# THE IMPACT OF LIBRARY 2.0 IN THE TRANSFORMATION OF ACADEMIC LIBRARY SERVICES IN AFRICA

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ABSTRACT: Academic libraries the world over are now embracing Library 2.0 to improve the operations of their library services. It therefore follows that there is need for academic librarians in Africa to embrace Library 2.0 applications to meet the twenty-first century library user's needs. Library 2.0 has major impacts on how librarians and library users alike access information. Library 2.0 is there to support social, human, participatory and interactive experience that will result in the end user's academic achievement. This paper therefore explores the impact library 2.0 technologies are having on academic library services. The author considers some of the services that are now being offered in most university libraries in Africa like the provision of information literacy skills, institutional repositories, and electronic resources as well as community engagement which entails reaching out to the community to introduce and embrace these vital technologies. The paper offers recommendations on the best way forward regarding merging twenty-first century academic library services with Library 2.0 technologies to promote effective use of library services in Africa. The researcher used a mixed research methodology and employed survey research design to investigate Library 2.0 applications. The researcher went further to establish the Library 2.0 applications currently used in numerous Zimbabwe State University Libraries. Data was collected using questionnaires and interviews. The research findings revealed that Library 2.0 helps academic librarians to reach out and interact with library users and their communities, quenching their information needs as well as increasing user interests in the library resources.

KEYWORDS: Africa, academic libraries, Library 2.0, ICT technologies, Web 2.0.

### INTRODUCTION

The innovation of technology, in the norm of Web 2.0, with its emphasis on user involvement and collaboration has altered the process of information services and resource sharing in academic libraries. Kwanya, Stilwell, and Underwood (2009) note that there is, in reality, been a shift from formal scholarly publishing, to unpublished materials, and to self-publishing, which poses unlimited tests to information management in academic libraries. The existence of a website is not surety for the effective use of library services. Research indicates an increase in the use of search engines, e-mail, and blogs and that the use of library websites has declined. Propositions are that library users may not be conscious of the library services and, hence, libraries need to find ways and means to involve users in their services. Identifying the need to involve users and to harness user-generated content, most libraries are now integrating Web 2.0, or Library 2.0, technologies into their services.

Numerous schools of thought, including Chua and Goh (2010) and Harinarayana and Raju (2010), validated that the integration of Web 2.0 tools into the library setting can improve the value of library services. Web 2.0 technologies can enhance library services by improving communication with customers, promoting and marketing services, and imparting information literary skills Chua and Goh (2010) Harinarayana and Raju (2010). Library 2.0 technologies inspire users to partake in the design and implementation of library services through their feedback. Library services are continuously updated and re-evaluated according to user needs based on their feedback Pienaar and Smith (2008). Studies in Sub-Sahara Africa have revealed that most

libraries provide information about their services and content on their websites, while their counterparts in the developed world are already offering online resources and services by integrating Web 2.0 technologies Muswazi (2000); Lwoga (2012); Makori (2012a). Academic libraries need to make available their traditional services more resourcefully and to offer supplementary services through Library 2.0 tools to those users who are more at ease with the new environments of accessing and using information.

### **WEB 2.0 AND LIBRARY 2.0**

The catchphrase "Web 2.0" was coined by Tim O'Reilly of O'Reilly Media in 2004. It is also frequently referred to as "Library 2.0" because it has become a standard technology that is used in the provision of library services. O'Reilly (2004) states that Web 2.0 is the network as platform, spanning all connected devices. Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an "architecture of participation," and going beyond the page metaphor of Web 1.0 to deliver rich user experience O'Reilly (2005).

The Web 2.0 capabilities connect the library to its users in a two-way communication and enable knowledge exchange. Coombs (2007) defines Web 2.0 as a space that allows anyone to create and share information online, a space for collaboration, conversation and interaction in a highly dynamic and flexible platform. On the other hand, Anderson (2007) defines Web 2.0 as a group of technologies such as blogs, Facebook, wikis, RSS feeds and others that promote sharing, editing and creating contents in a socially networked web environment.

Web 2.0 embraces a number of tools and technologies, stretching from wikis, blogs, and syndication feeds to social and virtual networking. Library 2.0 is a "change in interaction between users and libraries in a new culture of participation catalysed by social web technologies" Holmberg, Huvila, Kronqvist-Berg, and Widen-Wulff (2009, 667). Library 2.0 facilitates libraries to change and deliver demand-led services by concentrating on the needs of users already using the library and non-users who the library may reach out to bring into the library.

### ADOPTION OF WEB 2.0 TECHNOLOGIES IN LIBRARIES IN DEVELOPING COUNTRIES

There has been considerable growth of literature on the implementation of Web 2.0 technologies in a library setting Kwanya et al. (2012). The University of Pretoria Library developed Library 2.0 services effectively because it formulated an e-information strategy and technology committee in 2006, identified users' needs, and developed strategic alliances with other departments at the university that promote the development of Web 2.0 with the aim of making optimum use of the new Web 2.0 technologies Pienaar and Smith (2008); Penzhorn and Pienaar (2009), collaboration with ICT professionals,; and revision of the library and information studies curriculum to incorporate social media Banda (2011).

In the developing world, particularly in Africa, studies show that few university libraries have embraced the application of Web 2.0 systems, such as in South Africa Wood (2009), Tanzania Muneja and Abungu (2012), and Zambia Banda (2011). Some African libraries have just recognised the potential of Web 2.0 tools and they are beginning to adopt this technology. It is thus important for African libraries to engage in social media, since many librarians are already using these tools for social networking rather than for improving library service delivery. This is supported by Chisenga and Chande-Mallya (2012) who indicated that librarians in Southern, Central and Eastern Africa regions are engaged in social media applications and utilise these tools more for social than professional networking purposes than for library and information work activities.

Research further shows that not all Web 2.0 tools and services are used to the same extent and that some services are more popular than others. Kwanya et al. (2012) revealed that Facebook was the most popular Web 2.0 tool in Kenya's libraries, followed by Twitter, RSS, SlideShare, YouTube, Flickr, and blogs. In Tanzania, Facebook was also the main tool adopted by libraries, followed by Twitter, blogs, and Google docs Muneja and Abungu(2012). Collins and Quan-haase (2008) posit that the interests, demands, needs, and practices of an institution largely influence the adoption and use of a certain type of social media within that setting.

There are various barriers that constrain libraries in their efforts to adopt Web 2.0. These barriers may be associated with such factors as limited infrastructure and other information-based technologies, lack of library-centred social media policies, lack of funding for training and resources Collins and Quan-haase (2008), inadequate knowledge and skills among information professionals, inadequate support from the management Makori, (2012b), lack of time by librarians to use social media, and lack of interest among librarians who prefer to do things the way they have always been done Banda (2011). Other barriers include moral and ethical issues in Web 2.0 environments which are related to privacy, confidentiality, safety, harassment, pornography, fraud, and security Mutula (2012). It is imperative to consider all these obstacles when implementing Web 2.0 technologies in a library setting.

## LIBRARY 2.0 TECHNOLOGIES AT MIDLANDS STATE UNIVERSITY LIBRARY

Midlands State University (MSU) Library (http://www.msu.ac.zw) is part of the University network wide campus. The library currently houses over 50,000 volumes of materials, subscribes to over 40 academic databases, has automated its services, established a digital repository, and provides a wide range of other information and reference services.

The library adopted Web 2.0 services for the purpose of providing access to information, getting feedback from users, stimulating interactive and collaborative learning, and promoting library services. The library, therefore, developed the following tools: information organisation (social bookmarking and tagging system, downloadable library toolbar, and a search tool embedded in blogs); information acquisition (blogs, wikis); information dissemination (RSS); and information sharing.

Additionally, the university has integrated Web 2.0 aspects into the first year undergraduate curricula. The aim of the course is to impart knowledge and skills to students with regards to the use of the e-learning system and Web 2.0 for collaborative learning, as well as for information searching purposes. The library also provides online tutorials on IL aspects and annotated links to online tutorials via its wiki. The integration of Web 2.0 into the IL programme has enabled the library to be effective in creating and managing course materials.

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- Social bookmarking and tagging system
- Single-click downloadable library toolbar
- Blogs and mashups
- RSS feeds
- Social networks
- Wiki
- Information literacy

Other libraries also use Web 2.0 to further demonstrate difficult IL concepts. A study by Luo (2010) showed that Web 2.0 technology was used in three levels in IL programmes, which were to organise and manage course-related material for librarians' own purposes. It was envisaged that it would help to facilitate the delivery of content to students so as to illustrate IL concepts. However, the second level of Web 2.0 use was the most popular among librarians Luo (2010). The Web 2.0 technologies are changing at a rapid rate and, consequently, it is important for librarians to keep up with these developments.

### CHALLENGES OF IMPLEMENTING WEB 2.0 TECHNOLOGIES AT THE MSU LIBRARY

Despite the fact that Midlands State University has implemented Library 2.0 for over a year, the university still faces a number of difficulties which include: an inadequate number of computers, unstable internet connectivity, and insufficient electricity; inadequate awareness and internet skills; inadequate financial resources; a shortage of trained ICT and library staff; and lack of supportive policy/guidelines, authentication, security, and ownership of intellectual property of Web 2.0 services.

To improve the situation, the Midlands State University Library has undertaken the following measures: the University is soliciting funds to increase bandwidth to enhance the use of Library 2.0 and other ICT services; the library developed a curriculum on information and learning technologies, which includes Web 2.0 aspects – the course is taught to all first year undergraduate students; the library organises faculty development programmes regularly to enhance faculty's IL skills including the use of Library 2.0; the university regularly increases the number of technical staff and librarians, and provides them with adequate training to ensure the smooth running of ICTs, including Web 2.0 services; the librarians manually monitor the content on Facebook and blog comments on a daily basis to ensure that unsuitable content is not published on the sites.

### CONCLUSION AND RECOMMENDATIONS

Web 2.0 technologies provide potential benefits to academic libraries, and the role of librarians as facilitators of knowledge sharing, collaboration, and communication is becoming significant in the Web 2.0 environment. For patrons to communicate and interact with librarians more conveniently and efficiently, the academic library must embrace the medium that patrons are already using, such as social networks and blogs. The adoption of Library 2.0 tools improved the quality of library services by providing more interactive and user-oriented reference services; increased access to print and digital resources through a search facility on the library's blog; enhanced delivery of online and physical IL instructions to suit user learning styles; shared news and promoted library services in relatively less time; and increased user participation and feedback in the delivery of library services. Most academic libraries in Africa have not yet adopted Web 2.0 technologies to improve their services. The following recommendations may help other libraries to plan and integrate their Library 2.0 technologies in their services:

- libraries should conduct regular studies on user information needs and seeking behaviours for effective adoption and use of Web 2.0 technology;
- libraries should develop standards and policies for managing Library 2.0 tools and its content, as well as guidelines for managing inappropriate user-generated content;
- libraries should select tools that are user friendly and require relatively less time to set up and maintain to ensure effective management of the tools;
- libraries should create or redesign job descriptions and organisational structure to effectively run Library 2.0 services;
- librarians should redesign librarianship training curricula to build skills in such areas as marketing, public relations, and ICTs;
- librarians should communicate the benefits of Web 2.0 tools to the institutional management for the effective deployment of these technologies;

- libraries should consistently re-evaluate library 2.0 services for the effective management of these tools:
- governmental supply of stable electrical power and release of funds for improving bandwidth would be helpful; and
- universities should also seek alternative power sources, increased bandwidth, and additional computers.

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