

Repositioning Library Services in Academic and Research Libraries in Nigeria Using Web 2.0 Tools

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Abstract

The paper examined the various services obtainable in libraries and ways of repositioning such services via web 2.0 tools. Academic and research libraries in Nigeria, were studied to appraise the utilization of web 2.0 tools in repositioning library services in Nigeria, and this was broken down to five research objectives which guided the study. The research design used was descriptive survey and questionnaire was used to gather data from librarians in academic and research libraries. Data was analyzed using frequency and percentages; Mean and Standard deviation. Findings of the study revealed that many of the needed web 2.0 tools are lacking in the libraries while frequent power blackout is the most hindering factor to the utilization of available web 2.0 tools. The paper recommended that to make appreciable progress to repositioning library services using web 2.0 tools, the issues of Internet connectivity and steady power supply must be properly addressed by the government.

Keywords: *library services, academic and research libraries, Nigeria, Web 2.0 tools.*

Introduction

A library is an entity designed to provide information services to its users. All the material and human resources in a library are put in place to fulfil this aim. Therefore, it is the responsibility of the library to ensure that this aim comes to fruition. Non-use of the library and its resources results to decay and thus may not be tailored towards achievement of the institution's goals of teaching, learning and research. Academic libraries is meant to serve the students, lecturers, administrative members of the academic communities

The traditional library started off with basic library services which are referred to as 'traditional' library services in these modern times. Some of such services are circulation services such as lending of books to users, sending of overdue notices, discharging of books, provision of books on stacks for users, registration of users, clearance of users, reserving of materials for needy readers, shelving and shelf-reading, keeping of accurate notices, registration of readers, granting of loan, procedures for renewals and overdue books, reservation; reference services such as answering of reference queries, ready reference service, Information service, display service;

record of transactions and keeping of necessary statistics; reference services which include answering of ready-reference questions, orientation/instruction in the use of the library, current awareness services, provision of indexes and abstracts, translation services, interlibrary loan facilities, photocopying services, referral services and extension services. Another kind of library service is 'User Education' which according to Edoke (2000), tends to help users make the best use of the overall library services.

Library services are now being augmented using technology as a tool. Such services as acquisition, cataloguing, circulation, reference and a lot more. Indeed, technology has helped solve the problems patrons face in accessing a few copies of textbooks, magazines, journals, newspapers, theses and dissertations, and other materials that are available in the library (Adeniji, Adeniji & Oguniyi, 2011). Library services comprise Circulation Services such as lending of books to readers, sending overdue extension service and user education service. Idowu (2011) enumerated the following library services according to the international standard:

- Reference services

- Document delivery services
- Borrowing, renewing and reserving
- Computerized interactive search
- Technical services
- IT services
- E-library services
- Serials services
- Exhibitions and displays
- User education
- Selective dissemination of information (SDI)
- Current awareness services((CAS)
- Referral services
- Reprographic Services
- Counselling services
- Webliographic services
- Bibliographic services

Technology aids services in the library and with the use of web 2.0 which has become a buzz word in the contemporary world, in this users' attention are being caught so as to fit into the current trend in librarianship which is to take the services of the library to the user using these new tools. The last two decades have witnessed the rapid transformation of the library in applying information technology (Imran, 2011). As noted by Adeyinka and Taofeeqat (2016), 'the main technological advancement for the libraries is the Web 2.0 technologies that are more than just the web. The term was developed by Tim O'Reilly who described the changing trends in the use of World Wide Web technology and Web design that aim to enhance creativity, communications, secure information sharing, collaboration and functionality of the web'. Web 2.0 tools are tools that are used in the second generation web era to boost library services. A lot of authors have termed the application of these tools in libraries as 'library 2.0' tools. Adeyinka and Oladapo (2016) defined web 2.0 refers as 'a specific category of tools, such as multimedia sharing, RSS feeds, wikis, blogs, social bookmarking, mashups, Facebook, Twitter, MySpace, FAQs, and other interactive tools and their use on websites'.

Librarians in developing countries have recently been adopting new technologies in providing library services to their patrons. A lot of changes have been taking place in the way librarians carry out their services to library users. This is as a result of the emerging

technologies which play major roles in organizations and libraries are adopting these technologies to provide services to their users. Abram (2005) noted that 'frequently, our users want to experience the web; they want to learn and succeed, and we have to provide the tools and context so they can do just that. As the technology infrastructure of Web 2.0 is still complex and constantly evolving, Web 2.0 is ultimately a social phenomenon of users' experience of the Web and is characterized by open communication, decentralization of authority, and freedom to share and re-use Web content'.

Recently, librarians have struggled to understand their relationship to a new breed of Web services that, like libraries, connect users with the information they need. Many libraries today lack exposure to current trends in librarianship and they therefore remain far behind other libraries that have gained access to exposure to the Web 2.0 tools in their library services. According to Lwoga (2011), "the use of Web 2.0 in Africa is still at infancy stage. In order to improve the quality of education, African universities should take advantage of innovative and emerging technologies and consider the learning preferences of the Net generation or digital natives". Some probably do not even know what web 2.0 means and how they can be utilized for improved library services. While a few outside observers have proclaimed the death of libraries as a result of this new competition. It is clear that libraries continue to offer unique and valuable services to their communities. These services, known as Web 2.0, do have effects on library services. They offer new service models, methods, and technologies that can be adapted to improve library services. Furthermore, because of widespread use of these services, there are cultural changes affecting library users' information seeking behaviours, communication styles, and expectations (Habib, 2006).

In a research carried out by Aharony (2009), on 'Web 2.0 use by librarians', it was discovered that personality characteristics as well as computer expertise, motivation, importance and capacity towards studying and integrating different applications of Web 2.0 in the future, influence librarians' use of Web 2.0. These findings have theoretical as well as

practical implications. The research explored whether librarians, whose main work focuses on information, are familiar with new technological changes and innovations, and whether they make use of different Web 2.0 applications. The study also examined whether personality characteristics (resistance to change, cognitive appraisal, empowerment and extroversion or introversion), as well as computer expertise, motivation, importance and capacity towards studying and integrating different applications of Web 2.0 in future, influence librarians' use of Web 2.0. Different questionnaires were distributed to 168 randomly Israeli librarians throughout the country.

Librarians in developing countries have the challenges of totally embracing Web 2.0 in delivering their services to users. Technologies that are being developed and employed in libraries have to be influenced by librarians themselves. This is to enable librarians participate fully in these technical aspects of services to patrons in the digital age. Anderson (2007) writes that web 2.0 technologies are about:

1. Individual production and user-generated content.
2. Harnessing the power of the crowd.
3. Using data on an epic scale.
4. Fostering the architecture of participation.

It was also mentioned that librarians are in the perfect position to influence what technologies are being developed by demonstrating their use in libraries (Anderson, 2007). Libraries have to embrace and use this technology, because if they do not, they will be left behind and users will go elsewhere to find other ways to get information (Sperring, 2008). Thus, librarians must experiment and take risks with web 2.0 tools, as they are instrumental in driving the voice of the people.

The question now is: are librarians in federal and private universities in Nigeria aware of the web 2.0 technologies? If they are, to what extent have they used it for service to patrons in particular, not just for collaboration among colleagues? In what ways can they employ the use of web 2.0 technologies in enhancing library services?

Statement of the Problem

Web 2.0 tools application in libraries like Facebook, YouTube, Wiki, Twitter, Flickr are found to be very helpful in terms of setting up the standard of library services. The top priority of libraries in Nigeria is the digitization of resources which is believed to aid the ranking of universities. University of Nigeria had once initiated digitization of their local contents as reported by Ezeani and Ezema (2009). It is believed that digitization of library resources encourages users to visit the institution's website thereby increasing the traffic to the site which is one of the criteria of the webometric ranking of universities. But one thing they do not know is that web 2.0 tools can also attract users to the website. For instance, if a library has Facebook and Twitter links on their site, students would tend to visit the site as often as they visit their personal Facebook profiles and Twitter handles. The competencies needed in utilization of web 2.0 for library services are nothing more than the already acquired ICT competencies of librarians. In Nigeria, many libraries have desktops assigned to librarians and ICT trainings are being conducted to educate staff on how to utilize these skills in reaching out to the users. Therefore, librarians are to be given just a little more training on web 2.0 tools and also, enlightened about the benefits of these tools to library services. In view of the above, in suggesting better ways for web 2.0 tools application in library services, the paper tends to investigate how library services can be repositioned with the advent and utilization of Web 2.0 tools.

Objectives of the study

The purpose of this study is to appraise the utilization of Web 2.0 tools in repositioning library system services in Nigeria. However, the specific objectives are to

1. Find out the Web 2.0 tools available in libraries
2. Identify areas in libraries where the available Web 2.0 tools are applied and to what extent.
3. Find out the challenges in using the identified Web 2.0 tools
4. Identify strategies to enhance the challenges in using the identified Web 2.0 tools.

Literature Review

The term “Web 2.0” refers to the second generation development and design of the web that aims to facilitate communication and to secure information sharing, interoperability and user centered design. Web 2.0 concepts have led to the development and evolution of web-based communities, hosted services, and applications, such as social-networking sites, video-sharing sites, Wikis, blogs, and folksonomies. Gabrela (2009) defined web 2.0 as the social use of the web which enables users to collaborate, create content, generate knowledge and share information online. 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 experiences (O’Reilly, 2005). According Olasina (2011), Web 2.0 refers to a perceived second generation of web development and design that facilitates communication, secure information sharing, interoperability, and collaboration on the World Wide Web.

The term Web 2.0 was coined by Dale Dougherty (O’Reilly Media) and Craig Cline (MediaLive) in 2004 when they performed a study on the web and confirmed that after the downfall of the dot.com companies, those that survived offered new services based on applications that created dynamic pages and interaction with the user (Vallez and Marcos, 2009). Vallez and Marcos went further to state the examples of web 2.0 services as:

1. Amazon (<http://www.amazon.com>): a U.S. online sales company that started as a virtual bookshop. One of its successes arises from the use of technology to provide users with a personalised purchasing experience.
2. Delicious (<http://delicious.com>): A social bookmark management service which allows one to add bookmarks that were

classically saved on the browser and categorise them with a folksonomies tag system. It also allows sharing them with other users on the system, indicating which users have which links saved on their bookmarks.

3. Facebook (<http://www.facebook.com>): This is a social network that allows you to connect with people. The idea consists in creating communities where people share their interests and contents. Its great success is due to its platform where third parties can develop applications and do business from the social network.
4. Flickr (<http://www.flickr.com>): A web site to share photographs and images. Currently it is one of the main photo deposits at a non-commercial level.
5. YouTube (<http://www.youtube.com>): A website allowing users to share digital videos online. It uses Adobe Flash to serve its content, making digital copying difficult.
6. Wikipedia (<http://www.wikipedia.org>): The free-content encyclopaedia open for everybody to participate in its creation.

The rate of adoption of Web 2.0 applications is very high because these are easy to use and intuitive, and enable the direct and immediate online publication and distribution of user content (Schneckenberg, 2009). The application of these web 2.0 tools and services is what gave rise to Library 2.0. Library 2.0 was coined to refer to the idea of participation and interaction between users and librarians (Casey, 06 and Miller 05). Kataria and Anbu (2009) noted that the concepts of Library 2.0, OPAC 2.0, and Librarian 2.0 are the offspring of Web 2.0 ideas. The idea of Web 2.0 can be summarized as the reciprocal link between the user and provider. The essence of Web 2.0 lies in the genuine interactivity between the user and the content. Thus many services which underline the participation platform were derived and underline the concept of Web 2.0. Casey (2006) in his Library Crunch post observes that the libraries also followed the commercial website by migrating from the earlier library services to the web 2.0 based services which formed basis for the Library 2.0.

In the western world or rather developed countries, traditional library services have long

been improved upon and it is either purely web 2.0-enabled services or Hybrid services that their libraries employ. This is unlike in developing countries like Nigeria where there are still many challenges to that effect. However with the development of Web 2.0-based library service which brought with it self service and simultaneous access to resources (Womboh & Abba 2008), peoples' interest switched from print to electronic information. For the Libraries, web 2.0 has tremendously changed the Management of Resources or House Keeping Operations as well as the way services are delivered. While general IT application tools and Integrated Library Management Systems are largely used in housekeeping operations, like acquisition, cataloguing, circulation control, serials control etc; Internet has been used extensively as a resource as well as a tool to deliver the Library and Information Services (LIS) (Chauhan, 2004).

Libraries are increasingly enhancing their website by introducing Web 2.0 features. One such library that undertook a major project to re-shape its website and incorporating blogs and Wikis can be found in the University of Houston. The incorporation of these features has allowed the website to be more flexible and adaptable (Thanuskodi, 2012).

Olasina (2011) carried out a usage analysis of Web 2.0 tools and networking sites by librarians, information professionals and other professionals in Nigeria and to identify what these applications were used for by these professionals. The findings of the study revealed that professionals in the Nigerian workplaces are using these tools mostly for entertainment purposes.

Anunobi and Ogbonna (2012) carried out a survey which was conducted with the focus to determine the awareness and use of Web 2.0 tools by librarians in Anambra state in Nigeria. Questionnaire was designed and distributed to all professional librarians in the state who are members of the Nigerian Library Association. Result shows a low awareness and use of Web2.0 tools by the librarians. Social networking sites are the mostly used among the various tools. It was found that most of the librarians use the tools for communication and profile publicity. Personality characteristics, computer expertise, motivation, lack of

facilities and access restriction are among the impediments to the librarians' use of Web 2.0 tools.

Okonedo, Azubuike and Adeyoyin (2013) surveyed the awareness and use of web 2.0 technologies by library and information professionals in selected libraries in South West Nigeria. The findings indicated high level of awareness of the existence of Web 2.0 technologies among library and information professionals. The types of Web 2.0 technologies used are social networking tools (facebook, Twitter, Hi5, LinkedIn); Instant messaging; Blogs and Wikis. The major challenges to the use of Web 2.0 technologies included low bandwidth, time constraint, inadequate training, and lack of funds to undergo training, inadequate power supply and lack of web 2.0 skills. It was therefore recommended that the hands-on training should be increased while all relevant stakeholders like the Nigerian Library Association, Library schools, Librarians' Registration Council of Nigeria, libraries, etc should assist in creating more awareness on the use and benefits of Web 2.0 technologies.

The results of the study carried out by Adeyinka and Taofeeqat (2016) demonstrate that Web 2.0 and Library 2.0 are widely used by the librarians with 80% of them currently using the tools. Various uses of Web 2.0 and Library 2.0 revealed by the study include information sharing, documents delivery, connection and networking. Major challenges to the use of Web 2.0 and Library 2.0 by the librarians are accessibility, technical-know-how and unstable power supply. Based on these findings, the study makes a number of recommendations for a more effective use of the new technology.

Eze (2016), studied Awareness and use of Web 2.0 tools by LIS Students at University of Nigeria, Nsukka and found that LIS students of UNN are quite familiar with some Web 2.0 tools such as Social networking sites, Instant Messaging, blogs and Wikis, while, they are not familiar with tools such as RSS feeds, Podcasts, and social bookmarks. The study revealed that the most frequently used Web 2.0 tools are Facebook, followed by YouTube and Wikis.

Adeyinka and Oladapo (2017) did a comparative analysis of available Web 2.0 tools in library websites of selected Nigerian and South African universities. The findings show that the use of Web 2.0 tools in the selected universities is encouraging. There are more Web 2.0 tools available on the South African university library websites. The South African university libraries are ahead of their Nigerian counterparts in terms of the integration of Web 2.0 tools, e-resources and e-databases and provide platforms for easy retrieval of information by their users. There are more e-resources available on the South African university library websites compared with their Nigerian counterparts. e-Journals are the most available e-resources in the selected university library websites of both countries. Similarly, more academic e-databases are available on the South African university library websites, whereas only few are listed on the web pages of the selected Nigerian university library websites.

The area of study is Nigeria which is made up of six geo-political zones: South-East, South-South, South-West, North central, North west and North East..Descriptive survey was used for the study. Questionnaire was used as the instrument for data collection which was termed” Repositioning Library Services in Nigeria Using Web 2.0 as a Tool” Questionnaire (RLSSNUWTQ). The population of the study was the entire 676 librarians that registered at the 49th Annual General Meeting (AGM) of the Nigerian Library Association in 2011, at Anambra State. Purposive random sampling was used to select three hundred and fifty (350) librarians that attended the academic and research libraries concurrent session at the conference. Out of the 350 copies of questionnaire shared, 297 copies were returned. Academic and research libraries were chosen because those are the libraries that are more prone to technologies than other libraries in Nigeria. The data so collected were analyzed using frequency distribution, mean and standard deviation.

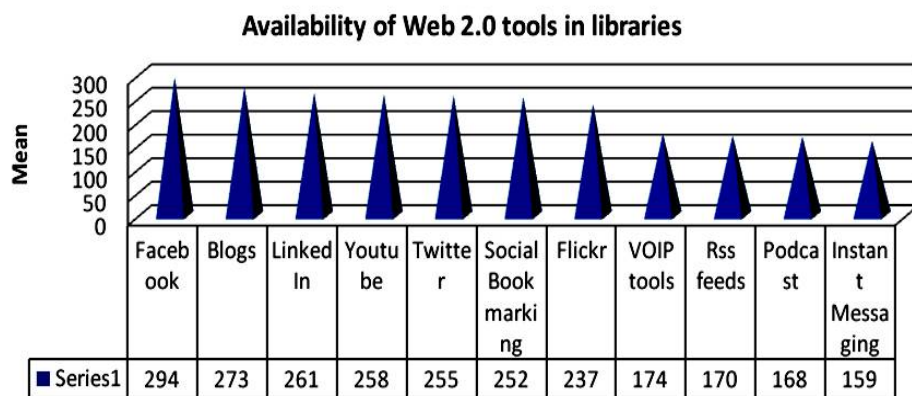
Research Method

Results and Discussion

Table 1: Availability of Web 2.0 tools in libraries

S/N	Web 2.0 Tools	N=297
1	Facebook	294
2	Blogs	273
3	LinkedIn	261
4	Youtube	258
5	Twitter	255
6	Social Bookmarking	252
7	Flickr	237
8	VOIP tools	174
9	Rss feeds	170
10	Podcast	168
11	Instant Messaging	159

Fig. 1: Availability of Web 2.0 tools in libraries



The web 2.0 tools mostly available in these libraries are: Face book, Blogs, LinkedIn, drive. From table 1 and fig 1, it could be seen that some of these items are generally not

available. Only in few places could they be seen. The items are: Instant Messaging, Podcast, RSS feeds, VOIP.

Table 2: Application of Web 2.0 tools for services in sections of the library

S/N	Web 2.0 Tools	Mean Usage in Section					Remarks
		Acquisitions	Cataloguing	Circulation	Reference	Serials	
1	Facebook	2.8384	0.0000	0.10000	2.7273	2.7374	Used Mildly
2	Blogs	2.7172	0.0000	2.8283	2.6970	2.6162	Used frequently
3	LinkedIn	2.4444	0.0000	2.5354	2.4545	2.3939	Mildly used
4	Youtube	2.5354	0.0000	2.6667	2.5859	2.4545	Mildly used
5	Twitter	2.3838	0.0000	2.5152	2.4040	2.4040	Mildly used
6	Social Bookmarking	2.0101	0.0000	2.1313	2.0303	1.9899	Not used
7	Flickr	2.8586	0.0000	3.1010	2.7475	2.7376	Used frequently
8	VOIP tools	2.0303	0.0000	2.2323	2.0707	2.0909	Not used
9	Rss feeds	1.2929	0.0000	1.3737	1.2323	1.2020	Not used
10	Podcast	2.4848	0.0000	2.8384	2.4242	2.3939	Mildly used
11	Instant Messaging	2.0707	0.0000	2.3737	2.0000	2.0404	Not used

There are four Web 2.0 tools that are used frequently and mildly in two sections of the library. These are: Facebook, Youtube, LinkedIn, Twitter, Flickr and Podcast. On the other hand, many of the Web 2.0 tools are not

used in the sections of the library. These are: Instant Messaging, RSS feeds, VOIP tools, and Social Bookmarking. It can be concluded therefore, that non-utilization of these tools agrees with their non-availability.

Table 3: Challenges in Web 2.0 tools application for library services

S/N	Challenges	Mean	SD
1	Frequent power failure	3.55	0.72
2	Lack of fund	3.52	0.63
3	Internet connectivity problems	3.32	0.81
4	Lack of affordable technologies	3.27	0.78
5	Obsolete equipment	3.21	0.84
6	Low ICT skills of staff	3.21	0.79
7	Lack of ICT policies	3.14	0.83
8	Bureaucratic procedures	3.13	0.80
9	Technophobia	2.83	0.96
10	Staff resistance to change	2.64	0.95

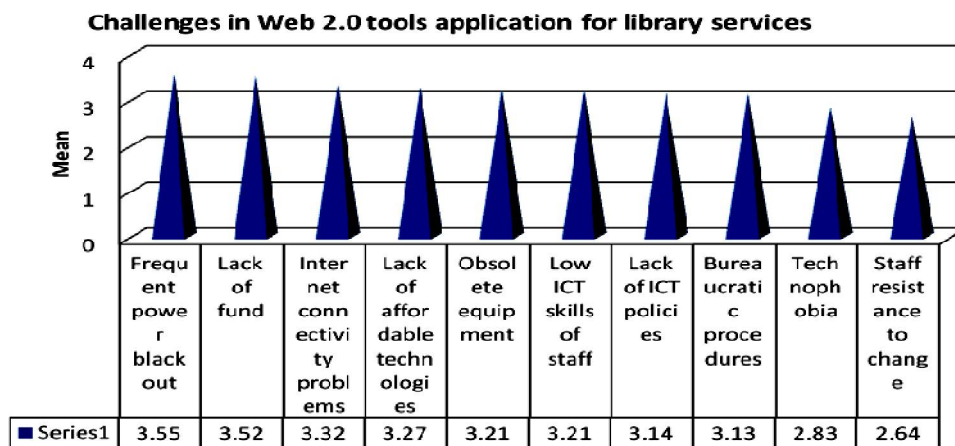


Chart 3: Challenges in Web 2.0 tools application for library services

The three most challenging factors in application of Web 2.0 tools in these libraries as represented in table 3 are: (1): Frequent power blackout, (2) lack of fund, (3) Internet connectivity. The least challenging factors are staff resistance to change and technophobia. This shows that the library staff are willing to embrace the new and changing technology. They are not laggards who are opposed to changes but their main problem is that that the tools necessary for adaptation to change are not there. The most needed disturbing factor is frequent blackout. The nation as a whole needs to address this issue seriously in order to make any headway in technological development. In support of the above, several authors like (Okore,2005;Ezeani,2010;Anunobi, et.al, 2010; Afolabi and Abidoye,2011) highlighted challenges of effective application of ICTs in relation to Web 2.0 tools in this context in libraries such as lack of ICT polices; lack of sufficient monetary allocation to ICTs in libraries; lack of human resource capacity; lack

of affordable technologies; lack of effective Consortia effort by libraries in Nigeria ;lack of basic infrastructure, lack of appropriate maintenance culture; technophobia. In the study carried out by Anunobi and Ogbonna (2012) , it was found that all the seventeen librarians studied (100%) indicated that they are not familiar with Web 2.0; 88.2% noted that they do not have the required skills, while 82.4% indicated that there is no opportunity for the use of Web 2.0. The respondents also noted lack of the needed facilities (41.2%), lack of encouragement (41.2%) and lack of interest (35%) as their reasons for not using Web 2.0. In the survey carried out by Okonedo, Azubuike and Adeyoyin (2013), it was found that the major challenges to the use of Web 2.0 technologies included low bandwidth, time constraint, inadequate training, and lack of funds to undergo training, inadequate power supply and lack of web 2.0 skills. This goes to show that these challenges are not uncommon in Nigerian libraries.

Table 4: Strategies for enhancing Web 2.0 tools application

S/N	Strategies	Mean	SD
1	Steady power supply	3.76	0.54
2	Training of staff on Web 2.0 skills	3.75	0.48
3	Provision of strong Internet bandwidth	3.74	0.53
4	Purchase of relevant infrastructures	3.72	0.47
5	Funding of libraries by Federal Government	3.69	0.65
6	Sending library staff out on workshops	3.67	0.64
7	User orientation	3.66	0.56
8	Orientation of staff on benefits of Web 2.0 in libraries	3.58	0.72
10	Breaking strong bureaucratic procedures	3.44	0.73

Strategies for enhancing Web 2.0 tools application

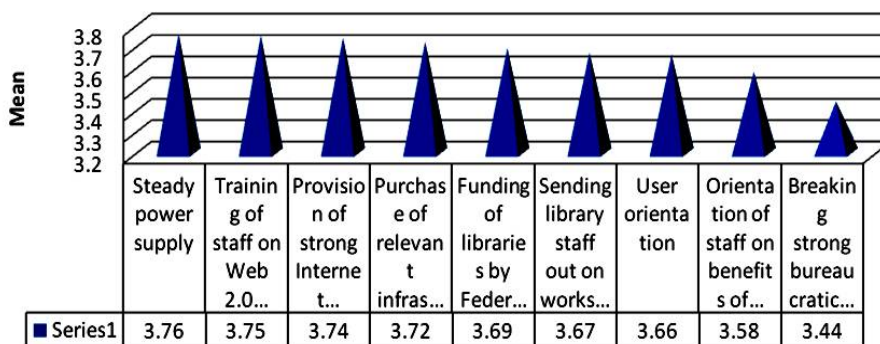


Chart 4: Strategies for enhancing web 2.0 tools.

Several factors have been identified as movers of Web 2.0 tools application in libraries. However, the three topmost factors are: steady power supply, training of staff on Web2.0

skills, and provision of strong Internet bandwidth (See Table 4 and Chart 4, respectively).

Conclusion

The findings of this study have a far reaching implication for the nation Nigeria as a whole. A stable and uninterrupted supply of power is needed to march on with worldwide Web 2.0 development in the libraries. Libraries now exist as place and space. To harness the information space, power is needed. As an important index of development and growth, electricity occupies a central place in modern societies and economics. Everything must therefore be done to ensure that the system works; perhaps it is time for Nigeria to see Makoju's (2003) call for BOT i.e. Build, Operate and Transfer as a possibility for the future.

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