

THE VIRTUAL UNIVERSITY

Models &
Messages

Lessons from
Case Studies

CASE UPDATES

Edited by Susan D'Antoni

Kenyatta University – African Virtual University,
Kenya

Magdallen N. Juma

An evolution of an existing institution



United Nations
Educational, Scientific and
Cultural Organization



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for Educational Planning

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List of abbreviations

ACEP	AVU Capacity Enhancement Programme
AVU	African Virtual University
ICT	Information and Communication Technology
ODEL	Open, Distance and e-Learning
VSAT	Very Small Aperture Terminal

Developments since 2003

1. The African Virtual University at Kenyatta University and its context

1.1 International context – the African Virtual University

There have been significant recent changes at the African Virtual University (AVU), including:

- the development of intergovernmental status in 2002;
- a change of leadership in 2003; and
- reconceptualization of the AVU to enable it to respond to operational challenges better, emanating from the initiation of the first degree and diploma programmes in 2003.

During its first phase of operations, AVU encountered challenges related to:

- high technological costs of satellite delivery;
- expensive learning management systems; and
- costs related to brokering content from international universities.

The initial model proved not to be ideally suited to the African higher education landscape, which necessitated a shift in approach for the AVU, so as to fulfil its mission in Africa:

to collaborate with, and support African higher education institutions in enhancing their capacities to utilize Open, Distance and e-Learning (ODeL) methodologies, so as to increase access to high-quality demand-driven post secondary education and training programs in disciplines critical for Africa's social and economic development. (Bateman, 2005)

AVU now uses its own and its partner institution's quality assurance models to ensure that learning objectives are met and that African graduates have the skills to participate in the economic and social development of their regions and countries. The new strategic objectives that AVU seeks to achieve include:

- improving the efficiency and effectiveness of the delivery of externally provided programmes;
- developing and implementing ODeL programmes through partnership consortia;
- enhancing the capacity of partner institutions to develop, deliver and manage their own ODeL programmes;
- designing, implementing and managing an AVU research and innovation facility to improve ODeL practice in Africa;
- improving the development and implementation of policies that will support the use of ODeL in higher education in Africa;
- establishing and managing relevant partnerships that support the attainment of AVU's mission.

1.2 National context – Kenya

According to the latest economic survey (Republic of Kenya, 2005), the number of students enrolled nationally in university education has risen from 59,193 in 2000/2001 to 91,541 in

2004/2005. This is attributed to the introduction of flexible learning programmes at various public universities, which target both public and private sector employees and qualified school leavers who could not find places in regular degree programmes.

The government has increased financial allocation to the education sector; the 2005/2006 budget provided 88 billion Kenyan shillings (KShs) for education, compared with KShs78 billion the previous year. This means that the Government of Kenya channels a third of the national budget into education.

As has been the case in past years, the bulk of this money will fund teacher salaries and free primary education. However, the government has also pledged more money for university education – KShs16 billion, compared to KShs14 billion in the previous financial year. Of this, the Higher Education Loans Board will receive KShs1.03 billion, which is still below the figure that the board needs to disburse to needy students.

1.3 Institutional context – Kenyatta University

The number of students enrolled at Kenyatta University in 2004/2005 accounted for 18 per cent of national university enrolment but 55.2 per cent of total part-time enrolment.

Kenyatta University has introduced a number of new programmes, including computer science and business studies degrees and diplomas. A total of 300 students are currently enrolled in these programmes.

2. Administrative issues – technological infrastructure

Because of poorly developed Internet and telecommunications infrastructures in Africa, the AVU's technological focus has changed from relying heavily on expensive satellite technology to facilitating access to the Internet via VSAT (Very Small Aperture Terminal) to universities in its network. This includes pre-financing greater bandwidth capacity for students. Furthermore, due to the current unavailability of electronic digital resources, the AVU is facilitating student access to books while it prepares digital resources for its courses. Both of these policies will be reviewed because as student numbers increase they will become increasingly unsustainable.

The AVU is therefore adopting the following strategies to reduce its technology costs:

- moving from being a bandwidth aggregator and pre-financier to becoming a bandwidth aggregator and facilitator;
- moving from expensive proprietary learning management systems to non-proprietary systems in the understanding that cost margins consistent with African needs cannot be achieved with the current commercial systems;
- deploying locally hosted learning management systems at national exchange points (where available) in the countries where AVU programmes are offered, thereby keeping the Internet demands of AVU programmes low.

3. Academic issues

3.1 Programme development

With the new strategic direction of the AVU, programme development has also changed to include the following principles.

- The curriculum offered by the AVU for each field of study must be comparable to that offered at other acknowledged leading African and global institutions, as well as relevant to the African social and economic situation.
- The curriculum is designed by a committee of experts selected from institutions in the AVU network and representatives from the best African and global institutions offering such programmes. Academics from African and international institutions are also invited to contribute to course design, development, content and evaluation.
- The AVU and the distance learning units of the universities involved in the curriculum development have joint production responsibilities and ownership of the course materials.
- The curriculum is designed to use ODeL in the African context, and to be consistent with the AVU methodology for teaching and learning using ODeL methodologies. All AVU materials are available in an electronic format and can be reproduced in a variety of media, such as print, CD-ROM, etc.
- The curriculum is designed for flexibility, greater student involvement in the learning process and the development of autonomous learners. Each AVU course is designed as a stand-alone course that can also be offered as a short course cum continuing education programme. These short courses lead on to diploma and degree programmes. The student is assessed continuously to ensure that learning objectives are achieved throughout the learning cycle.

In the medium term, the AVU will continue to focus on programmes in the following fields:

- Information and Communication Technology (ICT) – computer science;
- business studies, including accounting;
- health programmes, especially in-service health worker training and education;
- teacher education and training, both pre- and in-service, with a focus on increasing the quantity and quality of teachers in mathematics and science, and the teaching of ICT across the curriculum.

3.2 Academic strategy

Overseas universities currently grant AVU accreditation and awards, but the ultimate objective of AVU's academic strategy is to empower African institutions – whether individually or as a consortium – to accredit and award the programmes developed by the network. The original pathway to African accreditation was based on a two-step cascading model of international accreditation and quality control modalities: accreditation was to be delegated initially to a lead African partner university who would then cascade accreditation to other African universities. However, this model has so far proved untenable: a situation has emerged where the lead African partner university occupies a *de facto* position of superiority.

African institutions do not think that the cascade model fits with the character and spirit of the AVU as a network of peers: all universities should take advantage of the strengths of the network, and no one university should have supremacy. Universities in the AVU network are also of the opinion that all intellectual property belongs to the network and that the AVU headquarters should become the custodian of intellectual property on their behalf.

The AVU has therefore evolved into a consortium model, which is more attuned to the continent's needs than the lead partner university model. It is anticipated that under the consortium model, the following objectives will be met:

- achievement of economies of scale;
- increased access to education;
- high-quality and relevant ODeL curricula for and by African tertiary institutions;
- better use of available resources leading to gains in efficiency;
- long-term sustainability and growth.

Jointly developed programmes will be less expensive to develop and will belong to the consortium, which means that participating universities will not need to pay intellectual property rights for the use of content, and that surplus revenue can be used to further strengthen the consortium.

All consortium programmes are governed by the AVU/Partner Institution Consortium Advisory Council, which is made up of the Vice-Chancellor, Deputy Vice-Chancellor or Vice-Rector at each participating partner institution, and the managers of the Academic Programme Development and Management Department and the ODeL Initiative at the AVU. It reports to partner institutions' vice- chancellors and the AVU Rector, and is responsible for:

- coordination of AVU/Partner Institution Consortium processes;
- representation of each partner institution's interests within the AVU/Partner Institution Consortium;
- drafting of legal agreements for the AVU/Partner Institution Consortium (to be signed by the partner institution vice- chancellors);
- development of financial models for consortium programmes (for revenue generation and sustainability);
- inter-institutional management of consortium programme development;
- monitoring and reporting on AVU/Partner Institution Consortium activities and progress.

4. Cooperation

AVU now partners forty-six African institutions in twenty-six African countries. AVU has also entered into strategic alliances with several entities to achieve mutual goals and objectives. The following institutions and organizations partner the AVU.

- *Partners in education.* Alliances with organizations working the field of (distance) education in Africa can foster the attainment of similar goals for the benefit of the African student. Educational partners include the Association of Universities and Colleges of Canada, Agence universitaire de la Francophonie, Commonwealth of Learning and the Open University UK.
- *Partners in technology.* AVU partners institutions and businesses that fully support the technology options that AVU uses to deliver its academic programmes. Alliances have been established with Hewlett Packard, Microsoft and Netsat. In an effort to develop, design and deploy the best technology to support our vision and mission, technological institutions are encouraged to approach the AVU to establish partnerships.
- *Partners in development.* The AVU's mission and vision are in line with Africa's development goals as well as global development objectives, as defined by the Millennium Development Goals. The AVU is proud to partner development agencies and

institutions to work together to achieve common development objectives. Partnerships have been established with the New Partnership for Africa's Development, and the Ford, Rockefeller, McArthur and Carnegie Foundations.

5. Future development and African ownership of AVU operations

Following the strategic review in 2001, AVU decided to concentrate on brokering content from reputable and established European, North American and Australian institutions, then channelling it to African students via the Internet and live, satellite broadcast sessions. At the end of the first twenty-four months of offering internationally accredited programmes in this way, the shortcomings of the approach became glaringly apparent. The content-brokering approach had the following disadvantages:

- expensive to purchase content;
- difficult to scale student enrolment;
- lack of mechanisms to transfer skills;
- strained the already inadequate facilities of most universities;
- lack of economic sustainability.

This issue became a matter of concern to the AVU, who had to reconsider the question of why African institutions were unable to expand access to their programmes. It quickly became obvious that the real problem was not so much the absence of programmes at African campuses, but the structural rigidity of the programmes offered: they could only be obtained or delivered using the traditional lecture theatre approach. Programmes in other modes were needed. After several consultative meetings with tertiary education actors, the AVU decided that the solution to this problem was to make the programmes available in a variety of ODeL modes.

This assumption was corroborated after an extensive survey was carried out by the AVU at each participating partner institution to ascertain the institutions' current capacity for the development, delivery and management of ODeL.¹ The aim of the exercise was to obtain precise information on the available human and material resources available within the partner institutions for the development and delivery of quality ODeL courses. The data collected also laid the foundation for offering the partner institutions customized strategies to work towards the achievement of the AVU Capacity Enhancement Programme (ACEP) Phase One. The findings reinforced the AVU's support for an alternative higher education and training system that is flexible, affordable, relevant and cost-effective.

The AVU therefore launched the ACEP, a series of capacity enhancement activities aimed at AVU partner institutions. The goal of these activities is to enable partner institutions to contextualize the programmes currently being delivered by external partner universities, so that they may continue to deliver them as their own ODeL programmes, and at the same time enhance their capacity to develop and deliver other ODeL programmes.

It is anticipated that this new strategy will:

- increase access to education for millions of Africans;
- end the competition between programmes offered by AVU and those offered locally by the partner institutions;

¹ This analysis was financed by the Hewlett Foundation.

- ensure that there are no further problems regarding the recognition of awards given for participation in AVU-enabled programmes.

Once the External Partner University delivery contracts expire, partner institutions will face a significant challenge: they will have to absorb the students enrolled in those programmes into their own residential programmes and offer them partner institution degrees – simple enough in theory but difficult to implement – or provide them with another pathway.

The ACEP was designed to facilitate this transition, and enable the partner institutions to continue delivering the ODeL programmes that they are currently hosting when their current delivery contracts expire. It targets three key areas for ODeL programmes:

- materials development;
- delivery and technology;
- finance and management.

At the end of the programme, it is anticipated that the partner institutions will be able to take over the design, development, delivery, management and monitoring of the external programmes currently offered by the Royal Melbourne Institute of Technology, Laval and Curtin universities. The network established for the co-development process should provide students with an alternative to these externally developed programmes, by delivering locally developed ODeL programmes across the African continent.

AVU also believes that the establishment of a community of practice and learning object repository, available to all partner institutions within the network, constitutes an excellent means of ensuring the sustainability and quality of the ODeL programmes developed during ACEP Phase One and in the future. The ACEP is therefore a key priority for AVU.

6. Implications of the new ODeL strategy to AVU-Kenyatta

The strategy is still very new, so most university decision-makers are still in the process of studying its financial and other resource implications to their institutions.

The AVU will initiate discussions with the partner institutions participating in the ACEP to establish what needs to happen before the programme can be implemented. This is a critical step. If the AVU and the partner institutions do not establish quality-control mechanisms, and if there is no legal structure to guarantee that the investment in personnel is implemented as intended by the ACEP, then the benefits of the ACEP may be only partially achieved, if not totally lost.

In addition to implementing the ACEP, the AVU intends to establish fully equipped ODeL Centres at ten of its partner institutions (eight anglophone and two francophone) participating in the African Development Bank funded AVU Teacher Education Programme. The partner institutions involved will receive equipment, including computers and VSAT equipment, and bandwidth. Those institutions involved in the Virtuel au service de l’Afrique francophone project will also receive VSAT equipment. Finally, the AVU will also provide the partner institutions involved in the Royal Melbourne Institute of Technology and Curtin programmes with VSAT equipment. Although this last group of beneficiaries will need to pay for their own connectivity, they do stand to benefit from preferential connectivity rates brokered by the AVU.

Even with the support described above, insufficient partner institution connectivity is another potential stumbling block for the delivery of ODeL programmes, and indeed the ACEP itself. The past experience of the AVU and its partner institutions, at a time when Internet connectivity was severely limited, has made it clear that those partner institutions that wish to participate in the ACEP must take steps to ensure that they have adequate Internet capacity for the success of the project.

At the completion of ACEP Phase One, the AVU's partner institutions will be prepared to develop and manage their own ODeL programmes. This will be one important step towards increasing access to education in the countries concerned. Another is the development of a mechanism to assist partner institutions in the development of open content policies that will include strategies for structuring intellectual property rights agreements for ODeL materials.

Finally, in January 2005 the AVU created a research and innovation facility to promote research and innovation in the use of ICT and the development of open content. The three main objectives of the facility are to:

- establish a research and innovation facility portal to create a repository of information and materials related to higher education in Africa, with a special emphasis on ODeL. The portal will provide a space where articles, journals, learning objects and recent research can be freely consulted;
- organize an annual conference on e-learning in Africa, and
- publish and perhaps print an e-journal.

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