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Gloria Ogheneghatowho Oyovwe-Tinuoye
University Library, Federal University of Petroleum Resources, Effurun, Nigeria, gloriatinuoye@yahoo.com

Dorcas Ejemeh Krubu Dr
Department of Library and Information Science, Ambrose Alli University Ekpoma, Edo State, Nigeria, dkrubu@gmail.com

Osaze Patrick Ijiekhuamhen
University Library, Federal University of Petroleum Resources, Effurun, Nigeria, sazepatrick@gmail.com

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Usage of Web 2.0 Tools by Academic Librarians: A case study of University Libraries in South-South Nigeria

By

Oyovwe-Tinuoye, Gloria Ogheneghatowho
Circulation Department, Federal University of Petroleum Resources, Effurun
gloriatinuoye@yahoo.com

Krubu Dorcas Krubu, PhD
Department of Library and Information Science, Ambrose Alli University Ekpoma, Edo State, Nigeria
dkrubu@gmail.com

Ijiekhuamhen Osaze Patrick
Circulation Department, Federal University of Petroleum Resources, Effurun
sazepatrick@gmail.com

Abstract

The purpose of this study is to investigate awareness and use of Web 2.0 tools by librarians in university libraries in South- South Nigeria. This study adopted a descriptive survey research design. Purposive sampling technique was used based on the researcher's discretion, there are 21 university libraries in South-south, Nigeria but the researchers used 16 universities out of the total numbers because of the large scope and financial implication to cover the total population. A total population of 194 librarians was used for this study. Questionnaire was the primary instrument for data collection. The study showed that respondents are aware of Facebooks, Whatsapp, Blogs, Wikis, YouTube, while they are unaware of RSS Feeds, Bookmarking, and Podcast. Respondents indicated that they use web 2.0 tools on a daily basis. The study also revealed that academic librarians in the South- south region of Nigeria use web 2.0 tools mainly for reference services online, marketing of library services, collaborating with colleagues/ friends and current awareness services. However, their knowledge of social tagging and book marking is limited. More so, majority of the librarians from South- south Nigeria are absolutely satisfied with the use of Web 2.0 tools in boosting their services. The study also revealed that the major challenges facing librarians in South-south Region of Nigeria in the use of Web 2.0 tools are poor internet connectivity and unreliable power supply. The researchers therefore recommended that Librarians should make stringent efforts to explore the potentials in bookmarking, podcast and RSS feed in the enhancement of their services. Alternative power supply should be made available in academic libraries to enable librarians charge their phones, laptops and other electronic gadgets which they use to access web 2.0 tools. Training should be conducted regularly to enhance librarian's skills in the use of ICT and web 2.0 tools for the boosting of library services.
Keyword: Awareness of Web 2.0, Use of web 2.0, Information provision, Academic librarians, South-south, Nigeria

Introduction

Academic libraries are meant to provide information to its users with recent development in their

areas of studies. For academic libraries to meet up with recent trends of development there is a

need to embrace the use of recent technologies in disseminating information to users at the right

time in the right format and this can be made possible through the use of web 2.0.

Rogers (2009) posited that the terms "Web 2.0" and "social media" are interchangeable and are

widely used to describe the same concepts related to online communities and sharing online

information and resources. Web 2.0 technologies are so popular that they now dominate the everyday personal and professional life of millions of users (Baro, Idiodi, and Godfrey, 2012). Web 2.0 tries to tap the power of humans connected electronically through its new ways at looking at social collaboration (Dasgupta and Dasgupta, 2009). The term 'Web 2.0' is associated with 'social software' and user generated content, and greater participation and interaction between Internet users and the web (Snee, 2008). Awareness is what prompt the use of technology by people as what you are not aware of, you can't use. Eze (2016) opined that the popularity of Web 2.0 tools is affecting the way that libraries, museums, archives and other cultural heritage organizations operate.

The increasing availability of internet enabled devices like smart phones, android phones, electronic gadgets and other desktop computers as well as the cheap prices of internet bandwidth have made patrons in this 21st to be more digitally inclined. To be able to cater for the needs of these special set of patrons who are internet lovers, libraries need to move along with the trend. Web 2.0 services currently offered by libraries include bookmarking, user-added reviews/rating/summaries, blogs, wikis, RSS (real simple syndication feeds), podcasts, vidcasts, instant messaging, tagging, social networking sites, streaming audio and video, chat, community photo services, community book services, Twitter, reader's advisory, book lists, and maintaining a virtual library in second Life (Tripathi & Kumar, 2010; O'Dell, 2010).

Gross and Leslie (2008) affirms that Web 2.0 technologies are the "next big thing" in academic libraries because they offer social networking capabilities in providing information and services to the library's clientele. Rehman and Shafique (2011) state that "Web 2.0 technologies are blessings for library professionals as libraries can design attractive services using Web 2.0 applications without spending huge budgets for online hosting and storage." Most of these web 2.0 tools are offered free of charge for its users; librarians can register themselves or their libraries and use it as a digital marketing tool to reach a far larger audience. According to Amina and Nwanne (2015), most librarians in the developing nations are not aware of social media services such as web 2.0 even the few that are aware are still struggling to find out the productive users of these sites for library services. Users are also not aware of the protocols involved in social communication. There are currently a lot of studies on the use of web 2.0 in developed countries with only a few corresponding studies on the awareness and use of web 2.0 tools by librarians in Nigeria.

However, there is no empirical study on awareness and use of web2.0 by librarians in universities of South-south Nigeria.

Rationale for this study

There are several studies on the awareness and use of Web 2.0 tools by researchers across the world, including Gupta, Gautam, and Khare (2014)studied "awareness and use of social media applications among library staff of power sector organizations", Rehman and Shafique(2011) "The Use of Web 2.0 and Its Implications for Libraries: Perceptions of Information Professionals in Pakistan", and Anunobi and Ogbonna (2012) studied "Web 2.0 Use by Librarians in Anambra State of Nigeria". However, no literature exists about the awareness and use of Web 2.0 tools by librarians in universities in South-south Nigeria. Hence, this study aims to address this gap by finding out the awareness level and use of Web 2.0 tools in university libraries.

Research Objective

This study is guided by the following objectives:

- ✓ To ascertain librarians' level of awareness Web 2.0 tools in university libraries in South-south region of Nigerian;
- ✓ Find out the frequency of the use of Web 2.0 tools by librarians;
- ✓ Find out the purpose of the use of Web 2.0 tools;
- ✓ To ascertain the extent of Librarians satisfaction level after the use of Web 2.0 tools and
- ✓ To identify the barriers that librarians encounter in using the Web 2.0 tools

Research Questions

For the purpose of this study , the following questions have been formulated:

- ✓ What is librarians' level of awareness of Web 2.0 tools by librarians in Universities in the South- south region of Nigerian?
- ✓ How frequently do librarians use Web 2.0 tools?
- ✓ For what purpose do librarians use Web 2.0 tools for?
- ✓ What is the extent of satisfaction derived from the use of Web 2.0 by librarians?
- ✓ What are the barriers that librarians encounter while using Web 2.0 tools?

Literature Review

According to Wood (2011), the term Web 2.0 is associated with web applications that facilitate participatory information sharing, interoperability, user-centered design, and collaboration on the World Wide Web. 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, in contrast to websites where users (consumers) are limited to the passive viewing of content that was created for them (Wikipedia).Web 2.0" was reportedly first conceptualized and made popular by Tim O'Reilly and Dale Dougherty of O'Reilly Media in 2004 to describe the trends and business models that survived the technology sector market crash of the 1990s (O'Reilly, 2005).

Awareness of a new technology and its potential benefit when used is what instigate people to try their hands on them. Web 2.0 tools usage is relatively new in universities libraries especially in developing nations of the world like Nigeria. Some studies have been carried out on the awareness and use of web 2.0 tools by librarian. Kelly (2008) studied "Library 2.0 and information literacy: the tools" the finding of his study revealed that the most popular tool-application areas associated with Web 2.0 include, blogs, wikis, RSS, podcast, vidcasts, social sharing services, communication tools, social networks, folksonomy and tagging, and virtual worlds. Librarians around the world have started using Web 2.0 tools for showcasing their services and keeping close contacts with patrons.

Baro, Idiodi and Godfrey (2013) carried out a study on the Awareness and use of Web 2.0 tools by librarians in university libraries in Nigeria. The study showed that librarians were more familiar with social networking sites, instant messaging, media sharing sites, blogs, and wikis. The popularity of these Web 2.0 tools made them the most frequently used by the librarians. Web 2.0 tools like Flickr, RSS feeds, podcasts, social bookmarking, were among the least used. Gupta, Gautam, and Khare (2014) studied awareness and use of social media applications among library staff of power sector organizations. The study showed that 33 (69%) of the respondents were aware of applications of social media while 15 (31%) of respondents were not aware of it.

Rehman and Shafique (2011) carried out a study on the Use of Web 2.0 and its Implications for Libraries: Perceptions of Information Professionals in Pakistan. The findings of this study showed that all the library professionals were committed and well aware of the usage of these applications to deliver better services to the library users. Anunobi and Ogbonna (2012) studied web 2.0 use by

Librarians in Anambra State of Nigeria. The 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. Personality characteristics, computer expertise, motivation, lack of facilities and access restriction are among the impediments to the librarians' use of Web 2.0 tools. Onuoha (2013) carried out a study on Librarians' Use of Social Media for Professional Development in Nigeria. This study shows that librarians are satisfied with the use of social media tools to a large extent. Peters (2011) studied Public Libraries use of Web 2.0 Tools. The results of his study indicate that public libraries are using Web 2.0 tools prolifically especially Social Network Sites and are using these tools for a variety of specific reasons.

Amina and Nwanne (2015) carried out a study on Challenges Librarians Encounter in the use of Social Medial for Promoting Library and Information Resources and Services in University Libraries in South-South, Nigeria. From their study, network problem was the major challenge followed by lack of social media skills and lack of awareness among others. Similarly, Okonedo, Azubuike and Adeyoyin (2013) studied Awareness and Use of Web 2.0 Technologies by Library and Information Professionals in Selected Libraries in South West Nigeria. The findings showed that the major challenges to the use of Web 2.0 technologies by library and information professional included low bandwidth, time constraint, inadequate training, among other factors.

Research Methodology

A descriptive survey research design was adopted for the study and the instrument used for data collection was a structured questionnaire. Before the administration of the questionnaire, face validation was carried out to test the validity of the questions. The questionnaire was given to experts in the Department of library and Information Science, University of Nigeria, Nsukka, Enugu State who validated the content of the instrument alongside with the research questions. The reliability of the instruments was done using 30 librarians from the University of Agriculture Abeokuta which is outside the scope of the study. The result of the reliability test was done using Pearson Product Moment Correlation Coefficient r. This result yielded a reliability coefficient index of 0.75. This means that the instrument is good and reliable since the test result is above the acceptance point of 0.5. Questionnaires were distributed face to face to the respondents while for respondents far away, the researchers ask their research assistants to administer the questionnaire to respondents. The Target population of the study comprises librarians in universities from South-

south Nigeria. The researchers decided to study 16 university libraries out of the 21 university libraries in South- south Nigeria because of the large scope and financial implication to cover the total university libraries in South- south Nigeria. The total population of the study was 199 professional librarians from 16 university libraries in South- south Nigeria. 199 questionnaires were distributed to the respondents and a total of 194 was dully filled and found usable for the study, hence there was a 97% return rate. The data collected for this study was analyzed using simple percentage and frequency counts.

Findings and Discussion

Section A: Analysis of the Demographic Distribution of Respondents

Table 1: Distribution of Respondents by University Libraries

UNIVERSITY TYPE	Number of Librarians
FEDERAL UNIVERSITIES	
Federal University of Petroleum Resources, Effurun	10
Federal University, Otuoke, Bayelsa	08
University of Benin, Edo State	26
University of Porthacourt, Rivers State	22
University of Calabar, Cross River State	12
University of Uyo, AkwaIbom	15
STATE UNIVERSITIES	
AkwaIbom State University of Technology, UyoAkwaIbom	05
Cross River State university of science and Technology, Calabar, Cross Rivers	07
Delta State University Abraka, Delta State	21
Rivers State University of Science and Technology, Nkpolu. Rivers State.	09
Niger Delta University, Yenagoa, Bayelsa State	26
PRIVATE UNIVERSITIES	
Novena University, Ogume, Delta State.	07
Wellspring University, Evbuobanosa, Edo State.	12
Obong University, Obong Ntak, AkwaIbom State	07
Igbenedion University, Okada, Edo State	06
Benson Idahosa University Benin City, Edo State	06
Total	**199**

There are 6 federal university libraries, 5 state university libraries and 5 private university libraries which consist of the 199 librarians used for this study.

Table 2: Distribution of Respondents by gender

Sex	Frequency	Percentage
Male	107	55%
Female	87	45%
Total	194	100%

From Table 1, 107 (55%) of the respondents were male and 87 (45%) of the respondents were female. There are obviously more male respondents in this study than female.

Table 3: Distribution of the Respondents by Years of Experience

Year of Experience	Frequency	Percentage
1 – 5	59	30%
6 – 10	76	39%
11 – 16	46	24%
17 years and above	13	7%
Total	194	100%

Table 3 shows that majority of the respondents 76 (39%) have been working for 6 – 10 years while 13 (7%) ranked the lowest with 17 years and above of working experience.

Table 4: Awareness level of Web 2.0 tools by librarians

To what level are you Aware of the following Web 2.0 Tools?

Level of Awareness	Strongly Aware/ %	Aware/%	Unaware/%	Strongly Unaware/ %	Total/%
Facebook	179 (92%)	15(8%)	-	-	194(100%)
Whatsapp	158 (81%)	36 (19%)	-	-	194(100%)
Blogs	62 (32%)	132 (68%)			194 (100%)
Wikis	61 (31%)	124 (64%)	9 (5%)		194 (100%)
YouTube	53 (27%)	121 (62%)	20 (10%)		194 (100%)
Twitter	52 (27%)	20(10%)	110 (57%)	12 (6%)	194 (100%)
RSS feeds	24 (12%)	34 (18%)	12 (6%)	114 (59%)	184 (95%)
Bookmarking	28(14%)	31 (16%)	9 (5%)	109 (56%)	177 (91%)
Podcast	12 (6%)	32 (16%)	70 (36%)	14 (7%)	128 (65%)

Table 4 presents the responses depicting the level of awareness of Web 2.0 Tools by respondents. For Facebook 179 (92%) are strongly aware and 15 (8%) are aware of it. For Whatsapp 158 (81%) and 36 (19%) are strongly aware/ aware of it. For Blogs 62(32%) are strongly aware of it and 132 (68%) are aware of it. Wikis 61 (31%) are strongly aware of it, 124 (64%) are aware of it, 9 (5%) are unaware of it. YouTube 53(27%) are strongly aware of it, 121(62%) are aware of it and 20 (10%) are unaware of it. For Twitter 52 (27%) are strongly aware of it, 20 (10%) are aware of it, 110 (57%) are unaware of it and 12 (6%) are strongly unaware of it.RSS feeds 24 (12%) are strongly aware of it, 34 (18%) are aware of it, 12 (6%) are unaware of it and 114 (59%) are

strongly unaware of it. For Bookmarking 28 (14%) are strongly aware of it, 31 (16%) are aware of it, 9(5%) are unaware of it and 109 (56%) are strongly unaware of it. Lastly for Podcast 12 (6%) are strongly aware of it, 32 (16%) are aware of it, 70 (36%) are unaware of it and 14 (7%) are strongly unaware of it. From this finding, it is glaring that the awareness level of web 2.0 tools by the respondents is high.

Table 5: **Frequency of the use of Web 2.0 tools by Librarians**

How frequently do you use Web 2.0 tools?

Frequency of the use of Web 2.0 tools	Responses	Percentage
Daily	141	73%
Weekly	34	17%
Monthly	19	10%
Quarterly		
Bi-annually		
Annually		
Total	**194**	**100%**

From Table 5, 141 (73%) of the respondents use Web 2.0 tools on a daily basis, 34 (17%) use it weekly and only 19 (10%) of them indicated that they use it monthly while no one of them uses web 2.0 tools quarterly, bi-annually or annually. This means that a vast majority of Librarians from South- South Nigeria uses web 2.0 tools on a daily basis.

Table 6: **Purpose of the use of Web 2.0 tools**

For what purpose do you use Web 2.0 Tools?

Purpose of the use of Web 2.0 Tools	Responses	Percentage
Reference Services online	`194	100%
Current Awareness Services	184	95%
Marketing of Library Services	157	81%
Collaborating with Colleagues and Friends	126	65%
Image and Video Sharing	119	61%
Blogging	112	58%
Training	97	50%
Social Tagging and Bookmarking	79	41%

From **Table 6**, it is clear that 194 (100%) of the respondents use Web 2.0 Tools for Reference Services Online, 184 (95%) for Current Awareness Services, 157(81%) for Marketing Library Services, 126(65%) for Collaborating with Colleagues and friends, 119 (61%) for Image and Video Sharing, 112 (58%) for Blogging, 97(50%) for meeting Training needs, and 79 (41%) for social tagging and Bookmarking.

Table 7: **Satisfaction Level with the use of Web 2.0 tools by Librarians**

Are you satisfied with the use of Web 2.0 tools?

Level of Satisfaction	Frequency	Percentage

Absolutely Satisfied	146	75%
Barely Satisfied	37	19%
Never Satisfied	11	6%
Total	**194**	**100%**

Table 7 shows that 146(75%) of the respondents are absolutely satisfied with the use of Web 2.0 Tools, 37 (19%) are barely satisfied with the use of Web 2.0 Tools and only11 (6%) of the respondents are never satisfied with the use of Web 2.0 Tools.

Table 8: **Barriers to the use of Web 2.0 Tools by Librarians**

What are the barriers to the use of Web 2.0 by Respondents?

Challenges	Strongly Agree/%	Agree /%	Disagree/%	Strongly Disagree/%	Total/ %
Low Bandwidth/ Network Problem	184 (95%)	10 (5%)	-	-	194 (100%)
Erratic Power Supply	172 (89%)	7 (4%)	3 (1%)		182 (94%)
Lack of Web 2.0 use skills	41 (21%)	121 (62%)	11 (6%)	7 (4%)	180 (93%)
Low Awareness of Web 2.0 tools	142 (73%)	24 (12%)	12 (6%)	-	178 (91%)
Time Constraints	29 (15%)	128 (66%)	12 (6%)	-	169 (87%)
Lack of Funds	11 (6%)	7 (4%)	131 (68%)	9 (5%)	158 (83%)
Organizational Policy	11 (6%)	9 (5%)	121 (62%)	-	141(73%)
ICT- unfriendly work environment	13 (7%)	7 (4%)	107 (55%)	-	127 (66%)
Privacy Concerns	79 (41)	3 (1%)	7 (4%)	-	89 (46%)

Table 8 shows the barriers to the use of Web 2.0 tools by Respondents. For Low Bandwidth/ Network Problem 123 (93%) of the respondents strongly agree, 9 (7%) of the respondents agree while no respondents disagree and strongly disagree. Erratic Power Supply 119 (90%) of the respondents strongly agree, 7 (5%) of the respondents agree, 3 (2%) of the respondents disagree and none of the respondents strongly disagree. Lack of web 2.0 use skills 21 (16%) of the respondents strongly agree, 79 (60%) of the respondents Agree, 11 (8%) of the respondents disagree and 7 (5%) of the respondents strongly disagree. Low Awareness of web 2.0 tools 91 (69%) of the respondents strongly agree, 12 (9%) of the respondents agree, 9 (7%) of the respondents disagree and none of the respondents indicated they strongly disagree. Time constraints 24 (18%) of the respondents strongly agree, 71 (54%) of the respondents agree, 12 (9%) of the respondents disagree and none of the respondents indicated they strongly disagree. Lack of funds 21 (16%) of the respondents strongly agree, 7 (5%) of the respondents agree, 61 (46%) of the respondents disagree and 9 (7%) of the respondents strongly disagree. Organizational policy 11 (8%) of the respondents strongly agree, 9 (7%) of the respondents agree, 69 (52%) of the respondents disagree and none of the respondents indicated they strongly disagree. Lastly for Privacy Concerns 79 (60%) of the respondents strongly agree, 3 (2%) of the respondents agree, 7 (5%) of the respondents disagree and none of the respondents indicated they strongly disagree.

Summary of Key Findings

Based on the data collected and analyzed for this study, the following are the major findings:

1. It is obvious from the study that 55% of the respondents in the study were male while 45% were female. There are more male respondents in the study than female.

2. It is glaring from this finding that 39% of the respondents that participated in this study have a working experience of 6-10 years.

3. The study showed that the respondents in this study are strongly aware/ aware of Facebooks, Whatsapp, Blogs, Wikis and YouTube, while they are Unaware and Strongly Unaware of RSS Feeds, Bookmarking, and Podcast. This finding is in line with the study of Rehman and Shafique (2011) which shows that all the library professionals in Pakistan were committed and well aware of the usage of Web 2.0 tools for the delivering of better services to the library users. These findingsare in total disagreement with the finding of Anunobi and Ogbonna (2012) which shows that librarians in Nigeria show a low awareness and use of web 2.0 tools.

4. From the study, 73% of the respondents indicated they use social media on a daily basis.

5. The study revealed that librarians in the South- South Region of Nigeria use web 2.0 tools mainly for reference services online, marketing of library services, collaborating with colleagues and friends and current awareness services and they don't use them much for social tagging, book marking, and digital marketing.

6. It was discovered from this study that majority of the Librarians from South- South Nigeria are absolutely satisfied with the use of Web 2.0 tools in boosting their services. This finding corroborates with the study of Onuoha (2013) which shows that librarians in Nigeria are satisfied to a large extent with the use of web 2.0 tools.

7. The major challenges faced by librarians in the use of Web 2.0 tools are Low Bandwidth/ Network Problems followed by Erratic Power Supply. This finding corroborates with the study of Amina and Nwanne (2015) which shows that Network Problem was the major challenge affecting the use of web 2.0 tools by librarians.This finding is also in line with the study of Okonedo, Azubuike and Adeyoyin (2013) which shows that the major challenge to the use of Web 2.0 technologies by library and information professional is low bandwidth issues.

Conclusion and Recommendations

From this study, it is quite clear that Web 2.0 tools are very useful for library and information centers as librarians in Nigeria are fully aware and make use of web 2.0 for the enhancement of their products and services. Librarians make use of web 2.0 tools when interacting with patrons which help in boosting reference services online. Patrons drop their request for information and the reference librarian proffer answers almost immediately regarding the needs of its clienteles leading to increasing customer satisfaction. In this information age, librarians and other information practitioners make use of at least one web 2.0 tools daily. From this study, it is quite clear that librarians in Nigeria are more aware of Facebook, Whatsapp, and Blogs, and they are not too

aware of RSS feeds, Bookmarks and Podcast. Librarians also are very satisfied with the use of web 2.0 tools for their needs like enhancing reference services, collaborating with colleagues and friends among others. The major barriers in the top chart affecting the use of web 2.0 tools by librarians and information practitioners include; Low bandwidth/ network problem, erratic power supply and Lack of Web 2.0 use skills.

In view of the foregoing, the following recommendations were made:

- ✓ Librarians should make stringent efforts to explore the potentials in bookmarking, podcast and RSS feed in the enhancement of their services.
- ✓ Information practitioners should also explore how to use web 2.0 tools for digital marketing of library services.
- ✓ Academic libraries should make available enough bandwidth and a swift internet access to enhance the use of web 2.0 tools by librarians and information managers that work within the shores of information centers.
- ✓ An alternative power supply should be made available in academic libraries to enable librarians to charge their phones, laptops and other electronic gadgets which they use to access web 2.0 tools.
- ✓ Training should be conducted regularly to enhance librarian's skills in the use of ICT and other web 2.0 tools for the boosting of library services.
- ✓ Librarians and other information managers should takethepain to learn more about Web 2.0 tools and how to use its new features for enhancement of library services.
- ✓ Libraries should design a policy that encourages the use of Web 2.0 tools by librarians.
- ✓ Regular training should be conducted on the use of ICTs by librarians as this would definitely improve their skills on the use of Web 2.0 tools.
- ✓ When using Web 2.0 tools, librarians should take note of privacy concerns so as not to infringe on copy right laws, among others.

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