#BLOG4DEV

2019

Enhancing the **skills**
to prepare Africa's **youth**
for the digital economy and
the future of work

THE WORLD BANK
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Africa

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Diarietou Gaye, Director for Operations and Strategy (World Bank, Africa Region) and *«founding mother»* of #Blog4Dev, delivering her award to Christabel Ngwashi, #Blog4Dev winner for Cameroon.

FOREWORD

Technology is changing the way we interact, work, consume, pay for goods and services, and receive information. It has permeated almost every aspect of our lives and will continue to do so at a dizzying pace. In light of this, our continent needs to rethink the way we are preparing our young people for the future, so that they are able to seize the opportunities offered by digital technology, artificial intelligence, and machine learning.

So what better way to learn about the skills that young people need for the digital economy and the future of work to then to ask Africa's youth themselves? This was the prompt for our first continent-wide #Blog4Dev competition. First launched in Kenya in 2014, this competition was created to offer young Africans aged 18 to 28 a platform to share their ideas about the continent's development. #Blog4Dev is a cornerstone of the Youth Transforming Africa initiative under the World Bank's Africa Communications and Partnerships team.

For this edition, we selected 32 winning submissions out of the 1,212 blog entries received from 43 countries. We invited the winning authors to attend the 2019 World Bank Group and International Monetary Fund Spring Meetings where they engaged with World Bank teams and participate in conferences, meetings, and workshops.

The World Bank Africa #Blog4Dev competition helps connect young people's ideas with policy-makers, development experts, potential financing sources, and more importantly, other youth so that they can also be inspired to spur change. This is also the impetus behind publishing this book and creating a dedicated #Blog4Dev platform to host all of the top entries dating back to 2014.

Africa's youth are not just thinking about today. They are thinking years ahead. Many of them feel that policy makers have been slow to react to the challenges that they face as the digital economy becomes mainstream. They want to see their leaders take faster and more decisive steps to avert economic disaster and potential exclusion from the international economy. They see investment in internet infrastructure as essential, alongside rapid education reforms and stronger skills development programs so that everyone—young and old—can take advantage of the opportunities of a more connected world.

On a personal note, as the "founding mother" of #Blog4Dev in Kenya, I am proud to see how this initiative continues to evolve. It is more than just a competition; it is a growing partnership with African youth that can lead to real change and collective solutions to Africa's most pressing development challenges.

Let's transform Africa together!

Diarietou Gaye
Director, Strategy and Operations
Africa Region

The #Blog4Dev 2019 delegation met with Hafez Ghanem, the World Bank Vice President for Africa Region

Photo © Nate Palmer / World Bank

The #Blog4Dev 2019 delegation met with Sheila Redzepi, the World Bank Vice President for External and Corporate Relations

Photo © Nate Palmer / World Bank

WELCOME !

It is quite an honor to be young in such a time when partners and international players are willing to take the time to listen to what young people have to say. It is even more exciting to be young in a time where technology is bridging geographical, financial, and social gaps. We have so much more avenues and platforms and our reach is widening thanks to partners like World Bank.

This is to say that there is so much hope for the future of Africa and of the world. It's a call for each one of us to trust our voice and the stories of our communities. It is a reminder that our responsibility is to be agents and drivers of our future. As the youth of the African continent continues to rewrite the history of our people, the world will see our land differently.

Keep writing. There is such a desperate need for our voices to be heard but the World Bank is proof that people are listening and engaging with our thoughts. The future of our continent depends on the engagement that we have with the problems and the solutions in the different corners of Africa. Let us stay informed, engaged and responsive.

We are not the leaders of tomorrow, we are the leaders of today.

Dominique Alonga

Entrepreneur, Feminist, Author, Public Speaker & Winner of Blog4Dev2017 (Rwanda)

Dominique Uwase Along is a multi-talented Rwandan social entrepreneur, author, and blogger who won several prizes in youth entrepreneurship. She is the driving force behind Imagine We Rwanda, a social enterprise dedicated to challenging the narrative of Africa through storytelling. It publishes original books by local authors to boost the reading culture among Rwandans, increase culturally relevant materials in schools and improve the self-esteem of African readers.

She argues that the best way to boost opportunities for our youth is by empowering them to discover their potentials and value their talents and abilities to innovate and find solutions within themselves. Young people need a push forward through mentorship, time and financial investment but most of all, creating an ecosystem that will allow their ventures to grow.

#Blog4Dev 2019

The 32 winning blog entries

Les 32 billets gagnants

The blog entries are published in the original language they were received. Translated versions are available on the Youth Transforming Africa blog platform.

http://blogs.worldbank.org/youth-transforming-africa/

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Preparing Africa's youth for a digital future: Teaching responsible leadership

By addressing the proposed topic, the World Bank reinforces the African Union's Agenda2063, which sets out to attain the kind of Africa we want. African youth will be at the forefront of achieving the aspirations of African people.

In this regard, young Africans need to vigorously strive to assume leadership, or take an active role in the digital economy and the future of work. That will be possible only if we develop a profile of the skills that will be determinant for the professionals or entrepreneurs of the digital area. These include: development of a personal character that inspires confidence and adoption of a strategic vision that envisions the future creatively, recognizes the need for flexibility in the face of change and in solving complex problems, and maintains a positive attitude.

For these skills to be developed, I propose the establishment of open-enrollment academies that teach responsible leadership throughout the region and institutions, supported by governments or international organizations. This academy, which I call the Open Academy of Responsible Leadership, would be an ideal and real space for the development of complex skills to improve the profile of the entrepreneur and human capital in the Digital Era.

Africa traditions and great leaders in the past, such as the Bantu people, successfully solved complex problems with values and principles that I call responsible leadership. With these approaches, we can identify and develop behavioral skills through the values and principles of responsible leadership to improve the competencies necessary to enable African youth to become a more sustainable asset for the continent.

To accomplish this goal, specific objectives include:

- Introducing mentoring sessions, workshops, lectures and opportunities to observe the exercise of responsible leadership on the issue of personal development in the organizational context. These would be held at vocational training centers and as part of career training in rural communities, to spark creativity and stimulate the strategic vision of youth in an environment where young people often do not know what they intend to do in the near or distant future.
- Launch training sessions in all countries of the region, using networks of volunteers selected and trained for the purpose to reach young people who are outside the sphere of formal education with innovative initiatives that add value.
- Create a digital platform to use in improving the skills and developing the competencies required in the context of the digital era.

It is obvious that the achievement of success by African youth must involve the kind of preparation that is not restricted to development of technical skills, but also fosters behavioral aptitudes that schools and universities don't teach. We must think in terms of complementary systems that would add more value to African youth.

This is my commitment as civic leader, legal services intern, former president of the Student Association of the Catholic University of Angola, co-founder of the first business incubator in the university community in Angola and as a member of the First Consultative Council of Alumni of the Southern Africa YALI. A result of this is the writing I have done on responsible leadership. I believe that the technological options, innovations and creations of the current century must be associated with ethical issues, thereby guiding humanity toward sustainable success and achievement by individuals and organizations.

My proposed solution can increase awareness among African youth about the future and encourage them to assume a special position in the digital economy and the future of work in Africa and the world at large by becoming active, competitive, and productive.

Angola

Henriques Francisco Ngolome - *Angola*

Henriques Ngolome, a jurist and civic leader is also the co-founder and leader of the Incubator of Companies and Startups of the Catholic University of Angola, Luanda. Ngolome is also the author of the concept of Responsible Leadership, a system of values and principles for sustainable, personal and organizational success.

Faciliter pour tous l'accès au savoir dans sa propre langue grâce à internet

L'avancée en flèche des nouvelles technologies force les individus et les entreprises à mieux anticiper les besoins et les défis auxquels feront face nos sociétés. L'Afrique n'étant pas exclue de ces enjeux, elle devra trouver des solutions pour transmettre de meilleures compétences aux jeunes Africains et ce, afin de les aider à se préparer à l'économie numérique et aux emplois de demain.

L'Afrique est un continent en pleine croissance démographique. Elle jouit d'une culture millénaire riche et variée, tout comme le sont les différentes langues parlées sur le territoire. Une barrière linguistique et géographique se dresse toutefois en matière de transmission du savoir à tous les peuples qui la composent.

La barrière géographique pourrait aisément être franchie, en mettant en place les recommandations suivantes, à savoir :
Intégrer Internet de manière pratique et globale dans les techniques d'apprentissage dès le cours primaire ;

- Cultiver la curiosité des élèves vis-à-vis d'Internet et s'assurer de leur maîtrise de l'outil ;
- Établir une pédagogie sérieuse en matière d'utilisation des outils physiques et des logiciels à utiliser dans les écoles et les universités ;
- Développer une meilleure utilisation des outils tels que les casques de réalité virtuelle et augmentée (les fabriquer soi-même serait pédagogique et moins coûteux), et des outils d'apprentissage ludique tels que Scratch, Jerry (fabrication d'ordinateurs à partir de composants de récupération), Arduino, etc.
- Faire la promotion des outils libres de droits et sensibiliser la population aux concepts de collaboration et de contribution en matière d'accessibilité numérique pour tous.
- Organiser des concours pour accélérer l'acquisition des connaissances et stimuler la curiosité et l'esprit de compétition chez les apprenants et les enseignants.

Un dicton en langue fon dit que *« Ce qui tient à cœur, c'est dans sa langue maternelle qu'il faut l'exprimer».* La plupart des langues d'enseignement dans les écoles africaines sont des langues étrangères à la culture de nos pays, contrairement aux autres continents, où les apprentissages s'effectuent dans la langue maternelle (le français pour la France, l'anglais pour l'Angleterre et les États-Unis, le chinois pour la Chine, etc.); cela constitue un frein important dans le processus de transmission du savoir, car il faut à chaque fois maîtriser les langues avant de pouvoir assimiler les notions. Pour pallier ce problème, il faut établir et promouvoir les plateformes qui proposent un enseignement dans les langues africaines (comme par exemple, www.boiteainnovations.com).

Que les Africains restent pour la majorité des consommateurs, ou qu'ils deviennent des producteurs de savoirs, les connaissances et les techniques continuent d'évoluer à un rythme effréné. Le continent va devoir muter vers les métiers de demain. Pour y parvenir, il faut que les connaissances soient transmises au plus grand nombre. Internet est l'outil le plus rapide et le moins coûteux qui permettra à chacun, quelle que soit sa position géographique, d'avoir accès au savoir, et ce, dans sa propre langue.

Bénin

Kêlvin Adantchede Nonvignon - *Bénin*

Titulaire d'un diplôme de technicien en électrotechnique, Kêlvin Nonvignon Adantchede est passionné par les nouvelles technologies et l'économie circulaire. Il anime un blog où il partage ses opinions pour promouvoir une meilleure Afrique numérique.

Blog : https://kelvinagentk.com/

Increase digital access and skills to prepare Botswana's youth for the digital economy

Botswana

According to the United Nations, Africa's youth, citizens aged between 15 and 24 years old, currently stands at more than 200 million, making it the continent with the youngest population in the world. It is essential to equip this young population with the necessary skills that will allow them to be relevant in an economy that is rapidly becoming digital. Despite having a lower penetration rate (percentage of population using internet) than developed countries in Europe and North America, statistics show that Africa has a rapidly growing rate of internet connectivity and usage. Increasing penetration rate is therefore an important measure to be taken in bridging the gap of the digital divide and consequently helping Africa's youth actively partake in the global digital economy.

The key is to make internet services easily available to Africa's youth. This will help equip us with the necessary skills that will put us on the same level of knowledge and expertise as our peers in developed countries. It will also allow us to actively and competitively partake in the digital economy. Without the availability of these services, it will be difficult for Africa's youth to be an active part of the digital economy.

In the meantime, it will be important to impart knowledge with the youth on the importance of information and communications technology (ICT) to build interest among young people. Without interest, even if infrastructure was to be availed, it would become white elephants which no one shows interest in using. Therefore, youth should be properly taught ICT skills, so that they can better appreciate its relevance in the modern era. Apart from teaching digital literacy, what can also be done is to offer subsidized prices for internet subscribers to enable more, and broader access to internet services. As noted with the **#DataMustFall** movement, most young Africans cannot afford internet services because of the high prices. Without their participation because of lack of affordability of internet services, African countries will continue to lag behind the developed world in the digital economy.

Another step which can be taken to increase penetration rate is to invest more in building infrastructure to help in the implementation of internet service projects, in both urban and rural areas. Such infrastructure includes satellites, fiber-optic networks, connectivity infrastructure etc. The current situation in most developing countries in Africa is that ICT infrastructure is concentrated in urban areas, with a few to none being available in rural areas. This means that the only way youth in rural areas can access ICT services is to migrate to urban areas, a situation which puts them at a disadvantage compared to their peers in developed countries.

A young population coupled with increasing rates of internet usage and connectivity can prove to be an important advantage for Africa in her pursuit to be competitive in the digital economy. By taking the appropriate steps to increase penetration rate and hence bridge the digital divide, Africa can find herself being actively competitive in the digital economy in the coming few years.

Ephraim Modise - **Botswana**

Ephraim Modise is a computer science student at the University of Botswana, an entrepreneur and blogger. His blog covers a wide range of topics, including mental health, technology news, politics, governance and philosophy. Modise is also co-owner of Diamond Value Investments, LTD, a startup venture which seeks to provide value addition services to sub-sectors of the of the diamond industry pipeline. He enjoys reading and writing in his spare time.

Blog : someblackguy.blogspot.com

Utiliser tous les aspects numériques pour créer la nouvelle réalité de l'Afrique

Burkina Faso

Si auparavant, la voie du progrès était tracée par un accès aux routes, aujourd'hui, le développement ne peut se concevoir sans un accès au numérique. Dans un monde de plus en plus connecté et résolument tourné vers le digital, les pays du Sud tentent de réduire la fracture numérique avec les pays du Nord. Alors, quelles peuvent être les solutions pour transmettre de meilleures compétences aux jeunes Africains afin de les aider à se préparer à l'économie numérique et aux emplois de demain ?

Pour répondre à cette problématique pertinente et d'actualité, notre argumentaire s'articulera autour de la création de campus en ligne (les e-campus), de pôles d'excellence numérique et de la mise en place de banques d'idées.

Dans son ouvrage Les enjeux éthiques d'Internet en Afrique de l'Ouest, Oumarou Tiemtoré écrit : *« Si l'Afrique rate le train de l'informatique, elle ne pourra plus revenir sur les rails »*. Or, face à cette situation complexe, l'Afrique peut compter sur sa population majoritairement jeune. Mais comment s'assurer que cette jeunesse possède les bons outils pour faire face au défi de ce siècle ? Les jeunes Africains doivent se former aux nouveaux métiers du digital : cette formation pourrait passer par la création d'e-campus disposant de bibliothèques numériques qui leur permettraient d'être à la pointe de la technologie. Aussi pourront-ils acquérir les connaissances nécessaires pour se lancer par la suite dans la création de startups et ainsi participer à la création de richesse et jouer leur rôle dans le développement de leur pays.

Une autre solution serait la création de pôles d'excellence numérique. Ces pôles, qui constitueraient une sorte de fonds d'appui aux initiatives des jeunes dans le numérique, auraient pour mission de recevoir et de traiter les projets des jeunes afin d'en sélectionner les meilleurs, puis d'en assurer l'incubation jusqu'à leur pleine réalisation. Ces pôles d'excellence offriraient un cadre émulatif sain à la jeunesse, mettant en avant les meilleures idées possibles. Ce cadre constituerait aussi une réponse à l'épineuse question du chômage, dans la mesure où la fonction publique n'a pas la capacité d'employer tous les diplômés. Dans ce domaine, l'exemple du programme Burkina Startups doit inspirer certains pays à emboîter le pas.

Enfin, chaque pays devrait procéder à la création d'une banque d'idées. Ces banques, contrairement à leur définition traditionnelle, ne chercheraient pas à accumuler de l'argent, mais bien des idées novatrices à même de contribuer au développement d'un pays. Chaque nation africaine pourrait créer sa propre banque afin de centraliser les meilleures idées qui soient et ainsi constituer des bases de données pour les générations actuelles et futures. Il suffirait par la suite de réunir toutes ces banques d'idées en une seule entité, la banque centrale des idées d'Afrique. Ce concept de banque centrale serait basé sur le modèle de l'union Africaine, qui constitue aujourd'hui une vraie source d'inspiration et de fierté pour les États africains. Nous sommes persuadés que cette banque centrale des idées d'Afrique pourrait être, dans un futur pas si lointain, le précurseur d'une réalité plus large, celle des *« États-Unis d'Afrique »*.

Priva Belem - *Burkina Faso*

Belem Priva is a student of communications for development at the University of Ouagadougou. Priva also leads the student communications and journalism club and is a member of the Young Professionals for Agriculture, Burkina Faso.
Belem est étudiant en communication du développement. Il est également président du Bureau des élèves en communication et journalisme à l'université de Ouagadougou. Belem gère également la communication de l'antenne burkinabè de l'Association des jeunes pour le développement de l'agriculture

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Governments, organizations and young people must collaborate to prepare Africa's youth for the digital workforce

To prepare Burundi's youth for the future of work, it will take a combination of youth capacity building, availability of financial resources and partnership between governments and international financial organizations to tackle the challenge.

An education and employment hub that will train the youth and implement several projects to fill Africa digital markets is requisite. This will be the only way to inspire the youth to be involved in digital economy and future of work. An increasing progression of practical trainings followed by the implementation of projects in which a group of trainees will be interested in developing and that may be sponsored or able to generate incomes will increase the willingness of youth to enter the digital world, since they will see new employment opportunities.

We African youth, and Burundian youth in particular, need guidance and facilities. A lot of us have not had the chance to use or be familiar with digital items, and many others have faced digital barriers which have discouraged them from entering the digital world. The sector also remains unexploited due to the lack of information and communications technology (ICT) infrastructures in Africa.

To solve these development challenges, one solution could be to implement centers where young people can be trained in different fields related to the digital economy, and which respond to their career interest and aspiration. The hub will train and coach youth to build platforms in their interested areas; the digital economy is wide and includes many fields that could be of interest, such as programming, automation and artificial intelligence. With multiple offerings, students may choose any to be trained in technically, followed by the implementation of potential projects that may lead to youth employability. This is important, because the only option to maintain youth involvement in trainings is to show them that there is interest and that it may likely improve their life.

Another area of training could include software programming and they could be coached to implement several projects related to e-business, such as e-commerce, e- marketing, e-banking, online information and communication, digital learning, web design, and related areas. A research center in robotics and artificial intelligence could be opened to promote the passion of science and technology in young people, and different programs including automation, cognitive science and computational linguistics will be implemented in to inspire their creative mind. The objective is to bring young people into becoming future leaders in these fields and interest them into pursuing further studies so that they will be qualified to fill Africa's current skills shortage.

However, the implementation of these projects requires significant investments. ICT infrastructures are expensive, and it will require highly-skilled professionals in the aforementioned programs to train youth, which could only be provided through partnerships with financial institutions, development organizations and the government.
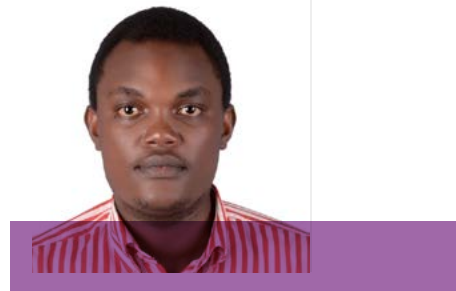
Burundi

Guy Tresor Ntwari - Burundi

Guy Tresor Ntwari grew up in Bujumbura, Burundi. He earned a Bachelor of Business Administration and Management from Bujumbura International University, where he also majored in non-governmental organization management and sustainable development.

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Silicon Mountain is an example of what Africa needs for a digital world

While reading a report from McKinsey Global Institute, predicting that robots could replace 800 million jobs by 2030, drops of cold sweat trickled down my spine. But rather than considering this a threat, it prompted me to step up my digital education and training to remain economically relevant in the future.

But I didn't do this alone. A strong youth-driven technology entrepreneurial community which comprises young innovators has been the engine sustaining my drive into the digital world. Its operating model is an example of what all young Africans needs to enhance digital skills.

Currently, Cameroon still witnesses a timid use of digital systems owing to widespread ignorance and lack of basic infrastructural resources: lack of affordable internet, computers and regular electricity supply. As a result, opportunities for youths to access and acquire digital skills are limited.

The Silicon Mountain Community, named by its location at the foot of Mount Fako in Buea, Cameroon, seeks to tackle this ignorance while urging stakeholders to create and secure an enabling environment. It exposes and creates opportunities in the digital world via mentorship, trains youths to develop affordable digital innovations and seeks partnerships to demonstrate acquired soft skills.
With provision of required resources, this model can be replicated and adapted entailing:

- Vertical Mentorship: Youth-driven developer groups such as school clubs could be formed across colleges and universities with members linked to mentors in their specific career path. Mentors could be more experienced youths or school teachers knowledgeable in digital technology. Mentees are exposed to opportunities which technology offer in that field; guided through learning resources and building affordable innovations suited for specific environments. Mentors would stir passion, confidence, team spirit and creativity by giving mentees tasks to be completed within a given time.
- Training: Each group would designate suitable working hours and location, develop time-bound objectives under supervision and be given a corresponding minimum number of coding hours to be met as a prerequisite for participation in competitions. A code week or boot camp organized monthly or yearly would be dedicated for inter-club competitions and winners given prizes such as internship placements, fellowships or training. Bi-monthly talks to share challenges, motivate one another and devise improvement methods would ensure sustainability.
- Practice: To practice what has been learned, partnership with institutions for internship and development of their digital services would be mutually beneficial. For example, partnering with schools could enable digitization of school fees payment. Members should be tasked in volunteering to teach the younger students' basic soft skills. An example is the ICT4Kids program which teaches kids how to develop simple games and draw cartoons during holidays.

As a member of "Women Techmakers," the female wing of Silicon Mountain, integrating digital technology into primary health care practice has opened exciting dimensions in my career. This is why I believe that it will take an enabling environment and a training model like the one proposed to adequately prepare Africa's youths for the Fourth Industrial Revolution.
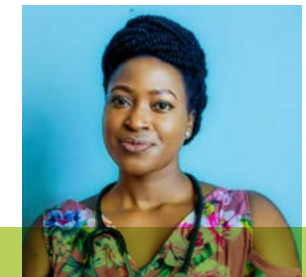
Cameroon

Christabel Apholung Ngwashi - Cameroon

Christabel Ngwashi is a physician, health blogger and founder of MoreThanJustAnMD Initiative, which seeks to strengthen community and preventive health care using tools such as technology.

Miser sur un usage intelligent de la technologie pour les générations futures

Avec l'évolution de la technologie et de l'économie numérique, le monde est en perpétuelle évolution. Pour s'y adapter, les jeunes Africains, déjà pénalisés dans certains cas par le retard du continent comparé à d'autres, auraient au préalable besoin d'un certain niveau de formation technologique. Même si l'urgence première pour certains pays d'Afrique est la sortie de la pauvreté, il est d'un impératif salvateur pour notre continent de s'engager sur la voie de l'économie numérique. Cette technologie moderne offre la possibilité aux entreprises de prospérer, tant dans l'innovation des produits et services répondant aux exigences des clients, que dans l'élargissement de leur gamme de produits.

En partant du constat évident de l'inadéquation de la qualité de l'enseignement dispensée dans les écoles africaines et de l'offre du travail sur le marché, la formation des jeunes Africains doit aller au-delà des domaines de compétence classiques en programmation informatique pour s'élargir aux compétences nécessaires au développement d'une entreprise et permettre à l'éducation d'être davantage adaptée à une économie numérique en pleine évolution. Ce projet n'aura de succès qu'en dotant les centres de formation d'enseignants armés des compétences nécessaires pour préparer les jeunes aux emplois du digital.

Toutefois, remporter la bataille de l'économie numérique en Afrique ne peut se faire qu'à condition de ne pas isoler les jeunes Africains de leur environnement immédiat, à savoir le développement rural. Ce dernier demeure encore pour l'Afrique le terreau de sa capacité de développement et potentiellement un secteur primordial dans la création d'emplois.

Aussi convient-il de rendre le système bancaire de certains pays africains cohérent avec l'expansion d'une économie numérique ; en d'autres termes, créer un marché de consommateurs du numérique pour un développement de startups propres à l'Afrique. Il est surtout important d'élever le niveau de confiance des utilisateurs dans le e-commerce à travers des dispositifs législatifs et réglementaires appropriés. Les États africains et les partenaires techniques devraient travailler ensemble pour améliorer les compétences des entreprises africaines. Il serait par ailleurs judicieux de promouvoir l'innovation et la culture du service numérique et d'investir dans l'infrastructure de fibres optiques pour améliorer la connectivité. En outre, il est impératif d'abroger les politiques de certains États Africains qui constituent un handicap pour la mise en place d'un environnement favorable à l'économie numérique. Enfin, il est très important de garantir à l'Afrique un accès permanent et crédible à l'électricité et de mettre en place un fonds public spécial de garantie pour les innovations des startups numériques.

La technologie numérique est certes une arme puissante, mais à double tranchant : elle apporte d'une part de nouvelles techniques qui permettent de mieux préserver l'environnement, tout en s'avérant polluante. L'évolution de l'économie numérique avait pour objectif de dématérialiser nos activités, et donc, de réduire notre impact sur la planète. Mais c'était sans tenir compte du bilan carbone du secteur.

De fait, il représente à cette date 2 % des émissions de gaz à effet de serre, un taux égal à celui de l'aviation civile, et qui devrait doubler d'ici 2019 selon le cabinet d'analyse Green IT.

La transition vers l'économie numérique constitue-t-elle un nouveau cercle vicieux ou un réservoir de solutions en matière d'écologie ?

Tchad

Isabelle Memaji - Tchad

Isabelle MEMADJI est étudiante en deuxième année de master en gestion qualité-hygiène-sécurité-environnement à l'Institut supérieur de management (ISM) à Dakar, au Sénégal.

Le pont Brazza-Kinshasa, symbole du e-développement responsable des deux Congo

Nous sommes en 2050, il y a quelques mois, notre pays le Congo Brazzaville faisait un pas de géant dans son processus de développement et d'intégration régionale en inaugurant conjointement avec son voisin, le Congo Kinshasa, un pont de 1550 Km de long, comportant un péage, une voie ferrée, une route et une voie piétonne. Cela a définitivement fusionné nos deux capitales, les plus rapprochées du monde mais longtemps séparées par le fleuve Congo.

En effet, 35 ans en arrière, nous rallions encore nos deux pays par pirogue et canot rapide. Mais aujourd'hui, ce pont, nous permet de dessiner l'avenir dans une nouvelle réalité de libre circulation des biens et des personnes. Ce projet est le fruit des différentes réformes apportées par l'expansion de la 4ème Révolution numérique de la République du Congo, qui a radicalement transformé les emplois tout en améliorant les conditions de vie des populations et en mettant fin à la famine.

Revenons un peu sur les progrès technologiques que l'on avait pu observer au cours d'une dizaine d'années et l'impact qu'ils ont eu sur la réalisation de ce merveilleux projet de construction du pont. Le pays a vu naître des écoles spécialisées dans les énergies renouvelables, l'agribusiness, la finance numérique, l'intelligence artificielle, les sciences, la technologie, l'ingénierie et les mathématiques (STIM). L'internet des objets, l'e-commerce, l'e-gouvernement, l'e-développement et l'e-tourisme se sont développés. Sans compter les avancées dans l'apprentissage technologique, la médecine, l'utilisations des données massives, le pilotage des drones ...

Grâce à cette multitude d'ingénieurs, de spécialistes et de consultants formés dans nos écoles, nous avons :
- optimisé les délais d'élaboration du projet de pont en recourant à l'impression 3D ;

- simplifié le quotidien des employés et de tous les Congolais en leur permettant d'accéder en temps réel à leur compte bancaire par le biais de la 5G. Ils ont ainsi pu subvenir aux besoins financiers, alimentaires et d'éducation de leur famille en leur transférant de l'argent via le service de paiement mobile ;

- électrifié le chantier en utilisant des énergies solaires et hydroélectriques fournies par quantité de panneaux solaires positionnés au-dessus du fleuve, dotés d'un système de positionnement dynamique avec liaison satellitaire (à l'aide du satellite africain lancé par le Ghana) permettant de garder les coordonnées préalablement définies. Parallèlement, le barrage hydroélectrique de INGA phase 6, construit sur le fleuve Congo, complète le besoin en électricité du chantier et fournit de l'énergie à toute l'Afrique centrale et de l'Est.

- nourri le personnel du chantier avec une nourriture abondante et variée, produite en République du Congo suite à l'autonomisation de l'agriculture avec des systèmes modernisés d'arrosage et d'irrigation reliés à des robots et pilotés par smartphone. Et surtout, grâce au réseau de drones qui ont permis d'améliorer la surveillance des cultures et la distribution d'intrants.

Alors revenons en 2019 et rappelons à nos pays que c'est en embrassant toutes ces avancées technologiques et en réalisant enfin ce pont que les deux Congo créeront des emplois et participeront à un e-développement responsable.

République du Congo
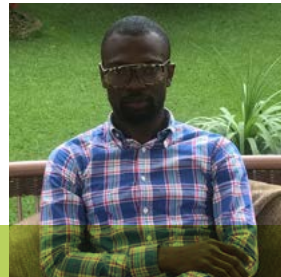
**Amour Freddy Bilombo Bazedimba -
République du Congo**

À 24 ans, Amour-Freddy Bilombo est ingénieur et co-fondateur de FODAM, un organisme de microfinance destiné à améliorer les conditions de vie en milieu rural, en aidant les petits et micro-entrepreneurs (notamment les femmes et les jeunes) à se lancer et à se développer.

En Côte d'Ivoire, le train du numérique est déjà en marche mais doit aller plus vite et plus loin

Le monde est devenu un village planétaire et les nouveaux analphabètes seront ceux qui restent en marge de la révolution technologique. Et de nombreux jeunes Africains risquent d'en faire partie. En effet, malgré l'ascension fulgurante des nouvelles technologies, l'Afrique est à la traîne. Seuls 30 % des Africains ont accès à internet et environ 600 millions d'Africains n'ont pas accès à l'électricité. C'est pour changer cette donne que nous autres, jeunes Africains, avons la responsabilité de proposer des solutions qui permettent d'intégrer le continent à cette mutation technologique.

Tout n'est pas à faire et des actions sont déjà menées sur le continent. Notamment des évènements autour du numérique, par le biais des centres de formations technologiques et de concours visant à récompenser les jeunes entrepreneurs disruptifs. Mais il faut reconnaître que ces initiatives concernent peu de jeunes et n'ont qu'un faible l'impact sur l'économie numérique.

Nous devons tout d'abord réconcilier tous les jeunes Africains au numérique. On pourrait par exemple, organiser des séances de formation des cybers arnaqueurs pour les reconvertir en ingénieurs informatiques au service de l'intérêt général, en montant par exemple des projets à fort impact technologique et social, comme la fabrication d'objets connectés et le développement d'applications pour résoudre les défis communautaires.

Les pays africains pourraient aussi mutualiser leurs ressources financières et créer une école continentale spécialisée dans le digital et l'économie numérique. Cet institut de formation avec des incubateurs regrouperait les meilleurs dans ce domaine en prévoyant des bourses d'études et un échange de compétences entre participants. Cette école serait basée sur le modèle des programmes d'échanges américains dont le Young African Leadership Initiative (YALI) initié par le département d'État américain en 2010 pour dénicher les jeunes leaders africains de demain, mais s'intéresserait principalement au numérique et à ses dérivés.

En plus de l'alphabétisation littéraire, les systèmes éducatifs doivent promouvoir une alphabétisation numérique théorique et pratique. Les jeunes pourront mieux s'imprégner des exigences du monde de demain s'ils apprennent à utiliser correctement les outils numériques dès le primaire. Autrement dit, il faut équiper les écoles urbaines et rurales de salles multimédia avec un bon accès à internet et des enseignants de qualité. Parallèlement, il faut développer les formations en ligne pour permettre aux Africains de se former à n'importe quel âge.

J'ai bon espoir parce que les choses bougent déjà en Côte d'Ivoire. L'État a fait un travail formidable en subventionnant l'achat d'ordinateurs pour les étudiants à travers le projet, *« Un étudiant, un ordinateur »* dont la deuxième édition a été lancée en novembre 2018 à l'université Nangui Abrogoua à Abidjan. De leur côté, certains commerçants acceptent des paiements échelonnés pour l'achat d'un ordinateur.

De nombreux pays africains ont aussi développé les services publics en ligne mais ils doivent aller plus loin en recrutant de jeunes développeurs et informaticiens talentueux. Le super prix Jeunesse francophone, récemment décerné à Roland Alavo, un jeune de 24 ans, avec son projet de numérisation des lois du Bénin et de la Côte d'Ivoire, nous montre que nous sommes sur la bonne voie.

Côte d'Ivoire

Nafiisa Adjoua N'Guessan -Côte d'Ivoire

Passionnée par le numérique, la littérature, l'écriture et le bénévolat, Nafiisa Adjoua N'Guessan écrit des articles sur les problématiques du développement en Afrique.

Blog : https://agounda.wordpress.com

# S'approprier la technologie de demain grâce au e-learning

Rendons-nous à l'évidence : le monde se numérise dans tous les secteurs. L'Afrique aussi suit le chemin de la numérisation, mais à une vitesse bien moins vertigineuse que les autres continents, l'Europe, l'Amérique du sud, l'Asie et Australie, sans oublier le grand vainqueur de la course, l'Amérique du Nord. Sur notre continent-même, certains pays sont plus en retard que d'autres. Le fait que la République démocratique du Congo (RDC) n'ait qu'un taux de pénétration de l'Internet à 6 % montre combien tout ce qui touche au numérique a un grand retard à rattraper.

Pourtant, un fait est sans équivoque : la vitesse avec laquelle la jeunesse congolaise s'approprie la technologie androïde donne à espérer. Cette réalité montre qu'en ce siècle, l'androïde peut assurer le transfert des connaissances dans le processus de migrations de services vers le tout numérique. Le système académique, tel qu'il est aujourd'hui conçu, est figé. La non-budgétisation conséquente dans ce secteur ne permet pas de mettre à jour les programmes ni de les adapter à l'évolution technologique. À défaut d'un smartphone, la quasi-majorité des étudiants possède au moins un téléphone androïde, qu'elle peut se procurer pour la modique somme de 25 dollars. Tout comme l'étudiant achète des programmes d'études à 10 ou 20 dollars, il pourra transformer son téléphone androïde en un outil académique indispensable. À défaut d'un accès wifi sur le campus, dont le coût serait incorporé dans les frais académiques, l'achat d'un forfait Internet serait similaire aux frais engagés dans la réalisation des travaux pratiques.

Je propose ainsi la création d'une plateforme de cours en ligne à laquelle les universités devront s'affilier obligatoirement. En fonction de leurs centres d'intérêt, et dès la deuxième ou troisième année de Master, les étudiants suivront une série de cours dans leur domaine choisi, avec une formation sous forme d'un tutoriel (vidéos, textes et enregistrements audio), plus pratique que théorique. Ces cours seront par la suite sanctionnés par un examen pratique et s'inscriront dans le cursus académique choisi. Ces vidéos et enregistrements audio doivent pouvoir être téléchargeables – une connexion permettant un streaming de qualité n'étant pas garantie en RDC.

Pour gagner la confiance des universités, cette plateforme devra être affiliée à une organisation telle que l'UNESCO, en gestion commune avec le ministère de l'Enseignement Supérieur et Universitaire. D'autres universités de renom devront aussi en être des partenaires pour assurer le mentorat. Si je m'exprime avec autant de passion en faveur de ces tutoriels, c'est parce que c'est grâce à eux que j'ai appris la création et l'administration des sites web sous GMS, et que j'ai acquis la plupart de mes connaissances en matière d'e-marketing et de journalisme pour la rédaction web, pendant ma dernière année de licence et après mon cursus en journalisme-multimédia.

Au final, et quels que soient les coûts induis par cette nouvelle façon d'apprendre, elle restera toujours nettement moins onéreuse que son alternative (réservée à une poignée de privilégiés en RDC), à savoir celle d'aller étudier dans les universités d'autres continents.

République démocratique du Congo
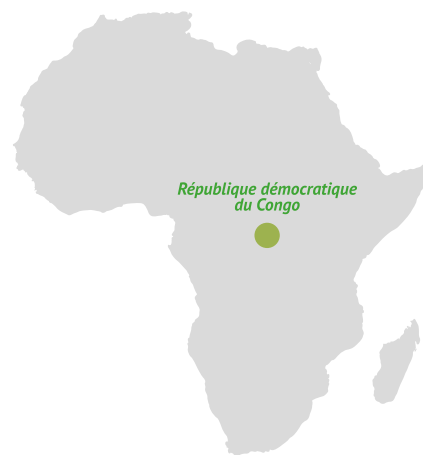
Hervé Mukulu Vulotwa -
République Démocratique du Congo

Journaliste-multimédia et pigiste dans plusieurs médias, Hervé Mukula Vulotwa est également bloggeur pour RNW et Mondoblog RFI.

Blog : www.jambomag.mondoblog.org

Make internet affordable in Africa, and the skills will soon follow

Since the beginning of the Digital Revolution, people have been wondering about digitization of the workplace and how it relates to production and employment. Although a significant number of people want to box the idea of digitizing workplaces into waging war on blue collar jobs, the reality couldn't be far from that argument.

In Africa, where human labor is still considered as a cheap commodity to capitalize on, workplaces are changing, and digital jobs are popping up frequently than usual. Hence, it is imperative for African youth to acquire the necessary skills so that they can be competent and productive in the digital economy.

So what are these "necessary" skills that the world keeps talking about? Should we leap over to teaching Africa's youth high-level programming? Or is it investing more the STEM streams in an attempt to get more engineers and scientists?

Although teaching programming and investing in STEMs might not be a bad idea, doing that alone still wouldn't move us an inch when it comes to the developing the skills we will need to capitalize on the digital economy.

The first (and perhaps the biggest) challenge in Ethiopia—and many African countries—when it comes to acquiring such skills, is that most young people do not understand the digital economy phenomenon. In simple terms, people don't take it seriously. In most African countries, setting up a tech start up is far more difficult that getting a license to be a merchant. This passive indifference to the reality of digital economy by the politicians in Africa is what is keeping the youth from acquiring the skills of digital economy.

To solve this, we need politicians and leaders in Africa who understand what the digital economy is and the urgency of making it an "African reality." This can be manifested by investing heavily in digital literacy in primary schools. Kids who grow up learning in a digital environment can acquire the necessary skills to operate effectively in a digital economy.

Secondly, African countries, and particularly Ethiopia, must provide its citizens with affordable broadband internet on a massive scale. The internet has made it possible for knowledge to flow across boundaries seamlessly. It is now possible to get a degree online, learn how to be a good cook by watching YouTube, or even launch a successful business with nothing but a laptop and a decent internet connection. Unfortunately, most Africans are still in the dark due to lack of internet access. By providing youth an affordable internet, African nations and Ethiopia can equip their young citizens with tools needed to succeed in the digital economy.

In conclusion, the digital economy is coming for Africa, and in doing so, it will bring big opportunities and some challenges along with it. By Investing in digital literacy and providing affordable internet to the youth, it is possible to usher a new era of digital economy in Africa along with a competent young generation that has the skills to drive it and be a backbone of the economy.

Olansis M. Wolde, an Ethiopian national, is a winner of the World Bank Africa's 2019 Blog4Dev competition.

Ethiopia

Olansis M. Wolde -Ethiopia

Olansis M. Wolde is a student of journalism and communications studies at Addis Ababa University. He has written three, award-winning articles for the World Bank's Blog4dev essay contest on equitable development, gender and digitalization topics.

Online learning, affordable internet services key to preparing Ghanaians for the digital workforce

Twenty-first century employers are currently looking for Blockchain experts, product photographers, writers for search engine optimization, Web UI/UX designers, WordPress developers, Enterprise architects, animation experts, Shopify developers, Asana project managers and Lead generation gurus. Is the young Ghanaian well equipped to compete for such jobs?
No, but we could be.
Google recently launched the Google Digital Skills for Africa program, which aims to equip African youth with digital skills to build businesses and create jobs. While this is a good attempt to prepare Ghanaians with the digital skills they need, the hard truth is that the youth will require advanced digital courses to thrive in the uncertain digital economy.

So, what will it really take to enhance the skills needed to prepare Ghanaian youth for the digital economy and the future of work?

My answer: expose young Ghanaians to freelance websites like Upwork, and online learning platforms like Udemy and LinkedIn Learning.

Every day, thousands of individuals and businesses go to Upwork in search of freelancers with specific technical and non-technical skills. For young Ghanaians who are proactive about skill-related training and eager to keep up with new job market trends, this job platform is a gold mine.

The platform provides deep insight into the emerging skills needed for 21st century businesses to thrive. Exposure to Upwork will not only help Ghanaian youth appreciate the rapid evolution of digital skills but also inspire them to re-skill themselves to remain relevant in the digital job market.

To a large extent, the obsession of young Ghanaians with mobile phones makes this feasible. The challenge however, is gaining access to reliable and affordable data connections. This is where giant internet service providers should step in to provide support in the form of low, internet service packages for the youth. The goal is to make it possible for the youth to acquaint themselves on Upwork with the fastest growing in-demand skills and learn what is needed to compete for digital jobs that did not exist five years ago.

Online learning platforms such as Udemy and LinkedIn Learning are making tremendous investments in digital skills training. They deliver relevant courses to equip students with job-ready skills sought by 21st century employers. Unfortunately, these courses are not free and could cost anything between $20 and $200, a bit pricey for the average Ghanaian.

In a show of support, Ghanaian tertiary institutions could push for affiliate partnerships with Udemy and LinkedIn in exchange for discounts for their students. Companies could also join in the challenge by providing generous scholarships or by waiving online tuition fees for young Ghanaians to keep up with the pace of technology. Other private sector interventions could include the provision of vibrant co-working spaces that are convenient enough to inspire life-long learning and innovation among Ghanaian youth.

Ghana

Dinah Recheal Blankson - Ghana

Recheal Blankson is an international development project manager with a strong interest in education and youth empowerment. She graduated from the University of Strasbourg with a master's degree in project management, and advocates for educational equity for young people.

Blog : https://www.autolifecoach.com/

Repenser le système éducatif pour préparer la jeunesse africaine aux métiers de demain

En Guinée, la solution pour fournir les compétences de demain à la jeunesse africaine serait à mon avis de contourner les voies traditionnelles de scolarisation.

Par exemple, chaque sous-préfecture pourrait tirer parti de l'installation de la fibre optique qui améliore nettement le débit de connexion internet, pour créer un centre informatique pour les moins de 20 ans. Dans ce centre, parallèlement à leur scolarité classique, les jeunes pourraient être initiés pendant deux ans aux métiers de demain, en apprenant entre autres les bases de la programmation, l'utilisation des différents logiciels… Il suffit d'un bâtiment et d'une dizaine de machines performantes et de qualité par sous-préfecture, pour permettre au projet de prendre forme.

« Mais qui seront les enseignants ? », me direz-vous.

Ils seront guinéens, résidants ou originaires de ces sous-préfectures, formés dans le numérique. Ils seront chargés de détecter les talents réels et le potentiel des élèves lors des différents stages d'initiation. Ils sélectionneront les élèves les plus prometteurs et motivés. Ces derniers seront ensuite encadrés et s'il le faut, obtiendront une bourse pour poursuivre leurs études.

La rémunération des enseignants et leur prise en charge reste le plus grand défi à relever dans ce projet, qui pour sa phase pilote, pourrait par exemple commencer à Konkouré, ma sous-préfecture d'origine. L'idéal serait que l'État prenne en charge leur salaire. Mais l'actualité de mon pays est dominée par une grève du syndicat des enseignants qui ne cesse de durer. Alors il est inimaginable que le gouvernement accepte de supporter le coût total de cette initiative qui à terme concernera plus de 300 nouveaux salariés. Cependant, il pourrait financer la phase pilote du projet qui devrait seulement employer une dizaine d'enseignants. Des ONG pourraient faire don du matériel informatique. Enfin, les parents les plus aisés pourraient participer aux dépenses courantes du centre.

Les élèves sélectionnés au bout des deux ans de formation dans le centre, bénéficieront d'un accompagnement personnalisé jusqu'à la fin de leur cursus scolaire afin de les orienter le mieux possible dans leurs choix universitaires et de s'assurer que leurs études supérieures leur permettront d'exercer le métier de leur choix dans le domaine des nouvelles technologies. Ce travail d'accompagnement sera effectué par les enseignants du centre, en collaboration étroite avec les établissements scolaires des environs.

La phase pilote du projet durera six ans et ne concernera que les collégiens et lycéens de moins de 20 ans. À la fin de cette période, nous serons en mesure d'évaluer l'impact réel du centre. Si la majorité des élèves font un choix judicieux et s'orientent dans des secteurs porteurs, on pourra considérer que le projet est un succès et encourager le gouvernement à l'élargir à l'ensemble des sous-préfectures.

Chers amis de la sous-préfecture de Konkouré, qu'en pensez-vous ?

Guinée

Mohamed Alimou Diallo - Guinée

Creating space for digital learning in Africa

Kenya

Digital economy refers to an economy that runs entirely on digital computing technologies. To be prepared for the digital economy, youth should understand their strengths, skills, and talents. At the same time, the involvement of various stakeholders in training youth—both in and out of school) with job-ready, transferable digital skills is needed. , Civil space, public space, physical space, and digital space can be implemented to develop young people's digital skills and curb youth unemployment in the digital economy.
Urgent actions include:

1. Digital economy campaigns (creation of civic space)
Campaigns at relevant conferences and social media, to incorporate youth are required. This will surely create a platform for stakeholders, such as the government, to digitally train both in school and out-of-school youth and digital entrepreneurs for future work. Also, more platforms for digital employment will be created and more labor market information systems shall be generated massively for the same.

In general, civil space will generate better policy guidelines, improved quality of basic education and improved higher skills demanded in the digital economy due to information accessibility.

2. Young digital entrepreneur's advocacy (Digital Space)
Governments in Africa should enhance basic digital entrepreneurial training for the youth. Advanced programs such as tax education, local business internship and start-up loans for digital entrepreneurs should be introduced. Business loans in Kenya should be made easier for accessibility among the digital entrepreneurs.

3. Physical space creation
A physical space will allow youth to be trained in teamwork spirit, communication, creativity, and innovative spirit to prepare them for the digital economy. Due to globalization, life skills are important because the digital economy can only thrive in a more cooperative society.

4. Policy formulations (Public Space)
Formulation and implementation of the best labor market information system and job for youth programs should be done either directly by the people or their parliamentary representatives. The causes for youth unemployment and how to become fit for employment in the digital economy should be well outlined. In addition, policies that advocate for wage subsidiary programs should be created to ensure employees to hire and train youths on areas that are likely to link with digital economy provisions. This plan will easily teach low-educated Kenyans and Africans how to develop their digital skills, hence being productive in the digital economy.

Finally, policies could be formulated to ensure a comprehensive curriculum that incorporates public, private and small medium enterprises to work together and to formalize the informal sector for the success of youth contribution towards a sustained digital economy.

In conclusion, several interventions, policies, training, and advocacy are highly recommended in Africa to see the unemployed youths to tap and benefit from the digital economy. Also, the youth are advised to continue being creative and hence benefit from the digital economy.

Jackton Oduor Badia - Kenya

Jackton Badia earned a bachelor's degree in geospatial engineering from the Technical University of Kenya. Badia also serves as the secretary general of The Peoples Grassroot Investment, a socioeconomic group of 1000 members.

Preparing Lesotho's youth for the Fourth Industrial Revolution through skills development, boosted by parental support

What it will take, for Basotho youth to learn digital skills? First, there must be a change of attitude toward smart phones and the internet.

Just a few months ago, I sat in at the Selibeng Forum to learn that a high school teacher had a problem assisting his students through WhatsApp as the students' parents would not allow it. This is not unusual; many parents in Africa still have a negative attitude toward technology. We have people buying leading smartphone brands as a status symbol, but who are not fully participating in the digital economy, let alone the creation of work. One way to change this negative perception among older generations could be through massive PR campaigns by governments and pertinent authorities. Such massive steps have to be taken by authorities because parents tend to pay attention to what authorities state rather than listening to their children. Regardless of how sound their argument may be. Unless parents understand the significance of the digital economy and the future of work enough to support the youth through the process, it will be almost impossible to enhance the required skills. We are already among leading smartphone consumers, we just have to start using them for even more of our benefit.

Speaking of necessary skills, before we talk about the future of work, we should be talking about the future of education. Youth have got to start seeing smart phones as digital economy participation and work creation tools, not just for entertainment. They must be willing to learn about the power they hold in their hands.

Many young people in my country let schooling put a pause on their creative lives. Both parents and students think going to school is the most important thing. They ignore other creative talents and preparations for opportunities in the future of work. As a result, we have multitudes of unemployed graduates. The advantage is that they have ample free time to learn and create great products. The limiting factor is the shortage of a basic resource such as internet access.

In dealing with youth, we have to start redefining cool beyond the classroom. Cool isn't just owning the latest smartphone. The "new cool" is disruptive entrepreneurship and creating a sustainable ecosystem for it. We have to start encouraging young people to creatively use technology for creation of work and to solve digital economy problems. This is where 100% network coverage and subsidized internet costs come in. It is why South Africa Connect is such a brilliant initiative. South Africa is worth the mention because Lesotho is not only landlocked within it, but it also sometimes copies policies implemented by South Africa. Simply put, if South Africa is doing it, it must be good for Lesotho, would be a popular notion.

But internet access is not enough to enhance skills; a bit of human contact is necessary. In fact, a lot of human contact will be necessary for people who have to learn new skills. The switch from a knowledge to skill-based economy is going to take face-to-face workshops and collaborative creativity in the form of incubators for both entrepreneurs and companies. For example, I applaud companies such as Technify and Hyperion Development for their efforts in preparing people for the future of work. Technify holds free monthly web design workshops among other tutorials and events, and Hyperion Development is an educational site that offers skills training in areas such as coding that will be useful in the future. The trick is to identify companies already doing something and expand their impact.

All in all, it will take a positive attitude by parents, purposeful use of technology by youth, increased network coverage, affordable internet access and articulate funding with incubation to prepare Lesotho's youth for a digital future.

Lesotho

Khothatso Kolobe - Lesotho

I am a multi dimensional being doing universal good.

Blog : khothatsokolobe.wordpress.com

Working together to create Africa 2.0

In nearly 20 years, the majority children entering in primary school around the world today will likely work as adults in jobs that do not exist yet. If Africa fails to prepare our youth, we will undoubtedly find ourselves unable to enhance their digital skills and therefore become even more disadvantaged in the future.

African countries must invest in public infrastructure to introduce youth to digital. Fab labs, small workshops of computer-guided, precision tools made available to all, have become a keystone in the promotion of digital skills among young Africans. Its effectiveness relies on diversified features including a collaborative approach, learning-by-doing, and local-oriented projects fostering Africa's youth creativity and engagement.

Africa has to encourage communities and policymakers to open more collaborative spaces such as fab labs, equip them with digital tools, and make them accessible to public. as learning and working structure for youth to acquire, improve and practice their digital skills.

Raspberry Pi offers a simple and cheap solution to allow a more inclusive digital tools and unlock new horizons for African children and youth. As three out of five youth (aged 15 to 24) in Africa are still offline, these infrastructures have to be equipped with internet access. Internet has the potential to be a game changer in Africa as a cornerstone of innovation and inclusion: digital platforms for cross-border projects, global digital economy integration and inclusive education with massive open online courses.

But it's never been a better time to invest in human capital in Africa. Human dimensions of progress mustn't be neglected as technologies serve no purpose without a human dimension. Africa must ready its youth to be and keep employable in the future of work. Two forces will take a key role into giving the appropriate skills and reskilling African's young people:

Governments
Preparing Africa's youth requires that government involve with concrete policies on education: accessible education for low-income families, science, technology, engineering and mathematics (STEM) implementation, and girls' education. The government could adopt a downstream policy to ease entrepreneurial ideas realization with measures like incentive tax, legal supports and interest-free loans.

African societies
The challenges on the continent include empowering African's youth in crucial soft skills like leadership, creativity and resilience. Through programs, mentoring and workshops, non-governmental organizations and community-based organizations are improving employment outcomes of youth—particularly for out-of-school youth and girls—by being flexible and adaptive for the changing needs of the workplace.

Africa 2.0 need youth to be entrepreneurs, creative thinkers and lifelong learners but as formal education doesn't usually provide them with these opportunities, communities have to get involved.

Our association, Jeunes Emergence de Madagascar, is a non-profit, apolitical association providing a co-working space, internet access and a series of trainings (21 for now including economy, project management and personal development programs). The association is committed to help Malagasy's youth in all aspects of their life to achieve an ideal: A better Madagascar!

Madagascar

Livio Totozafy - Madagascar

Totozafy Livio is a master's degree student of political science at the Catholic University of Madagascar. For the past four years, he has been a staff writer for the college newspaper, and he believes that ideas can change the world.

Malawi's future-ready youth need unconventional skills training

Malawi is not spared from the disruption caused by the digital economy. Automation, robotics, and artificial intelligence will soon disrupt the way we work, whether in the bustling Limbe Market, in Kanengo's factories or in Ntchisi Boma's government offices.

With skills such as teamwork, adaptability, and complex problem solving being sought-after in the digitized economy, I have two recommendations that could make Malawi's youth well prepared and relevant for work in the digital age.

First, I believe that there should be compulsory personal development and digital skills subjects in school. From primary school through the end of secondary education, the curricula should include personal development and digital skills, and both subjects should be equal in value to subjects such as English and mathematics.

In personal development classes, the students should learn to embrace the human skills that machines cannot execute—empathy, for example—leading to strengthened emotional intelligence. This would help develop self-awareness and mental wellbeing, as well as enable them to effectively relate to others. Developing a better understanding of themselves and how to react to various situations will make the students more flexible and adaptable to the constantly evolving digital economy.

In digital skills classes, students should learn skills such as computer programming, because in the future workplace people will interact with machines and digital applications more than ever before.

The delivery of the lessons should also be unconventional. Instead of exam-based assessments, in personal development, students should be assessed based on how they engage in dialogue with others. This will help to foster excellent communication skills, how they work in teams, and how they embrace human values such as reconciliation, humility, and compassion. Therefore, everyone leaving school will be transformed with emotional intelligence and ability to work with digital technology.

Secondly, students could benefit from a post-graduation innovation development program. The government could require all students set to graduate from all Malawian universities and vocational institutions to participate in a compulsory one-year innovation and professional development program after completing their studies. A special institution could be set up to run the program.

Participants would be divided into small multidisciplinary working groups of about 10 to 15, comprised of graduates from various institutions and possessing diverse knowledge and skill sets. For example, one team could include an engineer, an economist, an environmentalist, and other newly-minted professionals. Each group would be assigned to a target area to work in, with groups spread across the country.

The groups would be guided by an expert special facilitator who would take the learners through the innovation process, from identifying a development challenge in their target area to implementing an innovative solution to solve the challenge. The focus in the groups should be to leverage digital technologies in developing their innovations.

These working groups would help participants to further enhance their teamwork, complex problem solving and creativity capabilities. The program would also further develop their emotional intelligence because the participants would have to use their human skills in practical workplace settings to communicate and get along with others from different backgrounds.

These students would graduate after submitting a tangible, tested and scalable innovation that would solve social problems, and lead to entrepreneurship and employment opportunities. Also, they would be ready to work in the digital economy!

Wrixon Mpanang'ombe - Malawi

Wrixon Mpanang'ombe is the founder of Our Fresh Futurez, a sustainability non-profit start-up, that aims to launch the Malawi Sustainable Future Innovators Lab this year. Mpanang'ombe holds a Bachelor of Science in environmental science and technology from the University of Malawi.

Pour un Mali pleinement ancré dans le XXIème siècle

Lettre au Président de la République du Mali

Monsieur le Président,

Je m'appelle Alima, j'ai 15 ans et je suis originaire de la région de Sikasso. En ce bel après-midi de novembre 2018, nous célébrons l'arrivée de la connexion internet 3G dans mon village de Pimperna. L'occasion, pour moi, de vous faire part de mes réflexions à travers ce blog nouvellement créé.

Je suis conscient du travail colossal que vous faites pour notre pays : il ne m'inspire que respect et admiration. Je me permets de partager avec vous ma vision du Mali de demain. Peut-être est-elle trop colorée par des rêves d'adolescente, mais je suis persuadée, Monsieur le Président, que vous ne m'en tiendrez pas rigueur.

Monsieur le Président, nous vivons une époque formidable : celle de la révolution numérique, où les technologies élargissent les champs du possible et sont la solution aux défis actuels en matière d'éducation et d'emploi des jeunes. La robotique, la réalité virtuelle, les métiers du web, les *« big data »*, la e-santé, les créateurs de logiciels d'application, l'intelligence artificielle, sont autant de domaines prometteurs et créateurs d'emplois. En plus de réduire le taux de chômage des jeunes, ces nouvelles technologies ont la capacité de stimuler notre économie, tout en répondant à nos besoins grâce à des solutions innovantes. Nous ne pourrons y parvenir, cependant, qu'en orientant nos systèmes éducatifs vers les domaines des sciences et des technologies. Les métiers du futur s'apprennent aujourd'hui, car l'avenir est façonné par nos actions d'aujourd'hui.

Or, toute technologie exige une production d'énergie. Monsieur le Président, avec notre beau soleil, nous pouvons alimenter en énergie tout le Mali et même exporter le surplus de notre production vers d'autres pays. Nous pouvons également nous spécialiser dans la fabrication de batteries à plus longue durée d'autonomie. La commercialisation de ces batteries peut nous aider à mieux nous positionner sur le marché mondial. L'électrification nous permettra de mécaniser notre agriculture et d'en multiplier les bénéfices (dont l'augmentation des récoltes et la création de milliers d'emplois dans l'agrobusiness). Elle facilitera par ailleurs la démocratisation de l'Internet, à meilleur coût et de meilleure qualité.

Internet désenclavera le Mali, donnant ainsi la chance à tous d'apprendre et d'avoir accès à tous les savoirs du monde. Il libérera les talents et stimulera la création d'entreprises et de startups innovantes pour répondre aux défis en matière de développement. La révolution numérique est une chance pour le Mali de concrétiser son développement à moindres frais. Je suis humblement persuadée que les technologies accessibles à tous contribueront à améliorer notre capital humain et que l'énergie, l'accès à Internet et une bonne formation des jeunes aux nouvelles technologies est la formule gagnante pour faire du Mali un pays émergent.

Merci, Monsieur le Président, d'avoir pris le temps de me lire et qui sait, de me laisser un commentaire et de partager cet article avec vos homologues africains.

Ousmane Traoré - Mali

À 28 ans, Ousmane Traoré est passionné par les nouvelles technologies et les métiers du web dont il a fait son métier en suivant des études sur le développement et la rédaction numérique.

Blog : makaveli.mondoblog.org
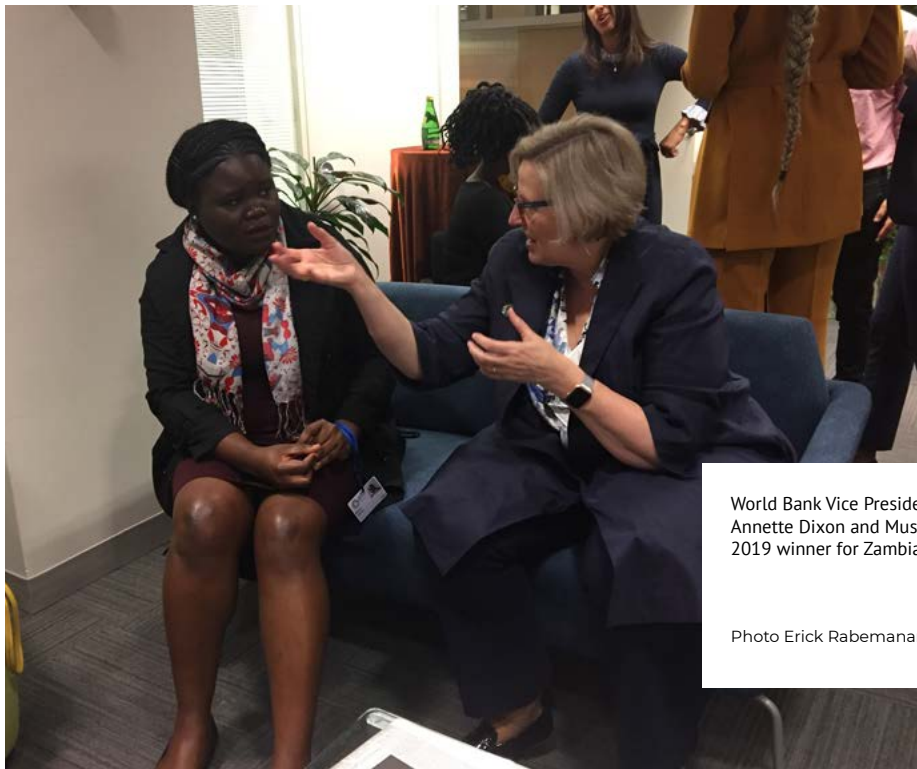
World Bank Vice President for Human Development Annette Dixon and Musopa Kalenga, #Blog4Dev 2019 winner for Zambia.

Photo Erick Rabemananoro / World Bank

The Blog4Dev delegation got a briefing on Africa's macroeconomics by the World Bank Chief Economist for Africa, Albert Zeufack.

Photo Erick Rabemananoro / World Bank

Digital is the pathway to the Africa we deserve

Not one of the 17 United Nations Sustainable Development Goals (SDGs) could be accomplished without digital. Information and communication technology (ICT) is increasingly disrupting our changing world. In Africa, the world's youngest continent, it is crucial to ensure Africa's greatest resource, youth, will be able to adjust efficiently and effectively as new skills are redefined by the Fourth Industrial Revolution.

That's why digital literacy is an imperative skill. For each African country, integration of computer science training in the national curriculum must be a reality. Everyone does not need to master all ICT skills areas, but it is necessary for all—regardless of backgrounds—to develop digital proficiency. We need more learning platforms such as Massive Open Online Courses with relevant content as well as collaborative platforms to successfully help young people improve their leadership mindset, networking skills and at the same time their productivity, confidence and competitiveness. These platforms must be carefully designed and implemented, keeping in mind the needs and expectations and meeting them.

For example, applying design thinking, a methodology that provides a solution-based approach to solving problems, can make a difference in analytical and critical thinking, and be a great asset in brainstorming meetings for better results. Getting more meaningful outcomes means making sure no one is left behind and giving a voice to those less heard.

That's where the data comes in. Data is the new currency for the digital age. The challenge is to have powerful data collection, analysis and visualization systems to support governments in strategic decision-making and stakeholder consultations. This is an opportunity to highlight i4policy, that is a pan-African movement of innovation hubs and community catalysts who support governments to improve innovation, entrepreneurship and youth employment policies. Governments cannot provide jobs for everyone, but they must create the conditions to allow everyone to get a job and ensure an inclusive economic growth. It becomes clear they must provide opportunities in promotion of the culture of entrepreneurship and support enabling entrepreneurship ecosystem.

We cannot talk about the digital economy without mentioning the need to ensure connectivity across Africa that involves ICT infrastructure deployment, internet access and rural and urban areas connections. Unlocking Africa's potential cannot be accomplished without having influential leaders and bridging the digital gender gap. Women have proven they are not just excellent in household chores and definitely have a role in the sustainable development.

We young people should be aware that we are the most valuable resource of our lovely continent. We should stand up to become a vibrant workforce and embrace Ubuntuism: "I am because we are, and we are because I am."

As an old African proverb says, "If you want to go fast, go alone. If you want to go far, go together." There is a lot to do. If we work hard, keep determination, perseverance, commitment and passion, we will be unstoppable to achieve the Africa we want, the Africa we deserve!

Niger

Rabiatou Harouna Moussa - Niger

Passionate about technology and business since childhood, Rabiatou Moussa is a software engineer who amplifies her ability to develop the innovative tools and solutions needed to tackle the most pressing local and global problems Moussa is a partnership and project manager for the incubator L'Oasis des Entrepreneurs and an executive board member of NigeriElles, an association that promotes and supports women entrepreneurship in Niger.

National Youth Service Corps and the future of Nigeria's digital economy

According to Wikipedia, the digital economy simply refers to an economy that is based on digital computing technologies. In Nigeria, the digital economy is expected to generate $88 billion and three million jobs for citizens by 2021. The burning question is "how prepared are the youths for this emerging digital economy?"

Well, we may not be prepared right now, but the National Youth Service Corps (NYSC) provides the perfect incubator to prepare the youths for the digital future of work.

Each year, the NYSC enlists at least 250,000 graduates to gain work experience while serving the nation in locations that are new to them. The program has however been under-utilized, as policy makers have failed to recognize its potential.

To change the narrative, my idea is to create a digital platform for NYSC members to sign up as Digital Economy Ambassadors (DEAs). This platform will provide networking and funding opportunities; learning resources and specified strategies for NYSC members to drive digitalization during the duration of their service year.

Implementation
NYSC members who are DEAs can specifically drive the digital economy and prepare for the future of work through the following ways:

- Digital Teachers: The majority of NYSC members are posted by the government to work as teachers in primary and secondary schools scattered all over the country. This provides a perfect opportunity for the transfer of digital knowledge to their students. These NYSC teachers can also create digital clubs in the schools that they are posted to. Through these clubs, NYSC members can prepare young students for the digital economy by using the learning resources available on the DEA platform.

- Digital Projects: NYSC members are encouraged to undertake individual projects during the duration of their service year. This is a great avenue to engage in digitally-inclined projects. For instance, during my own NYSC service year, I introduced a program at my workplace known as "Zeb Internship program" (ZIP). Through ZIP, I conducted software training for university interns to enable them stay relevant in the profession of urban planning. NYSC members must be prepared to innovate similar impactful digital projects during their service year.

- Digital Skill Acquisition: The NYSC has a program known as Skill Acquisition and Entrepreneurship Development (SAED). SAED includes training in ICT, engineering works and so on. There is a need to make more digital skills available and attractive for NYSC members. The Digital Economy Ambassadors Platform (DEAP) will provide the theoretical background of the skills available on the SAED program and guide NYSC members to make informed and relevant choices.

- Digital Start-ups: At the end of the NYSC year, the government makes interest-free loans available to NYSC members who have great business ideas. This is a ready-made funding opportunity for NYSC members to establish digital business that will create employment and directly drive the country's digital economy. DEAP will also provide a regularly updated list of other available funding opportunities and networking for NYSC members to set up joint ventures.

The NYSC has the potential to involve about a million Nigerian young people and make them digitally ready for the future of work by 2021 if the government, private sector, and especially the youth key in and carefully implement the strategies highlighted above.

Nigeria

Damilola Adeniran - Nigeria

Damilola Adeniran is an award-winning writer and community/sustainable development advocate. An alumnus of VIMP at the prestigious Lagos Business School, Damilola's writing on sustainable peace won a PeaceWriteNow prize from the Embassy of Ireland in 2018.

Hands-on learning key to preparing young Rwandans for the digital workforce

I used a laptop for the first time in the ninth grade. Until then, my education had consisted of cramming and regurgitating facts without any attempt at understanding and/or internalizing them. Thinking outside the box and finding creative and novel solutions to problems –a cornerstone of innovation– was frowned upon and actively discouraged. This, perhaps, is Africa's biggest problem – even more so in a field where the biggest names started before they turned 30.

Turning the tide and making Africa not just a consumer but also a creator of technology will take deliberate action by all the players involved. For starters, the computer literacy rate must be aggressively increased. This can be facilitated by expansion into rural areas by the ministries of education and youth, private enterprises and even non-governmental organizations with the aim of teaching young people how to use computers. Solving this challenge is the reason I am a major supporter of student exchange programs between African tertiary institutions; if nothing else, the different viewpoints and mindsets exchange students bring will hopefully trigger renewed investments by the tech industry.

Another major challenge that must be conquered is the availability of steady internet. Knowledge is paramount in every industry, and knowledge cannot be transmitted in the face of huge connectivity barriers. Africa can only become leaders in digital transformation and innovation if we focus on skill acquisition and development.

Also, the presence of qualified instructors is a necessary ingredient in preparing young people for the digital age that we are advancing into. Reaching a 100% computer literacy rate is a lofty goal – one that would be unachievable without the aid of seasoned and competent instructors to teach people the basic computer skills.

But perhaps the biggest step that can be taken to prepare young people for the future of work is the establishment of spaces where hands-on learning is encouraged. These spaces not only help youths practicalize the theoretical knowledge they have memorized in school, but also helps them develop complex social skills (such as teamwork and versatility) that are invaluable in any professional setting. Imagine-nation, the co-working space set up by Imagine We Rwanda (an organization dedicated to improving the reading and writing culture in Rwanda) is one such space, nurturing and promoting startups and SMEs – such as Awesomely Limited, a local tech company partnering with Volkswagen Mobility Solutions.

In summary, preparing Africa's youth for the digital economy will require taking small, solid steps instead of the much-touted leap of faith – this is, in fact, the only way in which the successors to Uber, Airbnb and Apple will be developed by African entrepreneurs.
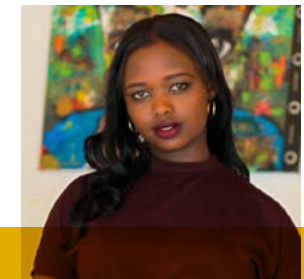
Rwanda

Sandrine Bwiza - Rwanda

Sandrine Bwiza is the finance officer of Imagine We Rwanda, a social enterprise which aims to change the reading culture among Rwanda's children. Bwiza is a self-taught leader who has contributed to women's empowerment in Rwanda through several programs including Girl Guides and the Campus, a program she ran for two years through Imagine We. Bwiza graduated from Mount Kenya University with a bachelor's degree in art and mass communications.

Miser sur le numérique et le capital humain comme facteurs de développement

De nos jours, une emprise dans le monde du numérique est un facteur de développement et une source d'ouverture internationale. D'où la nécessité d'accepter l'existence et l'évolution de l'économie numérique, à une époque où la monnaie et les paiements électroniques prennent de plus en plus d'ampleur, et où l'intelligence artificielle et les innovations sont galopantes. Cette nouvelle forme d'économie est sur la voie de modifier, et même de faire disparaître certains emplois ; mais elle permettra aussi de donner naissance à d'autres, les emplois dits *« de demain »*. Pour transmettre de meilleures compétences aux jeunes Africains de mon pays, je propose le processus suivant.

Premièrement, il est nécessaire que les autorités étatiques intègrent pleinement le fait que l'économie numérique est étroitement liée à l'économie de l'éducation et que le système éducatif sénégalais a besoin d'être mis à jour. Nous pouvons être compétents sans toutefois être armé des bonnes compétences. Or, c'est exactement cette qualité qui fait la différence sur le marché du travail, tant à l'échelle nationale qu'internationale. Il est donc primordial de rendre les jeunes opérationnels, notamment en diminuant la théorie dans les établissements, pour mieux prôner la pratique – les connaissances théoriques acquises lors de la transmission des compétences devront ainsi aboutir à des mises en applications concrètes.
Deuxièmement, puisque c'est de numérique dont il s'agit, il faudra des infrastructures adéquates et des éducateurs dûment formés. En outre, il faudra initier les jeunes dès le plus jeune âge à l'utilisation des nouvelles technologies de l'information et de la communication (NTIC), et ancrer la notion dans le cadre scolaire (elle pourrait ainsi être renommée *« nouvelles technologies de l'information et de la communication au service de l'éducation »*, ou NTICE).

Troisièmement, il est nécessaire de prendre pleinement conscience que la volonté seule ne suffit pas, et qu'il faut se donner les moyens nécessaires d'atteindre ses objectifs, parfois au prix de certains sacrifices. Nos dirigeants politiques devraient éviter les investissements non productifs et prendre en considération l'importance d'investir dans le capital humain (comme mentionné dans le rapport de la Banque mondiale, Projet sur le capital humain). Même si nous reconnaissons les efforts qui ont dernièrement été faits sur le plan du numérique, il reste encore beaucoup à faire pour endiguer les politiques à court terme malheureusement souvent adoptées, et qui ralentissent notre processus de développement.

Soigner le système éducatif, diminuer la théorie, encourager l'adoption du numérique et avant tout, miser sur la rentabilité de l'investissement dans le capital humain, sont autant d'éléments qui permettront de stimuler le développement de notre continent. Ce processus devra bien évidemment être accompagné d'une prise de conscience de la place importante qu'occupent les changements mentaux et sociaux nécessaires à sa bonne réalisation. Son succès dépendra par ailleurs de notre capacité à être judicieux et rigoureux, et à établir des bilans internes comme externes pour transformer les faiblesses en forces, tout en tenant compte des opportunités et des menaces. Pour nous préparer et nous adapter aux emplois de demain, nous devons combattre cette tendance au rejet de l'innovation et nous concentrer sur une bonne maîtrise du numérique. Il est temps pour notre continent, et notre pays, de penser leader et d'agir comme tel.

Sénégal

Ndèye Anta Diouck - *Sénégal*

Parallèlement à sa licence en sciences économiques, Diouck Ndeye Anta suit une formation professionnelle à l'Institut de management de Dakar (IMAN). Elle consacre le reste de son temps à aider sa maman dans son petit commerce de fruits et divers.

African youth and their future in the job market

With the increasing technological advancements, there is no doubt that many jobs would be taken by machines in the future. In fact, this has manifested itself already as we have seen computers doing jobs that were once performed by people.

This disadvantage of the technological advancement is a threat to the whole world and Africa stands to suffer, most especially, the continent's young people. In fact, Africans are suffering already with the current trend. The unavailability of jobs, skills and knowledge and the inability of African governments to cater for their youthful population are some of the problems. To prepare for this foreseen problem that would be caused by technological advancement, Africa needs to do the following:

Firstly, African governments have to invest heavily on developing the innovative skills of its youth. Many African countries have not done enough to develop skills in the area of science and technology. This has resulted in the continent largely dependent on the importation of technological products like radios, mobile phones, computers, cars, combine harvesters etc. If Africans invests in youth to learn how to make some of this equipment, that can help them secure jobs in the future.

Secondly, African governments must embark on massive industrialization. Lack of industries in Africa is one of the biggest reasons for lack of jobs, to countries losing young people and its raw materials to other continents. Africa has to therefore redirect their focus on the creation of industries to massively create jobs for its youths.

In my country, Sierra Leone, people do different things in small scale and there has been an outcry for industrialization, but nothing has been done. I remember a local shoe manufacturer saying he could manufacture boots for the entire security forces in the country if he is supported, but nothing has been done to date. With government support, the local shoe manufacturer would not only be able to manufacture such a huge number of boots, but he would also be able to employ thousands of youths in the country, paving the way to increase youth employment. There are many other case studies in the areas of fashion, agriculture, mining, marine etc.

Moreover, the need for corresponding legislation cannot be over emphasized. There should be laws or policies that would make innovation, industrialization and the creation of jobs a must by all governments. Many governments have not shown commitment in these areas because it is not legally binding on them. African leaders must be taken to task for not providing certain amount of jobs in their tenure of office.

In conclusion, Africa, especially my country Sierra Leone has the potential of making itself self-sufficient. It can create jobs to a point that it has to hire workers outside. The points I have mentioned above are achievable and can help salvage the pending job catastrophe the advancement of technology stands to cause.

Sierra Leone

Tholoma Sumah - Sierra Leone

Tholoma Sumah is a journalist with the Africa Young Voices Media Empire, and holds a diploma in mass communications, and has a special interest in the development of youth in Africa especially those in innovation.

Blog : https://tholomasumah.home.blog/

Overcoming digital challenges through freelancing opportunities in Somaliland (North Somalia)

The digital economy is a new concept in North Somalia and the Somali regions. However, we can still find good examples that catch our attention; like zaad mobile money services in North Somalia, the e-commerce business Ari Farm in Somali, and many more e-commerce businesses by local nationals. Local and international non-governmental organizations (NGO's) have also given great consideration to funding e-commerce business ideas by youth in general and information technology (IT) graduates in particular, e.g., Innovate Ventures in Somaliland. Nevertheless, many of our youth are still missing the skills needed to generate enough economy from the rapidly growing digital world. My blog will mainly discuss online freelancing as a source of digital economy, challenges, solutions and an insight into the future of work in Somaliland.

Nowadays, there are many online freelancing platforms and dozens of online courses that teach how to make online income. One of the biggest freelance portals that is worth mentioning is UpWork, a platform that facilities transactions between employers around the globe and job hunters. This site only approves the profile of skilled and qualified freelancers when they register. Personally, I signed up and had my first job after I took online courses, and honestly the request for skilled workers will restrict Somaliland youth from entering the market.

We can't compare local job market with the international job markets. Challenges ahead of the Somali youth are quite threatening. We don't have a payment system that directly transfers money to our local banks. Somali youth are likely to face language barriers. They need training on how they can sell their skills in international job markets. They need to acquire the skills needed to compete for online jobs. On the other hand, companies should also use such sites to create solutions for their business activities.

As a successful online freelancer, I saw the gap between the market supply and the online market demand. As such, I started WeFreelance as an effort to bridge the gap between the local and international job markets. I introduce online freelancing to university graduates despite their faculty, help them write their profile and connect them with clients. There are many things we can do with regard to connecting our youth with international job markets and creating more job opportunities. I think educational institutes should produce qualified students. I think the government should control and monitor the quality of those institutions. I think skills training centers should be opened with high-speed internet and laptops to train and provide a working space for freelancers. Companies can also find solutions to their problems by entering these online markets, or we can attract foreign companies to come to Somaliland through such portals

As the job market in Somaliland fails to provide job opportunities to most of university graduates, more graduates will try to start their own freelance business. Those businesses will mainly depend on the internet as the offline business expenses is hard to afford by fresh graduates; as such more enabling environment is needed to boost digital economy activities in the country.
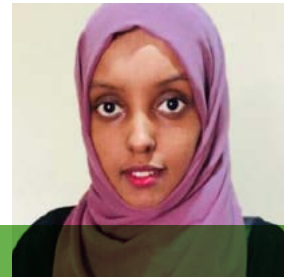
Somalia

Yasmin Ali Gedi - Somalia

Yasmin Gedi is the founder of We, Freelance, and she works as a consultant for the United Nations Development Programme, Somalia. Gedi is passionate about writing blogs about social issues for social change.
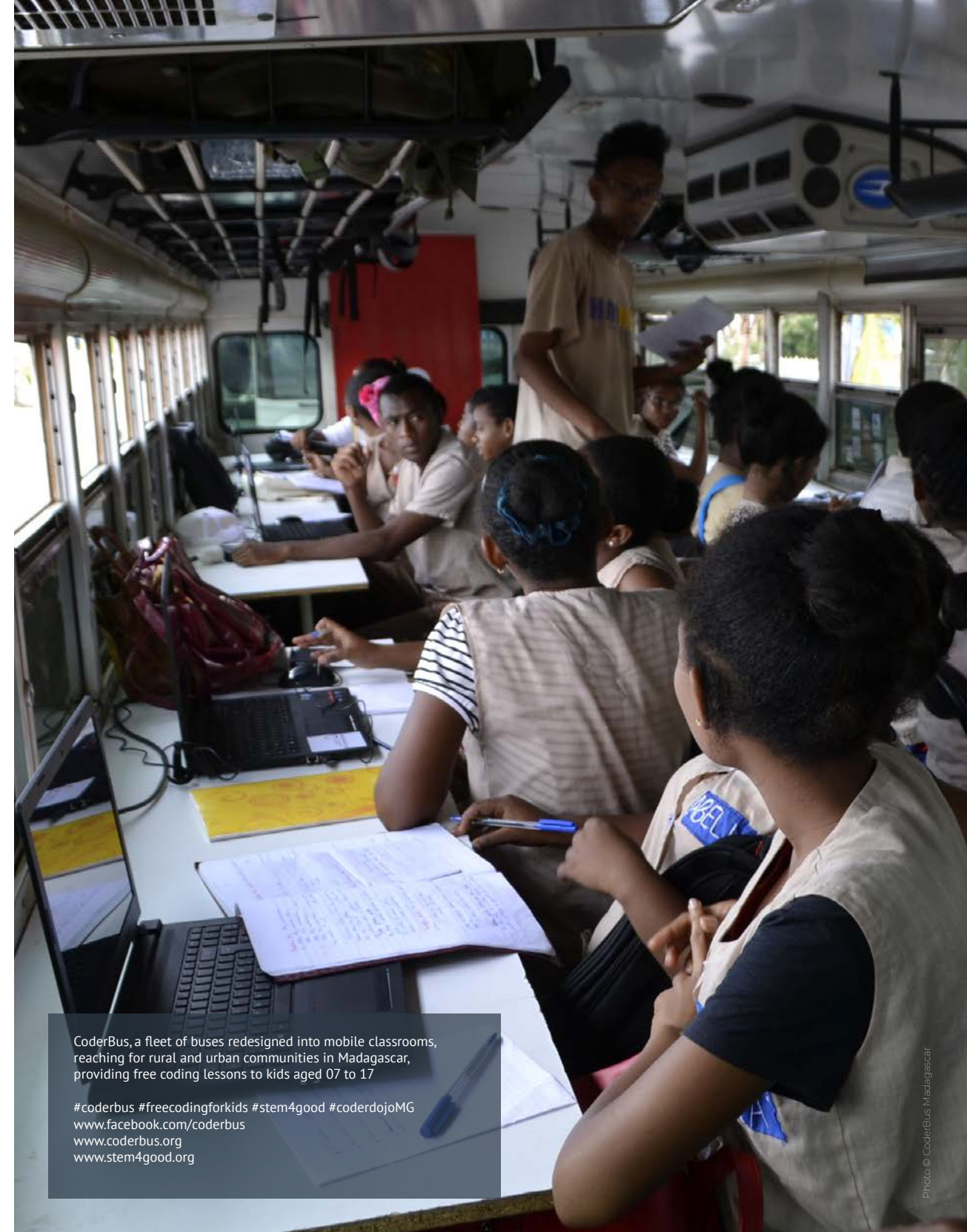
CoderBus, a fleet of buses redesigned into mobile classrooms, reaching for rural and urban communities in Madagascar, providing free coding lessons to kids aged 07 to 17

#coderbus #freecodingforkids #stem4good #coderdojoMG
www.facebook.com/coderbus
www.coderbus.org
www.stem4good.org

Photo © CoderBus Madagascar

Needed for African youth: Courses in software and web development, and increased computer literacy
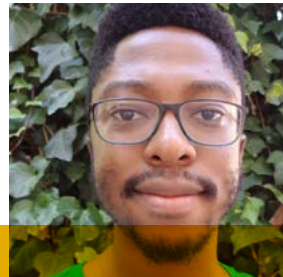

South Africa

As our continent advances in the fields of technology, manufacturing, computer software and information, our economies become more digitized. Economic activities such as trade, financial systems, data and processes become more based in the digital economy. This transformation brings new opportunities to the continent, and we will need certain skills that will best optimize them. The youth of Africa needs be at the forefront this because our generation will be one of the first to have most of its economic activities in the digital economy.

The digital economy will see a huge improvement of communication across African countries, a result of better internet connection and new online platforms connecting African consumers directly to African businesses, and increasing communication between African businesses, improving inter-continental trade. For African youth to fully benefit from this, they need to improve communication skills such as being fluent in two or more languages, particularly those of countries in the same region, to be able to communicate orally and over emails/online. This skill can be developed through schools and courses that focus on either learning new languages.

A non-traditional skill that should be developed for youth to better maximize the improvement of communication in an African digital economy is learning software development, computer literacy and web development. These skills are essential in a digital economy because web platforms will be where most economic activities will be performed, so we'll need a youth that are able to maintain, create and operate a website. This skill can be developed by having compulsory basic computer literacy training in primary school and more advanced computer science related subjects in high school for those who chose to carry on with it.

The African digital economy will digitize more industries and decentralize industries which will result in economic development because   it will be easier to set up businesses and find customers or go to an already establish online platforms and sell your services there   or advertise your products. This will need Africans to develop a more traditional skill of marketing with a specific focus on marketing their products within the African continent because of how the continent has a huge market that isn't properly supplied because international products don't fully satisfy the African market.

The African digital economy will open new doors for Africa and its people, but African youth need to develop the skills needed to optimize this new economy.

Tlogang Otsile Ketumile Makgwanya Mosupye - South Africa

Tlogang Mosupye is a first-year student at Rhodes University studying international economics. He has interest in African and international economics. Mosupye is also interested in African literature and art.

Promote an enabling environment for youth employment and entrepreneurship in the digital economy

South Soudan

A digital economy is an economy based on digital technologies. This is an economy based on an internet (New Economy) with main components of e-business infrastructure which includes hardware, software, telecoms, networks, and human capital; e-business which includes the process of conducting business using the computer-mediated networks; and r-commerce which involves a transfer of goods from a place to another online. By 2050, the African population is estimated to be at 1.3 billion people; of which 15 – 20 million will constitute well-educated youth. The youth will be either employed, underemployed or unemployed. The continent will face a challenge of creating jobs to such young African or else, the continent will remain at the threat of political instability in the coming years. In order to enhance the skills needed to prepare the youth for the digital economy and future, the following need to be undertaken.

Africa needs a multi-stakeholder approach to create an enabling environment where the youth can live and drive digital economic trends. To achieve this, there is a need for the continent to invest in networking or connectivity, research, and design, and to improve and provide quality comprehensive education to all without leaving anyone behind. This calls for professional training in specific areas of the digital economy such as coding, artificial intelligence, robotics, and cybersecurity. This approach is based on the fact that the Africa's youth is trailing behind the Fourth Industrial Revolution, where labor market, growth, and development need new occupations, ways of organizing official works and coordination, new skills for new jobs and new tools/facilities to help people do their jobs.

The digital economy has got new technological opportunities which are based on the internet. Aware of fragile nature of African states where a political crisis is imminent, there is a need to actively encourage innovation, creativity, and exploration in education since institutionalized thinking in current education system hinders new teaching methods which are critical in imparting digital skills and the ability to learn them. In such a situation, portable classrooms need to be embraced rather than the current fixed classes. The youth need skills to new technology, access to portable tablets/device-based education and thus making mobile digital schools rather than still classes which characterize formal education system.

Besides, African youth need to be familiar with shared technological drivers and create some homestay areas for sharing knowledge with others, e-commerce logistics, e-commerce sellers and small-scale e-commerce producers. This will lead to improved connectivity and business training skills to enable students and youth to increase their knowledge through business training. Build entry-level skills, basic digital skills that create access points to employment opportunities since traditional jobs increasingly use digital technology in their daily operations with information and communications technology evolution. At a national level, developing and implementing comprehensive national digital skill strategies and policies with shared information at the international level need to be included. This will promote an enabling environment for youth employment and entrepreneurship in the digital economy.

Daniel Athior Atem Manyuon - **South Soudan**

Daniel Athior Atem Manyuon is currently pursuing a master's degree in development finance at Strathmore University Business School as a Mandela Institute for Development Studies (MINDS Africa) scholar and author.

From education to startup support, let's get ready for the digital economy!

This digital age is not a temporary phenomenon or a trend that will vanish in a matter of time. It is the platform that brings the role players of the economic system together, creating what is known as the digital economy.

The digital economy has changed the nature of work. Waking up at 6 am, finishing your work at 3 pm is not the only option anymore. Your office could be your PC, your bed, or your favorite co-working space. Thanks to entrepreneurship and Gig economy, they both play a vital role in shaping the experience of digital economy. As 35% of the world's internet users are African, we can easily spot an opportunity for engaging with the world through digital platforms. On a bright note, many of Africa's youth are moving toward self-employment either as entrepreneurs or freelancers. But how can we enhance the skills of these young women and men to make them capable of adapting with the needs of the digital economy of the future world?

Millennials are digital natives. We all grew up in the age of digital technology. But unfortunately, young people in Africa did not get this opportunity equally. We have some catching up to do, so to make sure that we are ready for the future of work, we need to focus on information and communications technology (ICT) literacy among women and children in primary school. ICT literacy will give women, especially in rural areas, a chance to join the virtual labor market. For example, many of today's women in Sudan are using social media to exhibit their products. These women saw social media as a platform to sell their products because of the challenges they would face due to cultural and social constraints.

In addition, for young people to join the digital economy we should increase the investment opportunities for digital startups. I believe young entrepreneurs should have the understanding of how to mobilize global investments to run their digital startups. For that, Venture capitals and angel investors should focus on working with young entrepreneurs and encourage them to make use of the digital economy era.

On the other hand, I know that in many African countries such as Sudan, understanding of business doing regulations in general is weak for new ventures. Entrepreneurs perceive existing policies and regulations as generalized, unknown to many, and could be vague in some cases. The regulations in place constitute an obstacle for new business due to high taxation and the necessity of interacting with the governmental offices at all stages of development. In considering public policy reformation for businesses, there should be a focus on easing the procedures and have specific regulations to

support and encourage young people to contribute to the digital economy era.

Above all young people should be well informed and aware of the opportunities and challenges that will occur during the digital economy of the future, for them to consider and work on solving from an early stage.

Sudan

Moneera Yassien - Sudan

Moneera Yassien is an economics graduate from the University of Khartoum, as well as a researcher, social entrepreneur and women's rights activist. She is the founder of the youth led-organization AMNA, and the Innovation and Entrepreneurship Community Research Chapter which supports entrepreneurs in Sudan.

The journey towards preparing Tanzanian youth for the digital economy and the future of work

A lot of benefits will result from the digital economy if African youth are equipped with the digital skills they need. We can therefore enhance these digital skills to young people in the following ways:

Encourage the culture of study internships
It is a rare culture for young Tanzanians to seek for internships unless required by their learning institutions. By encouraging the culture of seeking internships intentionally, it will add up as an advantage for youth to gain digital skills that otherwise wouldn't be obtained. Through the culture of internships, students will also have a reflective time to redefine their career path and experience the work dynamics and define their own future works.

Update the information and communications technology (ICT) syllabus and policies
The Tanzanian ICT syllabus and policies (Information Computer Technology) needs to be revised. In this curriculum, topics such as digital skills, financial literacy and entrepreneurship can be included. The aim of these topics is to make the students learn on how they can make investments and be competent key players and users in the digital economy and the future of work. By updating the syllabus, our nation will be in a good position to create a generation of young people who are solely well equipped with digital skills, entrepreneurial thinking which will boost investments in digital economy and shape the future of work dynamics.

Open access project hubs with unlimited internet
Open access hubs with no restrictions in learning and unlimited access to internet facilities. Digital economy comes hand in hand with connectivity. In these hubs, the main target is to cultivate self-directed learning at a unique pace, while at the same time acquiring digital skills and take ownership of their projects journey. Youth will be able to interact with each other and group according to shared interests to work on the projects so long as the projects should involve a digital solution. In the process of doing the projects, digital skills will be obtained and have a chance to work hand in hand with the facilitators to reach their end goal. Once each year, young people should showcase their innovations, pitch to the investors, get funding, mentorship and kickstart their own ventures. Thus, youth will have the ability to shape their own ways of working.

Conclusion
Let's face it: these recommended actions will work effectively when the government and other stakeholders open doors for youth who seek for internships in preparation for future of works, when education sector work hand in hand with the technology world for frequent updates and when telecommunication companies leverage the internet bundles to youth so as to ensure the constant connectivity.

Tanzania

Alice Ahadi Magaka - Tanzania

Alice Magaka is a second-year student at African Leadership University, pursuing Bachelor of Arts degree in global challenges, with a focus on healthcare and human capital. Magaka also runs The Pink Box Project in Dar es Salaam, her enterprise that deals with sustainable menstrual products.

Favoriser la rêve'olution africaine par la voie de la souplesse

Le monde est en constante évolution, tout change et se transforme, au-delà même de ce qui était imaginable encore très récemment. L'esprit humain, tel un génie libéré de sa lampe, va de conquêtes en conquêtes et d'innovations en innovations. Dans cet océan de bouleversements, trois éléments-clés demeurent prépondérants pour notre jeunesse africaine : l'énergie, la passion et l'imagination. Autant d'atouts dont nous regorgeons.

Ce qu'il nous faut avant tout, c'est apprendre à apprendre, par le biais, notamment, de ce que j'appelle des *« ateliers rêve'olution »*, ou comment appréhender la fluidité et l'adaptabilité en tant que disciplines et modeler nos connaissances en fonction des besoins. Ces ateliers permettraient des mises à jour permanentes et utiles sur les progrès techniques actuels, et sur certains enjeux locaux, notamment en favorisant l'accès à l'entreprenariat. Il s'agirait ainsi de montrer les opportunités en exposant les besoins. Ces ateliers pourraient être itinérants, et réalisés à grande échelle, tout en restant à faible coût, par exemple grâce aux MOOC. Finis les cursus figés et rigides, nous devons nous concentrer sur l'essentiel : apprendre à apprendre, inventer, détourner et combiner les savoirs… telle est la voie de la souplesse.

Alors, comment développer les terrains créateurs de valeur de demain ?

D'abord, en améliorant la production alimentaire moderne (hydroponie, aquaculture, fermes urbaines, etc.) afin de produire partout et à moindre coût. L'objectif étant de changer les bouches à nourrir en bras travailleurs et en cerveaux créateurs. Plusieurs métiers seront ainsi créés autour de la maintenance, du monitorage et du traitement des données, des objets connectés… L'imprimante 3D, encore balbutiante, va, dans un avenir plus si lointain, révolutionner l'industrie. Être en mesure de fabriquer les pièces dont nous avons besoin juste en téléchargeant les spécifications techniques sur Internet sera un tournant majeur qui changera l'entrepreneuriat à tout jamais, en le démocratisant encore plus.

Ensuite, en établissant le lien entre la technique moderne et les populations âgées ou rurales, tels ces jeunes qui offrent aujourd'hui leurs services en matière d'installation et de maintenance des applications mobiles aux vendeuses sur les marchés de Lomé, ou encore ces nombreux enseignants dont le smartphone leur sert de ressources de formation. Là encore, la technique permet à l'enseignement et à la transmission de se démocratiser.

Enfin, en décongestionnant les villes, pour investir de nouveaux espaces, notamment ruraux. Cette *« re ruralisation »* permettra de diffuser massivement les outils de la modernité technique sur le continent. Ce majeur tournant structurel et technique, voire civilisationnel, constitue la clé de voûte du progrès. La masse de richesses, de valeur et d'emplois nouveaux qui en résultera est absolument gigantesque.

Le chantier est immense et les défis nombreux. La jeunesse africaine, passionnée et pleine d'énergie, les prendra à bras le corps. Car plus encore que de faire face à demain, il s'agit de l'inventer, de le rêver et de le façonner. L'Afrique nous attend : célébrons sa jeunesse bâtisseuse et sa rêve'olution.

Togo

Ayi Renaud Dossavi-Alipoeh - Togo

À 26 ans, Ayi Renaud Dossavi-Alipoeh est écrivain, journaliste, blogueur et a déjà publié cinq livres. En 2018, il a obtenu le prix littéraire France-Togo et remporté le concours d'écriture *« l'Afrique de mes rêves »* organisé par la Banque Africaine de Développement (BAD).

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Revise the curriculum to save Uganda's youth

The fact that digital is the new way of life is no longer rocket science for anyone living in this new era. We are swamped with new technologies which have contributed to the birth and growth of this era that is also known as the "Internet" economy.

It's absurd that some of the schools in the African continent have not yet fully embraced the digital economy. And yet, truth be told, Africa's youth spend majority of their time in school right from kindergarten till they graduate from the university and may later go ahead to further purse their education on master's level.

It is therefore important that the education system be revised, and the curriculum greatly polished to best suit the digital economy. It is not enough for students to just be taught basic computer skills but rather, their learning should be centrally based on digital technologies such as; the internet, software's, computers and other information technologies. This will help the students get more familiar with this new era and from a tender age they will have enough room to fully understand how the digital economy operates as well as be able to interact with various people, institutions and organizations on a global platform. We can't base our education entirely on theory and ignore the fact that the digital economy is more practical and is the new way of life.

From personal experience, I spent about 18 years of my life in school and majority of what I studied was theory based. It was not until I was finalizing my time at the University that I was taught one course unit of Digital Communications. But this didn't provide ample time for me to get extremely well versed with how the digital economy operates. Fast forward, I have spent two years working in different public relations' firms where our work is based mainly on digital marketing. Truth is, I was never well prepared with the right skills from school and thus I had to learn the hard way. Well, if you are thrown in the deep ends, you must find a way to swim because survival is for the fittest. So, I had to learn the hard way.

Therefore, I urge the stake holders involved in preparing school curriculums and managing how the education systems in African countries operate, to revise their traditional systems to fit the digital economy. Otherwise, many African youths will be left behind as they will be ill prepared, incompetent and unable to survive in this digital era.

We can no longer afford to focus solely on theory and traditional ways of learning when the world has gone digital. We must embrace this new way of life and the faster we do it, the more prepared the youth will be for the digital economy because it is changing how everything operates.

The time is now!
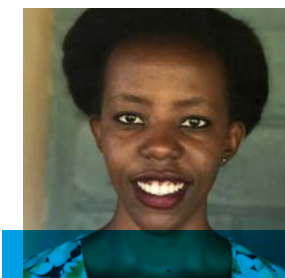
Uganda

Pearl Denise Agasha - Uganda

Pearl Denise Agasha is head of client services at Kwanza Communications. She is also a digital marketer and public relations specialist, and enjoys reading, blogging and socializing. Agasha finds joy in creating platforms for people to share their ideas, especially through writing.

Blog : www.pearlygash.wordpress.com

Investing in Human Capital:
A key to preparing African youth for the future of work

Throughout the world, the nature of work is continuously evolving. Like many people in the past feared that machines are coming to take our jobs, many people in today's world have this fear.

A few months ago, I was having an "e-chat" with one of my friends. The conversation was about the introduction of electronic mobile money booths, which these are mobile booths where people in Zambia can send and receive money anywhere in the country through a cashier hired by the booth owner. The introduction of electronic mobile money booths that would operate similarly to ATMs will mean that cashiers' jobs would be lost. My friend was strongly against this idea, he wrote, "well it is a fact that people will lose their jobs." This illustrates that even in today's world, young people fear that machines will take our jobs and consequently increase unemployment rates.

However, young people, governments and other stakeholders need to understand that technology is the future and with the advancement of technology new opportunities will be created. But, this can only be realized if there are adequate investments in human capital as this critical area is under-invested in. According to the World Bank Report 2019, "governments should be investing in human capital, particularly in early childhood to develop high-order cognitive and social behavioral skills in addition to foundational skills." Investing in human capital is what it will take to enhance skills needed to prepare Zambia's youth for the digital economy and the future of work. This essay focuses on two types of human capital: education and health.

Investing in education is vital in preparing for the Zambian youth for the future of work. Education in this context refers to formal and informal. Education should be more focused on empowering young people with cognitive, adaptability and social behavioral skills such empathy, resilience, perseverance, conflict resolution, relationship management, critical thinking among others. These skills enhance human capital which is needed in the digital economy. While education speeds up the development of new technologies, it also prepares young people for the future of work.

The future of work will require a healthy population. Therefore, investing in the heath sector is equally important. Investing in health will result in increased productivity, life expectancy, new job prospects and human development. For example, in Zambia this would mean strengthening the health care system by promoting public-private partnerships and digital technologies for health especially in government clinics and hospitals that cater for the larger Zambian population. This is essential for the future of work; people are more productive when they are healthy.

In conclusion, the African governments should make huge investments in the education and health sectors to prepare Africa's youth for the future of work. Investments in human capital will increase an individual's productivity.

Zambia

Musopa Kalenga - Zambia

Musopa Kalenga is a scholarship program associate who is passionate about promoting girl child education and writing about developmental issues. She holds a Bachelor of Arts degree in international relations and development and is pursuing a master's Degree in development studies.

Africa's youth need to be problem solvers, not part of the problem

The way schooling is mostly framed in Africa attracts people to employment especially conforming in few fields such as medicine, law, engineering, and accounting. There is little or no emphasis on innovation and entrepreneurship. Noteworthy, these social dynamics have little to nothing to do with capital. With a mind that is taught only to obey the teacher, read books for regurgitation, pass examinations, graduate and look for employment subsequently (and call that a life's success), Africa is just but a continent full of people whom a very few will make a cognitive difference and strike positive changes to our economies and countries for the better.

The system does not encourage innovation. Such observations towards the existing education systems explains my idea to create Open Minds Initiative Africa, a mission set to extend the current schooling to open minds wider and engage in groundbreaking exploits, so that people evolve with change and own up to the needs of the digital generation. As technology gets complex, expectations from employee become more intricate as well. The initiative will be a movement set to enhance personal competence by creating and promoting activities that foster critical reasoning, emotional hygiene, financial literacy, career and life planning etc. The mission is to research, enlighten, and equip African people to reason and explore life beyond the limitations of basic education. To that end, extensive researches will be conducted on emotional intelligence and clinical psychology to determine learning opportunities unique to the problems African people face in a way that makes use of the exponentially expanding technological advancements. Thus, this initiative will focus on curating findings into online and field lectures, themed workshops and themed campaigns that aim at complex problem solving, teamwork and adaptability – to meet the increasing demand in the labor market.

Open Minds Initiative Africa will help create an African identity that directs the millennial to personal responsibility, achievement and innovation. Teaching techniques such as critical thinking and expanded reasoning and nurturing a new set of habits that guaranteed the rise of people like Elon Musk and Jack Ma who have impacted their countries and the world. This will be achieved through enlightening the youths about the reality of life including the indispensable call to integrate technology in every aspect of life. Additionally, teaching financial and life planning for all will augment chances of creating cosmopolitan workers and individuals who are highly adaptive to the technological developments of the artificial intelligence era.

In conclusion therefore, education is not just for passing information (limited anyways) so that the growing youngsters know what a text book says and be awarded for regurgitating information. Instead it should be teaching the mind to reason aptly and think big according to its own unique capacity. Open Minds Initiative Africa will ensure that just as children start out naturally curious and experimental, such attributes should be maintained and guided in adulthood, as this helps enhance the skills needed to prepare Africa's youth for the digital economy and the future of work.

Zimbabwe

Tatenda Magetsi - Zimbabwe

Tatenda Magetsi is a recent cum laude graduate from Bindura University, and is actively engaged in addressing local social problems. He is a founding member of the Open Mind Initiative Foundation, which provides training and empowerment to young people who may otherwise not be able to afford a traditional education. He is a recent Rhodes Scholar elect and will complete his master's and doctoral studies at the University of Oxford, UK.

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YOUTH TRANSFORMING AFRICA
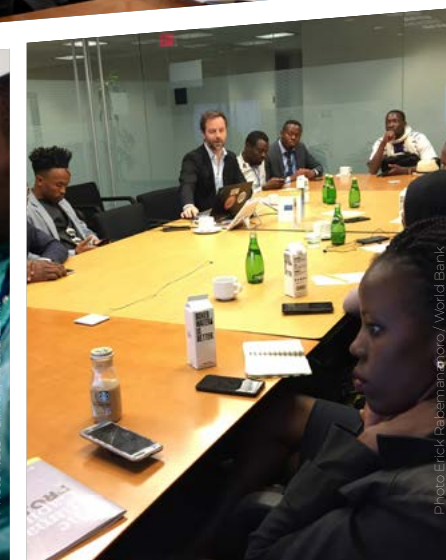
The #Blog4Dev 2019 winners representing 32 countries in Sub-Saharan Africa were invited to attend the World Bank/ International Monetary Fund Spring Meetings in Washington.
Twenty-three of them were able to make the trip from April 7 to 14, 2019. They were joined by the best student of the "Journalism for Development course in Francophone countries" and the winner of the Social Inclusion Heroes competition (both organized by the Africa Region's Communications and Partnerships Unit in 2018).

After the Awards Ceremony on Monday April 8, the Youth Delegation participated in several activities.

• High-level meetings with Hafez Ghanem, the World Bank Vice President for Africa Region, and Sheila Redzepi, the World Bank Vice President for External and Corporate Relations. Some representatives were also received by Annette Dixon, the World Bank Vice President for Human Development.

• A briefing on Africa's macroeconomics by Albert Zeufack, the World Bank Chief Economist for Africa .

• A consultation workshop on the Youth Transforming Africa program with Steven Shalita, Manager, Communications and Partnerships, Africa Region, World Bank.

• A youth to youth discussion panel on "How can the creative industry help to stem fragility"? Panelists included Trésor Mpauni, artist and refugee, winner of the Social Inclusion Heroes competition, Léonce Gamai, best student of the "Journalism for Development course in Francophone countries", and #Blog4Dev 2019 winner Damilola Adeniran (Nigeria).

• Other Spring Meetings events, briefings, and trainings completed the program.

The #Blog4Dev 2019 winners were also introduced to their Government delegations attending the Spring Meetings, and were massively promoted in the World Bank Africa Region Social Media channels.

https://blogs.worldbank.org/youth-transforming-africa/

The World Bank, Africa Region, April 2019