Internet for Education
Helping Policy Makers to Meet the Global Education Agenda (SDG4)
Content

• Why the Internet is important for education?
• What is going on around the Internet and education?
• How can policy makers and other stakeholders lift the barriers of integrating the ICTs in education?

If Internet is the answer, what is the question? – Wadi Hadad
Challenges to Education in Africa

- **Access to schools** – In Burkina Faso, Chad, Congo, Mali and Niger have average class sizes with over 50 students per class?

- **Long distance to school** - walk to school of up to two hours is not uncommon.

- **Nutrition** - Children often cannot follow lessons because they did not have a meal that day.

- **Expense of schooling** - school fees, uniforms and supplies are burdens to families, with negative impact on education.

- **Conflicts** - armed conflict, both across and within national borders, with devastating impacts on the livelihoods and education of millions of children and adults.

- **Gender disparity** – million girls are out of school. In SSA, 9.3 million of which will never set foot in a classroom.
Challenges to Education in Africa

- **Exclusion due to disability** - a large proportion of the world’s 93 million children with disabilities live in Africa, often without the prospect of learning.

- **Quality and quantity of teachers** - more than 7 out 10 of SSA countries do not have enough teachers, especially in Maths, science and foreign languages.

- **Teaching and learning materials** – worn books shared among students are not uncommon.

- **Access to vocational education and technical training** – 37 million out of school youth require some form of technical and vocational education for employment.

- **Access to tertiary education** - Only 6 percent go to higher education compared to the global average of 26 percent.
SDG Goal 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

• Vision and Principles
  • A single universal agenda: Education 2030 = SDG 4
  • Comprehensive, holistic, ambitious, aspirational and universal
  • Transformative, leaving no one behind
  • Lifelong learning approach focusing on skills for work and life
  • Focus on quality and learning outcomes

Targets
  4.1 Quality primary & secondary education
  4.2 Early childhood & pre-primary education
  4.3 Equal access to TVET & higher education
  4.4 Relevant skills for work
  4.5 Gender equality & equal access for all
  4.6 Youth and adult literacy
  4.7 Global Citizenship Education
  4.a Learning environments
  4.b Scholarships for higher education
  4.c Teachers capacity and capability

Why the ICT/Internet?

• Quality education requires diverse way of learning...
• Education budget is about 5 % of the GDP in Africa - North America and Europe at 5.3 %,
• Life long learning opportunities to those traditionally under-served or marginalized groups (i.e. girls and special needs)
• Access to learning resources, like textbooks, at a lower cost
• Gamified learning for early childhood learning is possible
Internet opportunities

• MOOCs and OERs providing access to latest insights
• Continuous learning for teachers, increasing productivity and teaching efficiency
• Research and Education Networks promote collaboration, access to knowledge, labs and instruments
Information and Communication Environment

- 7,502,998,490  World Population
- 3,625,590,413 Internet users
- 1,241,742,891  Population of Africa
- 345,676,501, Africa Internet users

http://www.worldometers.info/world-population/
Bandwidth is growing, in some cases limited use of existing bandwidth

In Gambia, only 5% of available Submarine capacity is used
In other cases, regional and local connectivity as a bottleneck - A third of population is not within the reach of fiber or wireless

https://manypossibilities.net/afterfibre/
Access is not equitably distributed (ITU, 2016)
More challenges

- Limited broadband connectivity in rural areas and/or cost is high due to market structure, taxes, etc.
- Absence or limited educational content relevant local levels
- Lack of infrastructure to host and exchange locally available content
- Limited literacy and skills to develop and implement ICT projects
- Inadequate supportive infrastructure such as electricity
- Financial constraint
Trends in ICT integration in Education

2001-2010
infrastructure for education (school network)
Bandwidth for universities

2010-2017
Teachers development
Learning content
Infrastructure, tools and technologies
Calls for measurement
NREN development

2018...
Holistic Framework based on learning, from experience
Massive investment
Internet for General Education

Internet for Vocational Education

Internet for Higher Education

Internet for out of school learning (informal, formal, adult, work place learning)

Activity out of school (infrastructure and use)

Link with the community (external and internal network)

organizational management (vision, leadership, competencies, infrastructure and use)

Pedagogical Processes (content, curriculum, use, teacher competencies, attitudes)

Stakeholders
- Decision makers
- ICT Managers
- Educators
- Private Sector
- Parents
- Students
Policy makers need to remove the barriers to investment—transparent and affordable licensing, and efficient market-based spectrum allocation processes, infrastructure sharing, simplified right of way approval, and dig-once policies and processes.

Support human capacity development at all levels, facilitate local innovations and promote community-driven peering interconnection and IXP discussions.

Develop well-articulated policies and plans, and ensure that these are implemented through multi-stakeholder partnerships.
Articulation of an Education Policy Framework

- Infrastructure
- Teachers professional development
- Capacity building for decision makers, college and school leaders
- Learning resources, content and applications
- Technical vocational education, skills and youth employment
- Stimulation of national research and education networks
- Equity and inclusion
- Safety, privacy and child protection in online environments
- Data collection (EMIS), social media
- Monitoring, evaluation, research and learning
Investment in Education

• Universal service funds were used to connect schools – Uganda, Sudan
• Special rate for education (e-rate), was used in the US, Morocco, Portugal, Colombia and Turkey
• Corporate social responsibility from the private sector in the Philippines
• Small steps by everyone with long term impact (Rwanda)
Thank you