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Planning and Managing e-Learning Development in Tertiary Institutions in Nigeria

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Abstract

This study examined the critical steps to take by Nigeria government and tertiary institution administrators in making explicit planning on the use of e-learning technology in tertiary institutions. There is a need to plan and ensure efficient and effective management of e-learning in the face of challenges of infrastructure development for e-learning, funding and personnel development. The study investigated the roles of government in managing e-learning and in building its own educational network. It also examined contributions of private sector telecommunication to internet services and the strategies of funding e-learning in tertiary institutions. The study revealed that the use of e-learning by tertiary institutions in Nigeria is still very limited and that distance education in Nigeria largely depends on the use of printing materials. It was also found out that the roles of government in managing e-learning for tertiary education is still marginal. It was concluded that deliberate efforts should be made by universities and other tertiary institutions to develop e-learning facilities and, inter-university collaboration could be a strategy to enhance its establishment and usage. Moreover, the government should make explicit policy that can facilitate the growth of internet.

Abstrak

Kajian ini mengenal pasti langkah kritikal yang diambil oleh kerajaan Nigeria dan pentadbir institusi tinggi dalam membuat perancangan terhadap penggunaan teknologi e-pembelajaran di institusi tinggi. Terdapat keperluan merancang dan menentukan pengurusan e-pembelajaran yang berkesan dan efisien untuk menghadapi cabaran pembangunan infrastruktur untuk e-pembelajaran, dana dan pembangunan personel. Kajian ini mengkaji peranan kerajaan dalam mengurus e-pembelajaran dan membangunkan rangkaian pendidikan itu sendiri. Ianya juga mengkaji sumbangan sektor telekomunikasi swasta untuk menyediakan perkhidmatan internet dan strategi mencari

e-pembelajaran di institusi tinggi. Kajian ini menunjukkan bahawa e-pembelajaran oleh institusi tinggi di Nigeria masih lagi terhad dan pendidikan jarak jauh di Nigeria sebahagian besarnya bergantung kepada bahan bercetak. Ianya juga didapati bahawa peranan kerajaan dalam mengurus e-pembelajaran untuk pendidikan tinggi masih lagi kurang. Ianya dirumuskan bahawa usaha yang bersungguh-sungguh sepatutnya dilakukan oleh universiti dan institusi pengajian tinggi yang lain untuk membangun kemudahan e-pembelajaran dan kerjasama antara universiti boleh merupakan satu strategi untuk mempertingkatkan kewujudan dan penggunaannya. Tambahan pula kerajaan sepatutnya membuat polisi yang jelas yang akan membantu peningkatan internet.

Introduction

Advancements in information and communications technology (ICT) have made possible new approaches to teaching, learning, and research that were previously unimagined. In Nigeria, e-learning is becoming a critical step to take in making education available to potential university students across the country. Nigeria government has adopted education as an instrument to effect national development. E-learning seems to be the option to salvage the course of tertiary education in Nigeria. The universities with facilities on ground, in terms of physical structure, learning facilities and personnel are not adequate to meet the demand of prospective university students.

ICT status and development in Nigeria is still low although it is making progress. Telecommunication infrastructure remains one of the major issues affecting technology development required for growth and development in Nigeria. Nigeria has left the age when information and communication was predominantly provided by Telecommunication Limited (NITEL), that age was characterized by slow internet links, poor service, lack of infrastructure and an unprogressive telecommunication monopoly. Deregulation of the telecommunications sector led to the introduction of major Global System of Mobile Communications (GSM). The telecommunication boom has resulted in greater usage of internet technology, growth and availability of cyber cafes (Awe, n.d).

The e-learning techniques mostly adopted by most of the Nigerian institutions are in form of prepared lectures on a CD-ROM that can be played as at when need arises (Olaniyi, n.d.). The internet facilities adopted in most schools are not well maintained because of its high cost of running especially in the absence of adequate power supply, mostly the students took the challenges upon themselves to go to public cyber cafes where people of diverse interest meet. The bandwidth shared on various systems at the cafes is very low hence, a multimedia interactive lecture will not be obtainable because of low bandwidth. The population of student is enormous and the facilities are inadequate. Most of the tertiary institutions in Nigeria have started building their ICT centres but the focus is mainly to put up an internet facility alone without considering other components that made up e-learning centre (Olaniyi, n.d.).

The use of e-learning in Nigeria still has underlying constraints. According to Okorie, Agabi and Chineze (2005), Nigerian universities are lagging behind in both the capacity to adopt and also the level of adoption of ICT in university management. It was observed by Yusuf (2005) that national policy on information technology has no sectoral application to education, issues that are related to education are subsumed under sectoral application for human resources. Jogboro (2003) in his study of the internet usage in Nigeria universities revealed that major reason for low level of utilisation of the internet by the university students are due to low level of connectivity and high cost of cyber cafe facilities. However there has been an improvement in the use of internet by university students but many of the students have not turned it to educative venture.

In Nigeria, ICT has made more impact on administrative services such as admissions, registration fee payment than on the fundamentals of classroom teaching and learning. Government and institutions need to have a clearer understanding of the cost and benefits of e-learning. E-learning could help to improve the quality of education, e-learning can be used to improve distance learning and increase access to and participation in tertiary education, as part of a lifelong learning policy. It can also be used to enhance the student experience on campus. Application of learning technology for higher education must be seen as a means of broader societal transformation.

E-learning will continue to develop and bring about fundamental changes in the provision of education at tertiary institutions for both school leavers and lifelong learners. The government as a policy maker and institutional administrators need to make decisions about planning and management of e-learning in tertiary institutions. Planning for e-learning strategy enhances easy kick off, efficient and effective use of e-learning technology as means to enhance quality and accessibility to tertiary education. There is the need for government to take a critical step in planning and managing e-learning. There is the need to plan for funding strategies and provision of relevant e-learning facilities. The government has a major role to play in sourcing for fund and the provision of infrastructure for the learning technology. The role of institutions' administrators in looking inward to get fund, develop personnel, devise strategies of usage, programme designing, academic planning, curriculum development and quality assurance is pertinent in enhancing the use of e-learning.

Theoretical Framework

E-learning intersects numerous fields of thought and practice. Theory of e-learning encompasses an array of academic perspectives; training and education, learning and knowledge, technology and the investigation of individual market segments. Any study of the effectiveness and efficiency of e-learning has to engage with multiple issues, including the role of e-learning in knowledge and learning, its contribution to competent performance, its relationship to organisational transformation and strategies for embedding e-learning into other forms of electronic interaction.

Most forms of e-learning depend on access to electronic communication technology. In general, the more interactive the approach, the greater the demands on the communication network, although the transmission of text is less demanding than the transmission of usual images and sound. Many of the recent advances in e-learning have been driven by the expansion of fixed-line network capacity and the growth in internet use. The emergence of the world wide web, offers a user-friendly graphical interface through which learners can gain access to a huge range of information, more recently, there has been a rapid growth of new mobile communications technologies that offer internet access while by passing both the fixed-line

network and the web. Any assessment of the potential of e-learning must accommodate all these technologies. It is obvious that some countries may have emerging technologies of the slow adopters could leapfrog current technologies and adopt newer ones.

Bandwidth is a major issue in the deployment of e-learning. Bandwidth refer to the amount of information that can be sent or received at a point on a computer network. The greater the bandwidth, the greater the carrying capacity and speed of transmission. The higher the quality and quantity of audio, video, interaction and processing tasks, the more sophisticated the communications technology required. Bandwidth also costs money so there is a financial imperative to manage the amount of bandwidth used for e-learning, particularly where it is used to support remote and distance users who may not have access to fast data connections. The most common way of dealing with bandwidth constraints is to minimise the amount of information that is to be communicated, usually at a considerable cost to learning quality; strategies such as data compression and cashing files are also used.

E-learning has historically been linked with distance education and flexible learning. E-learning may be seen as a forum of flexible and distance learning, not all flexible and distance learning necessarily involves e-learning. E-learning has also been defined in terms of its social context and its ability to offer learners the option of working outside structured education environment.

The purpose of this study was to examine the current status of e-learning usage, the challenges in its usage and the critical steps to take in making a comprehensive planning and management of e-learning in tertiary institutions. In order to guide the thrust of this study, the following research questions were answered:

(i) What are the uses of e-learning for tertiary education?
(ii) What are the roles of government in widerning access to the internet?
(iii) What are the efforts of government in building its own educational network?
(iv) What are the contributions of private sector telecommunication to internet services?
(v) What are the strategies of funding e-learning in tertiary institutions?

Methodology

A qualitative research technique was used to gather information from respondents. Observations and participatory experience were adopted. The study also engaged the use of unstructured interview, both face to face and phoning methods were duly complemented with survey interview. The information was gathered from both academic and non-academic staff of universities and also the students.

Results and Discussion

The use of e-learning by tertiary institutions in Nigeria is still very limited. Some universities engage the use of e-learning, they encourage students to access internet to get solutions to their academic assignments. The survey interview carried out among university undergraduates showed that many students visit internet for the purpose of sending messages to friends, chat, search for scholarship opportunities, make international friendship. In National Open University of Nigeria (NOUN) learning resourses are in form of printing materials, also text messages were sometimes use to dissemminate information concerning their academic programmes. Distance education in Nigeria largely depend on the use of printing materials, hence e-learning for distance education is grossly under-utilised. The use of e-learning to supplement classroom which may be termed blended learning has not been in practice.

The roles of government in managing e-learning for tertiary institution is still marginal. The government has shown interest in planning and managing NOUN, which is an institution that is leading as far as open learning is concerned. Government is playing marginal role in creating access to internet. Government has not started building its own educational network. Although in some universities, some faculties, departments and even university management are now showing interest in establishing internet facilities for students' and staff's use. In some universities internet was provided for administrative purpose. The private sector has been making a significant input as far as provision of internet services are concerned. They have made provision for series of internet facilities in campuses, in business centres, located in urban centres, private sector telecommunication such as O'net is now making its impact known,

in internet facilities available to a significant number of potential and interested people in the society.

Funding of e-learning is still met with a lots of constraints. In universities, the provision of internet facilities are made from their meagre resourses. In some universities, faculties engaged in provision of internet facilities as a business venture. In some universities, funds are sourced from students, to establish internet, facilities which are run as a business venture. However, universities in Nigeria have not turned the available internet facilities into educative venture. Faculties' programmes have not been transformed into online programmes. Most students still rely on online services in developed nations.

Utilisation of e-Learning for Tertiary Education

E-learning is becoming increasingly prominent in tertiary education, with universities increasing provisions and more students signing up (OECD, 2005). E-learning is more than just online distance education. Any programme that uses information and communication technology to enhance the learning processing may be considered to fall into the category of e-learning. In the last few years e-learning has altered the face of higher education in profound ways. New ways of thinking, teaching, and learning have moved from the horizon of far-off promises to the centre stage of common practice.

E-learning technology enhances classroom teaching in a variety of ways. Teachers may build a course web page, with links through the internet to relevant resources on other web site. Instructors can convert their power-point slide presentation to pdf files (electronic documents), which students can download and print from a web site. A professor may go further and construct a course web site that includes the professor's own papers, or research materials such as photographs or slides as well as links to relevant sources. Teachers, may also use other web sites for illustration within their classroom lectures. Students may be asked to participate in online discussion forum, to discuss the lecture afterwards among themselves. This study revealed that the use of e-learning by tertiary institutions in Nigeria is still very limited. Few number of universities engage the use of e-learning. The use of e-learning to supplement classroom teaching has not been in place.

Distance education has been in practice for a long time. Universities have been using a lot of method in reaching out to students, but with the development in learning technology such as e-learning many of these universities have gone online. Distance education in Nigeria largely depend on the use of printing materials, hence e-learning for distance education is grossly under-utilised. Major and highly reputable universities with large on-campus teaching programmes, such as Queens Competition University in Canada, the University of London in the United Kingdom, and the University of Wisconsin in the US, have been offering distance education programme for over 100 years. Institutions such as these that offer both campus base and distance education programmes are called 'dual mode' (Bates, 2001). It has been relatively easy for dual mode institutions in countries with a good telecommunication infrastructure to move to online distance delivery. In particular online discussion forums provide a quality of interaction between students at a distance that is not possible for the old print based correspondence type courses.

In contrast to the dual mode institutions, Daniel (1998) has described the large, dedicated distance education institutions (single mode) as characterised by very large enrolments (usually more than 100,000 students) and use mass communication technology such as printing and broadcasting. The large distance education institutions such as British Open University tend to operate on a national or, international basis. However there are some of the single mode distance institutions that have gone online, deviating from the use of mass communications technology. For instance, Athabasca University in Canada has been able to move extensively into online distance education, because of the wide available of the internet in Canadian homes. The Open University of Catalonia in Spain was created in 1994 from the beginning as an online virtual university.

Distributed learning has been significant in the use of e-learning. It describes a mix of deliberately induced face-to-face teaching and online learning (for instance one face-to-face lecture or seminar a week with the rest of the teaching and learning done online, replacing the traditional three face-to-face lectures a week). Flexible learning is another term in Australia which is similar to distributed learning. Flexible learning may encompass online learning, and it can also include face-to-face teaching delivered in the workplace, and other flexible delivery methods.

Unfortunately, especially in the US, the term 'distributed learning' is also commonly used to include fully distance courses thought totally online. However distributed learning as mixed mode operation enables the benefits of both the campus and online learning to be combined (Bates, 2001). It is perhaps not surprising then that the University of Central Florida in the US reports that grades are higher when face-to-face classes are combined with online learning (mixed mode), compared with straight face-to-face teaching or solely distance courses (Dziuban et al., 1999).

Government's Roles in the Planning and Managing e-Learning

The role of government in managing tertiary education varies from country to country, and even from state to state within federal system. State or national governments play a significant role in the strategic direction and funding of higher education and of e-learning in all Organisation for Economic Cooperation anda Development (OECD) countries. Even in countries where institutions have significant autonomy and governments are not expected to play a direct part in institutions management governments influence the behaviour of institutions by means of strategic funding or policy (OECD, 2005). In many western countries, governments have traditionally been reluctant to interfere in the day-to-day running of universities, although they have often taken a more direct role in managing tertiary institutions. However, since the late 1980s many governments have been increasingly active in regulating, restructuring and using fiscal policies to influence the behaviour of even large research universities (Bates, 2001).

In many developing countries and even in many southern European countries governments have always taken a fairly direct role in managing and directing general higher education policy. In Nigeria for instance, Nigeria University Commission (NUC) represents the government of Federal Republic in managing university education, it oversees both academic and administrative functions of the university. Federal universities in Nigeria receive the bulk of their funding directly from the federal government with NUC acting as a conduit. A government can play a number of strategic roles in the technology planning in tertiary institutions. Its academic and financing policies can encourage all institutions to utilise e-learning, and also it can articulate and operationally a collective vision for tertiary education system with respect to the place

and role of e-learning within the system. The roles of government in managing e-learning for tertiary institution is still marginal in Nigeria. It was revealed that the government has shown interest in planning and managing NOUN which is an institution that is leading as far as open learning is concerned.

Governments have a critical role to play in widening access to the internet in theory, the internet could operate under any system of government regulation, thus a nationally owned telecommunication monopoly could be mandated by the government to provide internet services. Government could also build their own telecommunications networks for education and other government services. Government can also use it's clout as a major corporate' client. Government agencies such as hospitals, schools, and government offices can constitute a large component of a tele-communications company's business. By 'bulk buying' services from one carrier in a competitive market, government can drive down the cost of telecommunication. More importantly, by issuing a request for proposal (rfp) that states pre-determined requirements, such as connection to previously unserved schools or colleges as part of the deal, governments can increase telecommunications and hence internet access to more remote areas. The contract would go to the carrier (or consortium of carrier) offering the best range of services, combining price with connectivity and service. Alternatively, governments may pay the extra cost of connecting remote sites such as schools or community centres, although this is likely to be more expensive strategy than issuing an rfp (Bates, 2001).

Government could also use the strategy of building its own educational or government network, either as the sole telecommunications carrier, or in direct competition or even partnership with existing carrier. This might be used as the last resort if the private sector telecommunications companies are not meeting government expectation regarding the development of accessing internet services. In Nigeria, government is playing marginal role in creating access to internet. Government has not started building its own educational network. Although in some universities, faculties and departments and even university management are showing interest in establishing internet some have even embarked on establishment of internet facilities. In US, several state governments, such as Kentucky Indiana, have built their own education telecommunications networks, in areas where traffic is comparatively less dense and competitions from tele-

communication carriers is less intense. In order to widen internet access; a number of countries have developed strategies for local community access to the internet. The government role can be direct such as funding the equipment connectivity and operation of local community centre, indirect by providing free or reduced price internet connection or tax breaks to commercial organisations.

In many countries, of course the policy framework for the development and regulation of telecommunications services is likely to rest with ministries of industry or communication rather than education. However, if a country's national policy is to develop the growth of knowledge based economy, then the ministry of education needs to work closely with the ministry responsible for government policy and regulation in the tele-communications area. According to Bates (2001) several of the more economically advanced countries are now developing a national e-learning strategy as part of a broads national skills and training policy encompassing several different government ministries and departments. Whatever strategies government choose to adopt it needs to be recognised that the effective use of e-learning for education is absolutely dependent on a widely accessible and low-cost national telecommunications infra-structure. It also needs to be recognised that government policy can immensely facilitate or hinder the growth of the internet for educational use.

The traditional means by which governments have tried to ensure quality of provision of higher education is through the accreditation of institutions, in other words licensing institutions to award nationally recognised qualifications such as degrees, diplomas and certificates. However, e-learning recognises no national boundaries, this does not mean that governments should do nothing perhaps the most important role is to educate consumers, either through developing guidelines and a set of questions for students to ask before enrolling for online-programmes or by using guidelines developed elsewhere.

Government can certainly play an important role in regulating online programmes from institutions within their own country. E-learning programmes should be subjected to the same process of accreditation as any other programme. It does not need to be stricter than the accreditation of on-campus programmes, but it is important to ensure that the specific requirements of online programmes such as access to online library

facilities and appropriate online tutoring, are adequately met. If governments have confidence in their public-sector institutions to properly ensure the quality of their own online programmes, no further regulation is needed than the normal degree approval procedure.

The government may face difficulties in programmes coming from institutions located outside the country. Many countries have a process for recognising qualifications from abroad, either done through a central government organisation, or delegated to individual national universities and colleges. This process could also be used for accrediting students who have taken online programmes from a foreign institution. However, students who in good faith have taken a course from an institution that has not been previously accredited may suffer. There may then be a value in requiring foreign institutions to be accredited by appropriate national body or institutions, and warning students to ensure that the courses they propose to take from a foreign organisation will be recognised by such an accreditation body. Another mechanism that can ensure foreign e-learning programmes meet national accreditation standards and cultural requirements is through partnership of a recognised national institution with a foreign provider. Thus government could encourage partnerships with carefully selected reputable foreign universities, colleges and appropriate private sector institutions for the delivery of online learning.

Strategies of Funding e-Learning in Tertiary Institutions

Funding is probably the most powerful lever that government has in influencing the development of tertiary education. e-Learning is not an option that comes without additional costs. There are both the costs of investment, to start e-learning activities, and the cost of sustaining them. e-Learning is not a cheap option to face-to-face teaching. Business invest in new technology not necessarily to save money, but to obtain competitive advantage. The main advantage for public institutions and governments investing in e-learning is not likely to be to save money, but to improve the quality of learning, and to develop workforce skills that will eventually facilitate economic development. The government and university management should devise series of strategies in funding e-learning. How can institutions find resources to fund e-learning at a time when universities and colleges are under increasing pressure to reduce costs, and when government fiscal policy is often to reduce rather than

increase public spending of e-learning? Finding of e-learning is still met with lots of constraints in Nigeria. In universities, the provision of internet facilities are made from their meagre resources. In some universities, faculties engaged in provision of internet facilities as business venture. In some universities funds are sourced from students to establish internet facilities and then run as a business venture.

The reallocation of existing funding is probably the most realistic option for supporting e-learning. Policy decisions have to be made about the importance of e-learning relative to other educational, social or economic issues at a government level, and about methods of teaching and learning at an institutional level. If e-learning is to be a sustainable activity, eventually it will need to be funded from regular operating budgets. If e-learning is considered important for national development or for improving the quality of teaching within institutions it needs to become a core part of the activity of tertiary institutions. Similarly, governments may have to reallocate funds to enable initial investments to be made, and to cover the legitimate additional costs to institutions of incorporating e-learning into their regular activities. Make more effective use of teaching staff through the use of the technology. For instance, by using web-based materials, online group discussions and e-mail, classroom activities may be reduced by one or two sessions a week freeing up the instructors for work on e-learning activities core teaching materials may be created that can be adapted for a variety of different courses or programmes, thus reducing the amount of time instructors need to deliver new programmes. Materials that are developed for on-campus students can be modified and adapted for cost-recoverable continuing professional education programmes thus generating more revenue for a department (Bates, 2001).

E-learning could be funded through reallocation at both a government and institutional level through analysis of the balance of funding between infrastructure, administrative applications and educational applications of technology. Investment in technology infrastructure an administrative information technology systems tends to precede and largely exceed investment in educational applications. It may be worthwhile for government and institutions to take an audit of relative spending in these areas. Government or management may opt to slow down investment in further improvement to the technology infrastructure or administrative

systems, and reallocate at least some of the resources historically devoted to these other areas into educational applications such as e-learning.

Creating a new e-learning institutions is a strategy for effective management of e-learning, especially in countries where resources are limited. There will certainly be more opportunities to maximise the economics of scale of e-learning by creating a new institution rather than adding e-learning to conventional institutions. It may be possible to reduce student unit costs by up to 25% through a large, national institution focused solely on e-learning, particularly if it makes use of infrastructure already provided by other campus-based institution. However, the reality is that if the cost of providing the necessary technical support to ensure access is included, unit cost per student will not be dramatically below those of face-to-face teaching.

E-learning could be funded through increase in students' fee. Some institutions in North America are already passing some of the costs of technology investment directly on to the students by means of a student technology fee. Sonama State University in California introduced a student technology fee that applied to all students, as well as requiring students to provide their own computer. The fee was used to provide technical help and support for student, to improve the local area network to provide docking ports for portables, and to make available easy access to public computers in public places on campus. Students themselves play a large role in managing this fund and in approving the level of the fee.

E-learning could be funded through increase in government baseline funding for institutions. If the aim of supporting e-learning is to improve the quality of learning and to prepare students better for a knowledge-based society. Then it could be argued that governments have a responsibility to take in the additional costs that are necessary to support e-learning. It has been argued by Bates (2000) that institutions need to increase their teaching budgets by around five percent to provide the necessary technical and production resources needed to support adequately an institution wide initiative in e-learning.

Tertiary institutions may seize the opportunity of explosion in demand for admission to get more fund for e-learning programme. Institution may slightly increase the current level of regular programme, and then absorb the additional numbers by a move to e-learning. University of Central

Florida in Orlando is a good example. It has moved heavily to online learning to enable it increase capacity from 35,000 to 60,000 students over five years. It simply cannot build enough to meet this expansion through regular campus based teaching. Also, much of the demand is coming from those already in the work force, in the high-tech sector wishing to upgrade or pay their way through university.

Conclusion and Recommendations

The use of e-learning in tertiary institutions in Nigeria is still very limited. Some universities engaged the use of e-learning in form of accessing internet to get necessary information for academic assignment. Distance education in Nigeria largely depend on the use of printing materials. The use of e-learning to supplement classroom teaching, as a form of blended learning has not been in practice. The role of government in managing e-learning for tertiary education is still marginal. However the provision of internet facilities in universities are made from their meagre resources.

The government and the tertiary institutions administrators in Nigeria should look inward in planning and managing e-learning in view of its potential contribution to institutions future and educational progress of the citizenry. The importance of internet for tertiary education is tied to social and economic developments. The challenges for planning and managing the development of e-learning technology include: Infrastructure development, funding, pedagogic value of e-learning, training the technical personnel and staff development. It is high time, an extensive and explicit policy and planning are made concerning the use of e-learning technology to enhance teaching and learning in Nigeria tertiary institutions.

Nigeria government should make deliberate efforts in planning and managing e-learning. Government should make explicit policy that can facilitate the growth of internet. E-learning could be funded through reallocation at both government and institutional levels. Governments could build up their own telecommunication network for education and other government services. They could also build their own educational network, either as a sole telecommunication carrier or in direct competition or partnership with existing carriers.

Universities and other tertiary management should put effort to initiate means of improving institution capacity, a deliberate fund should set aside for the development of e-learning technology. Tertiary institutions that run part time and sandwich programmes should move to the use of e-learning or combine classroom learning with e-learning to enrich the programmes and to bring convenience to part-time students. NOUN should transform its academic programmes to blended learning, that is combining the use of study centres with e-learning. Inter-university collaboration could be adopted to enhance the use of e-learning technology in Nigerian universities and also in other tertiary institutions. Tertiary institutions may seize the opportunity of explosion in demand for admission to get more fund for e-learning programmes.

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