

Accomplishing effective service delivery in academic libraries in Nigeria: The imperatives of IR, FOSS, Google, Wikipedia, Facebook, Twitter and Skype applications

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Accepted 19th November, 2014

Abstract. This paper aimed at examining the transformation potentials of information communication technologies and social networking in the face of challenges facing service delivery in Academic Libraries in third world countries like Nigeria. All over the world libraries are benefiting from shift from manual to ICT based service delivery. Almost all academic libraries needs different types of ICTs facilities and these facilities are applied to library functions on daily basis. Virtual and digital library concepts are examined as well as measures to make them relevant in the new dispensation in Nigeria are highlighted. Constraints against their effective utilization and solutions are also proffered.

Keywords: Information communication technologies, Google, Wikipedia, Facebook, Twitter, Drupal.

INTRODUCTION

The major role of the Universities in Nigeria as defined by the National Policy on Education (2004) includes the provision of high level manpower for National Development and this role is achieved through its programme of teaching, learning and research. This and other roles cannot be achieved without the preserve of a vibrant University Library (Aguolo 2003). The primary purpose of academic libraries therefore is to support teaching, learning and research in ways consistent with, and supportive of the institutions mission and national development. In addition library resources and services should be sufficient in quality, depth, diversity and currency to support institutions curriculum. As a result academic libraries are often considered the most important resource centre of an academic institution (Emwanta, 2012). It therefore behoves that adequate and appropriate library resources and services should be made available to users to support their intellectual, cultural and technical development needs. As observed

by Akpan-Ataha (2013), for information to be at the disposal of everybody, there must be adequately equipped library and well-packaged information services delivery.

This is because information has become the driving force behind the development of nations and proper service delivery has provided raw materials for socio-political and economic development. In addition to playing a vital role in every process of human endeavours and interaction among people, it enhances the quality of decisions made and facilitates social changes in the society.

ICT AND SERVICES DELIVERY

According to ALA Glossary, Information Technology is the application of computers and other technologies in the acquisition, organization, storage, retrieval and

dissemination of information. The web definition summaries ICT as the application of scientific knowledge for practical purposes and the machinery and equipment developed for such knowledge. Therefore the emergence and convergence of ICTs remain at the centre of contemporary service delivery system in academic libraries. After all global social and economic transformations have continuously been noted in areas of business, education, production, culture and other aspects of human life as a result of ICT.

Kyrillidou (2008) believes that libraries are the reserves of genius and they are fundamental to intellectual experience and natural activity of the mind, pointing out that there are no great universities without great libraries and no great libraries without great nations. So all over the world ICTs are transforming the world making a major shift in the way people live, learn, work and communicate (Maduewesi, 2013). The Jury is out and the verdict is that ICTs revolution has brought in its wake and education revolution that has changed the way teachers teach and learners learn. In this direction, software programmes and specifically equip computers are already providing learning opportunities that emphasize exploration, problem solving creativity and innovation techniques in libraries. Online applications allow users in remote and distant areas to access a wide variety of information resources and make use of advanced materials from digital libraries, power network enable users to interconnect videos, podcast and webs conferencing.

Applications

Institutional repository

The aim of institutional repository (IR) is to increase visibility, preservation and storage of all types of institutional output, including unpublished literature, support for learning and teaching, standardization of institutional records ability to keep track of and analyse research performance breaking down of publishing cost and permission barriers, and help universities shape their knowledge and expertise (Christian, 2008). IR can be used to search for any phrase; it can be accessed all over the world, and can be copied without error. As such it addresses traditional problems of finding information or delivery it to users and preserving it for future. The development of IR has provided academic and research institutions with a very high level of visibility on the library digital resources electronically (Ogobono and Muokebe, 2013). As such, teaching, learning, research and overall service delivery is widely enhanced in the society. In summary, the initiative of IR aimed at bringing the knowledge society to a state of free access to all kinds of information and learning material using the Internet and ICT tools to achieve its service delivery.

Fry et al. (2008) list the following as benefits of IR to

academic libraries in service delivery:

- (i) Greater speed of dissemination of knowledge;
- (ii) Citation advantage;
- (iii) Generate right of the public to gain access to the materials of the publishers that are financed by public funds;
- (iv) Advancement of science in its most general;
- (v) Enhanced access to the scientific information;
- (vi) Increase in their audience;
- (vii) Increase in the impact of teaching and research work they carry out;
- (viii) Enhanced effective service delivery.

Free and open source software (FOSS)

As the name implies – Free Open – Source ware is software that is both Free software and Open sources. The concept is to grant users the right to use, copy, study change and improved information sources through the availability of its source code. The source code (SC) according to Lawal (2012) constitutes a program which is usually held in one or more task files stored on a computer hard disk. Usually these files are carefully arranged with a directory tree known as a source tree. Source code can also be stored in a data base or elsewhere.

However, in the context of FOSS, Free refers to the freedom to copy and re-use the software, rather than to the price, of the software. “Free Software Foundation” an organization that advocates the free software model, suggests that to understand the concept, one should think of free as in free speech, not as in “Free beer”. Consequently, free software is defined as a “matter of liberty not prize (Gnu, 2010). Nevertheless Free Software (FS) is when a programme user has four essential freedom.

- i) The freedom to run the programme for any purpose (Freedom 0);
- ii) The freedom to study how the programme works and change it so it does your computing as you wish (Freedom 1);
- iii) The freedom to redistribute copies so you can help your neighbour or colleague (freedom 2);
- iv) The freedom to distribute copies of your modified version to others (freedom 3); and
- v) By doing this one can give the whole community of users a chance to benefit from these changes (Lawal, 2012).

FOSS is therefore an inclusive term that covers both free software and open – source software, which despite describing similar development models, have differing cutting and philosophies. Arguably, free software focuses on the foundational freedom of users, whereas open

software focuses on the perceived strength of its peer-to-peer development model (Lawal, 2002).

The Open Source software (OSS) OSS definition is used by the Open Source Initiative (OSI) to determine whether a license can be considered. "Open Source" means something close but not identical to FS. But according to Ukachi (2011), both the OSS programmers and the user community share and promote open standards and believe in sharing. OSS are very often developed in a public, collaborative manner. This software often provides greater freedom of choice and is considered by many as more cost-effective, as little or nothing is usually paid for their acquisition.

If the cost is next to nothing, it is still considered advantageous to choose an OSS application as it allows change of source code for individual needs and therefore enhances easiest service delivery. Finally, benefits of applying OSS include its reliability, availability - (as source code is published cost free of royalties and fees), flexibility and freedom in purchasing other products and freedom to modify the software to meet individual library clientele needs.

Other CT resources that is impacting service delivery in the library

Google

According to Maduewesi (2013), Google is an American multinational corporation that provides Internet-related products and services, including Internet search, cloud computing, software and advertising technologies. Google began in January 1996 as a research project by Larry Page and Sergey Brin when they were both PhD students at Stanford University in California. Originally, Google ran under the Stanford University website, with the domains Google Stanford Education and Stanford Education. The company also offers online productivity software including email, office suite, and social networking. Google products extend to the desktop as well, with applications for web browsing, organizing and existing photos, and instant messaging. The company was founded on a flat organization with a collaborative environment. Google leads the development of the Android mobile operating system, as well as the Google Chrome OS browser-only operating system found on specialized net books called Chromebooks. Google-owns sites such as YouTube, Blogger and Orkut. In 2011, Google acquired Motorola 12.5 Billion (Maduewesi, 2013). Given the vision its potentials it is not surprising that Google have remain one of the most powerful tools of service delivery in our library to date.

Twitter

It is an online social networking service and micro

blogging service that enable its users to send and read text-based messages of up to 140 characters, known as "tweets" Founded in March 2006 by Jack Dorsey, Noah Glass, Evan Williams and Biz Stone Twitter was launched July of same year. The service rapidly gained worldwide popularity, with over 500 million active users as of 2012, generating over 340 million tweets daily and handling over 1.6 billion search queries per day (Maduewesi, 2013). Since it was launched, Twitter has become one of the top 10 most visited websites on the Internet and decided as the SMS of the Internet." Unregistered users can read tweets, registered user can post tweets through the website interface. SMS or a range of apps for mobile devices. Twitter has been cited as an important factor in the Arab spring and other political protests, and also as an important tool is service delivery in academic institutions worldwide (Maduewesi, 2013).

Facebook

Facebook is a social networking service launched in February 2004, owned and operated by Facebook, Inc. Facebook was founded by Mark Zuckerberg with his college roommates and fellow students Eduardo Saverin, Andrew McCollum, Dustin Maskavitz and Chris Hughes. Users must register before using the site, after which they may create a personal profile, add other users as friends, and exchange messages, including automatic notifications when they update their profile. The website's membership was initially limited by the founders to Harvard students, but was expanded to other colleges in the Boston area - The Ivy League, and Stanford University. As of June 2012, Facebook has over 955 million active users, more than half of them using Facebook on mobile devices. By September Facebook with its 1.18 billion users, of which close to 58% are active daily, with an average of 20 min per day, Facebook certainly not disappearing anytime soon (Business day, 2014)

Skype

As opined by Maduewesi (2013), Skype is a proprietary voice-over-Internet Protocol service and software application originally created in 2003 by Swedish entrepreneur Niklas Zennstrom and his Danish partner Janus Friis. It has been owned by Microsoft since 2011. The service allows users to communicate with peers by voice, video, and instant messaging over the Internet. Phone calls may be placed to recipients on the traditional telephone networks. Calls to other users within the skype service are free of charge, while calls to landline telephones and mobile phones are charged via a debit-based user account system. Skype has also become popular for its additional features, including file transfer, and videoconferencing. Skype has 663 million registered

users as of September, 2011.

The Khan Academy

The Khan Academy is a non-profit educational organization created in 2006 by Bengali-American educator, Salman Khan, a graduate of MIT and Harvard Business School. With the stated mission of “providing a high quality education to anyone, anywhere”, the website supplies a free online collection of more than 3,300 micro lectures via video tutorials on mathematics, history, healthcare and medicine, finance, physics, chemistry, biology, astronomy, economics, cosmology, organic chemistry, American civics, art history, macroeconomics, microeconomics, and computer science.

The Khan Academy started with Khan remotely tutoring one of his cousins interactively using Yahoo Doodle images. Based on feedback from his cousin, additional cousins began to take advantage of the interactive, remote tutoring. In order to make better use of his and their time, Khan transitioned to making YouTube video tutorials.

All videos are hosted on YouTube are available through Khan Academy's own website, which also contains many other features such as progress tracking, practice exercises, and a variety of tools for teachers in public schools. Logging into the site can be done via a Google or a Facebook account for those who do not want to create a separate Khan Academy account.

The project is funded by donations from several people, including significant backing from the Bill & Melinda Gates Foundation and Google. In 2010, Google gave the Khan Academy \$2 million to create more courses and to translate the core library into the world's most widely spoken languages. Khan Academy has eclipsed MIT's Open Course Ware (OCW) in terms of videos viewed. Its YouTube channel has more than 175 million total views, compared to MIT's 40 million. It also has twice as many subscribers, at more than 369,000.000 (Maduewesi, 2013).

Wikipedia

According to Akpan-Atata et al. (2014), Wikipedia is a free, collaboratively edited, and multilingual Internet encyclopaedia supported by the non-profit Wikimedia Foundation. Its 22 million articles (over 4 million in English alone) have been written collaboratively by volunteers around the world. Wikipedia was launched in January 2001 by Jimmy Wales and Larry Sanger coined the name Wikipedia, which is a portmanteau of wiki (a type of collaborative website, from the Hawaiian word wiki, meaning “quick”) and encyclopaedia. Almost all of its articles can be edited by anyone with access to the site, and it has about 100,000 regularly active contributors. As of August 2012, there are editions of

Wikipedia in 285 languages. It has become the largest and most popular general reference work on the Internet, ranking sixth globally among all websites and having an estimated 365 million readers worldwide. It is estimated that Wikipedia receives 2.7 billion monthly page views from the United States alone (Maduewesi, 2013).

Web 2.0 Guru Wikispaces

Web 2.0 Guru Wikispaces (web20guru.wikispaces.com) is an indispensable resource for any serious person who is interested in integrating technology in a 21st Century Classroom. The site has a long directory of free technology resources for 21st Century Education.

Availability, accessibility and connectivity

From the forgoing, one can confidently say that accomplishing effective service delivery in academic libraries in Nigeria is all about availability and accessibility of ICTs. It also involves availability of useful information, and connectivity of individuals, libraries and social networking. These are purely information communication technology issues that can facilitate learning because the business model either involves storage of very useful information, or enables people to connect and discuss in real time.

CONCLUSION

It is noteworthy that what is happening currently in ICT driven service delivery can be likened to an iceberg in the ocean of library automation worldwide. It is just the beginning; technology is changing on a daily basis and new applications added and mundane ones discarded. But despite the availability of these online tools and services of information and techniques of service delivery, Nigeria has been struggling with the dearth of technical talents, irregular power supply, facilities and infrastructure to build, maintain and grow new technologies. Let us not forget that development of information technology and its application is a key factor to fostering economic development. The availability of such level of ICT skills in our libraries and all sectors of the economy and its management is therefore of critical importance and require concerted efforts of all stakeholders.

RECOMMENDATION

Nigerian Universities should seek for greater collaboration between them and the strategic ICT-based service providers if they are to enhance service delivery in their academic libraries. It has been done elsewhere.

For instance Motorola has a centre for research at Ibeijiking, China; Casco has a Regional Academy of training and Google a certified teacher programme in India: all attached to their Universities and their libraries.

Some African Universities have also seen the need to make use of ICT in order to accomplish Effective Service delivery, promote research and enhance excellence.

According to Etim (2010), the Cameroon interuniversity network is an example of the determination of the Cameroonian authorities of higher education to provide universities with modern infrastructure. In Kenya, the Kenya Education Network (KENET) is an initiative to establish a high speed, reliable and sustainable IP network for interconnectivities among educational institutions. The Malawi Academic and Research Network (MAREN) was been established to provide band width to major academic sites – Senegal has the UCAD information technology network which connects schools and faculties of the university. Nigeria has been involved in many projects to create national research and education network. NuNet, PolyNet, TeachNet among others are all efforts to develop and use ICT to foster institutional collaboration among and between administrative and academic communities. Internet connectivity has become a requirement for higher education. These programmes provide a whole field of ICT driven delivery services to their universities libraries and help accelerate the spread of ICT education in the most cost-effective manner. There should be adequate funding in order to support and encourage ICT in all libraries. Regular training and retraining of library staff on ICT should be done regularly. Finally, infrastructural facilities should be provided to boost staff morale.

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