

Modern ICT Tools: Online Electronic Resources Sharing Using Web 2.0 and Its Implications For Library And Information Practice In Nigeria

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Abstract

This paper is a reaffirmation of the importance of ICTs as tools for efficient and effective library services provision in terms of information acquisition, processing, storage and dissemination. Nigerian librarians are urged to acquire ICT skills to function in the modern information environment for them to maximize the benefits derivable from ICT use. This requires that libraries must automate their services to be able to operate using the Internet platform with all the advantages that it offers. Using the Internet libraries can own websites through which links can be provided for their users to numerous open source materials considering that most of them are unable to access fee-paying databases. Libraries can also operate information commons and derive the benefits that go with their operations; and use web 2.0 tools like Facebook, RSS feeds, wikis, blogs, podcasts, flickr, tagging, Myspace, etc for web visibility, enhanced information generation, processing, dissemination, access and utilization, as well as facilitating two-way communication between them and users.

Introduction

ICTs have come to stay, not only as inseparable but also as indispensable tools in the management of all information systems, including libraries. ICTs are needed for efficient and effective library services in terms of ease of acquisition, processing, storage and dissemination of relevant information to the right users at the right time regardless of their locations in the most effective manner. They provide access to relevant information wherever it is, and round the clock.

ICTs have created the challenges for librarians and other information professionals to develop the skills needed to function in a global information setting, i.e., in a networked environment. In the view of Omekwu (2011), it is not just enough now for librarians to have ICT literacy, but that they additionally require to have such technical expertise as database management systems programming, networking, web mastery, troubleshooting, etc.

It is further obvious that it is not enough to learn ICT skills as one-off requirement, but to do this proactively and dynamically in response to the ever recurring changes in the ICT world. This is because ICTs are on the fast lane. For instance, this paper is on web 2.0 but since its coming into existence in 2004 or thereabout, it has provided the platform for the emergence of other related services. These other developments that have their roots in web 2.0 are library 2.0, Librarian 2.0, web 3.0, etc.

Philosophy Behind Web 2.0

Web 2.0 is a social tool or medium meant for communication purposes. According to Wikipedia

(2012), it is “associated with web applications that facilitate participatory information sharing, interoperability, user-centered design, and collaboration on the world wide web. A web 2.0 site allows users to interact and collaborate with each other in a social media dialogue as creators (prosumers) of user-generated content in a virtual community...”

Web 2.0, from the foregoing statement, which as analysed below, shares the same philosophy as the library. The library, whether in print or virtual environment, is meant to communicate in space and time. This kind of communication is better facilitated in a web 2.0 environment, which allows for “participatory information sharing.” Participatory information sharing is very important for us librarians and information professionals because it presupposes that none of us actors in the arrangement will be passive recipient of the information generated by others. We are expected to be active generators of information, which we should freely share with others. The argument of some of us will be that we have nothing to contribute to the information superhighway. This argument is not plausible because we have our local contents, institutional repositories, etc as our contributions, which the other partners we consider major players will cherish having access to. And in terms of information sharing, it is the trend in the electronic environment as observed by Ekoja (2010) because the tradition of holding on possessively and selfishly to books and other information conveying media is no longer fashionable. The technologies that have evolved to further information sharing using web 2.0 are blogs,

wikis, really simple syndication, tagging, podcasts, chats, etc.

Interoperability, according to IEEE Glossary (2000) is the “ability of two or more systems or components to exchange information and to use information that has been exchanged.” It simply means that a platform is created in which two or more separate systems (say in two or more libraries) are able to communicate with and among each other for the purpose of exchanging information. Web 2.0 environment provides this wonderful opportunity of interoperability for the communication and use of information between and among systems.

That the design of web 2.0 is user-centred is also very helpful for library users of this service, and indeed any other user for that matter. According to Wikipedia (2012), “user-centred design (UCD) or pervasive usability is a design philosophy and process in which the needs, wants, and limitations of end users of a product are given extensive attention at each stage of the design process.” Because it is user-designed, web 2.0 can easily be adapted into the working environment(s) of those it is intended for, and these include libraries and librarians.

Collaboration is one of the activities the use of web 2.0 promotes, and for us librarians and information professionals collaboration is very important because it helps us to achieve a common goal. It is a well known fact that “Teams that work collaboratively can attain greater resources, recognition and reward when facing competition for finite resources.”

Borrowing from what Enterprise 2.0 offers to users, McAfee (2006) summarized the features and techniques of web 2.0 with the acronym, SLATES, where

- S stands for Search. This means that information can be found in web 2.0 through keyword search.
- L stands for Links. This means that web 2.0 has the capability to connect information together in a meaningful information environment through the use of the web with low-barrier social tools.
- A stands for authoring. This means that web 2.0 offers users unrestricted opportunity to create and update contents, thus facilitating the collaborative work of many rather than just a few authors. For example, in wikis, users can extend, undo and redo each other's work. Similarly in blogs, individuals' posts and comments build up over time to constitute their contents.

T stands for Tags. This means that web 2.0 offers users the opportunity to categorize content(s), that is, add tags, which are usually one-word descriptions that facilitate searching.

E stands for Extensions. This means that web 2.0 offers a number of software, which make the web an application software in addition to being a document server. These include Adobe Reader, Adobe Flash Player, Microsoft Silverlight, Activex, Oracle Java, QuickTime, Windows media, etc.

S stands for signals. This refers to the use of syndication in web 2.0. A typical example is RSS feeds, which alert users to contents that they are interested in.

Web 2.0 Tools for Enhancement of Library Services

There are many social media tools used in web 2.0, some of which are mentioned with brief remarks about how helpful they are in library and information services.

i) Really Simple Syndication Feeds

Really Simple Syndication (RSS) Feeds are special computer programs (aggregators) or readers that are installed on systems using web 2.0 to enable libraries and information services using them distribute up-to-date web content from their sites to thousands and even millions of users. It is a technology that allows organizations to deliver news to a desktop computer or other Internet device (e.g. a mobile phone). By subscribing to RSS feeds, users can, without waste of time and effort, stay up-to-date with areas of the library's site that interest them. The use of RSS feeds makes it easier to find news on the Internet with the user choosing to view not only the news he wants but those items that interest him and are relevant to his work. RSS is also capable of removing spammed information.

A typical library feeds consist of headline, brief summary, and a link that takes back the user to the library website for more information. The Library of Congress, for example, offers several RSS feeds for use in an RSS aggregator or reader, or RSS-enabled web browser. They include *Latest News*, *Library of Congress Information Bulletin*, *Library of Congress Blog*, *Places in History*, *Places in the News*, etc.

Another name for RSS is Rich Site Summary, and RSS feeds can be installed for new books, jobs, faculties, departments, etc. They are also available from external database providers.

ii) Wikis

A wiki is a server software that allows users to freely create and edit web page content(s). It is a website developed collaboratively by a user community that

allows any of the members to add and edit the content(s) using his own web browser. A good example of a popular wiki is the Wikipedia.

According to Squidoo (2010), "having a wiki for your library is a great way to use web 2.0 with your library as well as organize your resources and improve communication either between library employees or with your patrons." A well known library wiki is *Library Success: A Best Practices Wiki* where users can get great ideas and information for all types of libraries and librarians. Whatever librarians have done in their libraries, which they feel others should share in and benefit from are posted to *Library Success* or they provide a link from *Library Success* to such sites that others can read about them.

Wikis can be used in libraries for such communications or services on community information and guides, conference sites, library websites, project management, staff manuals, service point manuals, subject guides, course guides, reserve guides, etc.

iii) Blogs

A blog is the short name for weblog, which is a personal journal of an individual or organization arranged chronologically in reverse order, starting with the latest post or communication. According to Fichter (2003), there are different types of blogs, such as personal diaries, news sites, etc. Blogs are very helpful in marketing library services like new acquisitions, opening hours, library events and programmes, online discussions, etc. They can also be used for supporting the activities of the parent communities of libraries, such as community news about festivals, ceremonies, sports, etc.

In setting up blogs, libraries can use a remote blogging service or an inhouse expert (blogger) whose design will still be hosted by a remote blogging service. There are many remote blogging services but the few examples given below are only those of actual library blogs. They are:

- a) St. Joseph County Public Library Book Blog, which focuses on upcoming releases in publishing and entertainment. It is available at:
<http://homepage.mac.com/nrdtsjcpl/B1732759005/index.html>
- b) Roselle Public Library's Blogger Book Club, which is an online book discussion group for kids to share their thoughts on books. It is available at:
<http://bloggerbooksclub.blogspot.com>

- c) LISNews.com focuses on news for information professionals and a collaborative weblog.

It is available at: <http://www.libnews.com>

iv) Podcasts

A Podcast is a multimedia digital file made available on the Internet for downloading to a portable media player, computer, etc. The Wikipedia (2012) defined it "as a type of digital media consisting of episodic series of audio, video, pdf or epub files subscribed to and downloaded through web syndication or streamed online to a computer or mobile device." A podcast is therefore another form of disseminating information on the web using auditory, visual and textual effects about events, services, personalities, etc.

Roberts (2007) gave a number of advantages libraries can derive from the use of podcasts and some of them are:

- a) The library user knows when and where the content (of the podcast) will be reviewed.
- b) Conversations engaged in podcasts engender better research strategies and knowledge of available library services.
- c) Library web pages and online presence are given better visibility.
- d) Information literacy concepts, marketing of library services and ways of collaborating with library stakeholders are better enhanced.

Podcasts can, for example, be used for library instruction, such as audio or guided tour of the library.

v) Flickr

Flickr is a popular web 2.0 tool for sharing photos, especially among photo lovers. Librarians have also found good use for flickr by using it to pictorially promote events, create photo tours, as well offer virtual tours of their libraries. Librarians also use flickr to advocate with images to let their stakeholders know what they are doing, as well as offer outreaches where others can find images of their libraries. Librarians equally use flickr to inspire fellow librarians by sharing new additions to their libraries, share history, events, etc pictorially.

An example of real library experience using flickr is the Image Archive of the Library of Congress, which is available online.

Tagging

Web 2.0. also provides facilities for tagging. A tag is a non-hierarchical keyword or term assigned to a piece of information, for example, Internet bookmark (otherwise called favorites or Internet Shortcuts in

Internet Explorer), digital image, computer file, etc. Tagging may take the form of words, images or other marks or signs that are devised for the purpose of identification or classification.

Tagging helps to describe an item, thus facilitating its subsequent location and retrieval through browsing or searching. Unlike indexing terms and subject headings for which we resort to thesauri in the conventional environment, tags are usually arrived at informally and personally by the creator or viewer of an item.

Tags are useful in blogs, events, research compilations and other such facilities and/or activities, which are library related. The collections of tags that are created by many users within a single system are referred to as folksonomies, i.e., classification of information. Tags are therefore good “classificatory” tools.

Facebook

Libraries and information centres are increasingly using social networking media, especially Facebook, Twitter, LinkedIn, etc to offer services. The Facebook, no doubt, is currently the most popular of these media.

It has been established in the literature that the most popular use of Facebook in libraries is for announcements and marketing (Jacobson, 2011). Additionally, however, Jacobson has also established the actual Facebook contents in the libraries he studied to be, apart from the two most popular, in the following order: “OPAC Search, RSVP to events, photos, to be where users are, reference services, forum for users, database search, and video.”

One very important requirement for libraries and librarians that are using or intend to use Facebook in service offerings is that they must update their contents at least weekly. Therefore, it is recommended only for “active” libraries where a lot of events like exhibitions, workshops, seminars, meetings, etc take place regularly at short intervals.

MySpace

Myspace is another social networking site that is available through the instrumentality of web 2.0. It is popular among tweens and teens and in consequence used more in school and public libraries for music or other such productions with sound effects, animation, catchy banners, etc.

Like Facebook, there is no known library in Nigeria using Myspace. It was reported by Oleck (2007) that about 55 public libraries and one library used Myspace in USA and Canada respectively. One of these libraries in the USA is the Hennepin County (MN) Library where students use Myspace to do school assignments. It was also reported of this Library that it recorded more than 21,000 monthly Myspace page views and 500 weekly pass through in the year 2007.

Another version of a social networking site as a web 2.0. tool is *Second Life*, which is less popular but used more by academic libraries in the developed world, especially in the USA. As useful as these sites are, there are misuses associated with them for which libraries using them are urged to guard against. This is more so because most of the users are the youth, who are very vulnerable to some of the ‘indecent’ contents of these pages.

Implications of the Availability and use of Web 2.0 Media for Libraries and Librarians in Nigeria

ICTs, including Web 2.0 and others have for long become a reality in information management. We owe it a duty to be responsive to the dynamics of the time by embracing the use of electronic media in our libraries. We have to key into the opportunities offered by these media for “participatory information sharing, interoperability...and collaboration on the world wide web.”

We cannot share in the vast information offered by ICTs nor contribute to it unless we migrate into the electronic environment. We can only contribute our quota satisfactorily to universal availability of information if we possess knowledge of the technology that can capture and launch our local contents into the information superhighway. Interoperability is required not just for the systems we use but also for us information practitioners as well. This is because we need to operate at the same “frequency” with our counterparts all over the world to be able to understand ourselves and to exploit what each person and his system(s) have to offer using ICTs. Collaboration on its part is very important and can be meaningfully and satisfactorily achieved through the mastery of the ICTs that help bring it about.

The big statement the foregoing is pointing to is that we must embrace the use of ICTs. This can start with the automation of our libraries, which can subsequently launch us into the Internet, the facilities of which will help us maximize the services we offer to our customers. The website, for example, is a very

helpful tool in the hands of librarians even if we have little to offer to others. The links that can be made to many open source materials from our sites would be helpful to our users.

Another very important facility we can also think of is information or learning commons. According to Beagle (2007) in Daniels and Barratt (2008), information commons is “a cluster of network access points and associated IT tools situated in the context of physical, digital, human, and social resources organized in support of learning.” It offers opportunities to users to learn while discussing in group, with all the peripherals (some of which are web 2.0 media) required to support learning in the library, which also include the librarian whose assistance may be sought from time to time.

The information commons concept will be very helpful in our libraries and library information practitioners in Nigeria are challenged to experiment with them in their services provision. Information commons is a more modern concept of what the USIS was offering in the community resource centres, one of which was established in each of the geopolitical zones of Nigeria in the late 1990s.

It is apt to mention here the benefits of using web 2.0 in Kenyan libraries as enunciated by Kwanya, Stilwell and Underwood (2012:301):

Libraries in Kenya utilize web 2.0 to market library services through current awareness; provide wider access to information and knowledge; lower the costs of disseminating information; facilitate quick and ready access to information; facilitate easy update of information and services; support social networking which aids knowledge generation and use; enhance interactivity between users and librarians and in the process facilitating seamless communication and feedback loop; take the library services to where the user community is already hanging out; create an information sharing culture; enrich the information services with multimedia experience; create a library environment which is fun to work in; empower the users to contribute library content; and facilitate the users to participate in the management of the libraries by making suggestions.

Libraries and librarians in Nigeria can do as much as their counterparts are doing in Kenya, and perhaps more, with web 2.0 facilities. Nigerian libraries can install RSS feeds to alert users to items of information they are interested in as the library takes possession of them electronically using the Internet.

RSS feeds can thus keep library users current in their areas of (research) interest. Apart from being sources of valuable information, wikis can also afford library users the media to contribute to the content of certain items of information, which a library has to offer, as well as providing opportunities for readers to contribute their own ideas on how to administer a library.

Blogs can be used by Nigerian libraries for day-to-day, week-to-week and month-to-month information about their activities. An example can be the publication of the regular accessions of a library, forthcoming events, etc. Nigerian libraries can use podcasts for library use instructions, guided tours, etc, especially in academic and research libraries.

Apart from using flickr for advocacy by letting stake holders know through pictures (since pictures do not lie?) what they are doing, librarians can also use it to share resources among themselves. Tagging on its part is a useful tool for informal and personalized classification of information by both users and librarians. It can be put to use in the Nigerian library environment like we have them in the developed world.

Facebook, if embraced by Nigerian libraries will give them web presence and open up two-way communication between the libraries and their respective users in terms of communication and responses to them. Myspace can be used by Nigerian libraries to attract our tweens and teens to their services where music, animation, catchy headlines, etc are required.

Conclusion

As information practitioners, we need to have an international outlook, and one of the facilities that can give us this outlook is the use of ICTs so that we can communicate with our counterparts and systems all over the world for the purpose of serving our customers better. We must all, therefore, be able to use ICTs to exploit the vast resources that are begging to be utilized in the Internet. One of these important ICTs that we must learn to use and deploy in serving our customers is web 2.0. The above are just a few of the benefits our libraries can derive from the use of web 2.0. There are lots more facilities and benefits, which this paper has not dwelt on.

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