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Academic Libraries as Agents in optimizing E-learning Opportunities for Effective Educational Service Delivery

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Abstract
Purpose: The paper highlights the concept of E-learning, bringing to the knowledge of readers, how E-learning is categorized in the context of educational service delivery.

Design/Methodology/Approach: The study adopted literature review method in eliciting how the library plays pivotal roles in effective educational service delivery and optimizing e-learning opportunities.

Findings: From the literature reviewed and conclusions raised in the paper, it is observed that certain critical factors pose as challenges of e-learning for effective educational service delivery. Such factors as lack of ICT facilities, Poor maintenance culture and technical support, Lack of skill, Technophobia, Poor bandwidth problem, poor electricity supply and Poor perception of E-learning on the part of the learners and the instructors.

Practical Implications: The paper provides solutions to factors identified as constraints in e-learning for effective service delivery. This is tagged as the meeting point of libraries and E-learning for effective ESD. Such meeting points are: increase in the budget allocation of academic institutions, providing access to e-resources, etc.

Originality/Value: The study is one of few articles written in the area of libraries and e-learning in the context of raising issues regarding the involvement of libraries in optimizing e-learning opportunities for effective educational service delivery.

Keywords: libraries, e-learning, educational service delivery.
**Introduction**

In today’s educational system, Information and Communication Technologies (ICTs) play a major role in terms of educational service delivery. ICTs are the technologies which together support people’s ability to manage and to communicate information electronically. Examples of such technologies are, computers, digital cameras, video, televisions and radios (Takalani, 2003). The integration of ICT to learning cannot be overemphasized. The use of these ICTs to enhance and/or support learning in tertiary education is the concept of E-learning. E-learning is applicable to distance learning and can also be used in conjunction with face-to-face teaching. E-learning is becoming one of the most common means of using ICT to provide education to learners both on and off campus (Mutula, 2003). E-learning occurs mostly at the academic environment with the help of facilities on ground that will enable its successful implementation. The 2005 final report of CARL E-learning working group noted that E-learning technologies are increasingly available within the academic community, and libraries on the other hand have tended to work under a different paradigm, providing students with access to online systems that allow them to “pull” information from catalogs, databases, and special collections to suit their learning or research needs. The place of academic libraries in enhancing E-learning is the crux of this paper, especially in terms of providing effective educational service delivery. Education can be transformed all over the world using E-learning as a means. There are many pedagogical and socio-economic factors that have driven academic institutions to adopt E-learning. These include greater information access; greater communication via electronic facilities; synchronous learning; increased cooperation and collaboration; cost-effectiveness (e.g. by reaching different students and in greater numbers) and pedagogical improvement through simulations, virtual experiences, and graphic representations. The concept of E-learning is of paramount importance, and this paper is fashioned in a bid to highlight some points that boost educational service delivery using E-learning, with academic libraries as agents in optimizing this scenario.

**An overview of E-learning**

Eke (2011) has remarked that E-learning goes like the name sounds; the prefix ‘e’ stands for electronic, and electronic learning is learning via electronic means. It is a web-based kind of learning. E-learning is a term represented with some other related terms such as distance learning, web-based learning, online learning, virtual learning, computer-assisted learning, Internet learning, distributed learning. The implication of these terms is that the learner is at a distance from the tutor or instructor; that the learner uses some form of technology (usually a computer) to access the learning materials; that the learner uses technology to interact with the tutor or instructor and other learners; that some form of support is provided to learners, etc. According to Eke (2010), the term ‘E-learning’ covers a wide set of applications and processes, including computer based learning, web-based learning, virtual classrooms, and digital collaboration. Eke went further to state that E-learning is the delivery of content via all electronic media, including the Internet, intranets, extranets, satellite broadcast, audio/video tape, interactive TV, and CD-ROM. This entails that E-learning is an umbrella term covering all other forms of learning. It is simply *technology-based Learning*. 
As cited in Takalani (2008), Sloman (2004) has outlined types of E-learning as: **web-based training, supported online learning and informal E-learning.** Web-based training is the kind of training in the educational system that is based on the web for its execution. Web-based learning according to Takalani (2008) is the delivery of content to the end user without significant interaction with (or support from) training professionals, peers or managers. Worthy of mention is the categories of E-learning known as **synchronous and asynchronous** learning stated by Cantoni (2004). Synchronous learning is the kind that all participants converge online at the same time. This kind of E-learning offers live online interactions among learners, with the teacher answering instant questions. Of paramount importance in this learning type is the tool of Instant Messaging, chats, e-mails, forums and online quizzes. This offers an instant and lively web-based learning. In synchronous E-learning, materials are sourced with the aid of digital libraries. In Eke (2011), Takalani describes Asynchronous learning as a web-based version of computer based training (CBT), which is typically offered on a CD-ROM or across an organization’s local area network (LAN). The learner can assess the course at any time at his or her own pace (Takalani, 2008).

E-learning encompasses a continuum of integrated educational and network technologies to create, foster, deliver, and facilitate learning, anytime and anywhere. There is a present emphasis on establishing a collaborative form of learning, where students can learn and exchange ideas. Broadly speaking, OSU (2003) views the continuum of E-learning as the educational technology from the supplemental use of technology in the classroom, through blended or hybrid uses comprising a mix of face-to-face and fully online instruction, to fully online synchronous and asynchronous distance learning environments delivered to remote learners. Most academic institutions are beginning to adopt a blended form of learning where technology is used as a supplement to traditional classroom teaching. Hence, E-learning is not unlike any other form of education - and it is widely accepted that E-learning can be as rich and as valuable as the classroom experience or even more so. With its unique features E-learning is an experience that leads to comprehension and mastery of new skills and knowledge, just like its traditional counterpart.

**Academic Libraries**

Academic libraries are primarily established as the heart of the Institution wherein it exists. The aim of such libraries is to carry out the objective of the parent body using the resources available. Academic libraries refer to libraries in Universities, whether private, state or federal institutions. The pervasive nature of ICT facilities provide greater opportunities for academic institutions in developing countries to improve their teaching and learning processes. So far most of the universities in developing countries possess basic ICT infrastructure such as Local Area Network (LAN), internet, computers, video, audio, CDs and DVDs, and mobile technology facilities that form the basis for the establishment of E-learning. The librarians that function in such libraries are called academic librarians. These librarians are professionals who make sure that library materials are acquired, catalogued and made available to the university community comprising staff and students.

**Prospects of E-Learning in Academic Institutions**

Rosenberg (2001) identified 11 major benefits of E-learning as follows: E-learning lowers costs, enhances business responsiveness, messages are consistent or customized, is need based, content
is more timely and dependable, learning is 24/7 (anywhere any time), no user “ramp-up” time, universality, builds community, scalability, leverages the corporate investment in the web, and provides an increasingly valuable customer service. E-learning has a lot of prospects in the present ICT-driven environment. Blezu (2008) summarized the prospects of eLearning as dynamism, real time, collaboration, speed of delivery, convenience, and global reach.

**E-Learning Technologies**

Functionally, E-learning includes a wide variety of learning strategies and ICT applications for exchanging information and gaining knowledge. Such ICT applications include television and radio; Compact Discs (CDs) and Digital Versatile Discs (DVDs); video conferencing; mobile technologies; web-based technologies; and electronic learning platforms.

**Television (TV)** refers to a receiver that displays visual images of stationary or moving objects both live or pre-recorded and mostly accompanied by sound which is electronically captured, processed and re-displayed. Likewise, this applies to the term radio – both live generated sound as well as pre-recorded sound. Both TV and radio can improve teaching and learning process in different ways such as by showing processes and activities that may not otherwise be available to the learner. However, digitalization has taken over analog audio and video systems.

**Compact Discs (CDs) and Digital Versatile Discs (DVDs)** are based upon laser technologies for writing and reading data. They provide a way in which a large amount of multimedia training material can be stored and made available to end-users. This hybrid approach provides the user with access to media-rich up-to-date information.

**Video conferencing** is a system where two or more participants, based in different physical locations, can see and hear each other in real time (i.e. live) using special equipment. It is a method of performing interactive video communications over a regular high-speed Internet connection. A videoconference can be either two-way (point-to-point) or multipoint, linking three or more sites with sound and video. It can also include data sharing such as an electronic whiteboard where participants can draw on, or text based real time 'chat'. Interactive whiteboard is simply a surface onto which a computer screen can be displayed, via a projector.

**World Wide Web (WWW)** is set of software tools and standards that allow users to obtain and distribute information stored on a server and connected to Internet. WWW is a decentralized information system, in which anyone can add new information whenever he/she wants.

**Educational Service Delivery [ESD]**

Education is being revolutionalized in terms of the mode of its delivery. E-learning has the potential to revolutionize the education all over the globe. For instance, Fry (2001), Richard (2002), Jessup (2000) have all highlighted the enormous potential of E-learning in revolutionizing the education services delivery. Hawkridge et al. (1990) have talked about the underlying rationales for E-learning as: social, vocational, pedagogical and catalytic. The way educational services are delivered is a function of the people and instruments involved in the delivery. Best practices and indicators of good educational service delivery included the quality of information delivered to the students by the instructors and how they are delivered. Libraries
can aid in a quality educational service delivery by getting involved in E-learning. There should be a meeting point of libraries and E-learning toward achieving effective educational service delivery.

The Meeting Point of Libraries and E-learning for Effective Educational Service Delivery (ESD)

Eke (2011) pointed out that librarians ought to start using educational technologies to maximize access to digital resources and to re-introduce the need for teaching the research process in the nebulous information environment. The basic role of the library is to acquire, organize, and provide access to information and knowledge resources. As noted by EBLIDA (2006), Libraries have a continuing role as physical entities, but they are also key links in the information chain in support of educational, cultural, technical, scientific and economic developments. In the information society they have a crucial role as gateways to the information resources on the global superhighways.

The library plays a pivot role in learning as it is the epicenter of Teaching, learning and research. In the information age, the library enhances learning in the following ways:

Libraries can offer these in optimizing educational service delivery:

- **Providing access to e-resources**: Some electronic materials can be catalogued by librarians and made accessible to users. Such audiovisual materials as CD-ROMs, video tapes and cassettes, etc. Databases are also examples of e-resources that can be useful to users in the E-learning environments. These are online databases which the users may find relevant as they can download them any time they want.

- **Provision of Human Resources**: The human resources needed for effective educational delivery are librarians who are academic staff that can offer assistance in offering some courses like the ‘the use of the library’. The library patrons are also students and staff who are researchers and make use of the library, and so need to be tutored and it is the librarians that should be able to handle that. Technical staff are also required, who can handle the equipments provided by the library for E-learning for effective educational delivery.

- **Libraries should organize online tools to provide metadata**: The library can create link to individual journal articles online, and provide mechanisms for requesting printed articles. This gives rise to the need for digital libraries. Sharifabadi, (2006) noted that a digital library can link e-learners to library catalogues, licensed journal databases, electronic book collections, selected Internet resources, electronic course reserves, tutorials and to forums for communication and interaction with others. The digital library permits e-learners to access library and networked resources as well as services anytime and anywhere that an Internet connection and computing equipment are both available. The digital library should be made available on the library website or portal and they should create opportunities for users to make searches by making use of relevant keyword searches.

- **Libraries as centers for E-learning**: The library as a building can become a centre for E-learning, as it is recognized as the heart of the institution. The library provides enabling environment for learning as it is void of noise and distractions.
• **Provision of infrastructure:** On this note, the library is expected to provide space, bandwidth and cutting-edge high speed computers. (Agyei, 2007).

• **Preserving and archiving of digital resources:** Libraries serve as information literacy trainers, experts in organizing and providing access to online resources, content providers through digitization projects and providers of print resources for learners. The main reasons to digitize are to enhance access and improve preservation.

• **Information center manager:** The information explosion has created far more information than one school library could possibly contain. The librarian is responsible for locating, acquiring, disseminating and tracking information resources of many types. This job might include database searching, interlibrary loans, monitoring Internet newsgroups, or maintenance of a computerized library information system.

• **Consultancy services:** By this, the librarians widen their areas of service by moving into the faculty and departments, making inquiries about what the lecturers and students need in their various fields. This entails taking information to their doorstep.

• **Collaborating with faculty members in promoting E-learning:** The library can participate in a collaborative team by library getting in agreement with the lecturers and technology experts and putting heads together in order to build a standard system to enhance E-learning. According to Eke (2010), librarians should participate in E-learning initiatives by providing online and in-person instruction modules, guides, subject and class-based lists, as well as reference (synchronous and e-mail).

**Challenges of E-learning for Effective Service Delivery**

E-learning is still very low in Africa and Nigeria in particular despite the opportunities that are provided by the open source technologies and other attendant benefits. There are a number of challenges that face universities in developing countries as they seek to implement the E-learning systems.AAU (2001) asserts that African universities which should be in the forefront of ensuring Africa's participation in the ICT revolution, they are themselves unable and ill-prepared to play such a leadership role. This is because of the information infrastructure of African universities which is poorly developed and inequitably distributed. The following are some of the identified challenges to E-learning in developing countries.

**Lack of ICT facilities** – Most academic institutions in developing countries lack the basic ICT facilities to support E-learning. The few available ones are outdated and may not support E-learning practices. Most academic institutions lack the financial back up to procure these ICT facilities.

**Poor maintenance culture and technical support:** There is an evident poor maintenance culture in most developing countries. This includes issues of installation, operation, maintenance, network administration and security. This is an important part of the implementation and integration of ICT in education system.
Lack of skill – the integration of E-learning in any academic environment requires the introduction of new hardware and software. The great challenge is that most staff and students still lack the basic ICT skills that will enable them adapt to E-learning practices.

Technophobia – Most learners and staff are still afraid of handling computers. They make the traditional learning process their comfort zone and are not eager to embrace change.

Poor bandwidth problem - Most academic institutions in the developing countries have limited bandwidth to support E-learning practice. The greater the bandwidth, the faster the data transfer. Hence, the amount of data sent or received over any given time is limited by bandwidth.

Poor electricity supply – the present epileptic power supply in Nigeria is a very serious challenge to E-learning.

Poor perception of E-learning on the part of the learners and the instructors. Most people see it as a waste of time and energy leading to duplication of efforts in learning strategies.

Solutions proffered
Based on the afore mentioned challenges of E-learning, the following solutions are preferred:

There is need to increase the budget allocation of academic institutions to enable them procure the basic ICT facilities for E-learning.

Maintenance culture should be imbibed such as troubleshooting skills to enable learners overcome technical problems when using ICTs.

Training and workshops are needed not only to improve the skills of the instructors, but also as a means of getting them involved in the process of implementing and integrating ICTs in teaching and learning. There is need for improved and new information seeking skills which is essential for online learning.

Both the students and staff have to adopt new roles, and change their ICT behaviors and ways of teaching and learning. There is need for positive attitude towards ICTs as a necessary condition for their effective adoption and implementation of E-learning.

Provision of strong and steady internet connectivity for easy access to the global learning centres.

Steady supply of electricity to ensure continuous online classes and participation between the learner and the instructor.
References


