



International Workshop on African Research & Education Networking

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Report on
Session 3.1 (part 1) Thematic Initiatives

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Based on Presentations by:
**Pete Bateman (AVU), John Butler-Adam (Ford Foundation), Fritz Hahne
(AIMS), Martin Bechler (INASP), Fred Baker (Cisco) & Julianne Susanne Sansa
Otim (Makerere University), Mouhamet Diop (African Union's NEXT project),
Alain Patrick Aina AfNOG (African Network Operator Group)**

This document reports on Session 3.1 (part 1) “Thematic Initiatives” of the International Workshop on African Research & Education Networking held on Tuesday 27th of September 2005 in CERN, Geneva.

The session focused on seven different projects involving ICT’s at different levels in Africa. Due to each project’s uniqueness, it is difficult to highlight central themes and therefore a summary of each project is given. It is apparent that there are a few excellent projects organized and funded by different organizations as well as planned in Africa.

There were no conclusions or recommendations reached which was not surprising as the goal of the “Thematic Initiatives” sessions was to allow the proponents of these initiatives to describe their respective projects and to get acquainted with the other projects in parallel fields, in order to get acquainted with them and be in a position to assess the potential for possible synergies between the various projects.

Introduction by Session Chair Bonaventure Mve-Ondo (AIG/INTIF):

When Elephants fight, the grass suffers – proverb as told by

This session was made up of 7 presentations discussing important initiatives involving major institutions. These human networks, enabled by electronic networks, are the building blocks for success.

The objective for this session was to understand how to forge ahead with the featured as well as other initiatives, and how to make progress.

General summary of the session

John Butler-Adam (Ford Foundation) spoke about the “Partnership for Higher Education in Africa” and the bandwidth consortium they have formed. Bandwidth did not start out as a partnership focus, but was a response to needs of the universities. It has been the main focus in the first phase of the project. The costs have been reduced from \$7.3 per kbps to \$2.33 kbps. The 2nd phase of the partnership has just been launched. There will be \$200M over the next 5 years for higher education activities. The emphasis will be on content. The hope is that the reduced costs and increased content will increase demand and lead to further price reductions. 11 Universities and 2 organizations are currently involved. A further 22 Universities will be involved. A total of 33 will benefit.

Peter Bateman (AVU) talked about the African Virtual University, the current status and future plans. The AVU has recently changed paradigm. They now focus on assisting partner institutions to increase access to their own demand driven Open, Distance and eLearning (ODEL) programs. Physical Infrastructure (in the form of VSAT deployment and ODeL Centers) along with the supply and management of cheaper bandwidth via the formation of a consortium are key aspects of the AVU's new strategic approach. Peter stressed the strong synergy the AVU could leverage by being actively involved with AFUNET. Enhancing networking capacity is a significant 'value addition' to the collaboration processes undertaken between the AVU Network of PIs. However, Peter also stressed that technology in itself should not be the driver as ICTs are simply a set of tools to assist in the realization of broader development objectives. The AVU focuses on the collaboration of partner institutions as Consortia to develop ODeL programs. A market study has been conducted to assess the areas of high demand for such programs. Furthermore the AVU has embarked on a Capacity Enhancement Program (ACEP) to train staff in its network of African Partner Institutions in the development, delivery and management of ODeL programs.

Fritz Hahne (AIMS) talked about the African Institute for Mathematical Science as a human network. It is located in a refurbished hotel in Muizenburg near Cape Town. Mathematical sciences are essential to innovation and development, and there are outstanding International lecturers. However it is not just about one year. AIMS provides life opportunities for African students. There is a network of AIMS Alumni in commerce, education, research and government. This year 40 students were admitted but 180 well qualified candidates applied. There is a need to grow and a need to create follow up programs. They will create similar institutions across Africa

and are currently seeking funds. They hope to build 15 new institutions in the next 3-5 years.

Martin Belcher (INASP) talked about the importance of bandwidth optimization techniques in research and education institutions in low bandwidth environments. He talked about the fact that bandwidth and network connectivity is rarely managed in African education and research institutions. In the current network connectivity environment, the simplest way to improve the quantity and value for purpose of connectivity is management and optimization of that connectivity. Executive management, ICT management and technical staff are all key actors in this. No one of them can deliver without the support of the others. There is a range of relatively simple things that can and should be done in this area. A range of capacity development and training workshops, seminars and tools are available in this area and institutions in Africa are encouraged to get involved in accompanying activities.

Julianne Susanne Sansa Otim (Makerere University – Uganda) together with Fred Baker (Cisco) talked about the Cisco Network Academy program, a comprehensive e-learning program that provides Internet technology skills. Cisco began building networks for schools in 1993 but quickly realized there was a need to train the teachers to maintain these networks. In 1997 the Academy was launched. Cisco Systems partnered with UNDP, USAID, UNV, ITU, JICA and the Peace Corps in bringing the Networking Academy Program to designated Least Developed Countries (LDCs) under the Cisco Academy LDC initiative, which started in 2000. Cisco Academies have been established in 40 of the world's 48 LDCs. The program has exceeded all initial targets. Partnership is critical and the Cisco academy helps to attain true local ownership and ensure sustainability.

Mouhamet Diop (African Union) talked about the African Union's NEXT project. Education is one of the Millennium development goals but much remains to be done. The computerization of African languages is an important step to enable education. Studies show knowledge and technology transfer happens better if conducted in the mother tongue. However 70% of web pages are in English only, yet 65% of global Internet users are not English speaking. The Internet is not just for a lucky few. Additionally African content is part of the cultural gap. Languages play a role in the information society. Multilingualism on the Internet is an important step.

Alain Patrick Aina (AfNOG – Togo) talked about the challenges faced by African network operators and the role of the African network operators group (AfNOG) in supporting them and the building of new capacity. Users rely on the Internet for daily life and for business. They demand greater bandwidth and greater reliability but there is a lack of experts and Internet exchanges. Viruses and spam take up bandwidth, but this is not unique to Africa. The solutions are to improve skills of technical staff, hold workshops and set up local and regional exchange points. In addition, set up greater and more reliable scalable infrastructures and more reliable scalable Internet services. AfNOG has set up a forum for technical cooperation. It is a community of engineers who assist each other. AfNOG has trained 350 engineers in 34 countries. Former students have become instructors, reducing the reliance of foreign instructors.

Issues

Whilst not surprising to people active in African networking, it is still shocking to see the absence of connectivity between African countries and the prohibitive cost of bandwidth. The networking situation in Africa is essentially similar to that of Europe when the European Internet was started back in 1989, i.e. little or no intra-European connectivity, therefore very inefficient but also very expensive connectivity through links to Europe and/or the USA.

However, it is encouraging to hear about important initiatives that are making a significant impact despite the problems.

It is also very significant to note that there are some very clear synergies between projects that have not yet worked together.

SESSION SUMMARY

The chair summarized the session by saying there are not enough initiatives but we can only be amazed by the number of partners and players in the African Internet world.

Meaningful partnerships is at the very heart of what is being worked towards. It is essential that there is compatibility between both sides.

Words are not enough, coordinated action is urgently required.