

# Digital Transformation

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Presented during the MSRA Conference  
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# OUTLINE

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1. Overview of internet users in the world
2. Internet use in Africa and Kenya
3. E-Learning
4. What the government has done
5. Q & A



**JAN  
2014**

## GLOBAL DATA SNAPSHOT

**7,095,476,818**

TOTAL WORLD POPULATION



**52%**

URBAN

**48%**

RURAL

**2,484,915,152**

INTERNET USERS



**35%**

INTERNET PENETRATION

**1,856,680,860**

ACTIVE SOCIAL NETWORK USERS



**26%**

SOCIAL NETWORKING PENETRATION

**6,572,950,124**

MOBILE SUBSCRIBERS



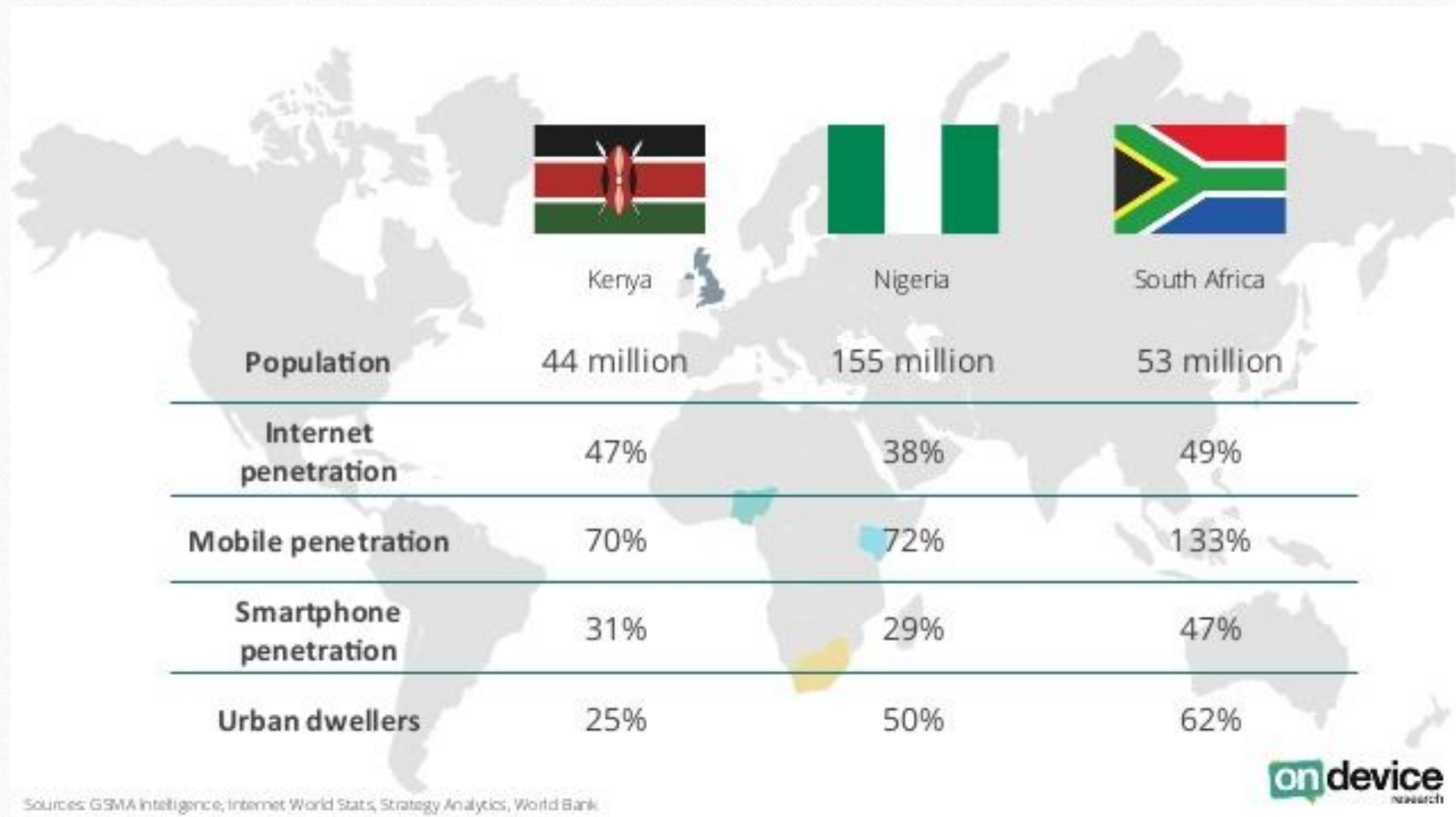
**93%**

MOBILE PENETRATION

We Are Social • Sources: US Census Bureau, InternetWorldStats, CNNIC, Tencent, Facebook, ITU, CIA

wearesocial.sg • @wearesocialsg • 5

<http://www.internetworldstats.com/stats1.htm>



# What does this mean in education?

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- Education has been transformed, from basic education to higher education-Education now through eLearning
- Capacity building programs are now technology driven
- Economy changes at all levels-Transactions for learning purposes eg through M-pesa,
- M-banking-transacting business online
- E-Commerce-buying and selling happening virtually-Kenya education Cloud
- Communication- effective and efficient
- Automated office functions-paperless-E-registration of exams, online transmission of learning progress



# Definition of E-learning

E-learning is;

- ❑ Learning that is enabled by the use of digital tools and content. Usually involving interactivity between the learners and their teacher or peers.
- ❑ the learning process created by interaction with digitally delivered content, services and support
- ❑ The delivery of content via all electronic media, including the internet, intranets, extranets, satellite, broadcast, video, interactive T V, and CD Rom.
- ❑ encompasses all learning undertaken, whether formal or informal, through electronic delivery.

# Where are we in Education?

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- Deployment of digital literacy program in primary schools
- ESP-Economic stimulus program-supplied hardware and software to 2500 Secondary schools in Kenya.
- Establishment of centers of excellence
- Kenya Education Cloud
- Elimika program that capacity builds teachers online





# New look education





# LEARNING CONTENT AND IMPLEMENTERS - TRENDS

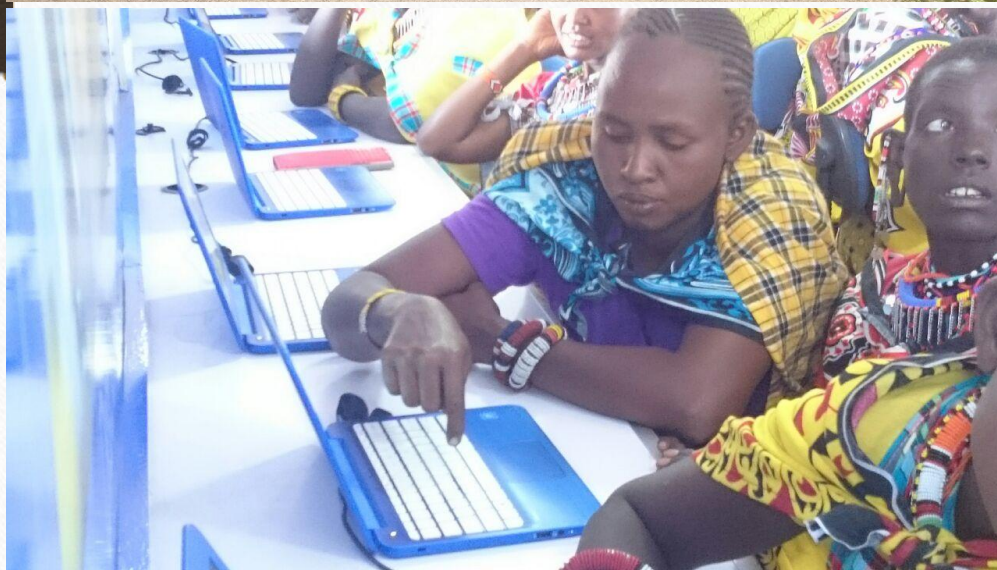
Factor	Status
Content availability	Massive ... Open ... Accessible ...
POC, Phase 1 and Phase 2	Awarded ... Implementation. <b>Devices tablets 1:1, Wireless router and server, 2 teacher ; laptops, LCD projector</b>
Teacher Training on ICT integration	Online course for reference and experiential skills development)
Online content curation	Content curated for quality and stands online to be provided in the Kenya education cloud

# EDUCATION TRANSFORMATION

## CURRICULUM & DELIVERY

Indicator	Progress
Curriculum Reform	Objective based to Competence based
Core competencies	<ul style="list-style-type: none"> <li>• Communication and collaboration</li> <li>• Critical thinking and problem solving</li> <li>• Imagination and creativity</li> <li>• Citizenship</li> <li>• Digital Literacy</li> <li>• Learning to learn</li> <li>• Efficacy</li> </ul>
<b>Digital Literacy Programme</b> <ul style="list-style-type: none"> <li>• Universal Content</li> <li>• Neutrality of Devices</li> <li>• Internet Connectivity in all Public schools</li> <li>• Availability of devices across the country e.g. smart phones - \$ 50</li> </ul>	<b>Content Availability</b> <ul style="list-style-type: none"> <li>• <a href="http://www.kicdinteractivecontent.ac.ke">www.kicdinteractivecontent.ac.ke</a></li> <li>• Std. 1 &amp; 2, Teacher training materials</li> <li>• DCWSR</li> <li>• Standards; Course, Supplementary, Revision, OERs, Education Apps</li> </ul>





And now  
the  
women





# What do we intend to achieve?

## Elearning transforming employability

- The **interactive** nature of elearning programmes develops **creativity** among learners. Creativity is one of the 21<sup>st</sup> century skills.
- Elearning nurtures **innovation**. Learners become innovative giving **employer** the needed **competitive edge**.

Elearning exposes learners to the same **quality** of teaching and learning materials globally leading to global relevance. Creates shared thinking and strengthens **communities of practice**.



# Employability in Digital Era

- Creative mind
- Innovative worker
- Life long learner
- Relevant in Knowledge society
- High degree of media literacy; **Media Prosumers**
- eLearning develops employable citizens; holistic, flexible and reasonably aggressive

# Digital era transformation to individuals and the education sector

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- Online programs- courses and e-conferencing saving resources
- Time taken to do things Reaching our clientele within a short time-Elimika program
- Better, quicker, efficient, reliable communication (from mobile phones, messengers, whatsapp, hangouts etc)- Within the school community, policy developers and education managers
- Capacity development – eLearning, MOOCs, webinars, credible online courses and degrees
- Global village/market (m-farm, KEC)
- Profits (sharing of educational resources free or commercial)



# Digital era successes and drawbacks

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- Job creation
- More and higher education possible attained especially by women – OER
- Learning things online – including sports
- Social media – things get reported faster
- More choices – just ask Google

- Cyber theft and bullying
- Identity theft and online insecurity (Credit cards)
- Frequency of terrorist attacks
- Fake certificates and degrees
- Plagiarism – copy paste
- Obesity due to easy access to things – less exercise
- Diseases - lifestyles

# Memorable Quotes

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- Almost overnight, the Internet's gone from a technical wonder to a business must.  
– **Bill Schrader, businessman**
- The Internet is becoming the town square for the global village of tomorrow  
– **Bill Gates, founder, Microsoft**
- The new information technology, Internet and e-mail, have practically eliminated the physical costs of communications.  
– **Peter F Drucker, US management consultant**
- The future of retail is the integration of Internet and digital services with the retail network.  
– **Charles Dunstone, founder, Carphone Warehouse**



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- They say a year in the Internet business is like a dog year.. equivalent to seven years in a regular person's life. In other words, it's evolving fast and faster.  
– **Vinton Cerf, US technology guru**
  - What happens when you combine blogs, Google and millions of dissatisfied customers? An e-mob.  
– **Bob Garfield, advertising author**
  - Although marketers recognize the political and economic force of China, many have yet to respond to the increasing importance the internet is playing in shaping the country's consumer opinion.  
– **Cate Riegner, co-founder, Netpop Research** ([view source article](#))



Thank you