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Introduction

TEFO MOHAPI

> *"I have seen very few countries in the world that have such inadequate educational conditions. I was shocked at what I saw in some of the rural areas and homelands. Education is of fundamental importance. There is no social, political, or economic problem you can solve without adequate education."*
>
> ***— Robert McNamara, ex-President of the World Bank, during visit to South Africa in 1982***

Advancement and innovation within Technology in Africa can only progress if underpinned by a solid foundation of Maths and Science education. As such, it is encouraging to see countries such as Kenya, Nigeria and Ghana continuing to innovate in the technology field, specifically in the field Information and Communications Technology.

This alludes to a relatively good education system which stimulates the youth at a young age to have an interest in IT. Despite countries such as Kenya having far less resources, infrastructure and capital, than South Africa it continues to thrive as far as "home grown" IT solutions (mainly in mobile technology) are concerned. This can be seen further in the recent Vodacom continent wide mobile app developer competition where Kenyans won 1st and 2nd place, with a South African coming in third place.

Not to mention that the South African who came in third place is white, this brings me to the crux of the matter. It is not about race but it is worrying that the future of Technology in South Africa doesn't reflect the country's demographics. Technology solutions to a community's problems can only be effectively developed by those that have experienced the problem and are equipped with the necessary technology skills to develop solutions for them.

Every year South Africa makes a spectacle about the "Matric Pass Rate" (Grade 12), furthermore in the foreword of the recent 2012 report, South Africa's Basic Education Minister; Mrs. Angie Motshekga says "It is my proud privilege to announce the performance of learners who wrote the Annual National Assessment (ANA) during the week of 18–21 September 2012."

Both the annual matric spectacle and the ANA results leave us with nothing to be proud of, especially as far as the Mathematics results are concerned. The abolishing of Mathematics Standard Grade and Higher Grade to be replaced by Maths Literacy, which is the most basic form of Maths taught in Grade 12, and Mathematics; along with the politicising and political "point scoring" of focusing on the "pass rate" rather than the quality of education not only means South Africa currently produces amongst the worst Mathematics and Science learners in Grade 9 to Grade 12, but more disturbingly it means that since McNamara since set foot in South Africa 1982, nothing much has changed and also that it is black township kids, who are in the majority, who continue to suffer leaving the future of technology in South Africa in that of the "pale and male" as it currently is.

The Minister says she uses ANA as a "strategic tool for monitoring and improving the level and quality of basic education, with a special focus on the foundational skills of Literacy and Numeracy."

It is Numeracy skills, along with Science and Problem Solving skills, taught at a younger age that have a bearing on how South Africa's technology sector will perform in the future. Also, these have a direct impact on the social demographic makeup of the technology industry in the future in South Africa.

The recent community survey (2012) by The Silicon Cape Initiative alludes to the same, i.e. majority of their members are male and happen to have less melanin than the majority of the South African population.

Before looking into the future, let's look at the present education system and why it is important that darker skinned South African's form a significant part of the technology skills pool and technology start-up pool.

Pattern of Consistently Deteriorating Performance

The ANA was written by 24,000 public schools, including special schools and state-funded independent primary schools in South Africa. In these schools, the learners in Grades 1 to 6 and Grade 9 are required to write it resulting in excess of 7 million learners participating. The vast majority of these schools are in South Africa's townships and attended by black learners.

As such, the ANA is a relatively good determiner of government's involvement in improving basic education, especially Numeracy skills. On this note too, the government must be commended on conducting such an annual test and making the results, no matter how poor they are, public.

As far as ANA Numeracy test results go, there is an interesting pattern, but first a table of the 2012 Numeracy results:

GRADE	MATHEMATICS 2012	MATHEMATICS 2011
1	68	63
2	57	55
3	41	28
4	37	28
5	30	28
6	27	30
9	13	*

* Grade 9 tests were not written in 2011.

There is a consistent annual decrease in test results performance as the grade increases, with the worst, despicable and rather embarrassing performance being seen by Grade 9 learners. These are learners in the 14 – 16 year old age group.

There are many theories, in the absence of the relevant data or access to it, as to why this is so.

The first could be that the quality of earlier numeracy education is poor and not sufficient in preparing the learners for more complex numeracy skills in future grades. The other theory could be that of culture, with some boys being considered (especially Grade 9) old enough to herd or take care of the family by earning a living thus not having enough time for studies. Also, teenage pregnancy, amongst the black South African population, is common at this Grade 9 age group. The other reason is a societal one brought about by the scourge of HIV and AIDS leading to many orphans and child-headed households.

Thus, the current basic education and societal issues give us a rather good indication of which type of learners will be in a position to qualify for technology related studies both in high-school and post high school.

Pale and Male

As stated earlier, the bulk of IT professionals and technology start-up companies currently in South Africa are pale and male.

This is not just a case as far as the Western Cape is concerned but is prevalent among all provinces in South Africa.

The first contributor to "Technology in Africa, 2012 Digest" makes a similar observation. Erik Hersman, from Kenya, when comparing South Africa, Nigeria and Kenya's technology start-up scenes.

Hersman, He observes that In Kenya and Nigeria the founders of technology start-ups tend to look a lot like a cross section of the country's population. In other words, the majority of tech entrepreneurs in South Africa are white.

We can debate why the present is such and point fingers to Apartheid with its bantu education etc. but we need to also note that the present government's Black Economic Empowerment and Affirmative Action initiatives have also done little to re-dress this, in fact they have created a bourgeoisie without even addressing the core issue at the heart of the technology industry's problem: Basic Education.

Start Them Young

The main issue especially as far as the Technology Start-up Scene is concerned and noted by Hersman and another West African Technology commentator and entrepreneur and "Technology in Africa, 2012 Digest" contributor - Victor Asemota - is that it is difficult to develop technology solutions for a community you are not a member of nor live amongst.

A good case study without going into much detail is that of Justin Coetzee (a White South African male) and Go Metro. Go Metro helps MetroRail train commuters get live updates on train times and if there are any delays. This solution would never have come about had

Coetzee, an Engineer by training, not been a regular train commuter in Cape Town and seen the problems mostly black people have to deal with regarding trains and delays.

The main point in this case study is that Coetzee had to be part of that community, to provide it with the solution. Now imagine if black learners from a young age are equipped with numeracy, science and problem solving skills, how many societal problems could they solve using technology just like their counterparts in Kenya and Nigeria?

Technology Education starts at Grade 1 with numeracy skills, because a learner who enjoys and excels at the subject from an early age is likely to continue with it further in life. This is where resources by the Basic Education Ministry need to be concentrated, and not on Grade 12 results.

Ecosystems vs EGOsystems and Funding

Following on Erik Hersman's contribution where he not only observes what differentiates the various technology communities across the continent but also offers insights into what makes for a competitive tech community, Victor Asemota from Ghana talks about building technology ecosystems.

Asemota further narrates how technology ecosystems are similar to natural ecosystems where it is important to maintain a certain equilibrium lest the ecosystem vanishes and doesn't last the distance.

With education in place, a connected community put together in an ecosystem that is balanced, then comes the need for capital to fund the projects that make economic sense and show promise of becoming profitable. Given his fund management experience, Mbwana Alliy from Tanzania goes on to explain on an efficient method that technology start-ups should adopt to raise funding. Added to this, I further go on to elaborate on the various options that technology start-ups have for funding with emphasis that they explore bootstrapping.

Policy Making and Governance

Collecting accurate internet user data is very critical to government policy making argues Tim Katlic from the United States in his contribution. Making the argument that "Internet

penetration rates are often used to structure ICT policy and to attract investment." This further means that Internet user data is important to economic growth.

There is another role that technology plays in Africa as far governments are concerned, and that is governance. Will Mutua, from Kenya, in his contribution titled "The Influence of Technology in Governance in Africa" makes the point that technology, led by the Internet, is giving "power to the people" and assisting with governance by helping the citizens hold the politicians accountable given the amount of information they have at their fingertips.

Mobile Phones and Advertising Opportunities

It goes without saying that most of the African continent develops for "mobile first" rather than the desktop / laptop with possibly South Africa being the only exception. Most Africans interact with the Internet for the first time on their mobile phones, as such, the mobile phone presents great opportunities for businesses to advertise directly to the consumer.

Jonathan MacDonald from England contributes his perspective on Mobile Advertising and Marketing as he curiously points out how advertisers up to this day value "reach" over "specificity" despite the fact that mobile phone increase the chances of "specificity" and reaching the right potential customers with a very low margin of error. His insight, although using examples from the United Kingdom, is relevant for Africa given the proliferation of mobile phones and the mobile Internet.

Jon Hoehler, from South Africa, concludes the contributions by offering his advice on how to set off in mobile advertising in Africa. He starts with SMS based examples right up to mobile internet and app based advertising.

Community Connectedness as a Competitive Advantage

ERIK HERSMAN (Kenya)

> *"Unity is strength, division is weakness"*
>
> ***— Swahili Proverb***

In the last couple weeks (November 2012) I've had the opportunity to be in Nigeria (Maker Faire Africa), followed by South Africa (AfricaCom). Along with Kenya, these countries represent the biggest technology countries on the continent. They are the regional tech hub cities at this point in Africa.

In both places I was struck by how different each country is, and the challenges and opportunities that arise due to the technology community's connectedness, regulatory stance and local entrepreneurship culture.

The Kenyan tech community in the iHub (Nairobi, Kenya)(Image Credit: whiteafrican.com)

Some Theories

South Africa has so much infrastructure, you're immediately struck by how money isn't an issue there. The lesson I took away from the DEMO Africa conference is that South Africans are far, far ahead of the rest of the continent in enterprise applications and services. They tend to see themselves as "not African", and try to identify with Americans or Europeans. This comes out in their technology products; they have a more global focus and tend to fill the gaps that are needed by the many multinational corporates that call South Africa their home in Africa.

Nigeria has so many people, it overwhelms in its pure mass. It's a bit cramped, louder, and more energetic than almost any other country in Africa. Nigerians have a long history in entertainment, with their Nollywood films and music spreading across the continent. It wouldn't be surprising to find a killer entertainment consumer app coming from Nigeria, which can be exported regionally and internationally.

Kenyan technology companies tend to focus on localized consumer needs, and we have a competitive advantage in anything to do with mobile money. Even in the secondary and tertiary uses, I'm always struck by how much more advanced the Kenyan start-ups are with local ecommerce products and marketplaces than their other African counterparts.

Kenya is smaller than Nigeria and has less infrastructure than South Africa. Why then are there so many more start-ups per capita, more innovative products coming from Kenya right now?

A History of Community

Kenya's technology scene is vibrant and there's a certain connectedness amongst the community that isn't found in the other two countries, yet.

Having a Ghana programmer talk Image Credit: whiteafrican.com)

I was in Ghana in 2009 for the first Maker Faire Africa. I went around visiting a lot of tech companies and individuals I had gotten to know via blogging over the years. What struck me at the time was that there wasn't even a technology mailing list that connected the community. We'd had the Skunkworks mailing list in Kenya since 2006. My assumption had been that every country with any type of critical mass in technology had a forum of some sort for connecting technology people to each other.

20+ members in the Ghana tech community came together at Maker Faire Africa and decided to start Ghana tech mailing list. I'm still subscribed to it, and it's a great resource for both me and those using it. With that list, and the founding of MEST in 2008 (their technology entrepreneur training centre) that Ghana's technology scene started to get connected and move forward strongly together a couple years ago.

Points of view (Image Credit: whiteafrican.com)

Fast forward to Nigeria a couple weeks ago, as far as I can tell, there are some technology-related forums, though not a mailing list. These have been valuable in connecting people, but it seems that the ccHub, founded last year, is the start of a real connectedness between members of the tech community. I got the feeling that all the energy and entrepreneurialism that makes up the Nigerian culture of business now has a tech heart and that we'll see an acceleration of growth in the coming years that has been missing until now.

For many years, the technology bloggers of South Africa organized and centralized conversations around technology with events like 27Dinner, BarCamps and more. They have long-standing technology hubs, such as Bandwidth Barn, they have a network of angel investors and greater access to VC funding. There wasn't a centralized mailing list or forum back in the day (before 2008) that I know of. A few years ago we saw the rise of Silicon Cape, an initiative to bring attention to Cape Town's start-up culture.

At AfricaCom an interesting discussion ensued around South Africa's technology community and questions on why it wasn't getting as much attention or traction as Kenya. Two points were brought up that I think are incredibly important.

First, while Silicon Cape is focused on branding (and doing a good job of it), what is really needed is someone to bring the new technology hubs, start-ups, angel investors, media, academia, corporations, and even the government together. There's a lot of activity, each in its own silo. It's a hard job being the trusted bridge between these different parts of what can be a very opinionated and political community. I'd suggest that Silicon Cape's mission should be to do just this.

Second, In Kenya and Nigeria the founders of start-ups tend to look a lot like a cross section of the country's population. The technology community in South Africa doesn't look a lot like the racial makeup of the country, to put it bluntly, I rarely see a black South African tech entrepreneur. Not being from there, I'm not sure why this is, so it's just an observation. It's hard to build a product for a community that you're not from, nor understand, so I can't help but think that the South African tech scene would benefit greatly by having more people building companies to solve problems from all parts of that country's stratified makeup.

A Connected Community

Sitting at 38,000 feet writing this piece, I keep thinking how there seems to be a link between the connectedness of a technology community in a country and it's vibrancy as an industry. Though I realize there are other variables, this explanation helps me explain why Kenya is further ahead in some areas than other countries.

As I look to Kenya more deeply I'm struck by how important the egoless actions of individuals like Riyaz Bachani and Josiah Mugambi (Skunkworks), Dr. Bitange Ndemo (Government), Joe Mucheru (Google), and others have been in setting us on a trajectory that we all benefit from as the whole becomes greater than the sum of its parts.

This theory of a connected technology community doesn't mean that everyone always agrees or walks in lock-step with each other. There's healthiness in internal critique and desire to find solutions beyond the status quo of the moment. However, I do think it does provide a foundational element for cities and countries trying to grow a more meaningful and vibrant technology community.

The connectedness can come in two ways, digital and analog, and will have a different flavour in each country that mirrors its own culture. It helps to have a centralized digital space to throw out questions, opinions and find answers on efficiently. Equally, I think we're seeing that analog, physical meeting spaces that are represented by the growing number of technology hubs around the continent are another way to accelerate the connectedness needed to grow.

Africa's technology hubs are the new centralized meeting spaces, the watering holes, for connectivity and connectedness. However, it's not enough to have a space, without local champions who are willing to make it their mission to grow, connect and bridge the technology ecosystem (government, corporates, start-ups, academia, investors), then they won't work.

Raised in Kenya and Sudan, Erik Hersman is a technologist and blogger who lives in Nairobi. He works at the intersection of disruptive ideas and new technology in Africa.

He is a co-founder of Ushahidi, a free and open source platform for crowd sourcing information and visualizing data. He is the founder of AfriGadget, a multi-author site that showcases stories of African inventions and ingenuity, and an African technology blogger at **WhiteAfrican.com**.

He currently manages Ushahidi's operations and strategy, and is the founder of the iHub, Nairobi's Innovation Hub for the technology community, bringing together entrepreneurs, hackers, designers and the investment community. He is also a partner in the Savannah Fund, which provides seed capital for African tech start-ups.

Erik is also a TED Senior Fellow, a PopTech Fellow, a speaker, and an organizer for Maker Faire Africa. You can find him on Twitter at **@WhiteAfrican**

“The Shortcut Problem” African Start-up Ecology 101

VICTOR ASEMOTA (Ghana)

“Always being in a hurry does not prevent death; neither does going slowly prevent living.”

— Ibo Proverb

I have a friend named Bob who really likes to walk and knew all the pedestrian shortcuts in the town where we grew up. There used to be a joke that if you make the mistake of going to visit him at home on weekends without notice, his mum will tell you that he had gone searching for shortcuts.

It seems that habit is not only limited to my friend but also widely prevalent in African entrepreneurship. We always want the quickest and most efficient way to get to our destinations and it is not necessarily a bad thing. It is actually a default human trait that perhaps led to some of the greatest entrepreneurship ventures of our time. In Africa, this quest for shortcuts ideally should lead to great innovation but instead I have noticed that it leads to opportunism. Shortcuts no longer become mechanisms to enhance efficiency when the sole motivation is to “get the money as quickly as possible”. The average young entrepreneur is not interested in building a sustainable venture but only to be prosperous or appear prosperous in the shortest possible time.

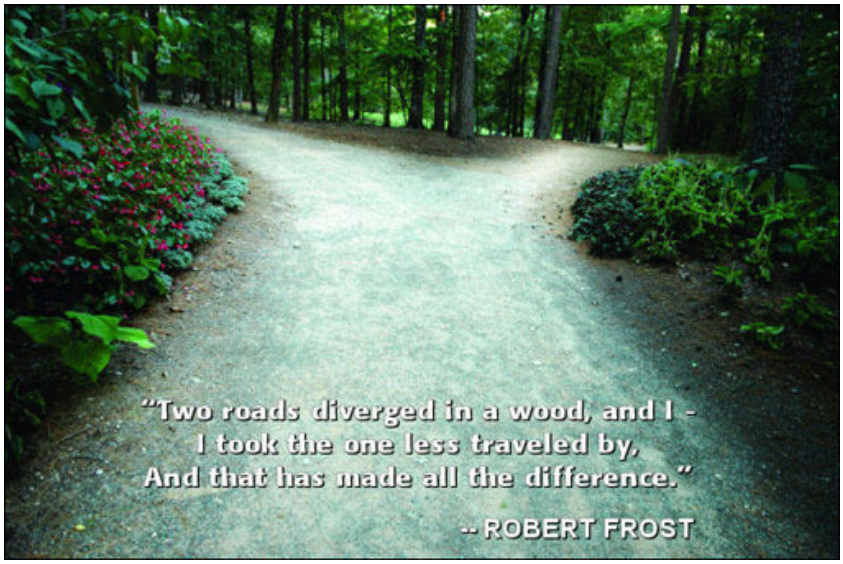

Image Credit: asemota.posterous.com

Competition has great advantages as it has led to the survival and dominance of our species but greed could also make us extinct. Materialism probably has led to massive capital growth in developed societies but they have relatively level playing fields and almost everyone can aspire to be what they can be without undue limitations. When you couple greed with many other limitations beyond the control of the average individual in Africa it becomes destructive. Competition is great but greed is not. Greed in an immature ecosystem leads to parasitic and predatory relationships that destroy it.

Let me take down my “halo” and explain more using ecological analogy.

Evolution of the Ecosystem and Equilibrium

Business and technology ecosystems are very much like natural ecosystems, there is a basic level of equilibrium that must be attained for an ecosystem to exist. Higher levels of equilibrium are also possible as ecosystems evolve and grow. The food chain consists of all players from the predators and parasites to symbiotic relationships, even bottom feeders and scum are useful in an ecosystem. There is usually balance because all organisms evolved into the ecosystem or evolved with it. Evolution is not a hasty process, it takes time and it takes a lot of iterations and selection for the ecosystem to move to higher states. Extreme Darwinism in business ecosystems does not necessarily lead to stronger players, it is a sign of acute indeterminacy and indeterminacy rarely leads to sustained growth.

There is no manual anywhere for how a technology ecosystem must evolve and the default model most adopt is that of the most successful and most widely known ecosystem of all - Silicon Valley.

The story of the creation of Silicon Valley is now in the book of legends but what a lot of people don’t realise is that Silicon Valley itself is also still evolving and the old models there may be in decline. Alternative financing models like “crowd funding” are beginning to gather serious momentum and there have been notable successes in recent times. Silicon Valley adapts and always evolves and part of the evolution or survival mechanism of Silicon Valley is to export its predators elsewhere to find prey.

Peter Thiel's Founder's Fund in their famous treatise "What Happened To The Future" states:

"We believe that the shift away from backing transformational technologies and toward more cynical, incrementalist investments broke venture capital."

The Venture Capitalists (or VCs) are at the top of the food chain in the Silicon Valley ecosystem and they make no pretensions about their motive. They exist to make significant returns for their limited partners and investors; they rarely hide in “sheep’s clothing”. The VCs are going broke and they are looking for new hunting ground, they actually need Africa more than Africa needs them. It is therefore worrisome for people to think that to grow a delicate ecosystem like we have in Africa we must bring in the VCs first.

If you bring lions into the savannah too early all the game will be eaten and the lions will starve to death eventually. The VCs themselves know it and they have however been very cautious not to run to Africa until the ecosystem has shown some maturity and is ripe for harvest.

The usual excuse of distance and the need for intimacy with the ventures they fund are just “excuses” as the intimate relationships they speak of are analogous to the relationship a shepherd has with a calf he is fattening for slaughter at a feast. It is not a long-term relationship.

An Attempt at Descriptive Taxonomy of the African Tech Ecosystem

This is not an exhaustive “descriptive” or “phylogenetic” taxonomy of all the players in the African technology ecosystem but an attempt to provide background on the role of each player as well as their significance or consequence of their actions.

The Entrepreneurs

Opportunistic entrepreneurs are parasites in an ecosystem. They rarely have original ideas and sometimes feed on their own kind or put themselves in a position where they bleed the customers and eventually the ecosystem to death. They are the bottom feeders and the leeches; the opportunistic entrepreneur typically seeks VCs and exits early and hardly builds a transformational venture, only incremental ones.

There is usually very little passion for what they do or for growing any ecosystem, they never collaborate and their only passion is to make money and move on to the next host. They typically seek for shortcuts or do quick and dirty ventures. Does that sound familiar?

To me it describes a disproportionate majority of the current field of “technology entrepreneurs” in Africa.

Opportunists or extreme capitalists have a doubtful role to play in the ecosystem, some could argue that they are there to make it remain competitive but I doubt it. They only bring in further incrementalism and indeterminacy not transformation.

When an ecosystem consists predominantly of opportunists a lot of attrition occurs and it declines. The opposite of opportunistic entrepreneurs are the innovative entrepreneurs. They are the lifeblood of the ecosystem and they are those that sustain hope because their goals are “big, hairy and audacious”. They are the ones who end up like the Elon Musk’s or Mark Shuttleworth’s and bring about transformation not only in the ecosystems but the world. They are “the crazy ones” and the Wired Magazine article "Want to become an internet billionaire, move to Africa” is almost making these types extinct as every opportunist (local and foreign) brandish it as an excuse.

The potential billionaires are already in Africa but they don't realize what they have. It took me visits to over 20 countries in Africa to realize the advantage I have as an African who has spent most of his life in Africa and who really understands Africa's common problems.

Whenever I go outside Africa it is to learn and not seek help because I know that we already have all that we need. If we could raise hundreds of millions of dollars in local funds to fund telecommunications companies then anything is possible.

I witnessed and participated in the process of such funding firsthand and it made me realize that we have everything we need in Africa.

The Venture Capitalists

The VCs (both local and foreign) usually "come in" to make money and we must make no mistake about it. They are not white knights or saviours; they are capitalists.

For months now I have been shouting everywhere that there is a huge difference between **INVESTING** in Africa and **MAKING MONEY** from Africa.

VCs come to make money and have little interest in investing in long-term growth of an ecosystem but we need them because exits are important and they also bring in a sense of

purpose and urgency with them. The profits enterprises make and the capital gains at exit validates the existence of an ecosystem

The Government and Impact Investors

The government and impact investors in the African ecosystem are usually either symbiotic or parasitic hosts. Most times in Africa government officials become parasites themselves colluding with opportunists draining funds from the ecosystem through corrupt practices and depriving us of true innovation.

There are very few serious government partnerships that go beyond propaganda and senseless proclamations to gain the youth vote. Rwanda is an example of a location where the government is serious about the growth of the ecosystem because “they get it”. Most governments don’t “get it”. They don’t because the politicians are usually from another era and don’t really see value in tinkering with some bytes and pieces of hardware. The governments however have no choice but to play a role in creating the enabling environment and policies for the ecosystems to thrive.

Most impact investors in Africa put token investments in doubtful ventures out of “pity” or because the founders have made enough “noise” to be able to give the investors some bragging rights. They also believe that those “arms-length” “token investments” are enough catalysts to stimulate growth in an ecosystem and get frustrated when they don’t get results.

Others build true symbiotic relationships and stay long enough for the initiatives they have invested in to reach scale. These hosts are also vital to the sustenance of the ecosystem as they also help to provide some seed funding and policy to shape the environment for fragile early stage ventures in a difficult terrain.

Local Investors, Local Seed Funds and Angel Investments

These local investors or funds should ideally have been local financial institutions but they are very risk averse and instead focus on easy wins or funding highly profitable proven private sector trade or deficits in inefficient public sector.

Local investment does not have to be from financial institutions alone, they can also be from successful individuals with a stake in growing the ecosystem. The local investors need to be involved in the process of building a local ecosystem, as they are likely to have higher order stakes that usually transcend financial goals. They live in the environment where the problems are solved and are the ones whom ideally should fund early stage ventures and carry them through to profitability and visibility of other institutional investors.

The reality of what we currently find in Africa is that a majority of the possible local investors do not completely understand technology ventures and their only exposure to investment has been either the stock market or their own private businesses. They only see risks for their investments and prefer control as a mechanism to mitigate those risks. In most instances they become more of the problem than the solution but they are still probably the most vital to the ecosystem if things are done properly

Start-ups in Silicon Valley build on each other and that is what the African ecosystem must do. We can invest in each other and the investors because we are all stakeholders in this. The same problems an entrepreneur faces in Zambia are probably similar to those of another in Senegal and nothing stops an entrepreneur from one country to learn from others not in direct competition with them or get investments from the more successful ones outside their region. Such collaboration can be of mutual benefit and will be the building blocks of future African enterprises at scale.

Accelerators, Incubators and Technology Clusters

Beyond the role of providing a platform for start-up ventures to launch, these are meant to be institutions and mechanisms for aggregation of talent and they are also meant to foster collaboration. I met with the founder of one of them in East Africa and he was complaining that they have transformed into something different from what was originally planned. They have become places where entrepreneurs come because they want to gain visibility and win contests but not give back to the community or grow.

The sense of community is being replaced by fierce competition for these awards and prizes and he should know best as he organizes one of the most prominent events in the region. Other communities are springing up around Africa and will most likely have the same

problem as they are funded by grants and will need to show something to their backers. The quick and dirty way for them to show some traction is events and contests. I believe this is a dangerous trend, as it will allow fatigue to set in very quickly.

The mechanisms these communities use to aggregate talent are largely inefficient and may end up alienating those they really need to get involved. A friend of mine noted that a group photograph of members of a local hub showed that they were either predominantly from one ethnic group or alma mater. Cronyism is quickly setting in and these institutions are now also becoming like parasitic hosts for opportunists.

The Shortcut Problem and Why Collaboration is Important

Ecosystems are not simple structures or entities and the relationships are complex but what is true is that every ecosystem evolves on its own terms. "Aid" or "pity" won't do it for Africa and neither will extreme capitalism or opportunism. It will be done by hard work and investments are not the only solution; they are the nutrients that allow the bottom of the food chain to thrive and support all others.

When I hear people talking about lack of investment being the problem with the growth of African ecosystem all I hear is people either looking for excuses or shortcuts. Seed investments are like real seeds, which can only grow when the environment is right. You can't plant seeds on rocky terrain without nutrients and expect them to become trees overnight; it is impossible.

You can't also introduce predators into a location without prey to feed on; they will not thrive. The VCs know this and they wait patiently for the spoils of the harvest after the seeds are grown and the ecosystem is thriving. VCs don't sow seeds, they harvest. Impact investors provide some nutrients while the rest of the ecosystem (including government and regulators, entrepreneurs and local investors) do the rest.

Collaboration between all players is the most vital factor for growth and I don't see much of it happening in Africa only schoolyard type "pissing contests". In one previous post on my blog I wrote about changing the narrative to one that reflects reality and spurs conversations around real issues. The conversations alone are not enough; collaborative action to move things forward is even more effective.

We had a Twitter conversation recently where a number of people alluded to the fact that the right skills were not available in Africa and my position is that it is a wrong assumption. The skills are there, the seed investors are there but we have only had ineffective mechanisms for aggregating them. We have been trying to use the wrong motivation to spur engagement and growth.

We all need money and I won't lie that it does not solve a lot of "personal problems", but that is what they are **"personal problems".** Some may extend this to say that if I solve the financial problems of my family and myself then there are fewer headaches for everyone else. Eastern Nigeria is a typical example of where this thinking fails. People build huge mansions in villages without roads, electricity or water and end up spending more to provide basic things for themselves when it would have been much cheaper if it were by communal effort.

I hear some complain that mobile money has not gained much traction outside East Africa and they blame the telecommunications companies when they should actually blame the technology ecosystem. The foundation of any technology ecosystem is efficient payment mechanisms to speed up monetization and there are no shortcuts to building ecosystems around payment initiatives. We need to solve the hard problems.

After having been involved in several mobile money implementations we realized that the technology ecosystem plays a bigger role in growth than the telecommunications companies or mobile money operators. Innovative solutions force players to change as there is already a lot of competition to succeed but instead of innovation in payments we see opportunism and attempts at closing out others. The winning players are those will provide the customers with better service and not those who give them no options. We need to do better than what we are doing now and it not going to be achieved by shortcuts alone.

Time to put back my halo.

I work every day and make money but there is a greater satisfaction I get from creating products and new services. Money is a useful by-product to spur more creative activities. I don't get paid for writing blog posts but I put my views out there hoping to make an impact

by changing the way the community perceives things. Money alone as a motivation will only bring more opportunists to the ecosystem and it won't bring passionate entrepreneurs.

I came back to Africa from the UK bright-eyed and with a vision to contribute to the transformation of Africa but found an Africa struggling to survive not thrive. The opportunities to thrive abound yet we still struggle as individuals.

The struggle to survive as individuals usually leads to behaviours in the opposite direction of collaboration and nobody wins long term. Surviving as individuals is hard but there is strength in numbers and a true ecosystem creates its own support mechanisms. What we have to our advantage is the numbers and it is strange that we don't realize that advantage and push it. 100 million+ entrepreneurs is a formidable force globally so let us become a force rather than fodder.

There are no shortcuts to building great enterprises and even more awesome ecosystems but we keep making the mistake of thinking that throwing money at problems will solve them. Money does not solve problems; thinking of solutions solves problems.

> *"Being the richest man in the cemetery doesn't matter to me... Going to bed at night saying we've done something wonderful... that's what matters to me"*
>
> ***– Steve Jobs (Summer 1993)***

Chimamanda Adichie said:

> *"There is a word, an Igbo word, that I think about whenever I think about the power structures of the world, and it is "nkali." It's a noun that loosely translates to "to be greater than another."*

For the African tech ecosystem to thrive the type of "Nkali" we need in Africa is a collective not singular one. "Ubuntu" needs to come before Nkali.

Ubuntu:

> *"I am what I am because of who we all are."*

Shameless plug you can ignore:

We at Afrinnova believe that the only way African start-ups can be viable is not only to prove their model locally and build critical mass but they should also look at models that can

be scaled beyond one country. African problems are usually common to most countries and the real potential is in Africa as a market and not just local economies. There is no need for East or West type rivalry and no need to reinvent the wheel if collaborative partnerships can be formed across borders. What we plan to do is make this type of growth and scale models the norm rather than the exception. As a startup founder who has scaled to several countries myself I know that there are challenges and that is why we decided to start a different type of accelerator that helps African startups scale beyond borders.

To take a stab at solving the issue of efficient aggregation of talent at scale, we are experimenting shortly with an initiative named "OpenGarage Africa". As the name implies it will involve actual garages being contributed and used as distributed co-working spaces with the owners benefiting from having excellent Internet access and contributing to growing the ecosystem.

We will start from the more successful entrepreneurs before we move to the general public and our vision is to make tech entrepreneurship clusters even more prolific than street gangs. This is not another shortcut and it is hard work as we take the road less travelled and try to make a real difference.

Victor Asemota is Ghana based **Swifta Systems & Services'** CEO/ Principal Consultant. He has over 20 years of industry experience in enterprise applications consulting and implementation, information security and transaction systems,

He is also a founder of **Afrinnova**, an African start-up accelerator.

He was educated in Nigeria and the United Kingdom. and has been involved in a lot of pioneering efforts in business process outsourcing, information security consulting, enterprise applications and transactions systems in Nigeria and West Africa.

He has worked on many start-up projects with African venture capital companies and believes in the vision of harnessing the knowledge and experience of African professionals globally to make Africa the greatest force to contend with in the world. He has brought in his International experience to harness great resources that bring effective change solutions to businesses in Africa

He has a **personal blog** where he posts regularly about technology in Africa.

Afrinnova

Accelerator

Start-up Funding in Africa - Let's take a step back & talk Market Efficiency

MBWANA ALLIY (Tanzania)

> *"Every morning in Africa, a gazelle wakes up.*
>
> *It knows it must run faster than the fastest lion or it will be killed.*
>
> *Every morning a lion wakes up.*
>
> *It knows it must outrun the slowest gazelle or it will starve to death.*
>
> *It doesn't matter whether you are a lion or a gazelle.*
>
> *When the sun comes up, you better start running."*
>
> ***— Thomas L. Friedman, The World Is Flat (2005–2006)***

The web has been full of articles about how Africa needs start-up funding. Almost every day now I see some article about it. As a general rule when you hear the same thing over and over again- you should start to ask why? I have written about what I think on this topic prior.

Here is a summary of my points:

- Innovation Funding in Africa Are Impact Investors/VCs taking enough Risk
- 7 Steps to Raising Angel Investment in Africa

And one that tries to capture a more ecosystem approach beyond just the funding piece.

Rather than to keep stating the problem, we should ask why it exists and if it really does exist?

Take this tweet yesterday- *"RT @africatechie: Africa: long on opportunity, short on capital bit.ly/L1nlGI on @VC4Africa"*

The Mara Foundation in Kenya tweeted:

This is an excellent question. I think it depends on how efficient you think the African (or Global) market is in allocating capital to worthwhile (African) start-ups. Note the brackets in the last sentence.

How efficient is good?

Well let me anchor you back to situation I had in Silicon Valley about a month ago. I met a start-up focused on Africa I am an advisor for a routine meeting- basically we met at a coffee shop that we both like and when I showed up and I noticed that the start-up was spending a huge amount of time applying for grants. This is how the conversation went:

- **Mbwana:** "STOP IT! Find real investors!".
- **The Start-up:** "but its free money!"... Point well taken.
- **Mbwana:** "But it takes you so long to fill out these forms to AID organizations who don't even get your technology and even longer for them to respond- you could be building out your prototype and making tangible progress"
- **The Start-up:** "But we still need the money! Oh and its free"- Point taken again… (Note this start-up had an excellent prototype and I noticed the team was well rounded with an engineer and business development who had just quit her job to join this start-up).

Sounds familiar right? I call it inefficiency. As I left the coffee shop I suddenly remembered someone I met a week earlier who loved the domain the start-up was in, not only that, she had a soft spot for women led start-ups and she'd been to Africa a few times and knew the environment pretty well. I immediately made the intro via my smart phone.

Less than a week later the start-up had secured further angel investment from this person in one meeting. This is how efficient Silicon Valley is. I have heard of stories of start-ups being flooded with money on AngelList the moment they post on the website. Silicon Valley is incredibly efficient- or you could argue it's now a bubble and the pendulum has swung way

too far that money is being thrown at everything that moves. Are there amazing startups in Africa that deserve funding and are not getting it?

Let's try the other side: Kauffman foundation told me to be cautious of a certain big start-up initiative focused on Africa. I was confused. Why? Surely any efforts to help start-ups in Africa should be welcomed? A staff member told me *"Do you think African start-ups are ready for that kind of exposure- one start-up can ruin the entire market when the ecosystem is still not ready yet"*

This story made me pause and I started to understand- it reminded me of another story of a gentleman who wanted to take some start-ups from Kenya to Silicon Valley on an investor road show, take equity cut of each start-up plus the start-ups must pay for their entire travel expenses to come to Silicon Valley. When we quizzed this person further, he had no Linkedin profile or online presence whatsoever and he didn't even mention any reputable investors he'd be introducing these start-ups to. Had he even been to Africa? Should we have made this arrangement happen? I think not and we did not. The Kenyan start-ups may show up to Silicon Valley, deplete valuable cash they might not have and meet investors who are not even reputable but probably have never set foot in Africa! And then when inevitable disaster strikes, the word will go round that Kenya or African start-ups are terrible (ruining it for others in future)! Worst of all the start-ups would have wasted time vs building out their start-up.

I have also heard of the rich African elder making a $100k investment in a friend or relative's start-up and the start-up totally failing or that person is engaged in multiple start-ups or projects and fails. Now this elder person will never invest in technology start-ups again- firmly deciding it's better to invest in real estate to support the future of his or her family.

Sometimes if the money comes too easy, it makes a start-up clumsy- this is true even of Silicon Valley, it just happens at a bigger scale with bigger burnouts. But from failure also comes a sharpening of the saw and the market learns to allocate capital just a little bit better and take on less risk next time.

So what's the moral of the story? There are clearly market inefficiencies in the start-up funding process outside of Silicon Valley and especially in Africa. Fund Managers/Venture

Capitalists/Impact Investors may not be taking enough risk because they don't know the technology domain, region or start-up team characteristics. On the other side- start-ups may not be ready to absorb large amounts of capital and exposure for multiple reasons (talent/skills being one and focus being another).

The African start-up ecosystem is still developing. African founders need to focus on getting stuff built and building skills along the way and focus- a do or die scenario, not half attempting a start-up when someone has betted their savings on you.

Investors/Grantees need take some risk but learn from their mistakes but not flood the market with money. Back to those grants and impact investing. Even they are aware that their involvement might lead to a risk to the ecosystem they are trying to help. So yes, even grants can be bad for the ecosystem- look up Crowding out effect as a cautionary example to NGOs, AID givers and Governments.

Ultimately when we have more bigger technology start-up successes, it will begin to wake up both the investor and founder side and the market will become more efficient and maybe Africa may enter into a boom and bust business cycle we see even in Silicon Valley and across the globe where one period founders have all the power and awash with cash and another time there is little funding available as investors got burnt and have showed poor returns.

I leave you with a concluding comment from Ernst and Young on Africa business confidence which captures the tension that exists in the stories I tell:

> *"Despite this growth, there remain lingering negative perceptions of the continent — but only among those who are not yet doing business in Africa."*

Mbwana Alliy is the founder and managing partner of **Savannah Fund** (an Africa focused Technology Venture Capital fund. He is passionate about product development and launching new ventures in technology.

He is an experienced Product Manager within consumer web, enterprise Software & SaaS.

He is originally from Tanzania and has lived and worked in 3 continents (USA, Europe and Africa). He has a Bachelor's Engineering degree from Bristol University and an MBA from Stanford Graduate school of Business.

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savannahfund

Bootstraps, Seeds, Angels, Adventurous Capitalists and Sharks

TEFO MOHAPI (South Africa)

> *"Concentrate your energies, your thoughts and your capital. The wise man puts all his eggs in one basket and watches the basket."*
>
> ***— Andrew Carnegie***

The past couple of years have seen what can be said to be a boom in technology start-ups, technology start-up competitions and funding activity related to technology start-ups.

Amidst all this activity, the bottom line is that these are businesses and they should be run as such irrespective of the hype around technology start-ups. So let's look at the various ways technology start-up entrepreneurs can fund their businesses and the possible consequences of each method.

Technology Start-up Entrepreneurs need to be aware of the options they have and choose one that is suitable to their business and future plans.

Bootstraps

boot·strap [adjective] - relying entirely on one's efforts and resources.

Bootstrapping is probably the most basic way to fund a business, and probably the safest. It entails a start-up founder using his own cash to fund the business and going forward using the business' own cash flows to fund expansion. In this manner the start-up ends up being self-sustaining although it runs the risk of not expanding when it needs to due to lack of resources and capital, which is the downside.

The upside, one of a few, is that should the business fail the founder only loses his money and doesn't have investors and bankers to repay nor does he lose his reputation with "the suits" as he lost no one money.

Many technology start-ups hardly even consider bootstrapping because it requires being resourceful and a lot of hard work and perseverance. Also, with the abundance of

technology start-up competitions and investors promising capital even for ideas that haven't even been tested and used by consumers, most choose the easy way out.

At Mobile Web Africa 2012, Dr. Loren Treisman of the Indigo Trust mentioned that technology start-ups should explore bootstrapping as a funding option, including bootstrapping by raising capital from family.

Seeds

seed capital [noun] -
a small amount of capital required to finance the researchnecessary to produce a business pl an for a new company.

This type of money or capital is akin to planting a seed. In this case the seed investor (although models will differ) will offer technology startup entrepreneur a relatively small amount of money (as compared to what will be required to fully fund the business) to "develop the business idea". In exchange, the seed investor will acquire a small percentage in shareholding in the technology startup and in most cases, hope to "flip" this when the technology startup raises more funding in future.

Funding to "develop the business idea" can involve a myriad of things ranging from market research, business plan / case development to developing a prototype product or service. What is important is that the entrepreneur establish and be clear on the terms of engagement as this type of investor is typically in it for the short-term, i.e. as soon as it is established that the business is viable and can raise many times more funding in return increasing the valuation of the company, he will sell his shareholding for a profit.

The upside of this is that the entrepreneur gets to test his business idea using someone else's money, should it fail, in most cases he is left with no liabilities. Also, important to note is that seed investors tend to also get involved in "developing and testing the business idea".

Angels

angel investor [noun] - an investor in a business venture, esp one in its early stages

The next level and type of funding is Angel Investors. The phrase is deceiving, these individuals don't offer funding in return for nothing, they usually request shareholding in return for capital provided and tend to be more passive as far as involvement in the business is concerned.

They don't offer the type of money venture capitalists offer but offer (typically) more than what a technology startup entrepreneur would raise through bootstrapping or as seed capital because they are usually wealthy individuals or families who are looking to diversify their investments.

'Angels" get involved in the early stages of a business but typically not as early as seed investors. They'd want to see some sort of research and plan in place, perhaps a pilot or prototype before even investing.

Like seed investors, as soon as the business raises further rounds of capital that is many times more than what they invested, they are likely to sell at a profit as their interest is not operational but purely profit and investment based.

The advantage for the technology startup entrepreneur is that the angel investor gives you access to the amount of funding that you'd only get from the "Sharks" with less stringent terms in exchange for shareholding.

Adventurous Capitalists

venture capital [noun] – funds invested in a new business enterprise.

As a technology start-up entrepreneur you've probably heard of "Growth funding round" or "Series A funding round", this is when a venture capital company invests in your business after all the previously mentioned rounds of funding (especially seed funding) with the sole aim of realising a profit either through the sale of the company or an Initial Public Offering (IPO). IPO's are not common for technology startups in Africa so the most likely outcome after the "adventurous capitalists" have invested in your company is that they will sell it later, for a profit.

Unlike the "Angels", venture capitalists tend to bring technical and managerial experience and skills along with capital to the companies they invest in. VC's mainly invest in novel or niche technology start-up businesses or technology start-ups that have a different business

model. They also usually run various venture funds where they manage other people's money to invest in such businesses.

"Adventurous Capitalists" are in the BIG MONEY game. As an entrepreneur, you just need to ensure that their goals and aims, as well as terms, are aligned with what you think of your business and where you see it going as the experience can be overwhelming given the money they are likely to invest and the skills they will bring on board.

The upside is when they do call you, know that your business is relatively unique and has a relatively good chance of making it big.

Sharks

Simply put these are the banks, the loan "sharks" The model here is simple, you provide collateral and they provide you money at an interest rate. Should you fail to make payments, you can kiss your business goodbye. This option should really be the last possible option funding your business as it is expensive (interest.

As a technology start-up entrepreneur, the above are typically your options in funding your business evaluate each option carefully and choose one that suits your long term plans and your business.

Tefo Mohapi writes on technology for **HumanIPO** and blogs regularly at **TefoMohapi.com**.

He is a Director and Founder of Terrus InfoSys, a technology consulting company which is also a South African reseller and training partner of **ZOHO**.

Tefo is an MBA candidate with Heriott-Watt University's Edinburgh Business School. He is passionate about Technology and Africa with more than 14 years of experience in the ICT sector in South Africa in roles ranging from programming, systems engineering and business development.

The Importance of Accurate Internet User Data

TIM KATLIC (United States of America)

"Fast is fine, but accuracy is everything."

— Xenophon (Greek historian, author of the Anabasis, BC 431-350)

Internet penetration rates are often used to structure ICT policy and to attract investment. If Internet user data is important to economic growth, why isn't it more accurate?

As most are aware, there is no sure-fire way to quantify the number of Internet users in countries where household Internet access is low. The reason being multiple users per subscription or access point (often a café with dozens of users). The same challenge goes toward counting mobile subscriptions, since many mobile owners rely on multiple carriers.

The ITU puts some effort into estimating the number of Internet users, but the organization's data lags by two years. Still, it has become standard fare in reports, whitepapers, benchmarks, and infographics. The ITU realizes the best method for data collection is the old-fashioned questionnaire, but what happens when that method is rejected at the local level? Thus is the other challenge we face with finding "good" data.

On top of timeliness, there is no true "apples to apples" method for comparing Internet penetration rates across nations. Issues arise with how the ITU stats are sourced. The ITU relies upon government websites and operators' annual reports for nations that do not respond to the annual questionnaire. It's not reasonable to assume all operators collect data using the same means.

So, is any Data better than no Data?

Internet World Stats routinely publishes updated Facebook user data at a country level. This data is some of the best available – it's direct from Facebook itself and can be determined in realt-time. Of course, the set is limited to users who report a location, and at that, their *actual* location. Still, one would imagine that the Facebook user data under-reports the number of real Facebook users in a given nation since many users do not provide more than just a name and photo. However, we find the opposite if we are to merge current Facebook and ITU data.

In October 2010, we, oAfrica, observed the discrepancy, noting how "Botswana and Sierra Leone have surprisingly high Facebook usage rates that are in the vicinity of South Africa's 60%." Over one year later, Botswana and Sierra Leone have Facebook usage rates of over 120% – meaning that there are more Facebook users than Internet users. This is logically impossible. In fact, if we are to hold the IWS data at face value, Botswana, Central African Republic, DRC, Equatorial Guinea, Ethiopia, Libya, Mauritania, Mauritius, Namibia, Sierra Leone all have more Facebook users than ITU data suggests.

The ITU should at least update a subset of data to reflect third-party sources such as Facebook. Even if it means sacrificing traditional methodology, another set of data could be updated throughout the year with the caveat that it is sourced using mathematically risky methods.

National Regulator vs. ITU

Tanzania Communications Regulatory Authority (TCRA) recently cited an 11% Internet penetration rate, with 5 million Internet users in the country. At the same time, the ITU quotes fewer than 700,000 Internet users in Tanzania as of June 2010. Even in booming East Africa, Internet adoption rates haven't hit 700% in the past year-and-a-half as suggested here. Either the ITU's questionnaire in 2010 produced extremely conservative findings or Tanzania's regulator needs to re-evaluate its subscriber data. The ITU must have conferred with TCRA when they last gathered data, but the discrepancy suggests otherwise.

ITU Internet numbers are rightfully authoritative and grab the attention of the public, but they should be used with care. Instead, consider citing local data when possible. It's more targeted, more pertinent, and usually more interesting. Regional habits vary and may not be applicable for the nation at-large. What's true for Nairobi is not true for Mombasa, let alone rural Kenya. National data would most likely combine all of the data into one bucket, thus hiding subtle trends.

On the bright-side, regional surveys and national regulators often provide relatively accurate data (be sure to read their methodologies first). And it's more granular than simply the number of Internet users. And it's current. Unfortunately, such data is difficult to find since the resources needed to conduct a survey are scare. For now, rough estimates will suffice for creating policy, attracting investment, and charting growth, but the time will come when precise data is necessary. After all, stakeholders with the most accurate pulse on ICT growth will have a leg up on the competition.

Originally from New York and now residing in California, Tim Katlic has been involved with the online African space for multiple years..

Tim is publisher and editor of **oAfrica** which is the product of countless nights and weekends of research and labor. (Tim currently works full-time during the day as an analyst for an Internet company.)

Tim holds a BA in Physics from Bowdoin College in Brunswick, Maine. It was here that he gained a liberal arts background and began to understand the need to work for the common good. His first memories of Africa come from the 3rd grade: memorizing the capital of Ethiopia and reciting the names of five African nations in less than 20 seconds. Years later, he believes every African should have the right to Internet access. He also would like you to not take your bandwidth for granted.

oAfrica

The Influence of Technology on Governance in Africa

WILL MUTUA (Kenya)

> *"A functioning, robust democracy requires a healthy educated, participatory followership, and an educated, morally grounded leadership."*
>
> ***— Chinua Achebe***

Kenya Tweets, a Kenyan social media research and consultancy firm recently released the first of several reports investigating the use of Twitter by various presidential candidates ahead of the 2013 national elections. This first report (a mini-report really) investigates Martha Karua's engagement on Twitter: mentions, hashtags, sentiment analysis, key words used in tweets by her or about her and other such interesting tidbits from analysing her activity on Twitter.

While the Martha Karua Twitter report has some interesting observations (such as the fact that most engagement comes via mobile Twitter clients), the overall issue of how social media and other Internet-enabled technologies are changing the face of government, governance and how citizens engage with their political systems is quite interesting.

Africa's history as far as government and governance goes (generally) has not been entirely positive. Many countries faced significant governmental challenges shortly after gaining independence from colonial masters.

Many African states have in times past been associated with coups and dictatorships with citizens' rights being trampled upon with impunity. There are still many challenges for African states as far as governance goes, but there has been some progress in recent times.

There are states that have had great improvements in governance while others have trudged along but overall the situation is improving. The 2010 McKinsey Global Institute's Lions on the Move cited the reduction of armed conflicts across the continent as one of the key enablers of Africa's changing economic environment as well as key government initiatives to improve macroeconomic conditions and a better business climate.

The Mo Ibrahim Foundation has led the way in trying to highlight the issues of governance in Africa and measuring how well African states are governed. The organization, founded by

Mo Ibrahim one of Africa's premier business people particularly in the mobile telephony industry, aims to encourage good governance and leadership in Africa through various initiatives.

Two key initiatives carried out by the foundation are a $5 million prize awarded annually to an exceptional African leader and the Ibrahim Index of African Governance (IIAG). The IIAG gathers data on a variety of indicators and ranks African states according to how well they are governed. The ranking scores nations on the broad issues of Safety and Rule of Law, Participation and Human Rights, Sustainable Economic Opportunity and Human Development in an attempt to statistically measure the state of governance in African states. According to the index, overall continental governance has improved from 2000 to present despite there being countries and regions that have shown mixed signs over the period – in fact this year, no African leader was able to win the Ibrahim Prize!

Back in 2009 Mo Ibrahim published an article in the 'Innovations' journal titled "Prerequisite to Prosperity: Why Africa's Future Depends on Better Governance" in which he argues that good governance is imperative for Africa's growth. To quote the article:

> *"Africa and its citizens will never take advantage of the opportunities presented by its own boundless potential without good governance. The most pressing issues hinge on proper rule: without the proper administration of a state's resources, there can be no environmental sustainability; without rule of law, no human rights… Nothing will happen without good governance".*

But the question is – how is technology affecting the state of governance in Africa?

Power to the people

What happens when ordinary citizens are exposed to a wide array of information and ideas from all sorts of places?

There is a saying that 'knowledge is power' if there's one thing that today's information technologies (led by the Internet) have done is to empower people. We live in a world where we are overwhelmed by information, in fact access to information has become as cheap as typing a search query into Google or whatever other search engine and you

automatically get millions of results even for the simplest of queries. Furthermore, the information we are exposed to is not limited to sources that agree with our cultural context.

We are exposed to divergent concepts and foreign ideas, ideas that challenge our assumptions and give us a window to other possibilities. Clay Shirky in his… asks*" What happens when a new medium puts a lot of new ideas into circulation?"* from the telegram to the radio to the printing press, the television, the telephone and today, the Internet? Clay answers, "The more ideas there are in circulation, and the more ideas there are for individuals to challenge those ideas".

Not only is the Internet and the World Wide Web exposing us to loads of information, and new ideas (a consumer perspective), the same medium is allowing people to contribute to the body of knowledge and ideas on the web (a producer perspective), never before has it been easier or cheaper to create and disseminate knowledge in a wide variety of formats (text, images, audio, video), than it is today (the producer perspective). Other mediums prior to the advent of digital technology and the Internet have mostly been limited to consumption. With today's technology individuals are not only exposed to new ideas but can react to those ideas almost instantaneously by for example commenting on a blog post or even faster, hitting the re-tweet button or 'liking' something on Facebook.

This capability is also being made more and more available to people at all levels of society. Internet-enabled services are finding their way and diffusing even to the 'fringes' of society though they are not being delivered in the way we would normally expect i.e. access via a browser. Google for example leveraged ubiquitous SMS technology to deliver some of their services including search and chat, other companies have figured out how to bring Facebook and Twitter to 'dumb' phones, or take BiNU that aims to 'turn your phone into a smart phone'. So the argument that rural folk or the continent's poor population cannot be influenced by the internet is not that accurate.

So what happens when citizens have this kind of power?

1. **Influence:** Citizens are more than ever susceptible to being influenced by external ideas and concepts. One of the hallmarks of dictatorial rule is that citizens are usually limited in terms of access to information. Usually, all media in dictatorial regimes is closely

monitored or even directly controlled by the regime. The logic is very simple – if people are easier to control if they are ignorant of other possibilities, they have nothing else to aspire to. Africans across the economic spectrum are being introduced to the internet even on dumb phones, giving them a gateway to a whole new world of information, new ideas. That means that they have alternatives they can aspire to other than the status quo.

2. **Expression:** Secondly, this is giving citizens a voice. People quickly figure out that they can leverage internet-based technology and services to air their opinions on all sorts of things. Governments can expect to find citizens openly asking questions about all manner of things. At times public discontentment on the state of affairs has it's roots online but eventually spills over into the physical world. A recent example of this in Kenya is when Kenyans on Twitter turned to protests against the government when MPs proposed outrageous pay packages. Today, a tweet can lead to a revolution

3. **Connection:** The previous two points are made even more powerful by the capacity to connect and share on the internet & with internet-enabled technologies. The social web gives unprecedented scale to the reach of influence and expression. Scale of expression – Individuals can find an audience for what they have to say, even if their government is not listening to them and even sympathize with them Scale of Influence – Individuals through their actions online can influence thousands and millions from behind their computer screen

How government reacts?

It would appear that governments, even democratic ones are not designed to cope with this kind of scale of public opinion. Governments today have to deal with the complexity of a context where flow of information is pervasive, rapid and difficult to control. Even when governments shut down internet access as we have seen happen in recent times such as during the Egyptian uprising, there are groups that will go even further. Hacktivism has become a serious threat to governments around the world. So what can governments do? How are they reacting?

Maintaining status quo

“We spend our time responding rationally to a world which we understand and recognize, but which no longer exists.” (Eddie Obeng)

Governments have to deal with the reality that things have changed. Technology has changed the game and governments have to deal with it. They have to expect citizens who are ‘switched on’, who know more and question more, are demanding more transparency from their leaders and putting pressure on their government.

1. **Engage citizens (particularly youth) on the internet:** The worst thing any existing government can do today is to ignore the reality of today’s cyber-connected world. It’s here and it’s here to stay. Governments should make efforts to engage their citizens on the web, particularly the youth. Today’s youth are digital natives, they reside on Facebook and Twitter and other online communities. Governments should seek innovative ways to create a presence and engage in these very communities. Africa’s population is headed in the direction of having a youth bulge. With the youth forming the lion’s share of populations in African states, and those same youth being digital natives, it goes without saying that governments should seek out these young people in the places where they are to be found – online and on mobile.

2. **Leverage technology:** Furthermore, governments should seek to leverage technology in the actual process of governing. This goes beyond just service delivery. It now involves open data initiatives and other such initiatives that demonstrate transparency.

It would be quite interesting to emperically measure the impact of technology on governance in Africa. Perhaps something Mo Ibrahim’s foundation should consider investigating?

Will Mutua is the founder of **Afrinnovator**, an internationally renowned blog.

Afrinnovator is an invaluable resource for anyone interested in technology and economic development in Africa. As a consultant, author and publisher Will Mutua contributes invaluable local knowledge and analytical insights into the development of technology in Africa, in particular on topics including innovation, entrepreneurship, and growth of IT- and start-up scenes.

Will is also the co-author of a book titled '**Innovative Africa: The new face of Africa**' a collection of essays on technology innovation & entrepreneurship in Africa published in 2012.

AFRINNOVATOR
Technology Innovation and Entrepreneurship in Africa

My Mobile Advertising and Marketing Perspective

JONATHAN MACDONALD (United Kingdom)

> *"I'm a great believer that any tool that enhances communication has profound effects in terms of how people can learn from each other, and how they can achieve the kind of freedoms that they're interested in."*
>
> ***— Bill Gates***

In the early nineties I bought my first mobile phone. It was a first generation Nokia and I was the only person I knew who had a mobile. Nobody knew my number and within a few days I started thinking it was pointless owning one as I had no reason to ever use it. Eventually, however, more people started to own a mobile and numbers were rapidly exchanged. Over one particular 6 month period the phone sizes slimmed down, battery life increased, and at least half my friends had mobiles.

It was at this point I realised that mobile could be an incredibly useful conduit between what we have and what we need.

Within a month of SMS (text) being enabled on phones I instantly saw a use in the property market and set about creating a service called 'SMS HomeSpec'. This was my first adventure in mobile marketing.

Basically my idea had 5 components:

1. A "For Sale" sign outside a property displays a number that a prospective buyer could text with a reference word or number that identifies the property they are interested in
2. The prospective buyer receives a text back with more details about the property (e.g. number of rooms, size of plot, etc), along with a number to call to set up an appointment
3. When an appointment took place, the number could be cross-matched with the prospective buyer so the effectiveness of the campaign becomes trackable end-to-end
4. An Estate Agent/Realtor can choose whether to cover the cost of the initial text exchange or alternatively the prospect pays for sending/receiving the information

5. Either way, SMS HomeSpec earns money every time an enquiry is made

I went around various companies assembling information on how this could come to life, and spoke to the top 5 UK Estate Agencies. The biggest hurdle was convincing the Agencies this could add value to prospects and their sales pipeline. Eventually, however, people started to realise, but to this day my original idea still hasn't been properly exploited to full effect in my opinion.

Moving forward by a decade I arrived at Blyk, invited by the former President of Nokia to head up the brand and agency side. The model was simple, people can speak and text without charge, in return for being connected with useful content that they have stated an interest in.

In the brilliant 'Communities Dominate Brands' book by Tomi Ahonen and Alan Moore (http://www.communities.futuretext.com/), the reality of people power and conversation dynamics was made abundantly clear and at Blyk we certainly were inspired by that. However, when it comes to liaising brands and people, a brand cannot itself have a conversation, people make conversations, and this hints at of the largest issues we faced with the Blyk model. In summary (and without commenting on the management and financing of the company), the two main issues were:

1. Advertising and marketing is typically a one-way broadcast mechanic where messages are pushed out containing little request for dialogue response, and no way of responding individually. This is due to the way advertising and marketing has worked to date.

2. The Media industry is based on reach and specificity but the latter is only valid if it doesn't undermine reach (i.e. reaching 1 million people who are potentially the 'right' target audience is widely considered more advantageous than reaching 100,000 people who are definitely the 'right' people). This is due to the way inventory is planned and bought.

Despite thousands of extraordinarily deep and personal communications from Blyk members who seriously valued the service, and response/redemption rates that have yet to be surpassed up to now in July 2012, the model simply was not able to change the two points highlighted above. We sure tried though. In retrospect it was an un-winnable mission but hindsight is 20:20 and it's the effort that counts.

Following my time at Blyk I went on to create the Global mobile strategy for Ogilvy and spent a long time speaking around the world about mobile advertising and marketing. I became quite well known in the field and many companies and individuals asked me to advise them, one notable instance was Alcatel Lucent's Optism platform, for example.

I then created a system called Human Dialogue, a behavioural economics engine that generates conversation dynamics automatically, based on the types of people inside a dialogue, so that campaign creators can include conversational subtleties that can address biases and heuristics that normally would stop people engaging. This wasn't to remove the human creativeness but to enhance it to become a performance media.

However, when showing this to the organisations (that desperately needed their mobile advertising and marketing to work), there was still a lack of understanding in the way that multi-way dialogue could work alongside, or replace, one-way broadcast.

The thing was, the systems weren't set up for it, the billing mechanisms didn't support it, the creatives hated it, and the senior managers were just trying to get promoted rather than rock any boats…meanwhile the user/consumer/customer/person at the other end of the device was continually getting useless and irrelevant information from companies they didn't trust. Human Dialogue was only adopted, once, in the education field to increase school attendance. Which, of course, it did. Yet this reality happened too late. There is a patent in place though ;)

These experiences are why I no longer talk a great deal about mobile advertising and marketing. It's not because I don't believe in the real value it can create, it's because the way in which most practitioners are executing is fundamentally sub-standard in relation to the potential, and Lord knows I've waxed enough lyrical about that. Interestingly, my book ('The Communication Ideal' - http://thisfluidworld.com/ourthinking/the%20communication%20ideal.pdf) from 2008, still contains many unanswered questions and numerous under-exploited opportunities.

I remain an observer of personal communication practices and a fan of remarkable engagement, but more than that, I remain a firm believer in the fact that if all media is

digitised and all digital is mobilised, the best practices in advertising and marketing are identical to the best practices is human-to-human engagement.

There you have it.

Very simple, and apparently extraordinarily difficult to implement.

Jonathan MacDonald is a talented businessman and entrepreneur with two decades of experience assisting over 100 companies globally in the creation and execution of commercial and digital strategies during his career

Jonathan has, among other things, been responsible for creating the world-wide mobile strategy for Ogilvy, played a key role launching Blyk, an ad funded mobile network, created Ministry of Sound's digital strategy, launched a Sky TV channel, and advised the British Government on how to support the music industry, in addition to having been a Chairman of the British Music Industries Association

Jonathan's vision, experience, contribution to the industry, entrepreneurial spirit and passion makes him a respected thought-leader and a widely requested speaker at key conferences and corporate events around the world. Jonathan is the author of cited books, whitepapers and articles on communication, social media and mobile, and has 100,000+ monthly readers of his **blog**, and 55,000+ **twitter** followers.

How To: Set Off in Mobile Advertising in Africa

JON HOEHLER (South Africa)

> *"The most important word in the vocabulary of advertising is TEST. If you pre-test your product with consumers, and pre-test your advertising, you will do well in the marketplace."*
>
> ***— David Ogilvy***

It's amazing what you can fit into 110 characters or less. I am constantly receiving please call me messages from my cousin who is a university student and on the please call me is a small piece of text based advertising, an insurance policy to be exact.

A please call me (or PCM as they are commonly called) is a service offered by mobile operators that allows a subscriber (Party A) to send a free message to another subscriber (party) asking that person to "please call them back". In South Africa alone, the Vodacom network has approximately 42 million advertising messages that are received daily via the please call me service. That's ALOT of mobile advertising real estate that is now available.

An example of a Please Call Me initiation and delivery (Image Credit: afrinnovator.com)

On the other side of the mobile advertising spectrum, we have mobile WAP banner advertising. A WAP banner is a small advertising banner (image) that is displayed on a mobile Internet site or delivered into a mobile application. If you have played the free version of Angry Birds, chances are you have seen an advertising banner pop onto the screen just as you are about to catapult another angry bird. WAP banner advertising is

growing rapidly across the continent, with InMobi (the world's biggest independent mobile advertising network) delivering around 15.4 Billion WAP banners during Q3-2011 across Africa alone.

Below is an example of a banner advert served through the Android version of the Angry Birds game. The Google-Admob mobile advertising network serves the banner.

(Image Credit: afrinnovator.com)

What are the possibilities for mobile advertising in Africa?

1. Across Sub-Saharan African traditional forms of advertising are limited or simply not an attractive medium, some reasons include: Lack of actual addressable eyeballs and audience,

2. Extremely costly and

3. Lack of inventory to generate the necessary ROI that a campaign requires.

Mobile advertising across the continent is providing a medium that allows an advertising to target a larger audience, and not completely relying on a billboard on a busy road to promote a product or service. Africa's current population is in excess of 1.1 billion people, with approximately 650 million mobile connections in Africa used by approximately 450-500

million unique subscribers. The audience size that mobile advertising can target is exponentially larger that is possible with traditional forms of advertising like TV, Radio and print.

What mobile advertising opportunities are available?

(Image Credit: afrinnovator.com)

Please Call Me (PCM) advertising and WAP banner advertising are some of the most commonly used mobile advertising channels. In combination, South Africa is still probably the largest proponent of these two channels, but other markets across the continent are starting to take up these services.

Vodacom South Africa has really lead the way in terms of a mobile network operator actively promoting the use of Please Call Me's as an advertising channel. Vodacom Mobile Media (www.vmm.co.za) allows an advertiser to book please PCM's based on a standard rate card. With the success of PCM's in South Africa, Vodacom will more than likely begin

rolling out similar opportunities into its international operations in Africa allowing brands to start utilizing this medium in other parts of Africa.

For advertisers who prefer a richer media engagement WAP banners provide an opportunity to promote, push and engage with consumers via WAP enabled feature phone right up to and including high-end smart phones. Two of the biggest players in this space in Africa are InMobi and Google-Admob. There are other players in the market as well including Buzz City, Ad Dynamo and Pollen8. The mobile advertising networks allow for semi-targeted advertising, example: By country, by handset type or in some cases like Pollen8 by demographic. To the right is an example of a WAP banner served into the BBC mobile site.

Tips and tricks on using mobile advertising

1. Response rates

Currently mobile advertising is still a shot gun approach medium where the response rates to adverts can vary greatly based on variables like (1) the product / service being advertised, (2) the word or artwork of the advert, (3) The call to action on the banner, (4) The incentive for the customer to engage and (5) The theme of the advert

If you are an advertiser wanting to use mobile advertising you should be aware of the response rates for a respective campaign and align those from the out set with your goals for the campaign. In some cases a ROE (return on engagement) vs. ROI (return of investment) mind set needs to be used.

2. It's a blind network, for now

A blind network is a mobile advertising network that "doesn't really know" who the end consumer is that is receiving the advert. WAP banners are published onto thousands of mobile Internet sites (publisher sites) in a shotgun approach. On one day, your mobile banner could appear on a sports mobile portal and the other on a news and lifestyle portal.

When booking a mobile advertising campaign, there are a couple segmenting elements you can apply to increase the possible response rates of your campaigns. Some networks allow an advertiser to target based on handset type, example: only blackberry users. Other networks allow an advertiser to segment what publisher portals (the actual mobile internet

sites) their banner could appear in, for example: A sports show brand having their banners served into sports portals.

Mobile advertising networks are becoming more sophisticated and increasing their targeting capabilities. When booking a campaign, always keep this in mind.

3. Understand the medium

It's important to always understand the medium and how end users will engage with the advert being displayed. PCM's lend themselves in most cases to responses using a premium rated SMS or USSD service with a low end user charge. Generally the subscriber sending the PCM request (Party A) has no (or low amounts) of airtime and might not necessarily have a WAP enabled handset. However the subscriber receiving the PCM (Party B) might have a high-end handset and might be interested in the service being advertised so a mobile site might be a good option to explore (where possible and appropriate). PCM's only have 110 characters so an advertiser really needs to be creative with the limit space available.

WAP banner advertising on the other hand, allows for richer engagements as only a subscriber with a WAP enabled handset or smartphone can view the banner. The one tip I can give any advertiser, if you are going to execute a click through campaign from a WAP banner please direct the subscriber to a site optimized for mobile devices. Majority of devices that engage with WAP banners are feature phones that cannot display a normal web site like an iPhone or Galaxy SII.

4. Campaign reporting

It's important to understand and track the success of a mobile advertising campaign. WAP banner advertising lends itself to more granular reporting. So when analyzing your campaign especially when you as an agency are presenting the reports to a client, provide an understanding of the actual handsets that engaged, date stamps of engagement activities and so on. This data will assist in planning the next campaign so more targeted techniques can be applied to the campaign.

5. CPM vs. CPC vs. CPA

A challenge for any advertiser using mobile advertising is understanding the pricing and costing models to be used, i.e.: CPM (Cost Per Mille (per thousand), CPC (Cost Per Click) and CPA (Cost Per Acquisition). The mobiles ultimately affect the execution and in turn the budgets that can be assigned to a campaign.

(a) CPM, or cost per Mille, is the charge that is assigned for the delivery of 1000 adverts via the particular ad network. For example, PCM's on Vodacom SA sell for R6 per 1000 adverts delivered (CPM). CPM type campaigns work well for campaign where you just want to get the word out without any "call to action"

(b) CPC, or cost per click, is the charge assigned when a subscriber actually clicks on a WAP banner. So if you have a CPC of R2 per Click, you can stipulate that you would like 20,000 clicks. The ad network will continue to serve your banners until 20,000 clicks are actually completed.

(c) CPA, or cost per acquisition, is the charge assigned to an actual lead that was generated from the campaign. For example, a user clicks on a banner and is directed to a mobile site. The user then actual engages on the portal and a sale is made (depending on the product / service being sold).

Mobile advertising is growing across the continent. With more and more inventory being discovered and utilized by mobile operators, media owners and third party ad networks, the scope and demand for this medium is going to explode in 2012.

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