Sponsored Educational Media at Higher Education in the Developing World: Challenges and Prospects. The Experience of Uganda

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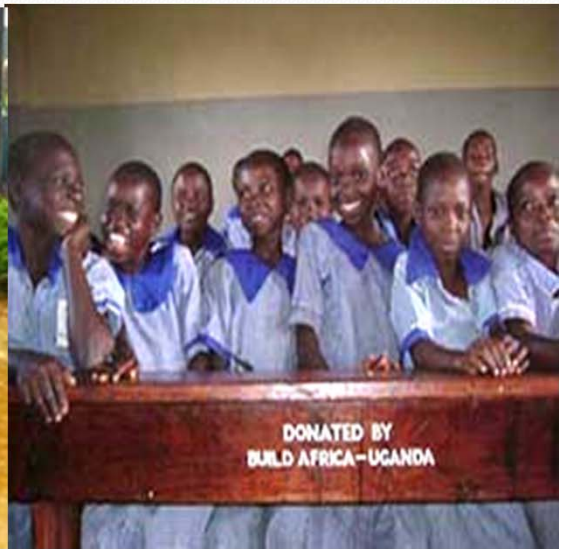
Background

- Uganda is one of the developing landlocked countries located in East Africa with a population of 33.4 million.
- Uganda attained independence in 1962 from the British colonial masters.
- The Uganda system of education is based on an initial 7yrs of primary education, 4yrs Ordinary Level Secondary , 2yrs Advanced Level Secondary, after which to tertiary /higher institutions.
- At independence, Uganda had one of the best higher education systems in Africa
- Uganda suffered an economic setback that began during the (1971-1985) that was characterized with political turmoil.
- In 1987 the new government, embarked on an economic recovery program aimed at reducing poverty by restoring fiscal discipline and monetary stability.



The Ugandan economy

- 88 % of the labor force working outside the formal sector. Uganda is predominantly a rural country—only 13 percent in urban areas.
- Adult literacy rates at 78 % men and 58% women.
- HIV/AIDS-related deaths result in high attrition of the labor force and a large number of orphans.
- Generally the income level for the people of Uganda is very low; a person survives on ¥ 150 a day.
- corruption and poor infrastructure are yet other restrictions to the benefits of national economic growth (DFID, 2010).



Higher Education in Uganda: An Overview

- Higher education began with Makerere University initially established in 1922
- With her 22 faculties now merged into eight colleges, Makerere University has a student population of about 40,000, and the best university in Uganda. Makerere University is among the Africa's most impressive example of institutional reform in higher education (URAP, 2010 and World Bank, 2001).

Other public Universities in Uganda

- Mbarara University of Science & Technology (MUST) 1989
- Kyambogo 2003is the second largest Public University by merging three institutions16,547 students (KYU, 2010).
- Gulu University 2003
- Busitema University (BU), the latest 2007



Educational Media

Traditional Media

- Chalkboard
- Realia
- Flannel boards
- Flip Charts
- Textbooks
- Models
- Charts
- Excursions
- Display Boards

Naval Media

- Radio
- Televisions
- Personal Computers
- Digital Cameras
- Projector
- Video
- Tape Recorder
- Internet
- Cellular phone

Media and Education in Uganda

In Uganda while a large portion of the Traditional Media can be designed and produced locally by teachers, the Novel Media is either imported or obtained as donations from abroad.

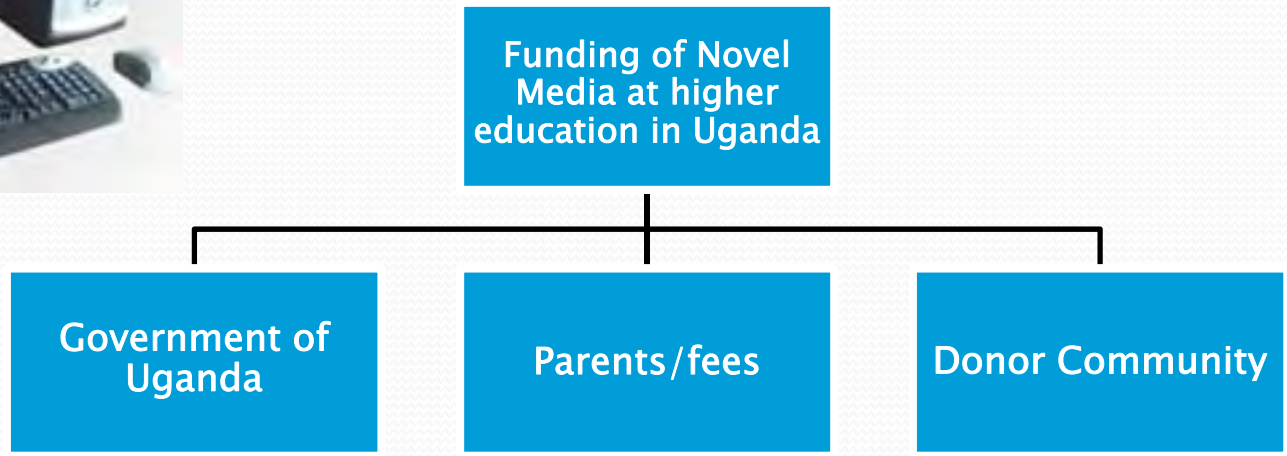
Why e-media in Education?

- The adaptation of Novel Media (Computers) in Education in Uganda is due to the United Nations and the Millennium Development Goals MDGs.
- ICT applications are deemed essential in the achievement of the MDGs. Particularly Goal 8 of the MDGs that Target 18 (Wamakote et al, 2010).



The Electronic Learning Media and Higher Education in Uganda

- Although the concept of Novel Media takes into account power driven teaching/ learning devises, in this paper shall be confined to computers as pedagogical devises at higher education (Balarabe, 2006).



The Donor Community and e-Media at higher education in Uganda

- Students' fees is too meager to accomplish the founding of e-media at
- As a solution, public universities have taken initiatives to bridge the deficit through sponsorship (donor agents).

Currently Uganda has a number of donor agencies, among others are:-

- The Netherlands' International Institute for Communication and Development (IICD)
- Swedish International Development Cooperation Agency SIDA/SAREC
- Connectivity for Educator Development Project (Connect Ed)
- International Institute for Communication and Development
- Makerere University with financial support from the British Council
- The Indian government
- The African Virtual University

NB These are only part of the Donor community in Uganda, there are others unlisted.

Challenges

- The developing world recognizes the part played by the donor projects to greatly extend ICT assistance at Higher education. Nonetheless, the course of funding is constrained by some forces in relation to surrounding circumstances in Uganda as a developing country.
- This section is based on a framework by Claudia R. Williamson (2009) who explores the failure of foreign aid with a twofold approach. His approach suggests that both the donor agencies and recipient countries mater in shaping the ultimate outcome of foreign aid.

Challenges of sponsored instructional media in the developing world

Donor Agencies

- Unaffordable tuition
- Electronic waste crisis.
- Unreliable Internet connectivity
- Technological infrastructure
- Sustainability

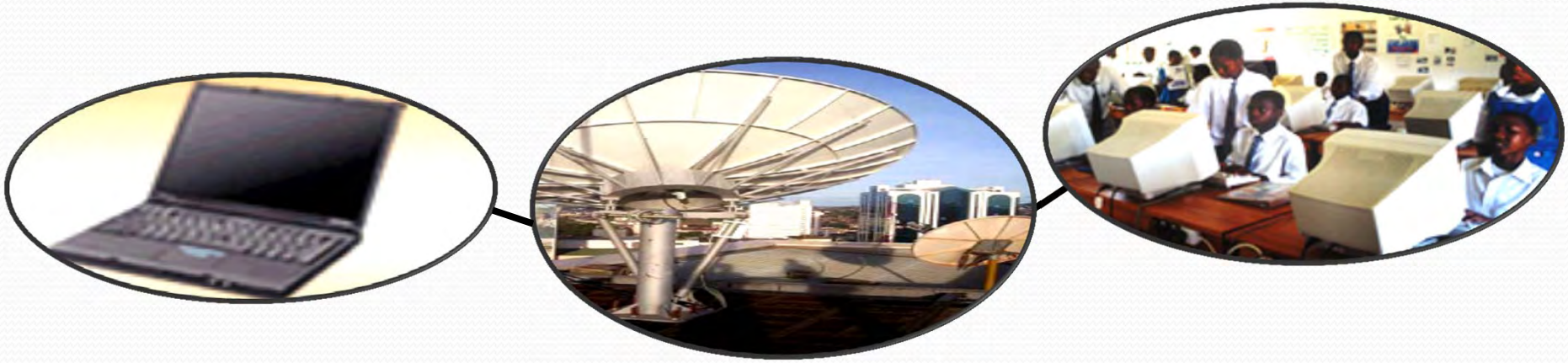
Recipients

- **Over dependence of Recipients**
- **Brain drain due to low remuneration**
- **Lack of enough computers**
- **Low income**
- **Limited Power supply**
- **Shortage of ICT teaching staff**
- **Graduate unemployment**
- **Socio-cultural ties**
- **High student-Computer Ratio**

Challenges of sponsored instructional media in the developing world

Prospects of Sponsored Instructional Media at Higher Education in Uganda

- There are prospects in terms of adequate government budgetary supplement to public universities
- The government has a strategic plan aimed at improving use and access to e-media in higher education.
- The national ICT policy lays emphasis on providing e-infrastructure at higher education (Infodev, 2007).
- Ministry of Information and Communications Technology. In Uganda a full Ministry of Information and Communications Technology was established in June 2006 with a mandate of providing strategic and technical leadership



Recommendations

- Government of Uganda with other developing countries should negotiate with the international donor agencies (IMF/IDAF) on the quality of e-media. Special considerations for the recipient university system to avoid accepting very old e-technology that hampers ICT progress.
- Continuous staff training is a key to achieving modern ICT skills. It is therefore necessary for the academic staff and universities to emphasize ICT staff refresher programs.
- Universities in Uganda should explore collaboration and linkages with reputable institutions and organizations abroad (e.g. Hiroshima –Kyambogo collaboration).
- Universities in Uganda should also expand the area of income generation for sustainability of ICT. This would control the dependence syndrome. Uganda needs to find more local sources of funding e-media at higher education, rather than total reliance on overseas aid.

Thank you!!

Arigato !!

Sponsored Educational Media at Higher Education in the Developing World: Challenges and Prospects: The Experience of Uganda

140th seminar

Abstract

In Uganda instructional media in the school system addresses both the Traditional and the Novel Media (e-media). While a large portion of the Traditional Media can be designed and produced locally by teachers, the Novel Media is either imported or obtained as donations from abroad. Currently Uganda has a number of donor agencies that have championed the sponsorship of Novel Media in both private and public learning institutions. Whilst sponsored instructional media has done much to bridge the digital divide, there is some disappointment associated with it. Various technologies are of low quality, and have been greatly misused by the recipients. This presentation gives an experience of the state of sponsored instructional media, challenges and prospects at higher education in Uganda.

Background

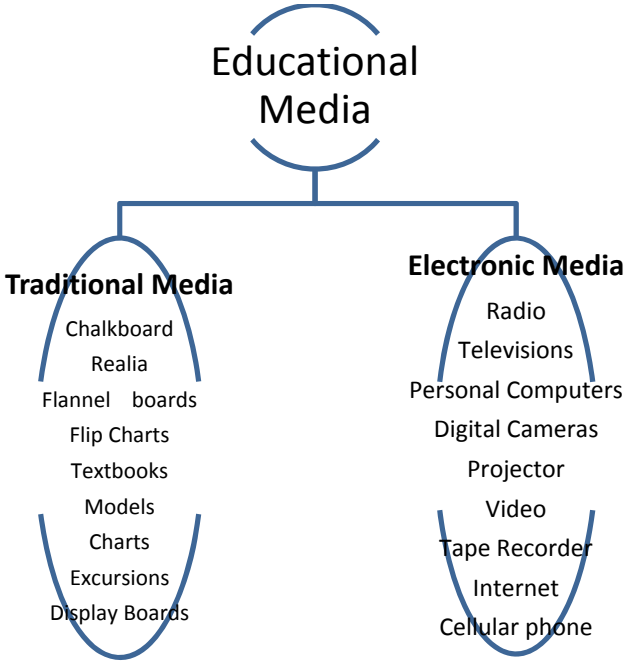
Uganda is one of the developing landlocked countries located in East Africa with a population of 33.4 million. Uganda attained independence in 1962 from the British colonial masters. The Uganda system of education is based on an initial seven years of primary education. Students who successfully complete primary schooling join a four years secondary ordinary level (O.Level). Those who successfully complete O.Level may then choose to enroll in the two- year Advanced Level (A.Level) program, after which to tertiary institutions. At independence, Uganda had one of the best higher education systems in Africa, attracting many students from neighboring countries.

Uganda suffered an economic setback that began during the (1971-1985) that was characterized with political turmoil. In 1987 the new government, embarked on an economic recovery program aimed at reducing poverty by restoring fiscal discipline and monetary stability. The Ugandan economy is largely informal, with 88 percent of the labor force working outside the formal sector. Uganda is predominantly a rural country—only 13 percent of the population lives in urban areas. Adult literacy rates are high for the region at 78 percent for men and 58 percent for women.

Higher Education in Uganda: An Overview

The terms higher'' or ''tertiary'' are often used interchangeably to denote types of postsecondary institution education (Mohamedbhai, 2008). In Uganda apart from universities there are other postsecondary institutions and colleges that constitute to higher education. However, given the role played by donors in sponsoring educational media, more evidence is at university than other levels of the education system in Uganda (Namugenyi, 2010). Hence, this presentation about sponsorship of instructional media at higher education will be an experience of University education in Uganda. Higher education was introduced by the Europeans, who were the colonial masters of Uganda. At the moment Uganda has 29 universities, of which 5 are public and 24 are private (New Vision, 2011).

Media and Education in Uganda



The above framework is based on a description by Heinich et al (1999), that instructional media is means of communication, carrying information between source and receiver. A deeper clarification made by Reiser and Dempsey (2007) that in any instructional environment, there should be some resources responsible for transmission of messages. These are the physical means via which instruction is presented to the learners. This includes textbooks, videos, computers, and having an instructor physically instructing a group in a classroom. In the context of Uganda, the means are either traditional or electronic.

In Uganda while a large portion of the Traditional Media can be designed and produced locally by teachers, the electronic/ Novel Media is either imported or obtained as donations from abroad. The adaptation of Novel Media (Computers) in Education in Uganda comes as a result of the

United Nations and the Millennium Development Goals MDGs. The UN at its fifty-fifth general assembly announced the MDGs to be realized. The UN members had to help developing countries reach certain standards by the year 2015. Each goal success or failure is measured by targets. Target 18 asserts, "In co-operation with the private sector, make available the benefits of new technologies, especially information and communications." This target is measured by the number of computers, cell phones or telephones per 100 persons (United Nations, 2000 and infoDev & ITU, 2011).

The 2003 report of the sub-committee on ICT and Governance presented at the Third Meeting of the Committee on Development Information (CODI III) encouraged African countries, like Uganda to complete their national ICT policies. Uganda being a signatory to the MDG had to comply by putting in place mechanisms like the approval of the national ICT policy framework (Torach et. el, 2009), and later the formulation of an educational sector ICT policy in 2005 (Uganda Ministry of Education and Sports, 2005). In Uganda ICT applications are deemed essential in the achievement of the Millennium Development Goals. This is particularly imperative as government's commitment to realize Goal 8 of the MDGs that Target 18 (Wamakote et al, 2010).

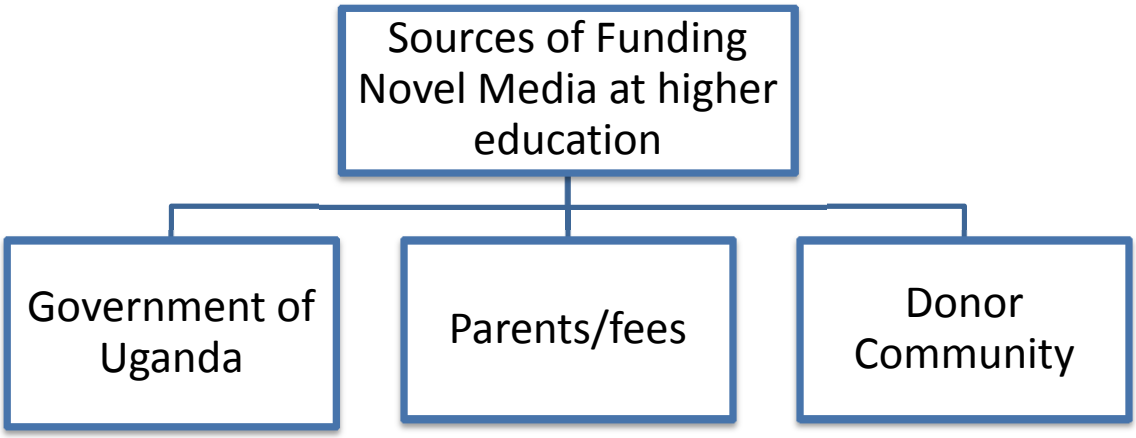
Higher Education in Uganda and Novel Media

In complicity with national ICT policy, universities in Uganda provide Electronic Learning Media to students so as to increase their capacity to incorporate the resource while attempting academic tasks. Some universities have developed Web presence for students and the outside world. Novel Learning Media in Uganda as one of the most significant technological developments in institutions of higher learning, has the potential to provide learning opportunities all the time, at any location, is cost effective and has wide reach (Kim, et al, 2005 and Michau et al, 2001). Given this exponential growth, there is little doubt that e-media learning tasks will become major for university students.

The Electronic Learning Media and Higher Education in Uganda

Higher education curriculum in Uganda has undergone reforms in line with modernization and Globalization. Although the concept of Novel Media takes into account power driven teaching/ learning devises, in this paper shall be confined to computers as pedagogical devises at higher education (Balarabe, 2006). Through strengthening educational media to suit the current demands and expectations, higher education is being challenged by new opportunities relating to appropriate technologies accessed by students. Using technology to enhance student learning in universities has become an important area for discussion and study. Electronic (ICT) devices are recently emerging technologies that have become integral part of higher education system (Mukwa et al, 2008; Crowe, A., et al 2006 and UNESCO, 2000). In the developing world, besides universities soliciting local funding to adopt Electronic Learning Media, several donor projects have greatly extended assistance.

Funding of Novel Media at higher education in Uganda



Government of Uganda

Government funding for instructional media at higher education has been declining over the years due in large part to the financial constraints brought about by the exceptional growth at the lower levels of education. Higher education received about 10 percent of a total ministry budget of Ushs 619.93 billion in the 2004/05 budget year (Ministry of Education and Sports, 2005), a rate that has remained more or less constant since the mid 1990s despite the massive enrollment increases.

The revenue support for higher education and the great expansion of enrollments are through cost sharing and private sponsorship. The government sponsors 4,000 students (about one-quarter of total university entrants). These students, who are fully financed by the government (tuition fees, room and board), attend only public universities.

Parents/fees

A fee collected from students by the university is retained for university-wide activities (supplementing staff salaries, staff development, and research) and sends the remainder to the income generating units (faculties and institutes.). In 2007, Makerere University took a decision to charge an ICT fee for both private and government-sponsored students. Each undergraduate to pay sh50, 000 (USD20) and post-graduates will pay sh80, 000 (USD32) per academic year. This money would be used to boost the university's ICT program and to improve the international image of the university by publishing research on the internet.

The Donor Community and Novel Media at higher education in Uganda

The total collection from students' fees is too meager to accomplish the founding of e-media at higher education. For example, since 2000 MAK gets approximately UGX 300 million (equivalent to approx. USD 172,000) annually as students' contribution to support research. As a solution, public universities have taken initiatives to bridge the deficit through sponsorship (donor agents). Currently Uganda has a number of donor agencies that have championed the

sponsorship of Novel Media in both private and public learning institutions. Some donors and Projects have assisted by distributing computers in schools. These include the Computer Aid International, Digital Links, and World Computer Exchange (Farrell and Shafika, 2007). Since the 1990s, there are several international donor and development agencies that have gone into partnerships with national MoES to promote educational ICT (Farrell, 2007). Among others are:-

The Netherlands' International Institute for Communication and Development (IICD)
IICD has been instrumental in Kyambogo University in sponsorship of ICT in Education in Uganda. The funds from IICD enabled the initiation of a project for ICT basic skills training (IBaT) hosted at Kyambogo University. This project is representative of experiences of implementing ICT projects in tertiary institutions in Uganda. The target trainees of the project include academic and support staff at the university as well as all students that did not have ICT training in their core programs. At KYU, Students and staff underwent training in ICT basic skills through IBaT.

Another Netherland Project in Uganda is 'Building a Sustainable ICT Training Capacity in the Public Universities in Uganda' was based in Uganda under the NPT Program. 392.6 million Japanese yen (2004 – 2008) for Information and Communication Technology (ICT) capacity building in the Public Universities in Uganda, namely Makerere University, Kyambogo University, Mbarara University of Science and Technology, and Gulu University. The target group was staff and students in the above institutions and mid-career ICT professionals. The main activities required expertise from the Netherlands, for support in Curriculum Development and Implementation, in development of research capacity and to advise on the establishment of a Centre of Excellence for ICT Training and Research.

Swedish International Development Cooperation Agency SIDA/SAREC
This is another donor agency funding the development of ICT policy and master plans at higher education in Uganda. Both an providing a coordinated framework for the development of ICT skills, infrastructure and systems. In Makerere university SIDA has sponsored the installation of the Makerere University Local Areas Networks (LANS). The support has enabled the training of University staff in the use of e-learning in teaching and learning, establishment of email and Internet user services on the whole campus. The university has set up Internet kiosks for use by the students, fitted with computers and servers. The support also enabled the establishment of the Makerere University Library support (MakLIBIS) which has helped to integrate ICT in all library functions, especially enabling online information access for students/staff in the University. SIDA has also helped to create more capacity in the main Library through installation of a LAN and 171 data points, servers, On-line Public Access Catalogue in addition to making available more than 3000 electronic journals. This is greatly facilitating access to relevant literature for research and teaching.
Since 2000 to date, SIDA has provided support to Makerere University valued at $ 63.2million. The funds have been utilized to install a Campus-wide fiber optic backbone; the improved gender terrain due to support accorded to the gender mainstreaming division and support to university efforts to improve the capacity building (http://mak.ac.ug/index.php).

Connectivity for Educator Development Project (Connect Ed) set up

Funded by USAID and Education Development Center, Connect Ed set up computer centers and Internet points of presence at Kyambogo University (KYU) and at eight affiliated primary teachers' colleges (PTCs). It provided computer literacy and materials development training for teacher educators, and began to re-purpose the print-based national PTC curriculum into an interactive, accessible online version. Connect-ED Phase II builds on the infrastructure established in Phase I but with closer collaboration with the Ministry of Education and Sports and KYU. The focus is on sustainability and long-term ICT strategies for KYU and the PTCs and on continuing to provide computer training and completing the digitization and enhancement of the national PTC curriculum.

International Institute for Communication and Development

The International Institute for Communication and Development supported the establishment of ICT maintenance facilities for rural Uganda at five technical colleges. These five UTCs are located in or near upcountry towns and are geographically well distributed throughout the country. An ICT maintenance facility set up at each college to provide technical support and to introduce a new course called ICT Installation and Maintenance to train technicians.

Makerere University with financial support from the British Council

E-Learning and Teacher Education (ELATE) program in Makerere University School of Education, began in 2007 as a professional development initiative to enhance secondary teacher training in Uganda. The School of Education jointly with Open University in Britain won the British Council Research Grant amounting to £92,000 to run the project. ELATE has involved teacher educators in the production of e-Resources for student teachers and newly qualified teachers. The British Council through ELATE has sponsored the production and distribution of over 800 CD-ROMs to schools throughout Uganda. The ELATE CD-ROMs has content which is interesting and locally relevant to the curriculum covering the use of graphs and pictures.

The Indian government

The Indian government through Africa Union (AU) extended a bid to Makerere University Faculty of Computing and Information Technology to create an e-network that will provide connectivity for eastern and central African countries to a pan-African network through fibre optics and wireless links. This project which commenced 2006 covers the Eastern and central African regions. Makerere is the lead university serving Comoros, Djibouti, Eriteria, Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Seychelles, Somalia, Sudan, Tanzania, and Uganda. Africa Union intended to promote the sharing of resources such as BlackBoard digital learning software, backups, and elearning courses. Makerere trains staff in e-learning and supports elearning in the whole of the university.

The African Virtual University

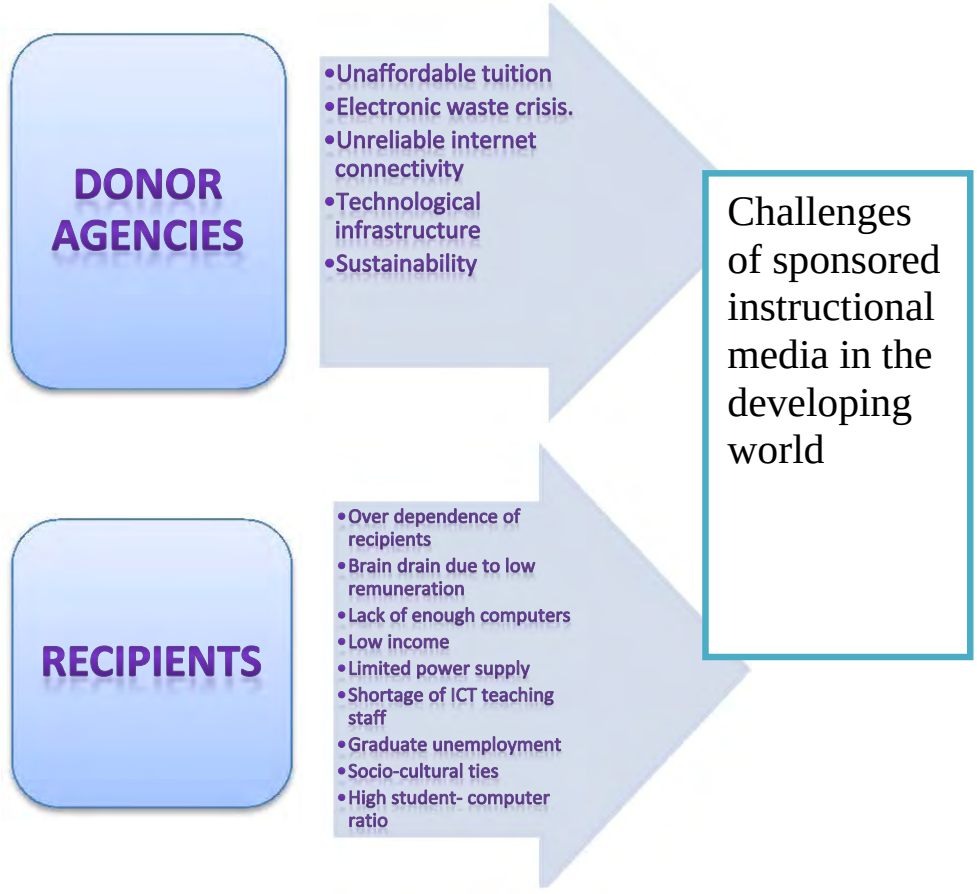
African Virtual University (AVU) jointly with the African Development Bank (ADB) has funded the ICT supported distance teacher education program for in-service student teachers at public universities in Uganda (Gabona, 2008). The AVU has set up a satellite station at Kyambogo for on-line communication. A series of workshops were held to develop the e-modules with common curriculum content in all subject areas. AVU intends to use SMS (text messaging) as one way students can get tutor support for their online programs. Being a "Virtual", AVU is not meant to have a campus and or faculty of its own; instead utilizes facilities, programs and courses offered by other member universities. On-line modules have been accomplished and can be accessed from OER @AVU [Open Education Resources @ AVU].

Challenges

The developing world recognizes the part played by the donor projects that has greatly extended ICT assistance to Higher education. Nonetheless, the course of funding is constrained by some forces in relation to surrounding circumstances in Uganda as a developing country. This section is based on a framework by Claudia R. Williamson (2009) who explores the failure of foreign aid with a twofold approach. His approach examines the donor countries, aid agencies and recipient countries shaping the ultimate outcome of foreign aid. Both donors and recipients may not have the information or knowledge to actually target and achieve the desired effects.

According to Claudia (2009) the donor agencies and recipient countries mater in shaping the ultimate outcome of foreign aid.

Challenges of sponsored instructional media in the developing world



Agencies

1. Unaffordable tuition
   Even though tuition is still the lowest in the East African region, for most students even this small amount is beyond their means. The level of tuition fees for ICT related courses, compared to other programs, is relatively high. Fee levels vary widely between the ICT related course and the non ICT-based programs. On average the variation is about ₦180, 000 Vs. ₦95, 000 per year respectively. Tuition increases are generally difficult to many parents who have resorted to non ICT related courses for their children. Numerous student strikes and unrest in public universities have been attributed to tuition increment. For instance, the proposed ICT fee policy in 2007 was criticized and resisted by the student leaders. Even in humanity related courses, students have been asked to pay extra ICT fee on top of the ordinary tuition

2. Electronic waste crisis. A large number of electrical equipment discarded or below standard of the developed world has found cheap dumping ground in African universities as donation in disguise of 'bridging the digital divide. In Uganda such junk computers, cellular phones, cameras, TVs and radios are being imported. Among the global environment threats today is E-waste, one of the fastest growing, reportedly to capacity of 50 million metric tons generated annually (SAIM, 2009). Recently, the United Nations moved policies to protect African countries from unregulated imports of e-waste. Uganda alone expects e-waste flows from PCs only to increase sharply from 4 to 8-fold in the next 10 years (ScienceDaily, 2010).

   According to Brown (2010), out of the 27,000 computers delivered into Uganda in 2007 only 4,000 (15%) were working computers; while the rest of these were merely clones. Universities have experienced a large number of second-hand and refurbished computers obtained from groups like Computer Aid International, Digital Links, and World Computer Exchange (Farrell and Shafika, 2007).

3. Unreliable Internet connectivity
   Donor agents in Uganda institutions of learning have as well funded internet connectivity to the computer labs. Regrettably the Internet has always been very slow in taking connections. Internet services are usually hampered by “traffic congestion” that makes accessing some websites hard and disappointing to most students, especially at peak periods of the day. Further, Internet access is usually concentrated in places found closer to the major urban centers, or often found at the universities rather than in students’ homes. Access to the Internet through an ISP is implies another cost to be incurred by the student. Students who are privately connected to Internet service can expect to pay an average of about ¥5200 per month in service fees.
4. Technological infrastructure
   The technical infrastructure is still of low quality in Uganda and yet a comprehensive technology system would be required to facilitate and support the e-media activities at higher education. In general, electronic educational media in Uganda is scanty. For instance, many universities have just small size laboratories accommodating few users at a time, with limited number of computers. Experience from research suggests that e-technology is a major factor in managing instruction at higher education (World Bank,

2000 and Eliot, 2000). This challenge has highly constrains the initiatives of donor agents in higher education in the country.

5. Sustainability and misuse
   Some donor programs end prematurely; without having given thorough orientation and preparation to the recipients. This is particularly evident when donor period suddenly phases out. What follows is shortage of ICT materials such as software programs, failure to run the generator and ISP subscription. The availability of these services in a developing country becomes a big problem. The consequences are media abuse and mismanagement by the recipients. Some of the instructional e-resources are misused and vandalized by especially by students. Such damages render the whole system confused and worthless to end-users.

Recipients

1. Recipients over dependence on donor funding
   Seemingly, donor projects 'pamper' government to be reluctant and over dependent to meet the obligation of fully financing e-media at higher education. Some institutions have acquired addiction to sponsored media. The culture of dependence has deeply undermined the pride, originality, and self-confidence of higher education in the developing world. Studies carried out by the World Bank on higher education in selected African countries (including Uganda) showed the importance of higher education to development. Uganda's allocation of funds to education in 2005/06 to 2014/15 do not indicated a change of heart in substantially funding education. For quite long, budgetary allocation to higher education has lingered on less than 15%. The consequence of underfunding is the delivery of declining quality of higher education and a drastic reduction of researches and limited use of e-technology in public universities.

   Many of the universities under AVU sponsorship spend little of their resources to ensure a steady running of the program. A report from the recent pilot project shows that out of the six sites, it was only Kenyatta University said to have purchased more than a handful of its current stock of computers (Juma & D'Antoni 2006). The scenario is worsened by delayed procurement protocols that make it difficult to run program. Universities should also make sacrifice to give e-media the due priority just like other programs. Overdependence renders the program vulnerable; hence arousing fear over the future fate in case donation phases out.

2. Brain drain due to low remuneration and social economic crises
   After donor community spending so much to develop human capacity at higher education, the products disappoint the system by indulging into Brain-drain. This departure of seasoned academics and scientists frustrates the inputs of donors. Uganda, like many African countries, has experienced external mobility and migration of best scholars from the universities to greener pastures and better-paying government and private agencies and firms that may or may not be able to tap their talents effectively. Recently in terms of the countries with the highest rate of 'brain drain', Uganda was ranked sixth in the world.

3. Another outstanding hurdle and a threat to sponsored media at higher education today is lack of enough computers. According to a report by microsoft.com (2007), the country,

by 2007 had less than two percent of its population online. This figure in comparison with that of Japan which had about 78.2 % of the total population as Internet users as per 2010 is exceedingly low (ITU, 2010). Some universities have tried to purchase the devises for their learners, but still not enough. Since a good number of students are even, ICT illiterate possession of a PC may even seem immaterial.

4. Low income: on average a person in Uganda survives on 150 ¥ a day. In such a situation, buying a new computer probably does not fit. In fact there are about 10 installed computers per 1,000 people; giving a ratio of 1:100 (Brown. 2010). Economic impoverishment and the reality that most students do fail to pay university dues on time, plus management of large and extended families has hindered the participation of students in IT education.

5. Limited Power supply also demoralizes the promise of donor community. Most of the ICT gadgets are power driven. In Uganda, connection to electricity is only in some urban places. There are still very many students' homesteads without power supply. And even in places with power supply, it has become highly unreliable. Access to power supply is a general problem and particularly severer in rural areas of the country (Seguya, 2010). In many places the load-shedding is a day and night affair.

6. It is vital to note that the donor agents play a key role in capacity building by promoting ICT skills and training at higher education. Nonetheless, shortage of ICT teaching staff is still a challenge. Comparatively few teaching staff with skills to make pedagogical use of ICTs across the university curriculum. At the moment, there is no any core ICT training cutting across the entire university program. While some students who received such training are often through trial and error methods.
7. Graduate unemployment
   In Uganda as in many other developing countries, graduate unemployment is a daunting problem and has been the subject of much debate in the education policy discourse. There are grandaunts from departments whose programs were funded by the donor community who are unemployed. A 1997 tracer study of Makerere University graduates, for example, reports that employment opportunities for graduates are dwindling, the periods spent searching for jobs getting longer and graduates are contacting an increasing number of employers before they secure jobs. Similarly, a 2003 study of the employment outcomes of school education in East and Central Africa, conducted under the auspices of the Department for International Development (DFID), reports that graduate self-employment in Uganda is generally non-existent, despite the donor spends heavily on their training.
8. Socio-cultural ties
   Gender a major hurdle to the progress of Donor agent in the promotion and utilization of ICT at higher education. The gender gap has demonstrated itself in some notions and stereotypes. The common belief that technology is meant for men frustrates a large number of female students. This impression, coupled with the fact that boys are more aggressive and swift in attaching themselves to the limited number of PCs has left the girl child ICT vulnerable. Some female students in Uganda have found it hard to access electronic technologies on ground that**;** ICT as a discipline suits more of male characters.

9. High student- Computer Ratio is yet another hurdle to ICTs at university. Most of the classes are increasingly overcrowded yet the number of computers has remained static. Learners have to share in ratios ranging from 1: 2 to 1: 6, and in a lesson. Students are therefore disheartened and withdraw from such a discipline mounting pressure. The illustration below is indicative of the situation. At one public university in Uganda, students are between 1000 to 1500 per year.

According to United Nations Millennium Project (2005), the stated goal of foreign aid is to end extreme world poverty and achieve development in poor countries. But when examining the state of sponsored media at higher education in Uganda, it is still far away from success. Sponsored media should not be merely for marginal successes but for extensive prosperity in higher education.

Prospects of Sponsored Instructional Media at Higher Education in Uganda

Generally the growth rate of ICT at higher education has been described as slow and inappropriately managed (Farrell et al, 2007). However, some improvement is likely to be realized due to the emergence of ICT policy frameworks and the growing government commitment to ICT in education.

- There are prospects in terms of adequate government budgetary supplement to public universities and also by proprietors to the private universities for research holds much prospect for increased level and quality of e-media undertakings by Ugandan universities.

- The government has a strategic plan aimed at improving use and access to e-media in higher education. It plans to establish a student loan program, actively seek multiple sources of funding for higher education, and set up a scholarship program associated with disciplines related to e-media (MOE, 2003).
- The national ICT policy lays emphasis on providing e-infrastructure at higher education (Infodev, 2007). The policy framework document also stresses the goal of lifelong education for all.
- Ministry of Information and Communications Technology.
  In Uganda a full Ministry of Information and Communications Technology was established in June 2006 with a mandate of providing strategic and technical leadership, overall coordination, support and advocacy on all matters of policy, laws, regulations and strategy for the ICT sector. It also ensures sustainable, efficient and effective development; harnessing and utilization of ICT in all spheres of life to enable the country achieve its national development goals.

Recommendations

Inadequate funding constitutes a major challenge to higher education in Uganda. To sustain excellence, concerted efforts must be made towards redressing the problem of under-funding of research in the institutions.

- Government of Uganda with other developing countries should negotiate with the international donor agencies (IMF/IDAF) on the quality of e-media. Special considerations for the recipient university system to avoid accepting very old e-technology that hampers ICT progress.

- Continuous staff training is a key to achieving modern ICT skills. It is therefore necessary for the academic staff and universities to emphasize ICT staff refresher programs.
- Universities in Uganda should explore collaboration and linkages with reputable institutions and organizations abroad (Hiroshima -Kyambogo).
- Universities in Uganda should also expand the area of income generation for sustainability of ICT. This would control the dependence syndrome. Uganda needs to find more local sources of funding e-media at higher education, rather than total reliance on overseas aid.

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