18

THE FUTURE OF MEDIA LIBRARY SERVICES IN NIGERIA

By

RAMATU ONYECHE OKOMANYI
Deputy College Librarian
Federal College of Education,
Okene.

AND

ALFRED AMEH OKPANACHI
Assistant Chief Librarian,
Kogi State Polytechnic,
Lokoja.

Abstract

The paper examined the role of media in academic libraries of the future. It focused on smart phones and e-book reader. The paper showed that more students and scholars have turned in large numbers to the smart phones and e-books reader. Statistics indicated that the use of these facilitates continued to increase. The implication is enormous, therefore, the paper recommended that the academic library of the future should teach students how to use this device to access information from the library; incorporate the use of these tools in information literacy class, provide reference services, academic libraries should offer e-book content that users can download and read on standards computers, academic libraries should adjust and adopt innovations in the modus they operate by adopting these media as part of tools for its services, in order not to end up being edged into insignificance even in areas of their core competence.

Within the last few decades, certain scientific and technological changes have appeared and their impacts on the functions and services of academic libraries have been conspicuous. Also, over a relatively short period of time, scientific and technological changes, such as the introduction of web browsers and mobile devices, have had a major and revolutionary impact on the academic library as well as the society. Since individuals have been using devices such as laptops and mobile phones for decades, one might argue that the impact of the use of mobile devices on peoples'

behavior in general and on academic library services in particular has been relatively gradual. On the other hand, as devices with compelling new features emerge and wireless connectivity is almost ubiquitously available, we may be on the verge of a revolutionary phase of mobile device impact on the future of academic libraries.

While many academic libraries are experimenting with various types of reference services for users of mobile devices, fewer are thinking of the potentially dramatic changes that the uptake of devices with sophisticated capabilities may have on their user community and more specifically on the use of digital information resources. It is in line with this thought trend that this article will examine the future of media in academic library services. The article focuses on a few types of mobile devices; specifically, smart phones and e-book readers, selected applications for mobile devices, and provide some thoughts on the implications for library information and services.

The Academic Library

The academic library is the focal point around which serious and intense intellectual development and scholarship are birthed. It is a critical component, as well as indispensable instrument of intellectual, cultural and socio-economic development, of not just the academic community, but also the society or nation. The symbiotic and mutually beneficial relationship that exits between the academic library and the academic community is indispensable, so it will be best served when the academic library is well stocked to serve as the store house of information which users could resort to for data or information. It is also in this critical role that Jubb and Green (2007) argued that for centuries academic libraries have been playing critical important roles in supporting research in all subjects and disciplines within their host universities and colleges. Aina (2004) in his views on the importance of the academic library posit that the main purpose of an academic library is to support the objectives of an academic environment in the areas of learning, teaching, research and services. Taking a conceptual approach to the critical role of the academic library, Ezell (2009) opined that academic libraries are established, owned, and funded by universities for the purpose of providing support services in the areas of research, learning and teaching. Therefore, it could be inferred from the views expressed thus far that the primary aim or objective of an academic library is to offer those who may be said to constitute its primary clientele (the faculty, students and academic staff of the university or colleges) the academic and research services in support of the programmes of the university of which it is part. The major functions of academic libraries as derived from Clapp's (2010) definition of a university library are "to enable inquirers to identify library the materials relevant to their inquiries and to supply them with copies of the materials for their use." It is in line with these views that Ajibero (1995) sees the academic library as the heart of the university. Thus, the functions of the academic libraries can be summarized as:

(a) To fulfill both the needs of the instructional programme of the parent institution and the research needs of the students, faculty staff members and people outside the academic community through the collection and acquisition of knowledge in the formats.

(b) To organize knowledge for easy storage and retrieval. The technical processes, which include ordering, receiving, accessioning, cataloguing, classification and preparing materials have always been the primary services performed by academic libraries.

(c) Making resources accessible to users and preserving knowledge for posterity. In supporting the instructional and research needs of their students and faculty, the academic libraries provide maximum access to collections. From these are derived the services of the academic libraries which include:

(i) User education (orientation/instruction services).
(ii) Inter-library loan/connection services.
(iii) Abstracting and indexing services.
(iv) Bibliographical services.
(v) Cataloguing and classification services.
(vi) Information services.
(vii) Reference services.
(viii) Circulation services.

However, these traditional functions and services provided by the academic library are being threatened and challenged by newer innovations and inventions in the areas of information disseminations, storage and retrieval. The emergence of the newer mobile devices and their influence and impact on the behaviors of information seekers is too conspicuous.

In recent years, studies have revealed that student's information – seeking behaviors and habits have changed remarkably. Utilizing the increasing ubiquitous internet and powered by ever-improving search engines, the World Wide Web (WWW) became the largest and easiest – to – use store house of information in the world. Almost one billion people, 15 percent of the world's population, currently use the internet (Ezell, 2009).

As students and scholars turned in large numbers to the web, few if any argued that it was a trustworthy source of authoritative information. Suspicion on the quality of information found on the web did not discourage its attraction, however, and statistics indicated that the use of the web and other ICT facilities continued to increase.
The implication is enormous and unless academic libraries are willing to adjust and adopt innovations in the modus they operate, they may end up being edged into insignificance even in areas of their core competence.

Mobile Devices

Mobile devices include laptops, netbooks, notebooks, computer, cell phones, audio players such as MP3 players, cameras and other items. The writers shall focus on smart phones (and included in the list is iPod touch, which has the features o a smart phones minus traditional telephone capabilities) and on e – book readers. The array of names used for telephone handheld devices varies, e.g. cell phone, mobile phone, handheld device smart phone etc. The use of the term "Smart Phone" has become popular to identify devices that have internet capability and functionalities that are similar to computers, although there is no industry - wide standard definition of the term (wikipedia, 2009). The capabilities and uses of smart phones have gone well beyond the simple cell phones of 20 years ago. When the first cell phones were manufactured, it was used for communication on-the-go and the communication was solely via voice phone calls. The second generation of mobile phones incorporated features that allow for text message to be sent. The third way that individuals use some cell phones – smart phones- for communication is e-mail; internet capable models such as blackberries and iPhones make checking and writing e-mail from many venues possible and more convenient that carrying a laptop computer in all travel situations. In a period of around twenty years, mobile phone devices have become much more versatile, allowing communication between and among individuals in at least three ways that are now considered mainstream, e.g. voice, texting, and email. In addition, other modes of communication, such as the use of twitter or communicating updates on a face book page, are becoming popular activities on cell phones.

While this range of communication capabilities has significance for academic libraries, especially in the provision of reference service, it is possible that it will actually be the use of smart phones for reading, watching, listening to, and producing digital content that will have the most impact on academic libraries. The speed of development of new application or apps, for smart phones such as the iPhones, is enhancing the ability to use a wide range of information resources in various formats on hand held devices. At MIT, with the introduction of the iPhones in spring, 2007, they found that the functionalities spurred mobile web access on the MIT campus, especially among students. For many users, the mobile device was no longer just a telephone; rather, it was quickly evolving into handheld information retrieval device (Albetch and Pirani, 2009).

The 2010 Horizon Reports states, "Third party applications for all kinds of tasks can now be developed once and ported to a variety of mobile platforms. It is these applications that are making mobiles such an indispensable part of our lives. Tools for study, productivity, task management, and more have been integrated into single device that we grab along with car keys and wallet" (New Media Consortium, 2010).

It is truly remarkable to consider the kinds of activities one can engage in today using a single handheld device, including:

- Voice and video calling.
- Sending and receiving e-mail.
- SMS text messaging.
- Searching the internet.
- Searching databases of scholarly information.
- Organizing citations.
- Accessing a course management system.
- Reading or listening to books and articles.
- Taking photos.
- Playing videos.
- Making videos.
- Setting an alarm clock.
- Using a GPRS navigation system.
- Playing games.

In effect, the smart phones can provide capabilities that are similar to laptop computers. One of the questions for the future is whether individuals will prefer to own one device that has many functions but may not perform all of them well or own a number of devices. It is likely that individuals will vary in their reliance on smart phones for various functions. For example, a serious photographer will likely own and use a separate camera, and someone who writes lengthy documents (e.g. collage students and faculty) will likely continue to have some type of computer that has large monitor and keyboard. Another question is what other types of devices will emerge and win popularity. Roy Tennant (2009) reports on prototype wearable technology devices that include cameras that can record information and use it to find information related to an item and then project that information onto a surface.

An academic library user could aim the camera to a code on a book in the stacks; software could connect the code to informations or reviews about the book, and then project that information onto a surface. We may see more use of codes on labels, similar to bar codes that will link physical objects to information on the internet. Dempsey (2009) reports that the university of bath in the UK is already using codes-specifically a type called QR codes (EDUCAUSE learning initiative, 2010), in its catalogue. A user can scan the codes into his or her phone and go into the stacks to find it with the call number readily available on the phone. In addition, the user can save the information provided by the code to begin compiling a bibliography.

Libraries have traditionally serve as a public good, providing resources and service to all, including those who could not afford to purchase some types of content or services on their own. While it is unlikely that libraries will provide smart phones, either for use within the library or for loan because most would agree that provision of telephone service is outside the scope of library service, many libraries are already loaning a wide variety of mobile device. For example, laptops are one type of mobile device, and many academic libraries have laptop loan programs. Some libraries also loan cameras, video cameras, MP3 or similar audio player devices, headphones, etc. a small number of libraries are loaning Internet-capable devices such as the iPod-Touch.

It is also possible that more departments or institutions will begin to require that students have a mobile device that can be used for a variety of purposes in their course work. The library will want to be part of campus discussions on such decisions so that they can ensure that library contents and services will enable to interoperate with the device and platforms selected (Lippincott, 2010).

The proliferation of mobile devices will have implications for academic library space configuration and services. For example, academic libraries may want to offer large monitors and keyboards that students can use with their personal mobile devices. They many want to install lockers with electrical outlets so that students can recharge their devices while they go to class or take break. And they want to change the ratio of desktop computers to open tables as more students rely on their own devices. Currently, many students who own laptops do not bring them to campus, but students almost always bring their cell phones wherever they go. In fact this is true of people of all ages and nationalities. In an international survey, three quarters of respondents said they never leave home without their mobile phones. A market researcher affiliated with the survey commented, "… the mobile is part remote control, part security blanket. Mobile gives us safety, security and instant access to information. They are the number one tool of communication for us … they are our connections to our lives" (in: fact, 2009). As smart phones become our users' key information devices, academic libraries will want to have a significant presence in offering content and services suitable for those devices.

E-Books and E-Book Readers

E-books, or books in digital form, may be purchased or freely downloaded in formats that will enable individuals to read them on standard computers, or they may be configured in proprietary formats for particular devices. Most academic libraries already offer e-book content that users can download and read on standard computers. Amazon's Kindle device and SONY'S e-book reader will soon be joined by nook from Barnes and Noble; these are purpose specific handheld mobile devices. These devices are linked to content purchase programs that limit what may be put on the device and in some cases, what may be shared with others. Both companies that produce e-books for

computers and companies that produce e-books for their proprietary systems are now offering or promising to offer content configured for smart phones.

Some academic libraries are already experimenting with lending e-book readers loaded with content or providing specific content to fulfill interlibrary loan requests on an e-book reader. It is difficult to predict whether such devices will grow in popularity or will cede their market share to smart phones. The larger screen makes these devices more acceptable for some users to read online materials they might have formerly preferred to have in print. However, the current limited functionality, for example, inability or poor capability for annotation or note taking, has made them less acceptable in some areas of higher education, particularly as textbook substitutes.

The apps for smart phones, released by Eucalyptus (Eucalyptus, 2009) in fall, 2009 may be the forerunner of some trends. First, it has a page-turning function that gives the feeling that one has when turning the pages of a physical book; readers may like this feature. Second, it makes available books from project Gutenberg, one of the earliest projects to digitize books and make them available to the public; all books are out of copyright. The Eucalyptus homepage even advertises one of its functions as "search like a librarian," a positive attribute of their system. The availability of a large collection of digitized books, project Gutenburg, also brings to mind the potential impact that the Google Book settlement may have on the availability of e-book content. Will collections of content be marketed through the e-book reader producers? Will the content, either public domain or in-copyright, be repackaged in collections and made available to libraries or the general public in formats for various devices or with enhanced functionalities for particular devices?

E-books may be seen as a mechanism to promote environmentally friendly practices. Princeton University has launched a small experiment in which around 50 students enrolled in three courses have been given Kindles in order to determine whether the use of the device reduces the amount of printing by students (Cliatt, 2009). The university estimates that 10 million pages were printed by students in computer labs in a year, and they believe that much of that printing was of materials on electronic reserve from the library. The experiment will help the university determine whether e-book readers reduce the cost of printing and conserve resources. While the experiment was developed primarily for financial and environmental reasons, at least one of the professors whose course is included is also interested in whether the e-book reader can enhance student learning

Mobile Devices, Students and Learning

As librarians work with students as part of information literacy classes, at service desks, and in cyberspace, it is important to realize that for students, the Mobile

device will increasingly become an instrument for creation of digital content, and not just a device for access to content. Students can use smart phones to create short videos, to type a blog entry for a class assignment, to "tweet" in response to a question posed by a professor or to create a group poem, or to take photos or record audio to embed in a power pint presentation or text document. Some of this content creation may be in connection with independent assignments and some may be developed as part of coordination class field work. In describing the potential use of mobile devices for elementary students on field trips, the researchers wrote, "mobile devices can capture authentic educational multimedia data, in context, that have previously been unavailable. Data captured in context allows for sharing and remembering experiences upon return to the classroom. Using multiple forms of data capture, for example, supporting photographs with audio recordings and students note can assist students and teachers in seeing the whole picture of learning experience (Hey, J., Sandhu, J., Newman, C., Hsu, J., Daniels, Fc. Datta, E, & Agogino, A. 2007)." Librarians can teach students about the availability of access to information from their mobile devices in the field, to support research. They can assist students in learning about software to organize their information on their smart phones or how to develop mash – ups using geographic applications and other information resources. They can support students' creative work with mobile devices. This requires an awareness of innovative assignments, outreach to faculty, and the skills to teach these technologies. In one application developed for students with laptops and targeted for science classes, Lecturer Tools allow students more functionality than a typical personal response system or "clicker". The professor can ask students questions beyond multiple choice, enabling them to work with images or respond to more complex questions. In addition, a student has developed some applications for lecture tools, including one that enables students to connect with others, finding which students may live in the same dorm or share particular interests. While lecture tools are employed on laptop computers, these types of functionalities may be adapted for smart phones in future. The incorporation of active learning functions along with social networking capabilities makes this a particularly interesting tool. One can imagine librarians incorporating the use of such tool in information literacy classes. Another model is the Hotseat application, which allows students to use either their laptop of their mobile phone to comment or ask questions during class. Faculty involved in pilot classes using Hotseat have found that the application encourages participation by more students when controversial issues are discussed, enables students to share information among themselves and to set up ad-hoc study groups, and encourages more interaction between professor and students (McCrea, 2009). As more and more students buy internet – capable phones and when phone plans that include internet access become more affordable, students will seek streamlined ways to locate the kinds of information they need. Campus information portals for mobile devices are one emerging model, and some academic libraries are already represented in these venues. Another model will be the development of

applications, sometimes by members of the university community, including students. At Stanford University, two undergraduates along with friends built an iPhone app"I Stanford" that provides some of the features of standard university portals, eg. Access to the course catalog (Quittner, 2009). In addition, they are releasing features that will allow students to access grades, add and drop courses, and perform other activities usually restricted to the secure campus network. The students have worked with the Stanford information technology unit to integrate, with university approval, their application into core computer systems at Stanford. Librarians should seek faculty on their campuses who are developing or using innovative tools like those described here and begin experimenting with them in partnership with faculty and students. Mobile devices can offer more opportunities for students to be actively engaged in their learning and to fully participate in the social nature of learning. Librarians might encourage, through contests or other means, student development of apps that make academic content and services more useful for specific groups of users.

Conclusion

Because of the fundamental role that academic libraries have played in the past century, it is tremendously difficult to imagine a college or university without a library. Considering the extraordinary pace with which knowledge is moving to the web and other digital media, it is equally difficult to imagine what as academic library will be and do in another decade. But that is what precisely what every college and university should undertake to determine. Given the implications of the outcome, this is not an agenda that librarians can, or should, accomplish alone. Over the next decade, colleges and universities will have to make critically important practical and policy decisions about the function of libraries, about the space devoted to libraries, and about the roles of the librarians. If these decisions are made wisely, the academy may be able to maintain much of the ineffable, inspirational value associated with academic libraries while retaining their practical value through altogether transformed activities and functions built upon a new mission designed for a more digital world.

References

Aina, L.O. (2004). *Library and Information Science Text for Africa.* Ibadan: Third World Information Services.

Ajibero M.I. (1995). Users' expectations from Nigerian libraries services in the 21st century. *Public Access Service Quarterly 1 (1)*

Albrecht, A. & Pirari, J.A. (2009). Massachusetts Institute of Technology: Transforming the Campus Experience with the MIT Mobile Web (Case Study 3), *EDUCAUSE Centre for Applied Research, Boulder, CO.*

Cliatt, C. (2009). Pilot of Amazon's e-reader launched with fall semester, *NewsatPrinceton,:www.princeton.edu/main/news/archive/s25/37/09109/index.xml ?section1/4topstories.*

Dempsey, L, (2009). Snap and go catalogue, Lorcan Dempsey's Weblog *available at http://orweblog.oclc.org/ (accessed 4 December 2009).*

Eucalyptus (2009), "Eucalyptus corporate website", *http://eucalyptusapp.com*

Ezell, S. (2009), "Contactless mobile payments", information Technology and innovation Foundation, *www.itif.org/files/2009-mobile-payments.pdf*

Hey, J., Sandhu, J., Newman, C., Hsu, J., Daniels, Fc. Datta, E, & Agogino, A. (2007), Designing mobile Digital Library Services for pre-engineering And Technology Literacy", *International Journal of Engineering Education 10(3)441-453*

In fact (2009), "Mobiles 'remote control for life,: global survey", in:fact, *www.synovate.com/insight/infact/issues/200909*

Jubb, M., & Green, R. (2007). Researchers' use of Academic Libraries and their Services. *Retrieved May 31, 2010* http://www.rin.ac.uk/system/files/.../researchers-libraries-   services-report.pdf

Lipincott, J.K. (2010), "Mobile reference: what are the questions?" *The reference Librarian 51(1)1-11*

McCrea, B. (2009) "Purdue U. brings social networking to the classroom", Campus Technology *http://campustechnology.com/Articles/2009/11/18/Purdue-U-Brings-Social-Networking-to-the-Classroom.aspx.*

New media Consortium and EDUCAUSE learning initiative (2010), *Horizon Report, www.nmc.org/pulication/2010-horizon-report.*

Quitter, J. (2009), "Can Stanford take on Facebook mobile?, Time, *www.time.com/time/business/article/0,8599,1869169,html.*

Smith, S.D. Salaway, G. & Caruso, J. (2009), "The ECAR study of Undergraduate Students and Information Technology", *EDUCAUSE Centre for Applied Research, Biykderm CO, www.educause.edu/ecar.*

Tennant, R. (2009), "Libraries in a world of wearable technology", *www.libraryjournal.com/blog/1090000309/post/2000042600.html.*

Wikipedia (2009), "smartphone, *Wikipedia http://en.wikipedia.org/wiki/smartphone.*