INVIGORATING LIBRARY SERVICE DELIVERY THROUGH THE ADOPTION OF M-LEARNING TO THE LIBRARY USERS IN NIGERIA

BY
EGUNJOBI, A. OLUSEGUN Ph.D.
ABADINA MEDIA RESOURCE CENTRE
FACULTY OF EDUCATION
UNIVERSITY OF IBADAN, IBADAN, NIGERIA
e-mail: **olusegunegunjobi@yahoo.com**

Abstract

The thrust of this article is to investigate how library services delivery can be invigorated through the adoption of mobile learning to the library users in Nigeria. The article examines the concept of mobile technologies, library users' and m-learning initiatives, basic features of m-learning and library services, m-learning to library users and challenges of m-learning to library users; conclusion and recommendations. By and large, m-learning globally is now the "m-thing" therefore, it is imperative for the libraries in Nigeria to be m-learning compliant, friendly and in fact fully incorporated so as to be at par with the libraries in the developed nations and to keep abreast Nigerian library users with the recent mobile technologies in the library services delivery in the world.

Keywords: Library service delivery, Adoption of m-learning, Nigerian library users

Introduction

Mobile technology is altering and extending the ways we communicate, conduct business, teach, learn, entertain ourselves, and make decisions. Through mobile connectivity, information is becoming intertwined with our lives more profoundly than is the case when we sit down at a desktop or even with a laptop computer. Mobile devices today can run increasingly complex software, interact with cloud services, play rich multimedia content, and allow for advanced user interactivity. New hardware and technologies such as Bluetooth, accelerometers, and multi-touch screens, as well as text messaging, smart-phone software applications, mobile websites, global positioning systems (GPS), wi-fi, media creation and Capture tools, are all part of the mobile environment, all these mobile technologies can be adopted to enhance learning processes (Egunjobi, 2012).

Mobile learning is any sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantage of the learning opportunities offered by mobile technologies. The term mobile learning (m-learning) refers to the use of mobile and handheld devices, such as Personal Digital Assistants (PDAs), mobile telephones and MP3 players, etc in supporting teaching and enabling learning. As computers and the Internet has become essential educational tools also mobile technology which is more portable, affordable, and easy to use, are being incorporated to support learning. Mobile technologies have enjoyed extensive diffusion, however, their use as an educational tool has not been as widely adopted especially in Africa. The widespread availability of the mobile devices is important for mobile learning to become widely adopted however, this has not really guarantee

the wide adoption of mobile learning (Cobcroft, Towers, Smith & Bruns, 2006). Mobile learning offers a fundamental change in the way learning can be regarded has opening the door to countless uses for educational purposes (Egunjobi, 2011).

Library users' and Mobile learning Initiatives

Sadeh (2007), explores current trends in information seeking, describes factors that contribute to an up-to-date informatics seeking of centric library user's experience, and an examination of library user surveys on new patterns of user expectations. It has shown that the library users seek information to enhance their academic performance in a more comfortable means. According to the Pew Internet and American Life Project report Mobile Access to Data and Information, the cell phone is ranks as the most highly valued technology in America, the result of the finding that mobile technology is a technology most American students are not willing to part with (Horrigan, 2008). Applications of mobile technology enabling learning processes as cut across a wide range of disciplinary space. Human Computer Interaction and library users informatics groups are perhaps most experimental within the academic environment. M-learning is an important development considering library users majority of who are in the academic settings.

Hahn (2008) submitted that mobile technology are commonly used by distance learning student to enhance academic exercise at their conveniences, there are projects making use of mobile technology underway in special, academic, and public libraries. Some of such projects serve a population which accesses information at a distance from this aforementioned home although, mobile technology use does not preclude the possibility for stimulating and delivering a compelling on-site library experience. He also stipulated that, m-learning is often situated within the domain of distance learning. Perhaps, at this point it is a disservice to fruitful inquiry to say m-learning belongs to any specific discipline.

Mobile technology utilisation is not yet a highly robust development in librarianship but commonly used by the library clienteles. Library and information approaches for services on mobile devices include solutions which enable data sharing across multiple disparate work spaces possible. These initiatives can be viewed as an attribute of ever-present computing. Smart Library at the University of Oulu in Finland is a localisation approach which enables library users to locate collections through use of their mobile device (PDA and high-end cell phones) based on where they are within the library. This system is built on the context aware architecture Smart Ware (Aittola, 2005).

A usability study of mobile assisted localisation finds that navigating a physical library collection through the use of a mobile device may, be most applicable to campus libraries which feature disparate collection locations (Aittola, 2005). The library as a lab for in-Naming services is a future worth pursuing and realizing. The development of such a platform provides the library with a way to be an instrumental part of the library user's life. Acceptance of this innovation by library and information professionals will lead to service innovation in libraries.

The mobile devices students carry can be loaded with an application directing them through the information seeking process in a manner which considers space and time constraints.

Basic Features of Mobile Learning and Library Services

Some features of mobile devices can enhance learning and also help library users to effectively use the technology to access information and database of libraries to overcome distance barriers include the following:

- **Portability** the size and weight of mobile devices; they can be carried everywhere and help learning occur at anywhere and anytime.
- **Connectivity** - providing library users' with connections to other learning such as through other people, devices or networks;
- **Interactivity** - mobile devices are potential tools for enhancing a cooperative learning environment. It encourages library user to communication with the reference librarian and get an instant responding and group discussion at any location.
- **Context sensitivity** - mobile devices enable learning to take place which can make greater use of a person's immediate context and surroundings.
- **Lifelong** - mobile content consumption is continuous: there is no beginning, middle or end;
- **Individuality** - learning can be customised and based on previous learning experiences (Schofield, West and Taylor, 2012).

Mobile technology facilities could be employed by the library to service various users, since it has been realised that library users wish to be serviced in a more convent and conducive way. The library through Short Message Service (SMS), Medium Message Service MMS and other medium which provide information delivery service to their user at different location, braking down distance barrier. Some of this services as identified by Sadeh, (2007) include, Selective Dissemination of Information (SDI), Current Awareness Programmes, Sending Overdue Notice, New Arrival Awarness, Online and Offline Information Search, Reference Services, among others.

Imam, Adedoyi, Jegede and Adesanya (2008) identified some library services that are enhanced by Information Technologies, these services includes lending service, loaning, charging, discharging, request for book, reservation services, interlibrary-loan service, referral services, recall, renewal, overdue notice, display of new titles. With the library 2.0 initiative mobile technologies can be best used to reach and provide interactive opportunities for users to interactive with the reference librarian and get needed information at all time from remote environment. For instance the night shift which was initiated by Federal University of Agriculture Abeokuta was later improved on by Kenneth Dike Library of the University of Ibadan, which enable the library provide 24 hours service to their users to access information materials. The 24 hours can as well be improved on by giving 24 hours reference service this will give user's access to the reference librarian round the clock. This development is welcome has some academic libraries are trying to provide 24 hours service to their users, majority of the library users are mostly on the social network. The library can create a hyperlink on these networks to attract their users to provide a better mobile learning opportunity for library users.

For example, Abadina Media Resource Centre Library, University of Ibadan, has created a social network site on Facebook for the library users' interaction, publicity and up to date information.

Modes of M-Learning

As a society, we have come to rely on technology to help in everyday life. M-learning is growing powerful, not just for education, but for business and personal use as well. As technology grows and gets better, we'll discover more ways in which we can use it. M-Learning is characterised by the ability to learn through portable devices. Technology has continued to play a pivotal role in teaching and training, though mobile technologies. There are different types of m-learning technological devices some of which include:

- Communication through SMS with mobile phones, whereby one can send or receive text messages of 160 characters.
- Extended form of SMS - MMS (Multi-Media Messaging Service). In this technology, text messages and graphics both are included.
- WAP connotes wireless application that enabled mobile phones that can access the Internet through deploying protocol of international standard.
- Personal Digital Assistant (PDA) devices that function like mini PC compatible machines, like Palm OS or Pocket PC Mac OS.
- Bluetooth facilitates PDA message sharing from one mobile device to another.
- MP3 file which is a the compression format that enhance data sharing in different format Experts prognosticate that in the foreseeable future the markets will have 4G phones (4th generation mobile phones) capable of 100 megabits per second in multi-media transmissions (Egunjobi, Adeyanju, Akorede and Olori, 2007).

Mobile learning in Nigeria Educational System

Since computer education has been integrated into the curriculum and considering the statistics from the mobile sector as stated by Ajadi, Salawu and Adeoye (2007) that both the government and the people are seeking better ways of doing things and achieving result that will benefit majority of the people, it is obvious that m-learning has not been fully utilised in Nigeria, but will gain ground as time goes on. In the recent time, checking of results of common entrance, WAEC and NECO/SSCE, UTME among others are on-line and even writing UTME. It is optimistic that m-learning in the instructional process in Nigeria educational environment will soon improve tremendously putting into consideration the benefits associated with the effective use of the technologies (Egunjobi, 2012).
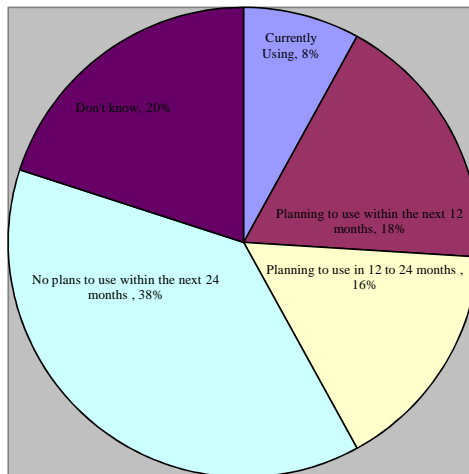
Fig 1: A Pie Chart showing Mobile Course Delivery in Nigeria
Source: Gartner (2012)

Fig. 1 shows the mobile courses delivery in the year 2011 in developing countries like Nigeria. It is surprising that most organisations/institutions have not begun to inculcate mobile learning technologies as part of their strategy in services delivery. Survey work of 99 organisations/institutions shows that fewer than 10% of organizations/institutions are using mobile course delivery (Gartner, 2012).

Benefits of Mobile Learning to Library Users

Library users' generally are potential mobile technologies users, and they enjoy some basic benefits using the technologies for academic and professional excellence. These benefits include the following as identified by Egunjobi (2011)

Personalised Learning Ability

Mobile learning devices are unique in sense that library users can make use of the devices anywhere, anytime, personalised learning. It can also be used to enrich, enliven or add variety to conventional lessons or courses. The use of mobile learning may have positive contributions to make in the following areas: One can access lessons, video clips and audio libraries from anywhere, including public places and moving buses and trains. Each student can learn at his or her own pace because some library users may be slow learners, while some may be fast learners.

Interactive and Collaborative Learning Ability

It is an accepted fact that learning is made easier when information is shared and questions answered through a sort of combined study. Mobile learning can be used to encourage both independent and collaborative learning experiences. This helps several library users to work together on assignments even while remaining at far-flung locations.

Motivates Learning Ability

There is a psychological factor that owning handheld devices, increases library users motivation and deepens the commitment to using and learning with them. Furthermore, the present generation of students has a fascination with handhelds like PDAs, mobile phones and

similar carry-around devices. The learning material is mostly colourful and inviting which may prompt students to go back and forth and practice more.

Improve Users Literacy Skills

Mobile learning devices are in two ways, a blessing to library users, it helps to improve their knowledge and technological skills. Flexible hours of learning are indeed a great boom as library users can access the information anytime from any location. Library users tend to learn technological skills by spending more time in using mobile learning devices and they are exposed to varieties of information sources on their devices. Mobile learning helps to combat resistance to the use of ICT and can help bridge the gap between mobile phone literacy and ICT literacy

Cost Effectiveness

Yet another blessing is a huge saving in the cost of mobile learning. When quantifying the quality of time, finance spent with knowledge/acquisition/gain, it can be concluded that mobile learning is cost effective. For instance, an avalanche of information can be received from long distant locations within a short period with little or no cost.

Effective Communication and Learning System

Reduce cultural and communication barriers between librarian and library users by using communication channels which students like and enhance learning motivational technologies library users would love to use in skill and knowledge acquisition because of the media-rich environment.

Challenges of M-Learning to Library Users in Nigeria

Definite Inconvenience of size

Mobile learning technologies are portable technological devices, constant use of technologies has side effect on library users while hunched over the small screen of a mobile phone and PDA.

Battery Life Span and Storage Capacity

With the problem of erratic electric power supply, library user, who has a mobile gadget knows that the short battery life and frequent changes of batteries are a great nuisance. Sometime there is the problem of electricity to charge the devices. Also it is no denying fact, that the storage capacities of Personal Digital Assistance are limited.

Frequent Changing Technologies

Frequent change of technological devices is another identified problem of m-Learning because technology companies change and upgrade their technologies frequently. Library users need to change their hardware to upgraded ones for better use. Devices may become outdated quickly and library users have to keep combating the obsolescence

Inadequate and Expensive Spare Parts

Majority of these technological hardware and software are not locally available, this made it difficult for library users to repair majority of the technologies they have used and even,

if they are available, the spare parts are expensive to purchase or not easily affordable. Add to this, is the absence of a common hardware platform, this makes it extremely difficult to develop content for use by all. Also, the local software is not yet sufficiently produced for the effective library services delivery in Nigeria.

Erratic Electricity Supply

This is another identified pronounced bottleneck for effective usability of m-learning technology. The supply of electricity in some developing countries like Nigeria is chronically erratic. This is a major setback for the effective and efficient utilisation of these mobile technologies for library services.

Conclusion

Mobile technology fills a great gap in enabling libraries to provide enhanced services to her users increasing demand of information to solve their social, economical, political, cultural and academic challenges. Mobile learning capabilities will continue to expand with the introduction of smaller, more sophisticated and powerful gadgets capable of delivering data in a variety of formats anywhere, at any time. Today's mobile computing devices have more computational power than the largest computers of a generation ago, and this trend continues. Library users will depend greatly on mobile learning, once they realise how efficient and necessary they consider the services and features. Mobile learning has truly become widely adopted in the developed nations and it is partly incorporated in developing nation, the continued adoption is encouraged for future uptake. It is with the optimism, that in a couple of years to come in Nigeria, m-learning will be fully adopted in most Nigerian libraries viz public, academic and private libraries so as to invigorate library services delivery to the library users.

Recommendations

- Library and information centre need to inculcate in mobile interactive forum for their users in order to create a mobile amiable environment.
- Align with other mobile initiatives within and outside the library to ensure consistency, frequent use of mobile enhance information source and understand the lessons learned in deployment.
- Libraries should leverage their users with mobile efforts. Since most users have a degree of smart-phone support that includes support for basic self-service transactions, information access and approvals/workflow. Implementing these capabilities can provide some "quick wins" as library users look for opportunities to do more with mobile technology.
- Government should make sure that libraries in public institutions are ICT compliant so as to provide conducive and enabling environment for the use of mobile technology. For the library users.
- Nigerian library users should also be ICT phile in order to be mobile-learning friendly most especially the students at all levels of education in the country.

References

Aittola, E. (2005). Enabling Mobile Learning. *Educause Review*, 40 (3), 40-53.

Ajadi, T. M., Salawu, I. O. and Adeoye, F. A. (2007). E-Learning and Distance Education in Nigeria. *The Turkish Online Journal of Educational Technology- TOJET* IiSSN: 1303-6521 7 (4), 22-29.

Cobcroft, R., Towers, S., Smith, J. AND Bruns, A. (2006). Mobile learning in review. Opportunities and challenges for learners, teachers, and institutions. *Proceedings Online Learning and Teaching (OLT) Conference* (pp. 21-30), Queensland University of Technology, Brisbane.

Egunjobi, A.O. (2011). Adoption of M-learning in the Primary School Social Studies Conclusion: Prospects and Challenges. *Nigerian School Library Journal*. 10, 19-27.

Egunjobi, A.O. (2012). *Concise and Basic Concepts of Educational Technology* (Revised ed) Ibadan JETSOL Publishers. Pp. 35 - 45

Egunjobi, A.O., Adesanya, A.O., Akorede, J.O. and Olori, A.L. (2007). M-learning in the Global Educational System Myth and Reality? *African Journal of Contemporary Issues in Education (C0NTEMPOR)* Ghana. 12, 72-75.

Gartner I. (2012). The Adoption of Mobile Learning Is Approaching a Tipping Point, Educative Review, 40(5), 80-89.

Hahn, M. L. (2008). Jim Hahn Mobile Learning for the Twenty-First Century Librarian. W Gregory Drive, Urbana, IL 61801, 217-333-1031.

Horrigan, N. (2008). What is Mobile Learning? In M. Sharpies, (Ed) *Big Issues in Mobile Learning*. Nottingham: Kaleidoscope Network of Excellence, Mobile Learning Initiative.

Imam, A.; Adeyoyin, S.O.; Jegede, R.J. and Adesanya, O.O. (2008). *Library and Information studies: an introductory text for students in tertiary institution*. Eagle publishers, Abeokuta. Pp. 202 – 210.