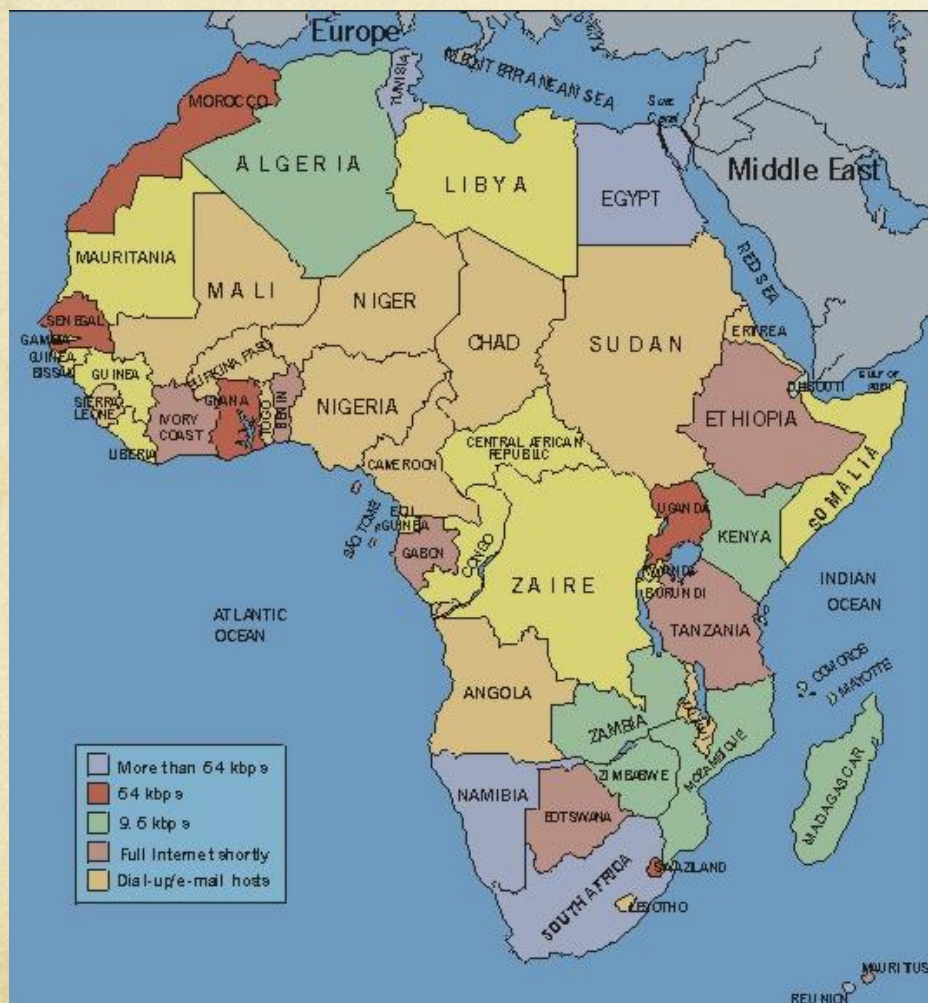# ICT in the RUFORUM Network

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Internet in Africa 1996...in the Early days of the FORUM project

- Only 3 countries had more than 64 Kbps/bandwidth.
- Kenya, Zimbabwe, and Mozambique had 9.6 Kbps.
- Uganda had 64 Kbps.
- Malawi had a dial-up connection.
- Despite poor connectivity, FORUM universities had e-mail and CD-ROM databases.
- By 2000, Internet began in earnest, albeit slowly & fitfully.

The Centrality of ICT in RUFORUM

○ **RUFORUM baseline studies:**

○ In 2009 86 % of RUFORUM universities surveyed had a campus backbone; 58 % had ICT policies; and 60 % had central ICT units to manage & monitor ICT projects. The Colleges of Agriculture lagged behind in ICT for teaching, learning, & research in comparison to other disciplines.

○ In 2011 59 % of the 29 universities surveyed had a rationale in place for e-learning within an institutional plan; 45 % had e-learning policies compared to 26 % in 2009; and 32 % had e-learning units. The situation for the Colleges of Agriculture remained the same—teaching content in agriculture was almost negligible on institutional learning management systems.

E-Learning and OER at RUFORUM

○ RUFORUM started with 8 universities, chosen based on infrastructure and commitment to innovation.

○ Started with sensitization to e-learning and OER.

○ Training, writing, and policy workshops held.

○ 5 universities now have e-learning policies and 26 courses created as OERs.

○ RUFORUM collaborating with AgShare.

○ RUFORUM now investigating MOOC possibilities for the Network.

RUFORUM Institutional Repository

- Launched September 2013.

- Provides a home for research output at Secretariat and RUFORUM universities.

- Contains case studies, policy briefs, theses & dissertations, journal articles, extended abstracts from conferences, the RUFORUM newsletter, and more.

- The Repository has an Open Access policy.

- The Repository is indexed in CABI & AGRIS.

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RUFORUM Institutional Repository

Here you will find the intellectual output of the RUFORUM network. Our goal is to provide free access to the resources that make RUFORUM a leader in postgraduate training and research in the agricultural sciences in Africa. All materials included in the repository are either Open Access or Open Educational Resources (OER). They are free to download, distribute, and in the case of OER, to adapt for educational purposes. In this way, RUFORUM network output will be visible to the worldwide scientific community.

You can browse the repository by collection, authors, topic, and title. To pinpoint the maximum number of resources contained in the repository, we recommend that you carry out a free text or advanced search. Click on the help link above for more information on searching. Please note that you can return to the Institutional Repository home page at any time by clicking on the dark green banner above with RUFORUM Institutional Repository written on it. Clicking on the RUFORUM link and logo will take you to the RUFORUM website home page

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- By default, copyright is automatic, with "all rights reserved."

- OA requires that copyright be modified, **but not replaced**, with an open rather than closed policy.

- There are special licenses created by Creative Commons that will accomplish that objective.

- CC licenses do not replace copyright. They permit an author or publisher to change the terms from "all rights reserved" to "some rights reserved."

- RUFORUM has written policy papers and is working with Network members on OA & IPR.

Using ICT for Outreach

○ Website under revision. Will be a 1-stop shop for anyone interested in agricultural training & research in Africa.

○ All of RUFORUM's publishing output in the IR.

○ Facebook Alumni Page with over 300 members. Twitter (including Tweets from the Biennial). Biennial Mobile App. RUFORUM blog with over 800 followers.

RUFORUM Blog

Engaging youth in agriculture through ICT – Case in Point; Nigeria

Posted on July 14, 2014 by ruforumnetwork

★★★★★ ⓘ 2 Votes

By Adebola Adedugbe, Farm Ideas Nigeria

In Nigeria, agriculture is done more on subsistence level with low input and poor output. Agriculture is largely traditional and practiced by smallholders and pastoralists. This type of agriculture is predominantly rain-fed, has low yielding production and lacks access to critical information, market facilitation and financial intermediation. The role that ICT can play in addressing these challenges is increasing; as personal ICT devices such as mobile phones or tablet PCs, are becoming more widely available. Farmers lack access to credit facility and fertilizer.

High-performing African universities that produce skilled, proactive graduates, demand-driven research outputs and innovation in response to local, regional and national agricultural development priorities

ICT in the Secretariat

- Strong ICT platform for:
  - Finance
  - Competitive grants program
  - Training & quality assurance
  - Project management
  - Monitoring & evaluation

What about the future?

○ Most of the RUFORUM Network countries have much better high speed data connection networks.

○ Universities have better campus backbones, although progress is faster at some institutions.

○ Laptops and smart phones coming down in price, as is Internet connectivity.

○ Infrastructure no longer a stumbling block.

Opportunities to Explore

- Remote desktop computer labs.

- Virtual microscopes

- Virtual experiments

- Crop simulation models

- Open data

- MOOC possibilities

What will it take?

- Intelligent ICT deployment requires commitment from university leadership, champions, and a stable funding base.

- Getting the basics right—what needs to be done to change course design in order to ensure that students are active participants in the learning process?

- Shifting the paradigm on how teaching and learning takes place **and** how research feeds into this process.

- Using ICT to strengthen university outreach, including with local communities and farmers.