



Findings

Findings reports on ongoing operational, economic, and sector work carried out by the World Bank and its member governments in the Africa Region. It is published periodically by the Knowledge and Learning Center on behalf of the Region. The views expressed in Findings are those of the author/s and should not be attributed to the World Bank Group.

<http://www.worldbank.org/afr/findings>

The African Virtual University and Growth in Africa

A knowledge and learning challenge

Information and Communications Technologies (ICTs) are being heralded as potential agents of social and economic change. The digital age has sought to accelerate the pace of development by reaching some of the rural poor. But is that enough? The three pillars of the ICT revolution are connectivity, capacity and content. Donors, governments and private telecom operators have gone a long way to get many parts of Africa wired and connect the continent to the global information highway. But does the knowledge add value to the work and lives of ordinary Africans?

Africa is a continent with over 750 million people, of whom 53 percent are below the age of 20. Access to education is limited, while the demand is enormous. Less than 5 percent of students have access to tertiary education today, compared to the world average of 16 percent. In 1996, the average annual cost of training one student at the university level in Africa was equivalent to over 400 percent of the per capita income, compared to 26 percent in the US. The costs are even higher and place a significant burden on scarce government resources. This is where ICTs could help to expand people's access to knowledge through education. The African Virtual University (AVU) —

a “university without borders” — uses ICTs to provide Africa direct access to global knowledge and learning resources.

The Knowledge Broker

The African Virtual University was established in 1997 as a World Bank-supported initiative to tap global knowledge and learning networks to meet Africa's educational needs. Initially, many skeptics thought the AVU concept was pure utopia and would not succeed in the African context. However, a few pioneers came on board and the pilot began in six Anglophone countries - Kenya, Uganda, Tanzania, Ethiopia, Zimbabwe and Ghana. Since the ICT infrastructure in Africa was still in its infancy, satellite broadcasting was selected in place of web casting and Internet-based technologies. A number of course providers were identified from all over the world and courses were broadcast live from the US, Canada and Europe to students in the partner institutions, who could participate in a live virtual discussion across Africa and beyond.

However, the foundations for sustainability had to be rooted in Africa. This involved a serious commitment from the governments and universities — they had a great deal

to gain from the partnership, but had also to make a concrete contribution to its success.

The World Bank played a key role in nurturing the AVU during its infancy. The Bank's reputation enabled the AVU to establish strategic partnerships with the private sector to set up the ICT infrastructure. The Bank brokered an agreement with a satellite company, *Intelsat*, to provide the required bandwidth support to the AVU for free for the first two years. Through the Bank it was also possible to gain the technical and financial support of donor countries including Canada, Norway, Ireland, Belgium, Sweden, UK, USA, Australia and the European Union.

The next step was to develop a network of global content providers to serve the AVU. Leading universities in the North, academics and professionals with highly specialized skills who could understand Africa's needs and build tailor-made courses to meet these, were enlisted to develop the courses. By 1999, the AVU had brokered agreements with 30 reputable institutions around the world to provide knowledge and learning

services. The Massachusetts Institute of Technology (MIT) joined the network of partner institutions in 2002. Gradually, the focus has shifted towards building the capacity of local African institutions to generate their own courses for the AVU on local issues, such as the use of indigenous knowledge in the development process.

Knowledge has to be contextualized in order to add value to a different setting. For instance, a course in advanced economics in the US may have the same theoretical content as one being taught in South Africa, but the case studies used to test the theories may vary. Second, some of the courses had to be revised to address the level of knowledge and understanding of students in different parts of Africa. These were benchmarked by the local course facilitators, who ensured that students were able to follow the courses and provided backstopping support to bridge any gaps in understanding.

AVU lectures are broadcast on a live screen into the classrooms, where local facilitators walk the students through the sessions and address technical problems. Each

transmission is recorded and re-played in case students need to go over certain points with the help of the local facilitator. As a result, over 60 percent of students prefer to take the courses offline, so that they can learn at their own pace. This is one of the greatest advantages of the AVU. It is planning to develop accredited degree, diploma and certified programs that will be designed, developed and implemented jointly by universities in the north and south. In this way, the AVU is taking the best knowledge and learning tools in the world and tailoring them to suit the African context, while at the same time empowering African universities to eventually take over the programs. The universities proved to be the backbone of the AVU, as they housed the centers, hosted the classes and financed the operations and maintenance costs of running these centers from the income generated from the courses.

In 2001, the AVU embarked on a partnership with the Medical University of Southern Africa through a Memorandum of Understanding. The University operates a Public Health Program in the Southern African region and the AVU has

Findings

Findings would also be of interest to:

Name _____

Institution _____

Address _____

Findings can be accessed via the World Bank Group's website at <http://www.worldbank.org/> Click on Publications, then Periodicals. Or, click on Countries and Regions, then Africa

Letters, comments, and requests for publications not available at the World Bank Bookstore should be addressed to:

Editor, Findings
Operational Quality and Knowledge Services
Africa Region, The World Bank
1818 H Street NW, Room J-5-055
Washington, D.C. 20433
e-mail: pmohan@worldbank.org

agreed to jointly develop courses for dissemination through the AVU network. This will be done in collaboration with universities in the US, which will enable the program to access a wider audience across Sub-Saharan Africa and beyond. Similar partnerships have been forged with the United Negro College Fund and the Africa-America Institute. In this way, the AVU helps development practitioners access global communities and share knowledge and experiences through virtual learning centers; which in turn will hopefully lead to the emergence of common goals, joint ventures and partnerships to promote sustainable development.

Challenges

Technology posed a major challenge for the AVU. Most African countries have limited ICT-related infrastructure and trained personnel. These problems are exacerbated by the occurrence of power shortages, digital illiteracy and poor connectivity. Few have access to telephone lines and these are not always functional. Operational costs for telephones are high in Africa. Most Africans cannot afford to buy a personal computer. In some cases, government regulations have not always been favorable to ICTs.

The local partner universities in Africa served as a solid platform to address some of these challenges. The local staff involved in the project established strategic partnerships with private companies and the government to purchase stand-by generators, licenses from the Tele-com authorities, computers and other necessary equipment. Government regulations have begun to slowly liberalize the ICT sector. As a result, a number of new Internet service providers have started businesses in Africa.

One of the key factors underlying the high levels of poverty across the continent is the lack of a skilled work force. Technical expertise and

training are limited, which partly explains the lower levels of foreign investment in Africa compared to other regions. Private firms that typically make substantial investments to send staff overseas for training welcomed an opportunity to develop these skills indigenously. The AVU is attempting to nurture a skilled and knowledgeable workforce from within Africa that will, over time, contribute to economic development. It is thus contributing to the development of Africa's human capital.

A major shortcoming of the pilot project was that it was not financially sustainable. It relied too heavily on donor funding and private sector subsidies that could not last forever. Being primarily an institution with a public good mission, it was difficult to wean the AVU off World Bank support and set it up as a financially independent organization. Eventually, it was decided to relocate the AVU headquarters from Washington, DC to Nairobi, Kenya, where it would operate as an independent NGO. Today, the AVU has begun to raise funds from the fees charged for courses and educational grants provided by local universities and governments. This has enabled each of the learning centers to be self-financing. Staff are paid from locally-generated revenues. The AVU pays only for the content development, the costs of which will also be transferred to the centers over time. The fees are structured in a way that is affordable to most Africans, by charging rates below the private sector. This has enabled a wider group of Africans to access ICTs for development.

Impact

Over the years, the courses expanded to cover a wide range of topics to address the needs of professionals in Africa from language courses and web designing, to training women entrepreneurs.

Today, the AVU network has grown to 34 learning centers in 17 English- and French-speaking countries in Africa and has provided educational services to 23,000 participants. It is the biggest ICT initiative in the continent, with a larger share of women participants compared to other institutions of higher learning offering similar programs. For many in Africa, it has become a widely accepted way of learning.

The AVU provided several universities in Africa with email and Internet access for the first time. It became the nucleus of an ICT culture in several African universities. It has enabled students to seek scholarships and admissions to overseas universities. It has provided jobs to students and incomes for the handicapped via special training courses. People attended courses in management, which helped them start their own businesses.

The AVU has helped reduce the digital divide in Africa and proven that modern communications technology can succeed in Africa. It has raised the profile of the continent positively and helped establish Africa as a business address. Today, a number of Internet and satellite companies are eager to set up businesses in Africa. Regions such as the Middle East and Central Asia have also begun to think along the lines of the AVU. AVU training courses are helping shape tomorrow's business managers, women entrepreneurs, scientists and other professionals who will make effective use of the knowledge economy, to stimulate growth and development in Africa.

The private sector has also benefited from the growth of the AVU. Previously, companies had to send their management teams to Europe and America to receive training in business management and other skills. Today, firms can send their new staff to the local AVU center to receive the same courses online.

This has considerably reduced the costs of training new staff. As a result, the private sector has become a major client and source of revenue for the AVU.

Lessons learned

- Institutions such as the World Bank can play a critical role in brokering partnerships between the AVU, private companies and knowledge providers. Another key factor behind the success of the AVU was the firm commitment of the partner institutions in Africa, such as the universities. They supported the learning centers, endured the initial growing pains and provided high-quality services. The programs were run with a high degree of professionalism. One of Kenya's universities for example devoted three amphitheatres to the learning process.

- A great deal depends on the project manager and his or her creativity and entrepreneurial skills. People who see an opportunity and seize it are the ones to go farthest. In Kenya and Ghana, for example, the AVU coordinators managed to anchor the center in the universities with great success. They developed a dynamic marketing campaign to attract clients from the private sector. In Kenya, the center has expanded from 50 computer workstations to 200.

- Do not wait for all the answers before starting. Think big, start small and scale up. Work with local institutions who will manage the initiative, and take the back seat as a facilitator. Broker local/global partnerships to solve infrastructure problems. Create a strong management team with excellent facilitators who can provide everyday technical guidance to clients.

This article was written by Siddhartha Prakash, based on an interview with Professor Peter Materu, Interim Executive Director, AVU. For further information email: Sprakash@worldbank.org.