

Trends in the Mobile Market + Student Innovations

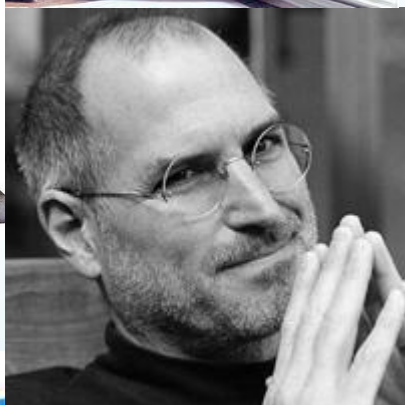
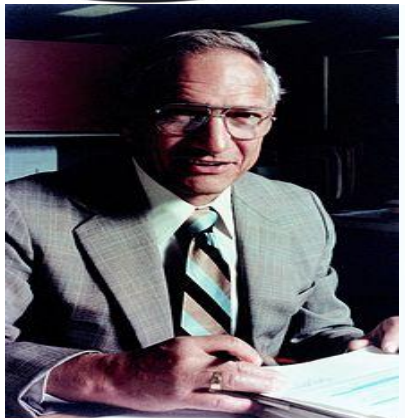
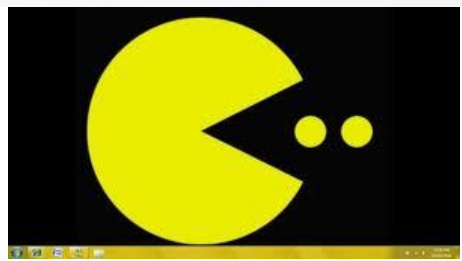
By

James Fowe

MIT's AITI
@Univ. Of Lagos
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Student Innovations!

What we want to see after this talk is a set of highly skilled and motivated Nigerian students daring to produce world-class technology innovations and business startups that solves local problems with global relevance, thereby improving our own lives and accelerating Africa's prosperity.



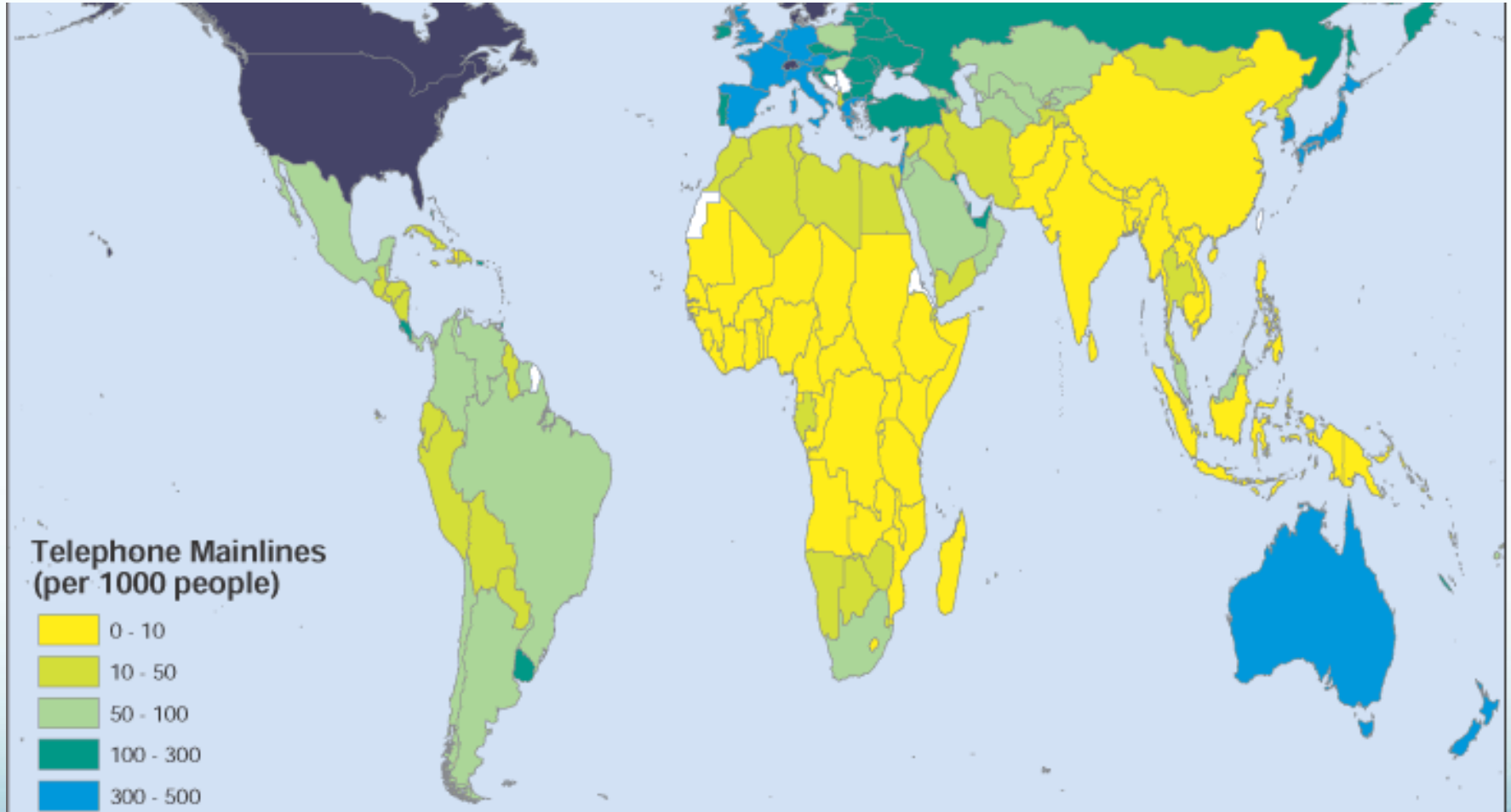
Technology Evolution



My Presentation Abstract @ Univ of Illinois

- This presentation gives an African perspective to the evolution and usage of mobile and internet services.
- It is evident the way communication and computing technology evolved over the last 4 decades and how it overwhelmingly changed our lives. While the rest of the world caught-on with this changes and utilized these technologies to improve livelihood, Africa was largely behind in the 70s, 80s and 90s not until after year 2000 when there was the upsurge of the GSM mobile telecoms in African countries. The common saying in Africa is that the continent is 200yrs behind the developed countries, but **a sudden ray of hope emerged** when we discovered the potential of mobile phones.
- Given the 20% growth rate of the number of mobile phone subscriptions in Africa for the past 5yrs and with over 650million mobile phone subscribers on the continent, definitely there is hope for Africa. The digital dots created by this mobile devices covering both the urban and rural areas in Africa is surely creating a new type of computing and a connected people such that **we can now describe mobile phones as Africa's digital backbone!**
- This has created a new way of thinking and problem solving; Kenya is now very big on mobile payment systems (**M-PESA**), such that a villager fetches (buy) water just by sending an SMS. Cars can be parked in Ghana through the use of a mobile application that automatically deducts payment from the phone credit and gives a parking lot number. In Nigeria, Farmers can get market prices of 24 crops in over 100 local markets across the country using **Nokia Life Tools**. They also get weather information and daily tips on how to improve their farms. In Ghana **mPedigree** is used to validate the authenticity of drugs bought in local pharmacy stores, it is being used to checkmate the influx of fake drugs smuggled into the country. South Africa is already using mobile phones as sensors for Intelligent Transportation Systems to help congestion avoidance and also **in forecasting of environmental changes like Droughts** so as to proactively provide necessary help to people and cattle's in order to prevent epidemic.

Africa's Telephone Penetration in 1990



The Dawn of a New Era



The Dawn of a New Era

With over 620 million mobile connections as of September 2011, Africa has overtaken Latin America to become the **second largest mobile market in the world**, after Asia. Over the past 10 years, the number of mobile connections in Africa has grown an average of 30% per year and is forecast to reach 735 million by the end of 2012

This is the Mobile Internet Era

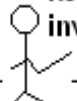
- Is Research and advancement of Mobile Internet only for developed countries ???
- We need a paradigm shift in our thinking ...
- What we need in Nigeria is:
Local Innovations with Global Relevance

Year 2011 to 2012

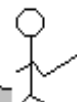
An Upsurge of Tech Startups & Events

- Mobile Web West Africa
- Jobberman Funding
- Mobile Monday Nigeria (LBS, Pitch-Monday, Mobile Money, Get Techie, etc)
- Inside CC Hub: Mobile Startups Show cased at Developer Parapo #DevParapo. CCHub got 40m Naira funding.
- 2 Nokia Developer Training and Nokia's EPROM @ OAU
- Nigerian Startup NollywoodLove got \$3Million funding in 2011. Now Iroko partners they got \$8Million funding in 2012
- Nokia Developer Competition with \$5,000 Nigerian price to be won and 50,000 pounds global price.
- Android Competition, Samsung Dev competition
- G-Nigeria, Google Hackatron, Google @UNN, etc
- Startups Lagos, Garage48, Tech-Open Day, Bar-Camp, Social Innov Camp
- MTN Mobile Apps platform

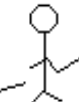
Why MoMo Nigeria ?




Heyyy, i am a C++ guru!
the best in my state.
Its sad.. No one is ready to
invest in my products.




Heyy i develop mobile
apps using Nokia's
MeeGo. If i am abroad i
would ve been able to sell
this online.



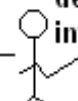
Just wondering.. if Nigeria has
technology savvy guys. How can i find
them ?



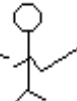
**Every one is an Island on their
own. No one knows nobody or
what is possible in Nigeria.**



Heyy, am a shrewd investor in
IT/Telecoms but its sad ..no
programmers to develop
applications in Nigeria.

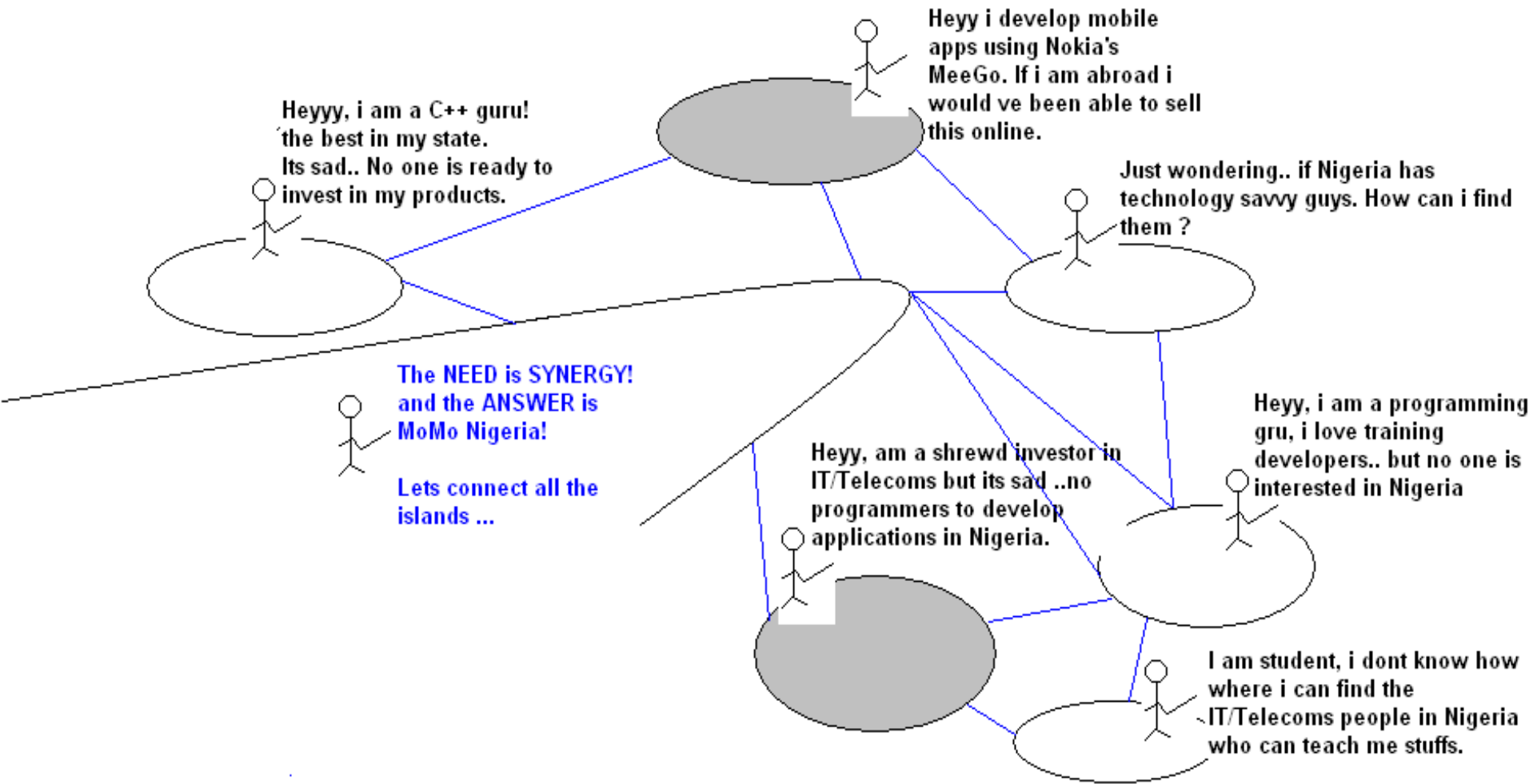


Heyy, i am a programming
gru, i love training
developers.. but no one is
interested in Nigeria



I am student, i dont know how
where i can find the
IT/Telecoms people in Nigeria
who can teach me stuffs.

Why MoMo Nigeria ?





MoMo Nigeria Event – Meet the Players²

Mobile Monday Nigeria ...

Building Nigeria's Mobile / Internet Eco-System

<http://momonigeria.org/>

Email=>info@momonigeria.org

Twitter => @momonigeria

Career-Paths to be a Mobile/Internet Guru

- User Experience(UX) Designer
- Data/Database Expert ...a big-fat sit in the clouds ☺
- Mobile Application Development
- Software Developer/Programmer
- Software Engineer
- Research Scientist
- Solution's Architect / TCP/IP Networks & Interfaces
- Product Manager
- Business Development
- Core Telecoms Eng Skills e.g Transmission, Billing Systems, 3G/GPRS, SMSC, Ericsson/Alcatel Platforms, etc
- Server Operating Systems Admin e.g Windows & Unix

Develop Yourself

- Knowledge has left the 4 walls of University Class-rooms
- Yes. It's a global competition, the only way out is to be a global player! Learn skills up to a world class competence.
- **Get Technical!**

Programming (Server-side & Client-side), TCP/IP & Linux

- Your job can be out-sourced to another country, Yes! and it can also be out-sourced to you from abroad!
- The only way to stand-out in a global competition is to be extra-ordinary. That extra comes from Terrific hard-work + Talent & creativity.
- Take a Pre-requisite Course Titled: **How To Be Self-Taught**

Student Opportunity!

- Tech Business Model for Students = Innovation!
- Start Innovating ... Innovators win competitions!

What I see is ... within 5yrs from now..,
student entrepreneurs in Nigeria can employ
graduates! 😊

Paradigm Shift to be Innovative Students

- Ask Questions, **Create Questions!**
- Redefine... What School and Why School ?
- Stop the mentality of - Wait for the next instruction
- Don't go for Grades ... Go for **Knowledge!**
- Aim to be a world-class competent student like ..Caltech, MIT & CMU
- Think about **Local Problems** and Aggressively find Solutions
- Take ALL your courses like a tech research opportunity or a knowledge for business
- Take your final-year project like a business start-up. Don't settle for less! Even aim to do a publication, except your passion/career direction is not in your course of education.
- Socialize, Collaborate, Train, Setup-events, **Innovate & Make Noise!** 😊

Few Examples of Student Innovations

- Jobberman.com
- Facebook.com
- Yahoo.com
- Google.com
- desmos.com
- Mukoshy.com
- NairaLand.com

Areas of Possible (Realistic) Mobile/Internet Technology & Business Innovations in Nigeria – 2011 - 2020

- Text Processing / Data Mining
- Mobile Payment / Mobile Money
- Outsourcing and Crowd Sourcing Platforms
- Internet/Intranet network access, speed and security
- Mobile Wireless (Bluetooth, NFC, Wifi, etc)
- Quality Educational Services
- Tablets/Pads & Mobile Apps
- SMS to Web-applications
- Voice to Web-Applications
- LBS, Mobility & Navigation (in&out-door)
- Social/Human Networks, Ads Services & Social Media
- Infrastructure for Cloud Platforms (IaaS, PaaS)
- Computer Vision
- Entertainment & Non Entertainment Games
- Search (not web)
- Football (...build an intelligent & intuitive service. Consider Game Theory)
- Anything Video – Broadcast, Uni-cast, Multi-cast, Self-cast, Offline-cast 😊

Here is the truth:

Its good to be a Developer,
but right now we need more
Software Engineers
and
Research Scientists
in Nigeria

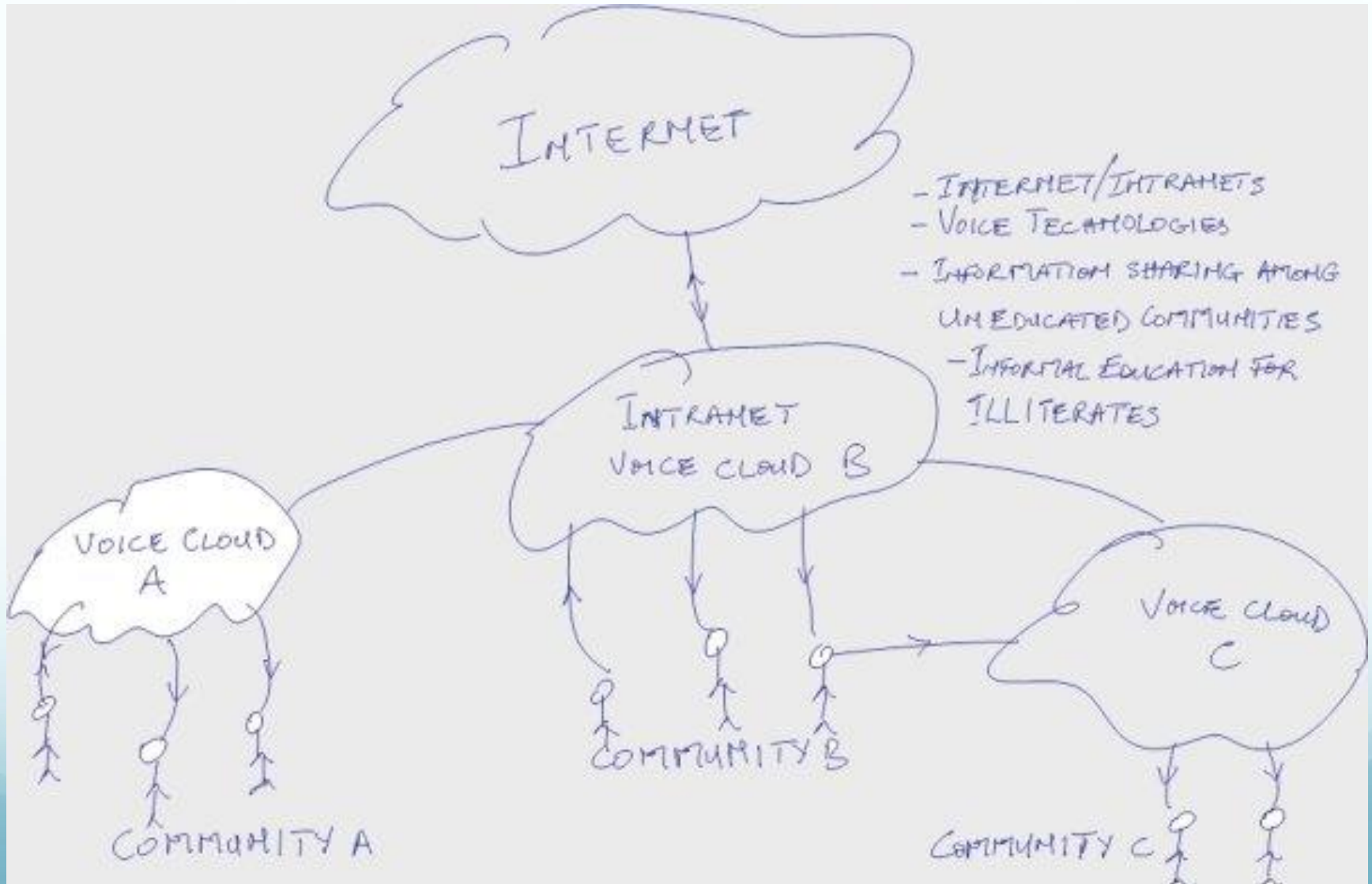
What is Next – Mobile Cloud Services



What is Next – Mobile Grid Computing & Crowd Sourcing



Voice Clouds



Vision 2020



A future where Africa has exploited the potentials of the new hope in mobile computing, by **producing ingenious solutions to local problems**, thereby meeting key needs of a low-income Family because they have a **mobile phone!**

Let's settle-down & Innovate!

Don't run-to Paradise ... Build It!

Caution!
You could become this ...



Enough talk...
Lets Get to work!...



twitterID = @Fowe

Thank You

- Any Questions ?

References

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