using Internet-of-Things (IOT). This in-turn empowers learners to improve their grades, gain university entry, and are prepared to take opportunities for the Jobs of tomorrow in Big Data, Block chain and Artificial intelligence. We do this we believe it is not enough to just provide schools with technology but to adequately train teachers and students to use the technology by providing schools with digital resources such as E-learning digital library, tablets, and a solar charging station.

Unique outcomes and Impact

We empower teachers to improve the quality of education with digital-literacy skills and resources on how they can use the internet-of-things, Artificial-intelligence and augmented reality to use technology as a catalyst to prepare students for the jobs-of-tomorrow and we link unemployed youth to online employment opportunities.

This in-turn empowers learners to improve their grades, gain university entry, and are prepared to take opportunities for the Jobs of tomorrow in Big Data, Block chain and

Artificial intelligence. education more accessible especially for children and youth studying in under-resourced rural and peri urban schools.

Replication and Sustainability

Our portable mini solar lab accommodate most of the rural and township areas in Africa that do not have electricity by using renewable solar energy.

Secondly, it is an integrated solution providing schools, Teachers and students with digital literacy skills and resources and our app allows teachers to create their own content and students to share notes and best study strategies on our platform.

Lastly it's portable design allow easy transportation allowing teachers to move it from one classroom to the next transform the classroom into an instant computer lab with wifi connectivity and ANTI-Theft software.

ID:	34
Name:	COMBETÉY COMBÉY DJIDJOLE
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Title of Innovation:	KEKELITHEQUE
Country/Countries of implementation:	Togo
Number of years implemented:	2
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/115_KEKELITHEQUE_BOITIER%20-%20KEKELITHEQUE%20-%20COPYRIGHT%20-%20KEKELI%20LAB.jpg
Category	Top 40

Problem being solved

KEKELI LAB is an association working to integrate information and communications technologies into education. Togo's education system faces enormous challenges, including: (1) the availability of quality educational resources and infrastructure, (2) the lack of Internet connection in some schools, particularly in rural areas, (3) training (4) the availability of appropriate technologies. To meet this challenge, we created KEKELITHEQUE, a virtual library that allows students and teachers to create, share and access educational resources

Description of innovation

In the form of a case, the KEKELITHEQUE is a virtual library accessible via a web platform or mobile application, and without necessarily requiring an internet connection. A virtual library is a collection of digital (i.e. digital) digital (i.e. digital) documents (texts, images, sounds) accessible remotely (especially via the Internet), offering different ways of accessing information to Public. KEKELITHEQUE offers several advantages: (1) Very easy and "offline" access to educational resources (without a need for Internet access), (2) An easy installation of the KEKELITHEQUE case, (3) A library suitable for rural areas, (4) the efficient preservation and classification of educational resources and (5) a reduced budget for the installation and maintenance of KEKELITHEQUE. The pilot phase of this project was set up at the Folly-baby High School located in the southeastern suburbs of the Togolese capital: 20 students initiated to take charge of a virtual library, 21 teachers trained in the use of TICE and an installed KEKELITHEQUE, these are the results of this first field experiment. A teacher was trained by KEKELI LAB to administer KEKELITHEQUE and lead training workshops for other teachers. Currently, at least 400 students use KEKELITHEQUE: <https://fr.africanews.com/2018/11/09/togo-des-smartphones-pour-faire-cours/>; <http://www.africardv.com/africa/africatech/togolais-des-enseignants-outilles-pour-une-biblio-virtuelle/>

Unique outcomes and Impact

Thanks to keKELITHEQUE, students have access to educational materials as well as annexes of exams taken by their teachers. KeKELITHEQUE allows for a better classification of educational resources, by teaching and by class. The user has personalized access to these resources through his personal account and can comment on these resources in order to improve the platform's documentary background. Students can also add documents of which they are authors or resource documents free of rights. For example, for a science class, students may suggest a document to the class.

Replication and Sustainability

The KEKELITHEQUE has the advantage of being easily reproducible, inexpensive and very economical in energy consumption (powered by a simple rechargeable battery and/or by a solar plate). We plan to deploy to 10 schools in All 5 regions of Togo with training workshops for teachers and students. Our team is made up of a variety of profiles: lawyers, education specialists, journalists, web and mobile application developers.

ID:	35
Name:	Kossikouma Victor AGBEGNENOU
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Title of Innovation:	RETICE-PWCS
Country/Countries of implementation:	Burkina Faso, Nigeria, Senegal, T0g0
Number of years implemented:	84
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/182_RETICE-PWCS_FICHE_RETICE-PWCS_UA.pdf
Category	Top 40

Problem being solved

RETICE-PWCS is an innovative solution aimed at creating growth and jobs while reducing the digital and energy divide in education and in the homes of students, particularly in developing countries, including in areas of insecurity and war. It therefore contributes to improving the quality of training. RETICE-PWCS, comprising both renewable energy, local cloud, wireless network and digital terminals, are organized into three "Ready-to-Use All-in-1 Kit" namely: "School Kit," "Kit Inspection" and "Home Kit."

Description of innovation

The RETICE-PWCS solution includes: server - educational applications - platform for the production of local teaching resources by teachers and students - secure local wireless network - textbooks - scientific calculator - video projector - viewer 'PC' 'individual tablet' ' various software to help with education ' autonomy without internet ' opening to the internet on demand under control.

Today, investments in conventional equipment (books, supplies, consumables, etc.) for education, vocational training for example amount to billions. But despite these billions, all African countries still have almost all of their students who are in extreme destitution of textbooks and school supplies. For the smallest part of those whose parents can afford it, children fall under the weight of their school bags because of the books and notebooks always in paper. Similarly, the transition from institutions to a true digital "status" everywhere and for all is still a myth. Because these billions are mediocly invested without really taking advantage of the wide and real possibilities offered by the digital age, we invented RETICE-PWCS to provide solutions with multiple virtues.

Mediocrity has always been expensive, very expensive even most of the time!

The basic test at the technological level is to achieve equitable and accessible solutions for all. For example, RETICE-PWCS is designed with a broad and comprehensive technology

lens that takes into account the broadest spectrum of needs, even the most constraining ones.

Unique outcomes and Impact

The results and impacts of innovation are:

The availability of textbooks and school supplies available to everyone and everywhere through digital technology;

Improving the conditions and quality of education and education;

The cost of books and school supplies available to all;

The creation of 2 to 3 companies of 2 to 3 associates per 1000 students to equip for the facilities different technical equipment;

Reducing unemployment and poverty;

The equitable industrialization of the territories;

Projections of truly inclusive growth.

Replication and Sustainability

Innovation is organized into an all-in-one system. This allows for simplified industrial production and easy deployment. From this base, the whole establishment or company switches to digital to "zero paper" and to avoid deforestation. Institutions and businesses can operate without the internet and when they need the internet, the need can be reduced by 80% compared to situations without RETICE-PWCS.

With RETICE-PWCS, all schools in each African country can benefit from energy and digital technology within 5 years.

The savings RETICE-PWCS brings to parents and E's

ID:	36
Name:	Jackline John Seni
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Title of Innovation:	Remote Areas and Community Hotspot for Education and Learning
Country/Countries of implementation:	Burundi, Ethiopia, Ghana, Kenya, Malawi, South Africa, Tanzania, Uganda, Zambia
Number of years implemented:	4
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/26_Remote%20Areas%20and%20Community%20Hotspot%20for%20Education%20and%20Learning_20190219_145155.jpg
Category	Top 40

Problem being solved

More than 52% of the population is offline(not accessing internet). For this reason, world possible innovate offline digital library for schools and community in order to bridge the gap of accessing best educational materials and knowledge between the online population and offline population.

Description of innovation

Our offline digital library is also called RACHEL(Remote Areas and Community Hotspot for Education and Learning).

RACHEL is a server that is small in size (10cm by 10cm by 2cm)and weigh with less than one kilogram of weight.

RACHEL connects to other smart devices such as phone, tablets, computers, laptop, through wired or wireless(Wi-Fi). Our learning resources are stored in the Rachel internal hard disk drive of 500GB -1TB storage capacity. This means that this offline digital library can store thousands of learning videos, millions of articles and documents and webpages.

Unique outcomes and Impact

Our innovation improves learning and teaching in schools as students can easily access learning information and teachers can simplify their work by facilitating learning rather than be the only source of information

Our innovation gives life to dusty, unused computer laboratory by turning them into active and life long sustainable lab.

Replication and Sustainability

Innovation is upscaled by looking for funds to supply in many more schools. We also sell the device to schools and Learning community. One device is at \$600 per unit.

We can also replicate by getting partners in local community who can research and prepare local contents that will make the digital library customised.

We sustain the innovation by selling the server and train teacher for small fees. We also do hardware maintenance. We also place volunteers to get volunteering experience in community that we install Rachel.

ID:	37
Name:	Kaweesi Simon Peter
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Email:	kaweessimon@gmail.com
Title of Innovation:	Careers Master
Country/Countries of implementation:	Uganda
Number of years implemented:	2
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/29_Careers%20Master_Careers%20Master%20Demo%20AU.pdf
Category	Top 40

Problem being solved

Our innovation is solving the problem of poor career guidance in schools largely attributed to the lack of up to date and relevant career information and labor market information to use to guide and prepare students to embark on fulfilling career paths. This leads to poor decision making among students and ultimately leads to unemployment and underemployment as students choose paths whose skills are not needed in the market place

Description of innovation

Our solution is implemented through a mobile app and web app at <https://careersmaster.ug> where a student creates an account and embarks on a journey of self discovery through online personal assessments on student interests, personality and abilities there by connecting the student to a myriad of career paths that match their results

Our solution is designed to be a trusted companion of the student along their academic journey as it connects what they learn in class to a myriad of career paths to enable them value where they are as they visualize where they are going as well as empowering the student with tools that allow them to set goals and journal as they move on their academic journey

Through the web and mobile application parents, mentors and teachers are connected to assist the students in making very informed career decisions at every step of the way. With parents understanding what career paths are of interest to their students.

Teachers on our platform get to understand what career paths are of interest to students hence plan better career guidance fairs as well as empowers teachers with information to connect what they teach to career fields.

Mentors on our platform share career experiences with students as well as keep students a braced with trends in the work place plus answering students related career questions

Unique outcomes and Impact

Our solution culminates into a life long learning platform that will walk with the student from primary school through secondary into adulthood with information relevant at every level

Our solution individualizes career guidance for students as it is tailor made to cater for individual student's interest and abilities

Our solution gives policy makers a sneak peak into the future landscape of a country's work force giving key statistics on dashboard showing career interests of students and their education requirements

Our solution bridges the huge gap between school and the work place through Mentor-ship from a school's alumni

Replication and Sustainability

Our solution can be replicated in other countries in Africa as many countries are grappling with the fact that they need to prepare students in their right chosen fields to enhance the current labor force. So with customizing the content according to a specific country, our application can scale across Africa

It is sustained in the following ways

1. Access on a subscription basis for users who want access to this vital information.
2. Advertisement from institutions of higher learning
3. Monetized API to have access to the rich data and statistics on careers master
4. 10% commission on every student we enroll in partner Institutions

ID:	38
Name:	Omoding Geoffrey
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Email:	omoding@sayans.org
Title of Innovation:	Sayans Computer
Country/Countries of implementation:	Uganda
Number of years implemented:	1.5
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/87_Sayans%20Computer_Sayans%20Computer.JPG
Category	Top 40

Problem being solved

There are fewer than 3 computers per 1,000 people; 1 person in 1,500 has access to internet (UN African Recovery Report). Uganda with about 45.71million people, only 1 million people access to computers with majority in urban areas.

This gap affects students the most and limits their learning outcomes.

Coupled with other factors, rural students perform poorly especially in STEM subjects because students only rely on notes given in class. Rural secondary schools constituting 57.6% in Uganda are challenged with educational books and resources with no or ill equipped science laboratories and yet have no access to computers and internet.

Description of innovation

Picture a time when every home, person or school in Africa no matter where they are located has access to and/or owns a computer. When computers are not only for the rich. This is our focus.

Sayans computer is a Raspberry Pi based computer locally designed and assembled in Uganda.

Our computers are light, portable and designed for use in resource limited areas. They are installed with educational software containing a plethora of illustrative videos from Khan Academy and other sources and reading material especially for science related subjects. The software is made in a way that the installed educational material is accessed using a web browser which gives the experience and knowledge of using internet even without it. The computers also have games on typing, learning words, mathematics, physics and other areas and are great for computer programming.

The computers are installed with battery power that can last up to 8 hours of use and needs a recharge power of just 10W making them fit for areas without electricity and

recharged with just a small solar power system. At the price of \$200, one can get a computer, accessories and a solar charging system.

We make the casings for the computers from recycled wood or are 3D printed locally. The components we use can be sourced locally making in country productions and repairs easy and possible meaning that the computers can easily be made from any other African country and reach any rural student anywhere in Africa.

Unique outcomes and Impact

Sayans computers come with educational software containing a collection of resources to enhance research even without internet. This means improved access to information and better learning outcomes. Secondly, our computers have a low power consumption and are installed with a long lasting battery bank. They are cheaper at both purchasing and the continuous use as they use very little power so anyone now can get a computer.

The computers are great for ICT programming and are installed already with programming software and tutorials and so better ICT development STEM learning outcomes.

Replication and Sustainability

Raspberry Pi computers are open source technologies which means they are allowed to be used anywhere without restrictions. This means these computers can be designed anywhere in the world.

In addition, the components we use can be sourced locally within the different countries making in country productions and repairs easy and possible.

Revenues from the sale of the computers is used to produce more computers and donations from organizations are used to subsidize costs making more rural schools and families get access to computers.

ID:	39
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Title of Innovation:	Maw Technologies
Country/Countries of implementation:	Zimbabwe
Number of years implemented:	0.3
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/143_Maw%20Technologies%20_20190223_172302_0000.png
Category	Top 40

Problem being solved

Despite the high literacy rate in Zimbabwe and some parts of Africa, the concerning thing are the low pass rates e.g this year(2019) the 0'level pass rates was 32% in Zimbabwe next-door in South Africa it was about 84%. Pass rates really no longer matter our industries tell that story. The issue is lack of quality education and education in general in some parts of the world. Visit www.mawtech.ga

Description of innovation

Augmented reality (AR) is a technology that enhances reality i.e it adds on top of reality, mixing the virtual world with the real world. So we have managed to develop an AR android application able to scan using the device's camera. So the app has a support booklet which gives information about the product to be scanned. The booklet will vary in terms of information. Some for will be for animals, fruits, cities, experiments, transport systems, bridges, etc. So you launch(open) the app on your mobile device and scan the qr code on respective pages on the booklet. Features we want to add on the AR app include 1. sound features for animals and transportation 2. Environment detection for the products being scanned, all this will improve the experience. Virtual reality is a technology that creates virtual experiences, it avails what is not present physically to be seen with the use of virtual lens. So we want to leverage on this technology to curate virtual trips for users. Users will be able to tour cities, world wonders, tour research institutions, airports, experiments, etc. Though all this will come to be step by step. This will be achieved through the use of virtual lens (googles like wearable). Cloud computing is a revolutionary technology that helps in storage of data. The education sector spends a lot of resources, money which can be easily saved and directed elsewhere. Though this is a long term vision we looking forward to be the Dropbox of education. Visit www.mawtech.ga

Unique outcomes and Impact

Our products are very unique combination it's improving the way non STEM subjects are being taught at the same time exposing users to technology and innovation. We using and

want to use Extended Realities (virtual reality, augmented reality and mixed reality) and cloud computing improve and better the learning process. Through Extended Realities we enhance and help learning become more visual. Through cloud computing we want to build an education cloud for education related stuff. Visit www.mawtech.ga

Replication and Sustainability

Zimbabwe has over 3000 primary schools and over 1000 high schools each school with a cumulative enrollment of about 500 students all of which can leverage on our products to improve their services. Furthermore more there are people in need of our products yet not enrolled with any school. Scaling this to 54 African countries who also can leverage on our products. The cloud platform in particular is in need, hence can be scaled through adoption by more users and of course a strong capital. Visit www.mawtech.ga

ID:	40
Name:	Edzai Zvobwo
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Title of Innovation:	MathsGee.com
Country/Countries of implementation:	Kenya, Nigeria, South Africa, Zimbabwe
Number of years implemented:	12
Link to picture of Innovation:	http://edu-au.org/components/com_rsform/uploads/IEA2019/Call%20for%20Submissions/Pictures/170_MathsGee.com_mathsgee.png
Category	Top 40

Problem being solved

MathsGee is solving the mismatch of skills expectations between employers and prospective employees (students) which leads to:

1. A small employable talent pool
2. Long and expensive onboarding process
3. High unemployment

Description of innovation

An online bank, <https://mathsgee.com> for the facilitation of exchange of knowledge between course co-creators (employers) and students (prospective employees) driven by unemployed youths (instructional designers) with the objective of:

1. Increasing the employable talent pool.
2. Reducing onboarding time.
3. Connecting unemployed youth with employers as authors

Unique outcomes and Impact

1. Poverty reduction/economic empowerment
2. Income increase for the once unemployed
3. Reduction in onboarding time
4. Increase in employable talent pool
5. Cost saving for employers

6. Greater cooperation between universities, government and employers
7. Free education

Replication and Sustainability

MathsGee is an online platform which can be accessed from every African country. The focus will be on having in-country representatives who liaise with companies in the different territories and also ensure that all African languages are included.