



### Awareness and Usage of Web Resources by Librarians in Nigeria

**Bassil Ebiwolate Posigha, (CLN)**  
[basilpublication@gmail.com](mailto:basilpublication@gmail.com)  
University Library  
Niger Delta University,  
PMB 071 Yenagoa,  
Bayelsa State

**Victor Oghuvwu (CLN)**  
[vickeysir@hotmail.com](mailto:vickeysir@hotmail.com)  
College Physical Education,  
Mosogar, Delta State, Nigeria

**Godwin, Sunday**  
University Library  
Niger Delta University  
PMB 071 Yenagoa,  
Bayelsa State

#### Abstract

*The study was conducted to investigate librarians' awareness and usage of Web resources and the challenges encountered in accessing Web resources in Nigeria. The study adopted descriptive research design. The population of the study consist all academic librarians in Nigeria. A structured questionnaire entitled: 'Awareness and Use of Web Resources Questionnaire' (AUWRQ) was used to elicit data for the study. Simple percentage count was used to analyze the research questions; while chi-square ( $X^2$ ) test was used to analyzed the hypotheses. The finding shows that majority of librarians in Nigeria are highly aware of Web resources. It was also discovered that librarians in Nigeria have high rate of usage of Web resources. Academic, update and news are areas or purposes to which Web resources are highly used. It further revealed that non power or energy supply, subscription issues, limited knowledge of the Internet and low bandwidth are the most common and serious challenges librarians encountered in accessing Web resources. There was no significant difference between gender and librarians' awareness of Web resources and the extent of use of Web resources. Recommendations were made based on the findings of the study.*

**Keywords:** *Web resources, Librarians, Web resources usage, Nigeria*

#### 1.1 Introduction

The increased use of Information and Communication Technology (ICT) has brought some major changes in the sources of information and their use by researchers in academic world. The change of the academia use of traditional- based sources of information to Web-based sources of information is an indication of rapid advancement of information and communication technologies and their

applications in information dissemination particularly in libraries and other research institutions.

This increased use of ICT in the libraries has provided opportunity for researchers and other group of users to have more access to Web based information anywhere. In other to satisfy library users, libraries with traditional holdings in print format are now changing to electronic information resources that appear in various

formats such as On-line databases, e-journals, e-books, Web resources, etc. Experience shows that majority of librarians have not taken full advantage of the opportunity provided by Web based information resources in facilitating research activities. Today as we have it, with our mobile devices one can easily access unlimited numbers of Web resources to support research works. According to Dominikus (2005) a Web resource is anything that can be obtained from the World Wide Web. These include; e-mail, web pages, information from databases and web services. Due to the advancement of technology, the concept now has a wider use to include everything that can be obtained via the Internet. However, in this study, the term is described as electronic information resources or documents that are retrieved from the Internet.

The impact of Web resources on research cannot be over-emphasized, for a great number of researchers depend on Web resources because of their easy accessibility and retrieval. However, a good number of librarians still depend on traditional sources of information in their research or academic works.

### **1.2 Objectives of the study**

The objective of the study is to determine the awareness and use of Web sources by librarians in Nigeria. Specifically, the study will be guided by the following objectives:

1. To determine librarians' awareness of web resources.
2. To study the use of web resources by librarians.
3. To know the purpose of using web resources.
4. To know the preferred search engines by librarians.
5. To find out the problems faced by librarians while accessing web resources in Nigeria.

### **1.3 Research Questions and Hypotheses**

The following researches questions and hypotheses were addressed in the study:

RQ1. To what extent are the librarians aware of the web resources?

RQ2. To what extent are the librarians making use of the web resources?

RQ3. What are the purposes librarians make used of web resources?

RQ4. What are the preferred search engines used by the librarians?

RQ5. What are the problems faced by librarians when accessing web resources?

Ho1. There is no significant difference between gender and librarians' awareness of web resources in Nigeria.

Ho2. There is no significant difference between gender and librarians' extent of using web resources in Nigeria.

Ho3. There is no significant difference between gender and librarians' purposes of using web resources in Nigeria.

### **2.1 Literature Review**

This section of the paper reviewed some empirical literature related to the study. Sadiat (2014) carried out a study on Evaluation of undergraduates' use of e-books in Federal University of Technology, Minna. The findings revealed that most of the undergraduates of Federal University of Technology are aware of e-books and preferred it than print books. The students also used e-books gotten through Goggle than the University Library E-books.

Javed (2014) conducted a study on web based information retrieval patterns among undergraduates, postgraduates and faculty members in Delhi University. The study shows that most of the users used Web based information sources to satisfy their information needs. 53 percentages of undergraduate students used the Web resources for education, most of the users

access the web resources from their home PC and most of the users accepted that they learned of web by self instruction through trial and error. The respondents also indicated that they didn't take any professional training to learn the use of web.

Shamama and Sudharma (2015) report a study on awareness and use of web resources among the post graduate students of Zakir Husain College of Engineering and Technology (ZHCET), Aligarh Muslim University. The study revealed that the respondents awareness and use of web resources. The study highlights various other issues related to web resources usage such as the importance of various web resources in students' academic tasks, impact of web resources on their study and learning tasks, level of satisfaction with the academic use of the web resources etc. The study also depicted that positive impact of web resources on students academic work as a large number of total respondents acknowledged that the web resources have made it easier to find the needed material. Finally concluded that web resource give the high level satisfaction among the engineering students.

Daramola (2016) carried out a study to assess the perception of the undergraduate students of the Federal University of Technology (FUTA), Akure on the use of e-resources in the library. The study revealed that the undergraduate students that visited the e-resources unit of the University were relatively young with a mean age of 22 years; male students visited the e-resources more than the female students. The e-resources in FUTA library are mainly used by male students that cut across most of the schools in the University. The major reasons for utilizing the e-resources were for assignment and research purposes. The e-resource frequently used was the e-journals, e-book and e-magazines. Although the students have positive perception of the e-resources, the

most significant challenge faced by the students was insufficient computers in the e-library. Based on the findings, the study recommends that female students should be motivated to use the e-resources like their male counterparts. More computers should be provided in the library to cater for the needs of the students.

Amit and Ram (2016) examine and measure the extent and use of e-resources, information alert services, awareness towards the e-resources, purpose of using the e-resources, attitude of library staff and overall quality of e-services offered by the library of Indian Institute of Technology-Guwahati. The findings show that e-journals are more popular than print journals; the library regularly invites users' views regarding the information constraint; and the library continuously puts forward information alert services to their users. Most of the users are aware about the e-journals/database offered by the library concerned to their subject and also are able to explore the e-resources allied to their area of interest.

### **3.1 Research Methodology**

The study adopted descriptive research. The population of the study consist all academic librarians in Nigeria. A structured questionnaire was used to elicit data from the respondents. The questionnaires were administered via e-mail to 789 respondents. The e-mail addresses were retrieved from Nigerian Library Association bulletins. Out of the 789 respondents only 507 responded to the instrument. Simple percentage count was used to analyzed the research questions while, chi-square ( $X^2$ ) test was used to analyzed the hypotheses.

#### 4.1 Presentation and Analysis of Data

Table 1: Gender distribution

Gender	Cumulative response	Percent
Male	435	85.8
Female	72	14.2
Total	507	100

Table 1 shows the distribution of gender. The analysis of data shows that both male and female are actively engaged in librarianship in Nigeria as the analysis indicated that 85.8 percent of the respondents are male while, 14.2 are female.

**Table 2: Extent of librarians' awareness of web resources**

Items	Cumulative response	Percent
Very high	265	52.3
High	236	46.5
Low	6	1.2
Not aware	0	0
Total	507	100

Table 2 shows the extent of librarians' awareness of web resources. The analysis of the data revealed that 52 percent of the respondents indicated very high awareness and 46.5 percent high awareness respectively. The analysis also reveals that 1.2 percent of the respondents have low awareness. It is interesting to note that all the respondents are aware of web resources as none of the respondents indicated not aware of web resources.

Table 3: Extent of librarians' used of web resources

Items	Cumulative response	Percent
Very high	301	59.4
High	191	37.6
Low	12	2.4
Not used	3	0.6
Total	507	100

Table 3 shows the extent of used of web resources by librarians. The data analysis revealed that 59.4 percent of the respondents indicated very high extent of used, 37 percent indicated high extent and 2.4 percent indicated low extent of used. Interestingly, only 0.6 percent of the respondents indicated not used of web resources. In summary, the analysis clearly shows that over 99 percent of Nigeria's librarians make used of web resources.

Table 4: Librarians' purpose of making use of web resources

Items	Cumulative response	Rank
Academic	499	1 <sup>st</sup>
Up-dating of knowledge	490	2 <sup>nd</sup>
News	251	3 <sup>rd</sup>
Health	128	4 <sup>th</sup>
Sport	125	5 <sup>th</sup>
Recreational	123	6 <sup>th</sup>

Table 4 shows librarians purpose of using web resources. The analysis indicated that academic ranked the first purpose of using web resources, followed by up -dating knowledge 2<sup>nd</sup>, news 3<sup>rd</sup>, health 4<sup>th</sup>, sport 5<sup>th</sup> and recreational 6<sup>th</sup> respectively. In a summary, the analysis shows that majority of the librarians used the web resources for academic purposes and updating of knowledge.

Table 5: Preferred search engines used by librarians to access web resources

Items	Cumulative response	Rank
Google	498	1 <sup>st</sup>
Yahoo	196	2 <sup>nd</sup>
Crawler	96	3 <sup>rd</sup>
MSN	45	4 <sup>th</sup>
Alta vista	38	5 <sup>th</sup>

Table 5 shows the preferred search engines used by librarians to access web resources. The analysis reveals that Google ranked first as the most preferred search engine, followed by Yahoo 2<sup>nd</sup>, Crawler 3<sup>rd</sup>, and, MSN 4<sup>th</sup> and Alta Visa 5<sup>th</sup> as the least preferred search engines used by the respondents. The analysis clearly reveals that a majority of the librarians used Google in searching for web resources on the Internet.

Table 6: Challenges librarians encountered in accessing web resources

Items	Cumulative response	Rank
Power supply issues	501	1 <sup>st</sup>
Subscription issues	499	2 <sup>nd</sup>
Limited knowledge of Internet	398	3 <sup>rd</sup>
Low bandwidth	254	4 <sup>th</sup>
Limited internet access	58	5 <sup>th</sup>
ICT infrastructure issues	45	6 <sup>th</sup>

Table 6 reveals the challenges encountered by librarians in accessing web resources. The analysis of the data indicated that power supply issues ranked the first challenges encountered by the respondents, subscription issues ranked 2<sup>nd</sup>, limited knowledge of Internet ranked 3<sup>rd</sup>, while limited Internet access 5<sup>th</sup> and ICT infrastructure 6<sup>th</sup> are the least encountered challenges. In a summary, the analysis shows that majority of the librarians' encountered challenges such as power supply, subscription and limited knowledge of Internet in accessing web resources in their various institutions.

#### 4.2 Testing of Hypotheses

Table 7: A summary table of chi-square analysis of difference between gender and librarians awareness of web resources

Librarians status	Very high	High	Low	Not used	Total
Male	203(204)	183(181)	4(7)	0(0)	390
Female	62(61)	53(54)	3(1)	0(0)	117
Total	265	236	6	0	507

Result:  $X^2$  Calculated = 2.3469;  $X^2$  critical = 7.82; df = 3 and level of significant = 0.05

H1 stated that there is no significant difference between gender and librarians' awareness of web resources in Nigeria. Table 7 shows the chi-square analysis of the data. In the table, the  $X^2$  calculated value of 2.3469 is less than the  $X^2$  critical value of 7.82, therefore the null hypothesis is accepted. This simply means that there is no significant difference between gender and librarians' awareness of web resources in Nigeria.

Table 8: Summary table of chi-square analysis of difference between gender and librarians' extent of used of web resources

Librarians status	Very high	High	Low	Not used	Total
Male	231(236)	154(150)	10(9)	3(2)	398
Female	70(65)	37(41)	2(2)	0(0.6)	109
Total	301	191	12	3	507

Result:  $X^2$  Calculated = 2.7169;  $X^2$  critical = 7.82; df = 3 and level of significant = 0.05

H2 states that there is no significant difference between gender and librarians' extent of using web resources in Nigeria. Table 8 shows the chi-square analysis of the data. In the table, the  $X^2$  calculated value of 2.7169 is less than the  $X^2$  critical value of 7.82, therefore the null hypothesis is accepted. This implies that there is no significant difference between gender and librarians' extent of using web resources in Nigeria.

Table 9: A summary table of chi-square analysis of difference between gender and librarians' purpose of using web resources

Librarians status	Academic	Up-to-date	News	Health	Sport	Recreation	Total
Male	430(417)	447(409)	213(210)	74(107)	96(104)	91(102)	1351
Female	69(81)	43(80)	38(41)	54(20)	29(20)	32(20)	265
Total	499	490	251	128	125	123	1616

Result:  $X^2$  Calculated = 100.1172;  $X^2$  critical = 7.82; df = 3 and level of significant = 0.05

H3 states that there is no significant difference between gender and librarians' purposes of using web resources in Nigeria. Table 8 shows the detail analysis of the chi-square. The tested null hypothesis is rejected, because the  $X^2$  calculated value of 100.1172 is greater than the  $X^2$  critical value of 7.82. This simply means that there is significant difference between gender and librarians' purpose of using web resources in Nigeria.

### 4.3 Discussion of Findings

Research question one sought to determine the extent of librarians' awareness of web resources. The finding shows that majority of librarians in Nigeria are highly aware of web resources. The high level of awareness could be attributed to their profession which is mainly concern with

collection, organization and distribution of information and information resources. In addition, in most institutions in Nigeria, librarians and ICT department are solely responsible for the building and organization of their institutions' repository and as well the accessibility of the resources. This responsibility may no doubt contribute to a

large extent the high level of awareness among the librarians.

To establish the extent of usage and purpose of using web resources, it was discovered that librarians in Nigeria have high rate of usage of web resources, and academic, up-dating of knowledge, and news are areas or purposes to which web resources are highly used. The high usage and the purposes (academic, up-to-date, news, etc.) of usage might be attributed to librarians being academic staff (researchers). As academic staff, their promotion and development in the profession is solely determined by the number of publications and other academic contributions.

Research question four sought to determine the most preferred search engine used by librarians in Nigeria. It was established that majority of the librarians preferred Google and Yahoo as their search engines. Some of the librarians indicated that, in spite of their knowledge of other search engines they preferred Google and Yahoo because they are common and users friendly and as well capable to satisfying their information needs.

Finally, in the aspect of challenges encountered in accessing web resources, it was revealed that power or energy supply, subscription issues, limited knowledge of Internet and low bandwidth are the most common and serious challenges librarians encountered in accessing web resources, while limited Internet access and ICT infrastructure are the least encountered challenges. This might be the fact that it is impossible for librarians and their institutions to generate the amount of electricity or energy they required, and as well meet consistence subscription of web resources due to inadequate fund as a result of consistence budget cut in Nigeria institutions. In the area of the least encountered challenges indicated, it could be as a result of the advancement of

ICTs which lead to increase access to Internet services, and the improved ICT infrastructure in the country by former president Goodluck Jonathan Ebele administration.

#### **4.4. Result of Tested Hypotheses**

One out of the three hypotheses formulated to guide the study only one was rejected. Specifically, hypotheses one and two were accepted and hypothesis three was rejected. The hypotheses tested revealed the following:

1. There is no significant difference between gender and librarians' awareness of web resources in Nigeria. This implies that male and female librarians are equally aware of web resources in Nigeria.
2. There is no significant difference between gender and librarians' extent of using web resources in Nigeria. This means that male and female librarians are equally making use of web resources in Nigeria.
3. There is significant difference between gender and librarians' purpose of using web resources in Nigeria. Therefore, it revealed that male and female librarians use web resources for different purposes, male librarians used web resources more on academic, up-dating of knowledge and news while, female librarians on academic, health and up-dating of knowledge in Nigeria.

#### **Conclusion**

The advancement of Information and Communication Technologies has significantly impacted on the sources and retrieval of information. Today we have information in different sources such as print, on-line, database, web resources, etc. In Nigeria as reveals, the extent of awareness of web resources and their usage among

librarians is very high. As a result of the high rate of awareness among librarians, it is shown that librarians have taken advantage to utilize web resources for academic activities, updating of knowledge, current awareness (news) and other areas of life.

Similarly, it is further established that the most preferred search engines used by librarians to access the web resources are Google and Yahoo due to their users' friendly capacity. Finally, the investigation has shown that in spite of the high rate of use of web resources indicated by the librarians, several challenges were discovered militating against access to web resources, such as energy supply, subscription issues, limited knowledge of Internet, low bandwidth, etc.

### Recommendations

Arising from the findings, the following recommendations are made to ameliorate the challenges encountered:

1. Over the years Nigeria source of energy still remain hydro-electric and thermal or fossil fuel plants which has been encountering several problems such as lack of gas, vandalism, inefficiency etc. In this regard, the federal and state government should as a matter of urgent develop other sources of energy to improve energy supply issues in the country.
2. The issue of subscription is very vital in accessing web resources. Therefore, the various institutions should develop quality policies to ensure consistent subscription of web resources to make them available to prospective users. Also, special fund should be created to fund subscription of on-line materials in every academic institution where research activities are paramount.
3. Internet knowledge is a key for accessing and use of web resources.

Therefore, library and information science schools in Nigeria should as matter of important develop curriculum that will impact practical Internet knowledge to librarians. Also the various bodies that are responsible for training and development of librarians should organize conference/workshops with emphasizes on Internet use and accessing of web resources.

4. Bandwidth to a large extent determines the speed at which one can access Internet services. The institutions should see bandwidth issues as paramount in their allocations and possibly create a special fund to be managed directly by the university librarians to address the issues of bandwidth in their respective libraries.

### References

- Amit, K. T. & Ram, G. G. (2016). User Perception Towards E-resources and Services of IIT-Guwahati Library, *DESIDOC Journal of Library & Information Technology*, 36(1), pp. 40-46 DOI: 10.14429/djlit.36.1.92382016, DESIDOC.
- Daramola, C. F. (2016). Perception and utilization of electronic resources by undergraduate students: the case of the federal university of technology library, Akure, *American Journal of Educational Research*, 4 (5), pp. 366-370. doi: 10.12691/education-4-5-1 | Research Article. Available at: <http://pubs.sciepub.com/education/4/5/1/>.
- Dominikus, H. (2005). *Ubiquitous user modeling*. Berlin Aka, pp. 28.



Javed, K. (2014). Web-Based Information Retrieval Patterns Among Under Graduates, Post Graduates & Faculty Members in Delhi University: A Study, *International Research: Journal of Library & Information Science*, (4) (3), pp.368–375.

Sadiat A. S. (2014). An Evaluation of Undergraduates Use of E-Books: A Case of Federal University of Technology, Minna, Nigeria, *International Research: Journal of Library & Information Science*, 4 (4), pp.495–506.

Shamama, F. & Sudharma, H. (2015). Awareness and Use of Web Resources among the Post Graduate Engineering Students of ZHCET, Aligarh Muslim University (A.M.U), Aligarh”, *International Research: Journal of Library & Information Science*, 5 (2), pp.200–215.