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BEYOND BRICKS, MORTAR AND UNIVERSITY TOWERS: RETHINKING DELIVERY SYSTEMS IN AFRICAN HIGHER EDUCATION

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Abstract

The researchers are participants in the Africa Higher Education Collaborative [AHEC], an initiative of the Institute for International Education's Council for International Exchange of Scholars [CIES]. CIES has brought together a multinational and multidisciplinary group of twenty African participants representing Egypt, Kenya, Nigeria and South Africa through the AHEC initiative, with a view to providing an effective vehicle for comparative analysis of cross-cutting issues impacting upon access to African higher education.

The AHEC group will be working together over eighteen months, pursuing inquiry along several themes, all centred on the issue of access. The group involved in this presentation is a sub-group whose focus is on 'Improving equity and access to higher education by improving delivery systems of higher education, including pedagogy, methodologies and didactics'. Within this theme, the group has defined its research topic as follows: **Beyond bricks, mortar and university towers: rethinking delivery systems in African Higher Education.**

Our objective in this presentation is to share work in progress on the project, and to illuminate what the project seeks to achieve eventually. Our ultimate intention is to develop richly textured case studies of our respective countries so that we have a solid basis for comparison, distilling best practices, and making recommendations for the future development of delivery systems in Africa.

Introduction

We begin from the premise that achieving equity of access and of outcomes remains one of the central challenges confronting higher education in Africa. This goal is animated by a concern to advance development, with positive outcomes for the economy, democracy, and social justice. In much of Africa, where the economic divide is glaringly wide, social inclusion of marginalized and under-represented groups in higher education is a vital political as well as moral imperative. However, even where access to marginalized groups is increased and participation in higher education widened, this is not consistently matched by equity of outcomes. One consequence of rapid expansion of tertiary enrolments is a negative effect on quality (http://siteresources.worldbank.org/EXTAFRREGTOPTEIA/Resources/Constructing_Knowledge_Societies.pdf; Materu, 2007). A more complex and nuanced view of access is therefore necessary.

With growing demand for higher education opportunities, fuelled in part by the increased recognition of the central role of higher education in promoting development, public policy in the realm of higher education has been driven by the main consideration of how higher education opportunities may be increased through appropriate economies and cost efficient strategies in the context of scarce resources (Koorts 2000; Badat 2005).

Governments and development agencies in Africa seeking to address the challenges of increasing access and widening participation are stymied by the prohibitive costs of establishing, equipping and sustaining new higher education facilities in the contact mode. Plainly a reliance on traditional forms and systems of higher education predicated upon costly physical infrastructure does not offer a sustainable avenue to increase access on the scale required. We therefore wish in the study to explore viable and sustainable alternatives in delivery systems that can extend the benefits of higher education across the continent. Open and distance learning offers tantalizing possibilities to widen access, reach the geographically remote and historically marginalised, and to extract maximum impact from the use of scarce resources, through the achievement of economies of scale.

Background and Context

There has been a massive expansion of Higher education during the 20th and early 21st century around the world. Africa has also not gone untouched in the explosion. The countries in this study, namely Egypt, Kenya, Nigeria and South Africa have also experienced massive increase during the same period. For example the enrolment rates in Egypt for undergraduate studies grew from 484 206 in 1988/9 to 1 167 891 in 1998/9; in Kenya the undergraduates increased from 40 816 in 1996/7 to 49 400 in 1999/0; ; in Nigeria there was a growth enrolment from 6 707 in 1965 to 411 347 in 1998; and in South Africa the enrolment growth has moved from 303 000 to 736 000 students in 2006 (Said, 2003; Ngome, 2003; Jibril, 2003; Bunting & Cloete, 2007). Yet, Africa's growth is relative and dwarfed by the growth experienced in other countries. For example, Clancy et al (2007) report a staggering increase of up to two-thirds of age cohorts in the admission rates of many countries. What is it that makes African higher education to be severely stunted in this way? There are many factors that seem to inhibit massive growth in the continent's higher education system, and some of these will be explored in detail in this study in order to gain better understanding of how these factors militate against growth and therefore what interventions would help to correct such a situation.

Firstly, it is clear that countries with high participation rates also have a high upper secondary participation and completion rates. All levels of the education system are related, and expansion in one level of the system causes pressure on the next level of the system. African education systems are often characterized by a steep pyramid, where most enrolment numbers can be found at the primary education level and only a very small fraction manage to reach and complete secondary education levels, let alone higher education (Caillods, 2004; Bregman, 2004)). It can be expected that the problems experienced in the small secondary education sector as well as the inability for many students to complete secondary education is a major inhibitor for participation rates in many African countries. In countries where secondary education participation rates are high, e.g. South Africa, the education system is bogged down by high levels of inequalities and only about 15% of students who graduate from high school qualify for higher education admissions (Department of Education, 2007).

The Case for Increased Access and Participation

It is trite that there exists a complementary relationship between higher education and economic development.. Teferra & Altbach (2003) argued that higher education represents a key force in the modernization and development of African societies. Consequently, African countries have granted higher education a priority position in the national and regional planning processes. In pursuance of this, many African nations became signatories to the objectives identified at the World Conference on Education at Jomtien in 1990, where the declaration of Education for All was proclaimed. These nations also subscribed to the pronouncement of the millennium development goals identified at the dawn of the twenty-first century, as the most pressing issues confronting our global society.

In Nigeria, the importance of higher education was emphatically and unambiguously expressed in the National Policy on Education (1977, revised 2004) that “maximum efforts will be made to enable those who can benefit from higher education to be given access to it.”

In South Africa, one of the main tenets of higher education policy and planning is to increase participation and success rates. This follows from the primacy of race as an issue in South African history and politics, and poverty as a defining factor in social and economic relations (Hall 200)

Higher Education in Egypt is provided by universities and higher institutes of technical and professional training - both public and private. Access to the public higher education system is free and Egyptian students pay only a token registration fee. According to Said (2001) one of the ‘strategic and prime mandates’ of the Egyptian government is to admit all students coming out of secondary education into tertiary education.

Higher education in Africa - Challenges

Contemporary social realities do not reflect the policy expectations of the higher education sub-sector in Africa. The African higher education landscape is besieged by a myriad challenges including poor technology, weak policy choices, lack of follow through in policy, implementation, extreme corruption, and severe under funding. Despite these, the role of higher education in socio-economic development of nations and individuals remains incontrovertible (Bloom, Channing and Cann, 2001).

It is clear that the higher education sub-sector in many African countries is at crossroads, and has been weakened considerably when compared with the early years of independence – 1960s-70s. This sub-sector has been consistently bedeviled by a myriad of challenges such as poor technology, weak policy choices, lack of follow-through in implementing policies, extreme corruption and severe under-funding (Easterly 2001; Oyelere 2005; Aigbokhan, Imahe & Ailemen, 2007). These challenges have grossly affected access to higher education in Africa in terms of quantity and quality.

Quantity features in the sense that huge proportions of qualified candidates are unable to access admission places due to institutional inadequacies to accommodate additional intakes. This is notwithstanding the fact that the existing institutions are already hard-pressed, and overstretched beyond their optimal capacities in terms of lecture and research facilities, qualified and competent personnel, hostel accommodation, libraries and laboratories, as well as, recreational and health facilities.

As a result, there is an upsurge of unsavoury sub-cultural and unacademic practices such as cultism, prostitution, examinations malpractices, plagiarism etc in these institutions. In terms of quality, evidence from employers of graduates of Nigerian higher education institutions (HEIs) indicate that there is palpable inadequacy in their competencies. A number of organizations have had to establish training institutions to retrain new cohorts of graduates employed by them in rudimentary skills such as information technology skills, communication skills, logic and general knowledge, in order to address their shortcomings (Obanya, 2005;). It is equally disheartening to note that a large number of these graduates remain on probation three years after recruitment. Thus, there is a need to revitalize and revamp the curricula and delivery systems of higher educations systems in the country, and by extension, the entire continent, in order to empower them to be competitive in the knowledge era. This challenge is aptly captured by a World Bank Report on the subject :

In today's global, knowledge-based economy, nations around the world are increasingly focused on generating human capital through a well-educated workforce. In Africa there is dire need to better develop and use both human and financial resources more efficiently in order to ensure equitable access to higher education among more diverse student populations in the region. Achieving this goal will require a collaborative effort that inspires national commitment, regional collaboration and international cooperation. Furthermore, Africa-based research and analysis on related issues of access to higher education needs to be expanded in order to better influence policymaking throughout the continent. In the emerging knowledge societies, exponential growth in the quantity of knowledge produces a growing gap between those who have access to knowledge and culture and learn to master them and those who are deprived of such access. As we strive to reduce the digital divide and other inequalities in access, we must also reduce the 'knowledge divide' which is liable to grow exponentially. Training in new information and communication techniques requires a high level of education, and the art of navigating in an ocean of information. The future of the knowledge societies therefore rests in large measure on the excellence of the training of teachers, mostly at the higher education level, whose tasks and functions are destined to become more diversified in pursuit, among other things, of the objective of education for all (2005).

The roots of the problems facing the higher education institutions in Africa are multifarious, though interrelated. The inability of higher education institutions to meet the rising demand for admission places is due, on one hand to increase in population of higher education-aged persons, and on the other hand, to the changing context of higher education in the 21st century, which has greatly challenged the notion of single stream HE for life. The shelf-life of knowledge has contracted so sharply such that, everyone now requires some form of continuing education or the other to up-date, re-tool, and/or re-skill extant knowledge in their specific vocational areas, in order to meet the challenges of the contemporary society. This has resulted in the necessity to re-enter HEIs to improve their knowledge and empower them to conform with the requirements of the contemporary globalized society.

Given the rising spate of demand for admission places, insufficient and uncertain budgetary allocations to HE and the incessant increase in recurrent and capital costs required to support its rapid expansion, it is easy to understand the scope and dimensions of the problems of access to higher education in Africa. The admixture of challenges bedeviling the system have made the institutions incapable of contributing

significantly to socio-economic development in the continent through the production of high quality human resources in diverse fields, who can impact the economy positively.

Access and Participation

Admission to higher education in most African countries seems to be characterized by what Clancy et al (2007) describe as 'inherited merit'. To start with, in small higher education systems, entrance will always be very competitive and advantage those with superior economic, social, and cultural resources. In such a situation, some compensatory measures become necessary to close the distance between the academic level reached and the social handicaps faced by students from disadvantaged social backgrounds. This study will examine the various measures taken by the different higher education systems to close this gap, if any. In other words, what are the means through which higher education is distributed amongst the various social groupings in these societies?

The small post-secondary sector is not geared for a mass education system where a large population comes out of the school system under-prepared. The small elite university system goes against the global labor market trends where most jobs require a post-secondary education system and even those that do not, education becomes a 'positional good', something whose value depends on how many others have it (Levy & Murnane, 2004; Dore, 1997). One way of distributing higher education widely in society is to grow the higher education sector, and yet the prevailing university type is very expensive to replicate and make it the main vehicle for massifying higher education. Ng'ethe et al (2008) is of the opinion that few African countries have actually engaged with the issue of size and shape of their higher education systems. Any growth that occurs seems to be relatively unplanned and merely responses from the supply side pressures. In a country like South Africa for example where there have been discussions about shape and size in the early 2000s, this seems to have been about correcting the historical racial distortions of the current system than actually engaging with the ultimate growth needed.

Whilst traditional modes of provision have significantly improved in many countries, a system of elite higher education without the balancing force of mass higher education would not be politically or socially viable, and a system of mass higher education without the academic models and values of the elite institutions would be unsound educationally and politically. The first thing that seems to happen in countries that have increased post-secondary education participation, is to provide educational opportunities that can be redistributed to the different social classes. The second thing is to provide a flexible system which allows for individuals to enter and exit the system at different points and move vertically and horizontally. According to Ng'ethe et al (2008), African higher education systems provide for a binary system that differentiated institutions horizontally, but are delivered in two different institutional types. There are all sorts of complications that can be expected in such systems, like for example academic and vocational drift, isomorphism, articulation problems, etc. This study will seek to look at such problems created by a lack of undifferentiated systems as well as the possible effects of including another institution in higher education in order to increase participation levels.

Heterogeneity and Differentiation

In an expanded secondary education system, it can be expected that the outcomes will be extremely heterogeneous. A more diverse student population is likely to be distributed unevenly in a differentiated higher education system. All of a sudden there would be a market of students who are likely not to have considered higher education as a strong option in their lives. The students need a lot of support in admissions, registration, cost and financial assistance, personal counseling. In addition, many of them are already parents and would need support in this regard to be able to attend a college. Many are employed and will not have enough time for their studies. But many more would need considerable support in work place connections as they will not have the contacts and networks that students from middle and affluent families have. Also, academic support and remediation seems to be very high in the list of things required for success in a massified higher education system. All these factors, when executed well, make a lot of difference in the effectiveness of an expanded and differentiated higher education system.

A differentiated system will only work when articulation and recognition of programs from one institution to another is in place and effective. Some African countries have attempted to tackle this matter through the establishment of National Qualifications Frameworks. However, engendering articulation is a far complicated matter, beyond the limited powers of qualification frameworks. It involves multiple institutional actors, multiple sub-sets of educational systems, and system-wide information systems. On the other hand, articulation cannot be established from pilot information based on institutional partnerships. The uniqueness of each institution cannot be replicated on a national basis as there are just too many variables to make generalization impossible. For example Engineering means different things in different institutions and there is no way that articulation from one institution can be expected to work in another. Also, partnerships tend to rely on individual actors and once they leave the institution, they often leave with their enthusiasm and sponsorship. So, there is currently no conceptual work on which to build a new differentiated and articulated post secondary system for many African Higher education systems

Finally, lessons from other countries show that it is becoming very difficult to plan growth in post-secondary education without incorporating the private sector. Private higher education has grown extensively in developing countries, including in Africa, and in many cases surpasses public higher education institutions. Unfortunately a great number of private higher education institutions seem to fall in the lower end of the higher education system, and this Kim et al (2007) attribute to the treatment of private higher education as non-integral part of higher education system in many countries. These authors argue that all higher education, private or public is a public good and therefore funding, quality assurance, and all monitoring mechanisms must speak to a single system if this private investment is to be exploited for increasing higher education participation. In this study, this issue will be explored at length.

A Typology of Access in the African Context

Our first objective is to develop a conceptual framework to illuminate and interrogate different notions of access . Several barriers to access present themselves as challenges to be overcome. Among the more readily apparent, we distinguish between physical access, technological access, constituential access, prerequisites for access, and epistemological access. In this section, we elaborate a typology of access as an analytical tool.

Physical access is characterized by lack of geographical proximity to higher education institutions. Higher education institutions in the African context are most frequently clustered in urban enclaves. Vast geographical expanses, which are mostly rural, do not have any higher education facilities in a number of countries. Accessing existing facilities close to urban centres often means travelling great distances by those who can least afford it.

Technological access is limited by several factors in the African context. Inequalities in income distribution result in a widening digital divide – measured by the number and spread of telephones and web-enabled computers. The more affluent sectors of society enjoy the fruits of technological advancement through increased information and communication through a better quality life, diverse public services, more opportunities and greater wealth flowing from such advancement. Educational delivery and support systems increasingly rely on information and communication technologies for administration, information storage and retrieval, teaching and learner support.

Sectors without access to new technologies are clearly at a significant disadvantage in accessing higher education opportunities optimally. Countries with low resource often have to spread these among diverse and competing demands, leading to dilution of available resources. Adding to the mix are antiquated hardware and software platforms, low bandwidth, and high costs of telecommunications.

The resultant effects are devastating as figures on the continent show. There is a widening gap in terms of per capita access to the internet. Socio-economic factors are the most significant in indicating limited access, with location (urban-rural) age, culture, background and levels of schooling all being exacerbating factors, suggesting a domestic divide between groups within countries. This leads us to the next category in the typology, viz constitutential diversity.

Constitutential access within the typology refers to the range of groups within society that are marginalized from accessing higher educational opportunities. This includes the urban poor, rural sectors of the population, mature students, women, working class students, and those who were discriminated against under oppressive regimes.

Prerequisites for access to higher education opportunities stand in the way of many seeking entry to higher education. These are normally in the form of selection criteria which sift from those applying even though they may meet minimum university entrance criteria. More elite universities often turn down students with very good school leaving certificates, who would have a reasonable expectation to be granted access. This normally happens where demand for entry far outstrips available places at contact institutions.

Gaining entry to a university often does not mean that students will achieve successful outcomes. A complex compendium of skills, experience, tacit knowledge and cultural capital combined with application and diligence normally makes for successful outcomes. Students coming into the university from impoverished backgrounds, added to financial woes, language barriers and inadequate support and mentoring mechanisms can struggle to achieve success. The result is a high dropout rate, frustrated aspirations and considerable cost for little discernible benefit.

Open and Distance Learning as a Strategy to Increase Access and Equity

In view of the foregoing, there is a need to identify and assess the scope and dimension of the challenges facing HEIs on the continent, ultimately to develop criteria and mechanisms for evolving sustainable national, regional and institutional policy initiatives for enhancing access to and delivery of quality higher education in Africa. This calls for alternative policy options that allow quality higher education to be delivered to large numbers of people in a way that does not raise costs, yet does not mortgage quality.

Traditional face-to-face approaches to higher education assume that there is an insidious link between quality and access (Daniels 1999). But when open and distance learning systems are carefully and professionally planned and implemented, drawing experience from best practices across the globe, the fear of lowering quality with costs can be put to rest. This is the rationale for the evolution of the field of open and distance learning as a viable alternative to conventional formal HE approach which seems to have suffered a loss of momentum due to the exponential increase in and diversity of student population as well as the corresponding reduction in the volume of finance available for the system.

The term open and distance learning is an amalgam of two concepts. *Open learning* – a philosophic construct which defines learning that is based on independent and flexible studies or initiative rather than formal classroom practice; while *Distance Education* refers to a mode of delivery of education in which the teaching behaviours are exhibited apart from the learning behaviours between persons located at geographically non-contiguous places through the aid of suitable instructional media. If the inadequacies of the conventional systems are reviewed vis-à-vis access, quality and costs of HE, it is easy to understand why the open and distance education system has provided a way of recruiting students and of shifting the balance of expenditure away from the state and towards the learner in ways that does not put great pressures on them.

The greatest argument in support of distance education is the economies of scale: as additional students are added, the unit costs of replicating existing instructional materials for them will reduce to the barest minimum. In addition, open and distance learning has a marked advantage over on-campus education because it can minimize the opportunity cost. One can study through the distance mode while continuing in gainful employment – whether industry, office or agriculture. Also, distance education can provide equality of educational opportunities by creating access to higher education, casting aside some of the rigid entry-requirements of the conventional system with regard to age and qualifications; and requirements of strict schedule of studies, stipulation of attendance, imposition of teacher/institution designed curriculum etc. It can be useful particularly for the dropouts to whom instruction can be provided irrespective of age, employment status, gender, religious/ethnic restrictions etc. through multi-media instructional packages.

A Typology of Sustainable Higher Education Delivery Systems

A variety of terms describe the type of educational provision that involves some version of an open learning approach and uses open and distance learning techniques to a greater or lesser extent. They follow here in summary of their main features:

Single mode institution: these are set up to offer programmes of study strictly at distance; although some face-to-face interaction may be involved, but this is often optional; teaching and learning is usually ‘mediated’ through any or a combination of the following: print, including correspondence; audio, including radio (one-way, two-way) cassettes, telephone, or audio conferences; by video, including television (one-way, two-way), cassettes, CDs, DVDs or video conferences; by computer, including computer-based training, e-mail, computer conferencing, or worldwide web.

Dual mode institution: offers two modes – one using the traditional classroom-based models; and one using distance methods; may also offer the same course in both modes, with common examinations; regards the two types of learner as distinct: on-campus and external; and may not allow ‘cross-over’ regulations.

Mixed mode institution: offers learners a wide choice of modes of study – independent, group-based, or some combination; maximizes flexibility of place and pace of study; the result of ‘convergence’ of face-to-face and distance modes; and increasingly characterises organizations that were once ‘single-mode or ‘dual mode’.

E- learning Delivery Methodologies

E- Learning in general can be defined as the formal dissemination of instructive curricula which is not dependent upon time or place via the use of multiple delivery options such as audio, video, multimedia communications and computer technologies. Student learning by means of distance learning techniques provides for challenging and collaborative academic opportunities and requires the use of pedagogical methods which include course design, synchronous, and asynchronous communication, and special instructional techniques.

Types of E-learning

Synchronous E-Learning

The method of Synchronous e-learning **delivery** offers the benefit of a live classroom via the Internet

- Virtual classrooms
- Application sharing
- Instant messaging
- Audio and video conferencing
- Shared Whiteboard - a virtual blackboard
- PowerPoint slides
- Voice-Over-Internet Protocol (VOIP)
- Net surfing
- Video - streaming and prerecorded
- Chat application – text messaging
- Virtual break-out rooms
- Polls & quizzes
- Assessment tests (results feed back)

- Session record and playback

Asynchronous e-learning

- Self-paced courses
- Discussion groups

Self-Paced Courses

The obvious advantage of a self-paced course is convenience. People can get the learning they need at any time. This can include just-in-time learning where a person gets exactly what he/ she needs to perform a task. Self-paced courses are created with [e-learning authoring tools](#). Self-paced courses can be delivered in many ways including:

- Internet
- Intranet or Local Area Networks
- CD-ROM or DVD
- Wireless

Features of Self-paced courses

Multimedia, interactivity, bookmarking, tracking, simulation, online chat or online discussion, search, Notes and Highlights.

Since self-paced courses can be offered without a teacher and without a required completion time many people need external motivation to take and complete a course of study.

Discussion Groups

A discussion group is a collection of conversations that occur over time. Other names for discussion groups are message boards, bulletin boards and discussion forums.

However, no single e-learning method is best for every learning need. Several e-learning technologies as well as traditional learning methods are used.

Delivery Technologies

A variety of methods can be used to deliver course content a distance. Technologies that can be employed include:

Videoconferencing, audioconferencing, Web conferencing, prints correspondence, video/audio correspondence, and Internet delivery.

These methods can be used in combination or exclusively. Conferencing methods require regularly scheduled meetings of students and faculty members (synchronous communications), while correspondence methods are typically asynchronous. Internet courses may employ both synchronous and asynchronous communications.

i. Videoconferencing uses video and audio transmission technologies to deliver course content to students in one or more remote locations and allows for face-to-face meetings between faculty members and students over distance. Much like traditional classroom settings, videoconferencing provides students the means for interacting directly with their faculty members and with other students and requires regularly scheduled meetings.

ii. Audioconferencing utilizes telephony to facilitate synchronous discussion among any number of participants. As with videoconferencing, this method requires scheduled meetings of students and faculty members.

iii. Web conferencing employs both Internet technology and telephony. Students are directed to a Web site for visuals and course materials while student/faculty member interaction is handled by telephone or by voice-over-Internet technologies.

iv. Print correspondence is probably the oldest method of delivering course content at a distance and involves the exchange of learning materials and assignments by mail. With the advent of the Internet, correspondence can also be handled via email.

v. Video/audio correspondence involves the use of videotape, CD, and DVD technologies to provide course materials at a distance. Student assignments can be delivered in either print or electronic formats.

vi. Internet delivery uses the Internet to provide course content and to facilitate communication between students and faculty members. This delivery method can involve both synchronous and asynchronous communication. Commercially designed packages such as Blackboard® and WebCT® facilitate the development of Internet or Web courses.

vii. Combined delivery methods. Realistically, distance courses will employ most or all of the above means for delivering content to students and for facilitating communications between students and faculty members. For example, the course syllabus, the course schedule, and course readings might be provided entirely by a faculty-developed Web site, while communication might be handled using a combination of videoconferencing and email communications.

Conclusion

This paper, while very much work in progress, has attempted to examine the extant practice of higher education in Africa, with a view to identifying sustainable alternative approaches to delivery of higher education, aimed at overcoming the challenges of physical and epistemic access to quality higher education in Africa.

Three clear alternatives emerge from this study. Firstly, the establishment of intermediate institutions to cater for the needs of marginalized groups of learners who may not possess the cognitive skills required for higher education as we know, but are compelled to attempt to access higher institutions because there are no institutions available to take care of their particular needs. Second is the open and distance learning system which has the marked advantage of absorbing large groups of learners and adjusting to student needs in terms of place, pace and time. It is also related to the first type of institution in the sense that it has the advantage of being able to take care of the educational needs of students from impoverished backgrounds.

Nonetheless, while the promise of distance education has been compelling, the gap between policy and impact is understandably wide for a number of reasons. Save for a very few institutions with adequate resources, experience and capacity, most distance education institutions on the continent are in relative infancy.

The third approach which is also closely linked with the second is that of technology-enabled learning systems. The merits of e-learning within the context of distance education delivery cannot be overemphasised. However, in selecting alternative delivery modes and/or technologies, planners and policy makers must take into consideration the objectives, infrastructure, budget, learner characteristics, and the time allowed. As much as possible, an indiscriminate adoption of technology for delivery must be avoided.

It is a fact that the benefits of technology enhanced education are far reaching. As with any approach, there are identifiable pitfalls which must be avoided. This includes lack of understanding of the basic

concept and rationale behind the mode or technology being selected. Thus, policy makers must ensure that instructional designers are comfortable with e-learning tools and environments as they are with classroom-based instruction.

If they are not, they cannot make sound decisions about delivery media selection. Some fundamental principles are applicable in this regard. (a) Think pedagogy first, technology second; (b) needs identification and analysis of the course to determine the desirable learning outcomes; (c) access to instructional/learning resources, including technology-based resources, by both learners and tutors.

In order to harness the inherent benefits of open, distance and electronic learning, there is an imperative for regional collaboration and cooperation across Africa. Countries need to establish policies, laws and regulations that allow for a creation of a critical mass of higher education managers who are able to leverage the skills, knowledge and expertise available across borders. Therefore it is important to recognize the role of strategic management in an environment where the balancing of scarce resources and rising needs and expectations have to be managed together with the increasing clamour for relevance and legitimacy.

Ostensibly, management should now be specialized and the collegium idea of classical university systems jettisoned Pityana & Baijnath (2005).

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