From web 2.0 to lib 2.0: new paradigms for driving access to knowledge by academic librarians in Nigeria

Helen N Eke, Miss
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Chinwe Nwogo Ezeani
Nnamdi Azikiwe Library University of Nigeria, Nsukka, Nigeria

Helen Nneka Eke
Nnamdi Azikiwe Library University of Nigeria, Nsukka, Nigeria

Abstract

Purpose: This paper investigates the concept of web 2.0 and its application to library services known as library 2.0.

Design/Methodology/Approach: Basically, information was gathered through literature search and the paper commences with basics of web 2.0, stating the concept, the features and then, transition to lib 2.0. Library 2.0 is seen as a user-centered tool which enables real time interaction with library patrons enhancing a two way relationship where the information consumers connect with information producers to become co-producers themselves. This paper discusses how academic librarians might utilize and leverage these new innovations in driving access to knowledge in the 21st century.

Findings: challenges of using lib. 2.0 tools by librarians to drive access to knowledge include technophobia, resistance to change, criticisms of library 2.0 by scholars among others.

Practical implications: Library 2.0 is touted as a facilitator for knowledge access to patrons. Librarians are called to use this tool to reach out beyond their walls and institutions and reach out to both actual and potential patrons where ever they are located.

Originality/Value: A knowledge Access (KA) 2.0 model was designed which shows the nexus between library 2.0 tools and library users.

Keywords: Web 2.0, Lib. 2.0, librarians, knowledge.

Paper type: Viewpoint.

Introduction

Libraries have long been recognized as important information access points. Librarians are also popularly known as knowledge managers and providers. Provision of knowledge is a means of allowing individuals have access to existing knowledge, and librarians give users the opportunity to gain access to knowledge by creating access to information. Scholars such as Davenport, DeLong and Beers (1998) have defined knowledge as containing fact and information. Information on the other hand contains experience, context, interpretation, and reflection. Aguolu and Aguolu (2002) noted that librarians are usually concerned with public knowledge, and the central problem of the research libraries is how to provide the kind of access (intellectual, bibliographic or physical) to recorded information that will facilitate the growth of knowledge. In this present era of information technology, librarians’ roles as information organizers and managers have gone beyond the traditional, delving into the realm of the new paradigm which carries along with it, a myriad of challenges. In this present state, there ought to be new adoptions and integrations whereby librarians adopt new technologies and integrate them into their traditional setting of services and replicate such services using the emerging, modern
tools in order to drive access to knowledge. These tools are the web 2.0 tools. According to Habib (2006), Web 2.0 offers new service models, methods, and technologies that can be adapted to improve library services. Additionally, these services affect library users’ information seeking behaviors, communication styles, and expectations. Driving access to knowledge using web 2.0 tools is all about driving users to the web platform; making them aware of new tools which offer faster and reliable services in information seeking, and in deed, web 2.0 offers variety of technologies which aid in knowledge acquisition such as: wikis, blogs, RSS (Really Simple Syndication), web personalization, photo sharing (Flickr), social networking software (ning, facebook, myspace, hi5), open source software and many others. Librarians need some of these technologies in order to reach their patrons in more creative ways. The most applicable web 2.0 technology for library services is the social networking tools—where librarians can interact with their users to study their needs and give a feedback; photo sharing – where archival pictures can be posted to users or uploaded on the library website; RSS – where useful sites can be tracked and linked for daily update on library website; open source software – where users are given free access to knowledge. These applications of web 2.0 tools to library services bring into the scene, ‘Lib 2.0 or Library 2.0’. This therefore, simply means the application of web 2.0 tools to library services. This paper therefore, is an attempt at examining these new and emerging Internet tools and relating them to library practice.

The Web 2.0 Concept

Ranganathan in his work made a landmark pronouncement in his fifth law that ‘the library is a growing organism’. Growth is a phenomenon that implies a change, a shift or transition from an initially, worse state to a usually, better state. The web can in every sense be related to this law. Over the last couple of years the web has steadily initiated growth almost in every sphere of the library service. Commonly known as the web, the World Wide Web (www) as defined by Wikipedia (2010a) is a system of interlinked hypertext documents contained on the Internet. The web is evolving to a state of multi-sensory communication. Manness (2006) described it as a matrix of dialogues, not a collection of monologues. By this interpretation, the web is now becoming more interactive – involving more people who can collaborate, communicate and exchange ideas. This current state of the web is referred to as Web 2.0. To many people, web 2.0 means many things. To some, it is the second generation of the web while some other people refer to it as a platform of interaction.

Web 2.0, a phrase coined by O’Reilly Media in 2004, refers to a perceived or proposed second generation of Web-based services—such as social networking sites, wikis, communication tools, and folksonomies—that emphasize online collaboration and sharing among users (http://en.wikipedia.org/wiki/Web_2.0). Abram (2005) suggested in his article that Web 2.0 is about the more human aspects of interactivity on the Web: It is about conversations, interpersonal networking, personalization and individualism. Miller (2005) in his contribution to this discourse posits that web 2.0 is anchored on the concept of freeing of data. What this means in effect is that data and information are democratized, exposed, discovered, manipulated in a variety of ways. Access to information is therefore, perceived as a right and not a grudgingly released privilege.
Features of Web 2.0

O’Reilly (2005) attempts to clarify the meaning of web 2.0 by identifying its features such as *the web as platform, harnessing collective intelligence, and rich user experiences*

**The web as platform.** According to O’Reilly (2005) Web 2.0 is a platform for success as it involves communication, interaction, collaboration and participation in organizations. There's an implicit "architecture of participation", a built-in ethic of cooperation, in which the service acts primarily as an intelligent broker, connecting the edges to each other and harnessing the power of the users themselves. What this means is that the web has become participative and the flow of information no longer one-sided, but there is a flow of content from provider to user and vice-versa.

**Harnessing collective intelligence:** This is evident in hyper-linking different sites which makes for the growth of the web. Additionally, this tool makes provision for various services on the web which bring people together. For instance, there is google – where several research documents are harnessed, amazon – where books are purchased, flickr – where photos are shared. All these services draw a wide number of people to the web site. This in order words helps the building of virtual communities of learners.

**Rich user experiences:** These are richly enhanced by web 2.0 because content are assembled which meet the needs of the users. There is a kind of profiling of users and matching them with the explicit needs that they have. Users are profiled with desired information through ‘search alerts’ ‘Preferred searches’ and others.

Web 2.0 techniques

According to Brown and Adler (2008), there are many well known examples of Web 2.0 techniques or resources, such as:

- Social networking sites
- Blogs
- Wikis
- Virtual communities

These techniques enhance knowledge sharing in organizations. These technologies according to Töteraman and Widen-Wulff (2009) are defined as a network of collaborative applications where users consume, create and recreate information from several sources resulting in new contents and structure. It is socially dynamic including how the information is used, understood, and re-invented all the time (Miller, 2006; Tredinnick. 2006).

Transition to Lib 2.0

The academic library is established to aid in the achievement of the goals of the parent body and is the ‘hub’ that drives all academic activities of the institution. Therefore, the aim of all academic libraries is focused on proactive and creative information delivery to members of their institution. Library services in this modern world are becoming constantly updated and reevaluated to best serve library users. There is now a transition within the library world in the way services are offered to patrons. The application of Web 2.0 to library services is referred to as Library 2.0 or Lib 2.0 for short. Wikipedia clearly defined Lib2.0 as a loosely defined model for a modernized form of library service that reflects a transition within the library world in the way that services are delivered to users. The focus is on user-centered change and participation in the creation of content and community. The concept of Library 2.0 borrows from that of
Business 2.0 and Web 2.0 and follows some of the same underlying philosophies. This includes online services like the use of OPAC systems and an increased flow of information from the user back to the library.

**Overview of Lib 2.0**

The term "Library 2.0" was coined by Michael Casey on his blog LibraryCrunch as a direct spin-off of the terms Business 2.0 and Web 2.0. Casey suggested that libraries, especially public libraries, are at a crossroads where many of the elements of Web 2.0 have applicable value within the library community, both in technology-driven services and in non-technology based services. In particular, he described the need for libraries to adopt a strategy for constant change while promoting a participatory role for library users (Wikipedia, 2010b). In the words of Maness (2006), Library 2.0 is the application of interactive, collaborative, and multi-media web based technologies to web-based library services and collections. Some of the examples of Library 2.0 are: Wikis, RSS, Blogs, Social networks, Flickr, Instant Messaging (IM), podcasting, etc.

The techniques of web 2.0 are also applicable to Lib. 2.0, but in the library environment. According to Maness (2006), a theory for Library 2.0 could be understood to have these four essential elements:

- **It is user-centered.** Users participate in the creation of the content and services they view within the library's web-presence, OPAC, etc. The consumption and creation of content is dynamic, and thus the roles of librarian and user are not always clear.

- **It provides a multi-media experience.** Both the collections and services of Library 2.0 contain video and audio components. In the library 1.0 which is somewhat viewed by scholars as the traditional paradigm, libraries focused mainly on printed materials; however library 2.0 encourages the creation of access to information in diverse formats. These include videos, audios, and photos to create a multi-sensory experience.

- **It is socially rich.** The library's web-presence includes users' presence. There are both synchronous (e.g. IM) and asynchronous (e.g. wikis) ways for users to communicate with one another and with librarians. This can be done through online chatting, Instant Messaging and Text SMS via phones.

- **It is communally innovative.** This is perhaps the single most important aspect of Library 2.0. It rests on the foundation of libraries as a community service, but understands that as communities change, libraries must not only change with them, but they must allow users to change the library. It seeks to continually change its services, to find new ways to allow communities, not just individuals to seek, find, and utilize information.

Utilizing information or knowledge is a function of access. Without librarians driving users to where they can locate information, such users cannot utilize the information. Library patrons are increasingly becoming highly dynamic and fast moving. Most are technologically-savvy and want to contribute to knowledge generation and are also a strong force in creating content thereby helping in driving access to information.
Knowledge Access

Libraries have the potential to create quality access to information and quality content for research. Knowledge goes beyond mere information, but deals with processed and interpreted information which prepares the receiver for appropriate actions (Aguolu and Aguolu, 2002). Knowledge Access is a state where a library user has the opportunity to come in contact with needed processed information. In this regard, librarians have the potential to create quality content for indigenous research and provide cutting-edge knowledge for informed decision of their patrons.

Librarians driving Access to knowledge

Librarians are usually concerned with public knowledge, and the central problem of the research libraries is how to provide the kind of access – intellectual, bibliographic or physical – to recorded information that will facilitate the growth of knowledge (Aguolu and Aguolu, 2002). Libraries as primary gateways to information are therefore important vehicles for the acquisition of knowledge. Libraries as knowledge institutions provide spaces for information-sharing and learning for all ages, genders, ethnicities and socio-economic groups regardless of their information/knowledge needs. Libraries facilitate access to information thereby providing the means through which new knowledge is developed and made available to all (Tise, 2009). In an attempt to drive home the issue of librarians and driving access to knowledge, Tise further stated that in Quebec City the following emerged as the key enablers for access to knowledge by libraries and librarians:

- Libraries and librarians must become more user-oriented;
- Libraries and librarians must become active in advocacy by actively promoting libraries;
- Libraries and librarians must create partnerships and foster opportunities for convergences;
- Libraries should serve as space and place

Proposing a Model for Knowledge Access using Lib 2.0

Librarians are described in this write-up as vehicles that drive access to knowledge. Therefore, in doing this, they are expected to involve themselves deeply by using the Lib. 2.0 tools. Such tools as earlier mentioned can be used in the following ways to serve library users:

Social Networking Sites (SNS)- eg. Facebook, hi5, netlog, LinkedIn., LibraryThing: Librarians can harness these tools in interacting with users and knowing what they want. Groups can be formed in facebook where strictly academic issues are discussed. An instance is the ‘Academic Library Users’ Group. LibraryThing a social networking tool enables users to catalog their books.

Blogs – These used to market available library resources which users may find useful. Comments and posts are sought for here.

RSS (Rich Site Summary) – Librarians can utilize this tool in enriching the library websites whereby important links are created which can run on automatic daily update, depending on how it is set.
**Instant /Synchronous Messaging (IM):** Librarians can use this platform for ‘chat-referencing’ where users can synchronously communicate with librarians much as they would in a face-to-face reference context.

**Wikis:** This serves as online encyclopedias. Librarians are expected to drive users to this platform where they can obtain first hand knowledge on definitions and concepts. It is a collaborative website where both the writer and the readers can edit and make contributions to topics.

**Flickr:** with library users, librarians can share photos of the library and any other important, historical picture which users may find useful. With flickr, librarians can also teach library users how to organize their photos online.

All these platforms boil down to knowledge access. In employing these tools, librarians drive access to knowledge by **establishing contact with the users and providing their needs.** This model is known as: **knowledge access (KA) 2.0 model.** It is so termed because it is expected that librarians should employ the Lib. 2.0 tools which would aid in them in driving access to knowledge for the modern day library user (Patron 2.0). This is a model which would act as a guide for librarians in actualizing this aim. This model is diagrammatically represented as figure X:

![Diagram](image)

**Figure X:**  *Knowledge Access (KA) 2.0 Model*

Figure X shows the nexus between library 2.0 tools and library users. The library users are at the epicenter of the figure showing the user-centered nature of library 2.0. In addition there
is a feedback technique- a two way relationship of libraries providing the users with information and getting a feedback from them on how to improve library services for greater access.

Challenges

The following are the challenges of using lib. 2.0 tools by librarians to drive access to knowledge:

**Fear of the unknown:** This is a very big threat to library services in the modern world. Fear can cause retrogression and degeneration. In a situation whereby librarians are afraid of learning new technologies to enhance library services, this keeps the whole system on hold.

**Resistance to change:** Some ‘traditional’ librarians so to speak, are never ready to embrace change. This could be a function of some reasons. Oreg (2003) designed a scale based on individual differences that measured resistance to change. He identified four factors related to the individual's personality that can cause resistance to change: (1) routine seeking: a preference for routine over changes in life; (2) emotional reaction to imposed change; (3) short-term focus: the immediate inconvenience effects of a change; and (4) decisiveness: the ease and frequency with which individuals change their minds.

**Lack of proper orientation:** Many librarians in Nigeria especially, are not well informed in the issues of web 2.0 and lib 2.0. In an initial attempt by the writers to study ‘the use of web 2.0 among librarians in Nigeria’ it was discovered by the questionnaire filled, that a vast majority of librarians in Nigeria have not come across the word ‘web 2.0’. This discovery necessitated the writing of a conceptual paper rather than the empirical paper initially planned.

**Criticisms of Lib. 2.0:** Some writers see Lib 2.0 as a wasted effort. In his write-up on ‘Toward Academic Library 2.0: development and application of a library 2.0 methodology’ Habib (2006) pointed out that Many librarians believe the term is confrontational because they have taken the 2.0 as a declaration that there was an obsolete Library 1.0 that needs to be replaced. This he gave as the ‘confrontation’ criticism of lib 2.0. Other critics argue that, apart from the buzz, Library 2.0 has no meaning beyond the already well established user-centered approach that has long been applied by progressive librarians (Habib, 2006).

**Lack of peer-review:** Any registered member of the wikis can contribute and edit the pages at will. Therefore, the lack of peer-review and editorship of some web 2.0 tools is often a major concern to scholars.

**Cost of sustainability of lib. 2.0 technologies:** It may be difficult for libraries to maintain the use of lib 2.0 technologies. This is in relation to electricity and training of manpower in the use of these technologies.

Contributions and Conclusion
The discussed challenges can be ameliorated by:
Building proactive librarians: This is a situation whereby the minds of librarians are worked on so that they can expect changes anytime. They could therefore choose to be willing to embrace change any time it comes.

Training librarians on lib 2.0 technologies: Librarians should be meant to understand all the possibilities inherent in lib. 2.0 technologies, especially how it can be utilized in order to serve users.

Inculcating the ‘yes-we-can’ attitude into librarians: This terminates the fear of the unknown. It also makes librarians prepare for the unseen world of technologies.

Provision of stable power supply. When the power supply is unstable, librarians become discouraged in using these tools. They may quickly resort to the traditional method of Information delivery.

In conclusion this paper has tried to examine the concepts of web 2.0 and its application to library services popularly known as library 2.0. The paper also highlighted the major features of these tools and how these tools can be used in dynamic ways to create access to knowledge. Library 2.0 is touted as a facilitator for knowledge access to patrons. Librarians are called to use this tool to reach out beyond their walls and institutions and reach out to both actual and potential patrons where ever they are located. According to Miller (2005) Even though libraries are guardians of knowledge, it has become evident that many users may by pass processes and institutions that they perceive to be slow, unresponsive, unappealing and irrelevant in favour of a more direct approach to services offered by others that may meet their needs.

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