



CONNECTED AFRICA Is this the new Silicon Valley?

A Wenham Carter Career Perspective

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Think of Africa and the first thing that comes to mind probably isn't its thriving tech scene. In Western mainstream media, famine and political unrest make the headlines while African innovators and entrepreneurs often go overlooked. But with a growing population, and internet access and smartphone use on the rise, African markets represent a unique and sometimes untapped opportunity for startups and corporates alike looking to capitalise on the continent's development. And as ordinary Africans become more connected and tech savvy than ever before, home grown entrepreneurs are emerging in the new hubs of Lagos, Nairobi, Accra, Johannesburg and beyond, sometimes dubbed 'Silicon Lagoon' or Silicon Savannah'. Here we will look at a few developments in the new 'Connected Africa' and some of the challenges the continent is facing as it enters the digital age.

The explosion of mobile

The defining characteristic of the boom in African connectivity is undoubtedly mobile. As GSMA finds in this report, at the end of 2015 just under half (46%) of the African population subscribed to mobile services, representing a compound annual growth rate of 13% between 2010-2015 (the global CAGR in this period was 6%). Following this dramatic increase, the growth in mobile subscriptions is still rising, but slowing to converge towards the global average. However affordability remains a challenge in many parts of the continent, particularly in rural areas, which partially explains the fact that Africans are less connected than other developing nations.

Mobile internet penetration, on the other hand is predicted to double, from 28% of the population to 55% by 2020, driven by new network rollouts of 3G and 4G services as well as the decreasing price of smartphone handsets, according to the latest figures. And by 2020, it's anticipated that the number of mobile internet users in Africa will overtake Europe to become the second largest region globally. Many Africans are coming online for the first time through their smartphones, as the cost is significantly cheaper than desktop or laptop computers.

However these figures don't tell a complete story. The region's three dominant markets, Egypt, South Africa and Nigeria account for about a third of the mobile subscriber base according to GSMA, with the lowest 30 countries accounting for 10%. Certain markets are likely to take the lion's share of smartphone uptake too: including the established mobile markets of Egypt, Kenya, Nigeria and South Africa, in addition to newer regions like Algeria, Cameroon and the Democratic Republic of Congo – all of whom have seen significant investment in 3G, 4G LTE and terrestrial fibre rollout.

AFRICAN TECH

Fintech in numbers

Financial inclusion is well documented in the figures - in 2006, just 20% of the adult population had access to financial services, but the figure had risen to 67% by 2013.

INFRASTRUCTURE IS HINDERING MOBILE IN SOME AREAS

The last few years have seen investment money using their mobile phone. On signing in telecoms infrastructure from private up, people can deposit cash into their M-Pesa companies, governments and international account using one of the many registered agents, and then use the service (for a small fee) organisations with the aim of bringing Africa over a secure, SMS based system. Users can online - take the 3100 mile long fibre optic cable laid along the ocean floor between transfer money to other M-Pesa accounts, pay Mombasa and the UAE, bringing high speed bills, buy airtime, pay wages or send and receive broadband to five countries in East Africa, or money from abroad. They can also withdraw the Central African Backbone, a World Bank cash out via the agents. M-Pesa transformed Kenya's largely cash based economy, allowing initiative underway to connect central African countries via terrestrial fibre. However, poor many people, particularly those in poorer or rural communities, to enter a more formalised service is holding back development in many areas. Nearly two thirds of the population in financial system. Financial inclusion is well Sub-Saharan Africa live in rural areas, which are documented in the figures - in 2006, just 20% usually poorly served by telecoms infrastructure of the adult population had access to financial as well as subject to unreliable electricity services, but the figure had risen to 67% by 2013. supply.

Furthermore, it's often not commercially viable to improve this due to the cost of serving such large land expanses for relatively few users. Initiatives such as infrastructure sharing, satellite communication, drones and balloons have been pursued to solve this problem. Facebook announced they would be launching a satellite to address rural broadband access in Sub-Saharan Africa – and although they were set back when the satellite was destroyed on a SpaceX launch in 2016, theirs and other similar projects are still ongoing.

Mobile Money: The M-Pesa success story

Mobile has been a theme in many of 'Connected Africa's' success stories, and M-Pesa is one of the most notable. At the time when mobile banking apps were being hailed as a gamechanger in m-commerce in Europe and North America, millions of Africans were already using their phones for everyday payments. M-Pesa, (M stands for mobile, Pesa means money in Swahili) was launched by Safaricom in Kenya in 2007 to enable Kenyans who didn't have official bank accounts to easily transfer

M-Pesa now operates in 10 countries worldwide: Kenya, Tanzania, Democratic Republic of Congo, Mozambique, Nigeria, Egypt, Lesotho, India, Romania and Albania. A year ago, Safaricom reported a 27.1 per cent growth in active M-Pesa users globally, and despite failing to gain traction in South Africa, M-Pesa now boasts a total subscriber base of 29.5 million and rising, according to Vodafone, who manages Safaricom.

The real success of M-Pesa is told in the lives of the people in Africa and around the world who now have easier access to safer ways of managing their finances and running their own businesses. It is increasingly difficult to do business in today's world without a fast and secure system for cashless payments, and for many Africans M-Pesa played a key role in opening this up. As well as being a win for the unbanked in the global fintech market, M-Pesa helped to cement Kenya's position as central to Africa's technology start up scene.

The Future is V2X

Mark Essein, founder and CEO of Hotels.ng, the largest hotel booking site in Nigeria, believes that Africa's relative underdevelopment could serve to its advantage when it comes to technology: "Let's not play catch up. Let's not think about copying what the West has done. Rather, let's think about skipping a generation and then inventing what nobody else has invented." He points to M-Pesa as an example of Africans leapfrogging the West to become the first region to widely adopt m-commerce for everyday use.

And it's true that there are more successful African grown start-ups than ever before; driven by better internet access and widespread smartphone adoption. In July 2016, GSMA counted 314 tech hubs across the continent, of which around 60% were incubators or accelerators (ie companies that actively provide skills, funding and a network to start-ups pre or post launch). And this number is rising - the World Bank counted only 120 the year before. Silicon Valley is showing an interest too; when Mark Zuckerberg visited Africa

last year, he met with solar wifi backup provider BRCK, and digital prototype start-up Gearbox, both of which have come out of the iHub incubator. IHub, co-founded by Ushahidi founder Erik Hersman in 2010, now boasts a membership of 20,000 and a start up alumni of 152 and rising. In the earlier stages of the start-up scene, it influenced the growth of many similar tech hubs across the continent.

On the venture capital side, funding for African tech start-ups has increased tenfold, from \$41 million in 2012 to \$414 million in 2014, and is expected to rise to more than \$600 million by 2018. While this remains modest compared to other markets (Silicon Valley saw \$128.7 billion in VC investment in 2015 alone) it's clear that the tech hubs emerging in Lagos, Accra, Nairobi, Dakar, Kampala, Cairo, Johannesburg and beyond, are exciting places to be for budding African entrepreneurs. Technology is having a real impact on the lives of people across the continent in a diverse range of sectors: from Farmerline and iCow, mobile based services that give farmers in rural areas access to market information to help increase their productivity, to

iROKOtv, a Nigerian on demand web streaming service which gives access to over 5000 Nollywood films.

Interestingly, there seems to be a turning of the tide when it comes to Africa's 'brain drain' - the phenomenon of talent migrating away from the continent in search of better opportunities abroad. The technology space has seen an increase in Africans educated abroad return to their home country to work - all three of Africa's most recognised e-commerce start ups; Jumia, Konga and MallforAfrica – were founded by Nigerians who were educated in the US before returning home to start their businesses.

In Focus: 3 African grown start ups

Ushahidi

Crowdsourcing software company Ushahidi was brought into existence to map out the violence occurring during the 2007/2008 Kenyan elections, and from there grew into one of the most wellknown start-ups to emerge from Africa. The original platform was simple, allowing users to log data points via web postings, SMS or emails, which would then appear on a map detailing the date and nature of the incident. Now it's more sophisticated, with machine learning algorithms to extract and aggregate relevant information from many different sources, and organise it in an easy to understand form.

Founder Ory Okolloh, a Kenyan lawyer and activist, came up with the original concept for Ushahidi, believing that creating a simple open source platform would give critical information to people in the midst of crisis. As she blogged on Ushahidi's inception in 2008, "We believe that the number of deaths being reported by the government, police, and media is grossly under reported. We also don't think we have a true picture of what is really going on – reports that all have us have heard from family and friends in affected areas suggests that things are much worse than what we have heard in the media". Ushahidi' can be translated as 'testimony' or 'witness' in Swahili, so together with her co-founding team, Erik Hersman, Juliana Rotich, David Kobia and Ory Okolloh (who are all now well regarded in Nairobi's tech scene) Okolloh created a useful way for people to 'testify' in a crisis.

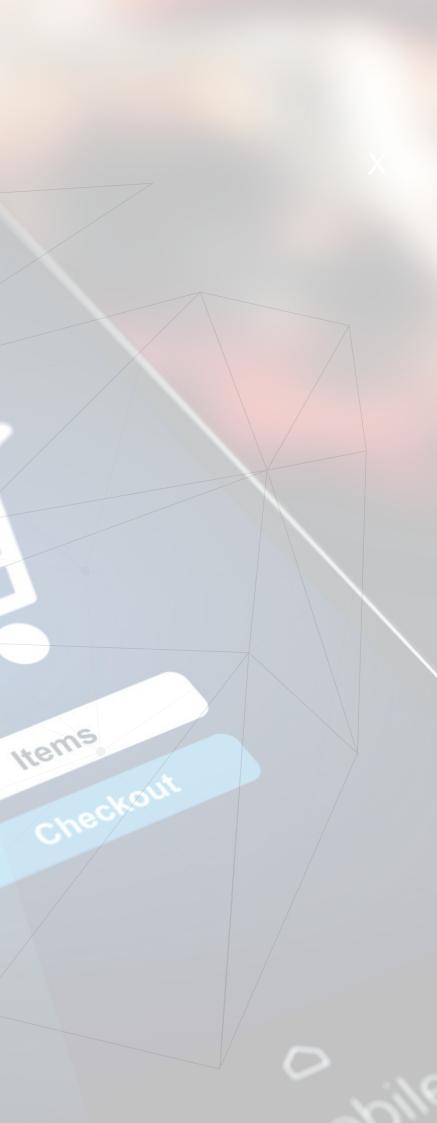
Now in its 10thth year, Ushahidi has been used around the world to record a diverse array of events including the Haitian earthquake, Nigerian election uncertainty, sexual harassment in Egypt, the Gaza war, and recently to track racist violence after Trump's election in the US. Ushahidi has been deployed 90,000 times, with 6.5m posts or 'testimonies' and 20 million unique visitors.



When co-founder Aisha Pandoor wanted to hire a cleaner at short notice during the busy holiday season in December 2013, she found it difficult and time consuming trying to book one – having to make several phone calls to multiple cleaning agencies and referrals from friends in the local area. From this the idea for SweepSouth was born - the Uber of domestic cleaning. Via a secure online portal, users can book and pay for cleaners for a variety of different household tasks, with freedom to customise the length of time, type of clean and date and time. All of the cleaners have been verified, and SweepSouth employs a two way rating system, so that not only do cleaners are incentivised to do a good job, but users are incentivised to be polite to the cleaner too. Founders Pandoor and husband Alen Ribic, believe that the platform provides a superior career choice for domestic cleaners, by giving them access to a wider variety of jobs, as well as allowing them to be rewarded for good work.

In 2015, the SweepSouth team were awarded US \$125,000 in seed funding and acceptance into a four month mentorship for '500 Startups', the well-known Silicon Valley accelerator run by angel investor Dave McClure (the first South African start up to achieve this) as well as gaining media exposure with the likes of Forbes, TechCrunch and DisruptAfrica. Now with over 10,000 users and a further \$600,000 in funding, SweepSouth plan to expand into other African markets as well as diversify their portfolio to include other services such as gardening or childcare. E-commerce has been somewhat behind in Africa, but analysts forecast this is about to change. McKinsey predicts that by 2025, e-commerce could account for 10% of retail sales in Africa's largest economies, around \$75 billion in annual revenue. We're seeing start-ups rapidly grow into larger players – take Jumia, formally known as the African Internet Group, which and now operates across 23 African countries. Konga, another Nigerian born e-commerce company that, like Jumia was founded in 2012, recently announced a multi-million dollar round of funding and seems to be challenging Jumia's market position.

However there are a number of factors which are holding African e-commerce back as Ndubuisi Ekekwe, Nigerian author, inventor and entrepreneur outlines in this Harvard Business Review article. In many African countries, high incidences of fraud have created a lack of trust in storing payment details online, and although this mindset is shifting, there's still a perception that offline business are safer. There's also the issue that a large proportion of Africans still don't have a formal postal address (see here for an interesting example of a UK start up trying to change this) and that despite connectivity being on the rise, there are still lower levels of mobile subscribers, internet access and indeed electrical power than found in more developed markets in the West. Finally, low literacy levels - below 50% in 14 African countries, is inhibiting the adoption of e-commerce. Having said that, change is moving in the right direction for all of these factors, which means African e-commerce is set to continue developing the next few years.



FOOTNOTES

CONNECTED AFRICA:

Wenham Carter has been working with clients in Africa for many years, and we've seen the telecoms and IT sector change drastically with new infrastructure rollout. We expect the landscape to continue evolving as connectivity reaches more Africans than ever before, and see new services and home grown start-ups emerge as a result. We have an extensive network of both local and ex-patriate candidates across Africa; especially in the tech hubs in South Africa, Botswana, Kenya, Nigeria and Ghana but in other parts of the continent too: Angola, Sierra Leone, DRC, Tanzania, Morocco, to name just a few.

If you are looking for high quality talent with experience from one of these markets, or would like to chat with us about opportunities in 'Connected Africa', please feel free to reach out to us at:

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