

Application of Internet Services for Effective Service Delivery in University Libraries in Plateau State, Nigeria

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Abstract: The study investigated the application of Internet services for effective service delivery in university libraries in Plateau State. Three specific objectives with corresponding research questions guided the study. The study adopted a survey research design. The population for the study was the entire 285 library staff made up of professional and nonprofessionals in the university libraries in Plateau State which include: University of Jos and Plateau State University. Since the population was not large, the study made use of all the 285 staff in the universities. The instrument for data collection for this study was a structured questionnaire titled “Internet Services and Library Service Delivery Questionnaire” (ISLSDQ). The questionnaire was validated by experts. The reliability of the questionnaire was established using Cronbach Alpha method and a reliability coefficient of 0.75 was obtained. Data collected was analyzed using descriptive statistics of Frequency Counts, Percentages, Mean and Standard Deviation to answer the research questions. Findings of the study revealed that, the kinds of internet services applied for effective services delivery in university libraries in Plateau State include: Electronic Mail (email), World Wide Web (www), Internet Chat, Internet Telephone, Online Public Access Catalogue (OPAC), Electronic Library (e-library), Own Website, Web 2.0, Archie and Mailing list. The areas of application of internet services for effective library service delivery in university libraries in Plateau State include: acquisition services, cataloguing/classification services, awareness services, reference services, selective dissemination of information services, inter-library loan services, documentary services, circulation services, bibliographic services and resource sharing. The findings also revealed that, these internet services were applied to a high extent for library services delivery. The study concluded that, Internet services are to a high extent applied for effective library services delivery in university libraries in Plateau State. Recommendations were made that, Network and related internet services should be provided in university libraries to enhance library services delivery since the need for connectivity can no longer be ignored in this era of information and communication technology and management of university libraries should ensure that adequate hardware support facilities are provided that can enhance effective library services delivery in university libraries

Keywords: University Libraries, Internet Services and Effective Service Delivery

I. INTRODUCTION

University libraries are the lighthouses of information dissemination, an important component of the university institution, and hub of learning activities where students,

researchers, and lecturers can explore the vast amount of information resources. As the world is growing technologically, library operations in various locations in the world are now drastically changing from traditional to modern operations. Onwubiko (2011) stated that, libraries in developing countries like Nigeria since the beginning of the 21st century have started making efforts to metamorphose from being institutions driven by manual processes into modern ones where operations are in part or wholly dependent on Information and Communication Technology applications.

In library set up, Information and Communication Technology (ICT) application is the one where computer systems are used to manage one or several library routine systems such as acquisition, serial control, cataloguing and classification and the on-line public access catalogue (Ebunuwel, Ola & Uduebor, 2014). ICTs have made it possible for libraries to access a wealth of up-to-date resources worldwide, give quicker access to specialist in a number of disciplines and allow librarians to reach each other and users with messages and documents through the internet (Onwih, 2017).

The internet is a worldwide network of inter-connected computer networks (commercial academic and government) that operates using a standardized set of communication protocols called TCP/IP (transmission control protocols/internets protocols) or the internet protocol suite. According to Gbaje (2007), Internet is a network of millions of computers linked together with telecommunication equipment for the purpose of sharing data, resources and information. Agbaje as cited in Uloaku (2017) sees Internet as a veritable tool for global online services. It is a mechanism for information dissemination and a medium for collaborative interaction between individuals and their computers. The Internet as a component of information and communication technologies provides a golden opportunity for the provision of value-added services by libraries. It is suffice to state that the Internet is changing the traditional library functions. It has become a vital component in the overall services and operations of library and information centers. Internet has become a basic ingredient of information accessibility and dissemination.

With Internet today, researchers have asserted that the library environment has added a great value to the library and

information services. Before the advent of internet services in Nigeria, Echezona, Ibegbulem and Nwegbu (2015) asserted that library holdings were predominantly in print, but, with the internet, materials in electronic formats are now included in library collections, the collection scope has changed from local contents to global networks, the use of the internet and World Wide Web has attracted the interest of scholars because of its advantage and convenience over traditional services in libraries, most students have readily started using the internet to find their information and the perception of the library as a place where researchers must visit to satisfy their research and recreational needs has changed.

The internet has changed the landscape of information as it supports multi-user environment and allows users to assess and manipulate information without conjection thereby making the library disseminate information without necessarily stocking printed materials on the shelves. Internet availability has paved the way for some associated services in respect of serials such as browsing, e-mail, online system and information management. The use of the Internet in libraries and information centres has enabled users to have access to a wide range of learning resources available on the net especially the World Wide Web (www) and the electronic mail. In recent years, Internet and e-resources has emerged as a powerful educational information tools that has been spread technological literacy and given people all over the world fast access to vast resources (Islam, Maidul & Umme, 2015). Internet has helped for easy accessibility and dissemination of information. According to Oketunji as cited in Uloaku (2017) the role of the Internet is to provide a way for researchers to have access to each other and to serve as a tool that facilitate their research. With the use of the Internet services like discussion groups and e-mail, it is possible to post message which include request for information: seeking book titles or reference materials, asking for names and addresses of people who have expert knowledge in particular areas. Islam and Panda, (2009) stated that the internet has greatly enhanced the practice of librarianship. This implies that the internet has helped library staff to effectively deliver library services to her users in academic libraries in Nigeria.

The Internet provides a number of services in academic libraries for the purpose of retrieving and disseminating of information to and from computers on the network. These services include; communication services such as electronic mail, telnet, newsgroup, internet relay chat, mailing list and instant messaging; information retrieval services such as file transfer protocol, Gopher, Archie and Very Easy Rodent Oriented Netwide Index to Computer Achieved (VERONICA) and World wide web services such as video conferencing. Ajileye as cited in Oloaku (2017) opined that, the Internet offers a wide range of services in academic libraries. These services according to the author include: electronic mail, bulletin board, file transfer, remote login, index programme, news group, electronic surfing, and video conferencing. According to Brinley, (2010), Internet services applied in the library include

Gopher/WAIS/Archie/Veronica, Internet explorer, Telnet, Chat, World Wide Web, Electronic mail, File transfer protocol, Mozilla fire fox, e-bay, Bing, Ask.com, Google, Wikipedia and many more. According to the author, the advanced use of these Internet tools enables libraries to reach both local and distance users much more easily and effectively. Internet tools such as email and web provides tremendous opportunities for library and information professionals to deliver the information to their users. The activities that were carried out manually in libraries with so much stress and strains are now being carried out smoothly with the help of Internet with greater effectiveness.

Internet is applied to the services of university libraries to ensure that information is delivered timely, accurately and precisely. Internet is changing the ways the libraries organize, manage, and disseminate information. Different types of library services from membership registration, acquisition, cataloging, resource sharing, circulation, Inter Library Loan, reference services, current awareness service, selective dissemination of information, and document delivery can be offered through the Internet. In view of this, Butt, Qutaband Mahmood, (2011) reported in their study on Internet use in library functions and services in libraries that Internet is applied mostly in acquisition, classification and cataloguing, reference, document delivery, current awareness service, selective dissemination of information and Interlibrary loan to enhance service delivery and at the same time save time. The advanced use of Internet tools enable libraries to reach both local and distance users much more easily and effectively. Internet tools such as email and web provides tremendous opportunities for library and information professionals to deliver the information to their users. This is why Okafor (2011) reported that, libraries are using the Internet to support their fundamental functions and services and that the librarians and academics in institutions of learning utilize the Internet very much in carrying out their services and research.

Internet can play an important role in enhancing the effectiveness and development of library services. Internet is changing the network of libraries and information centres. Its application to library services is believed to have had tremendous effect in libraries. Most services that were very difficult or even impossible to be performed are now carried out without any form of difficulty. Osuala (2007) stated that with the application of Internet in libraries, librarians can perform their functions more effectively and efficiently while client can get satisfactory answers to their query/queries within the shortest time while libraries can perform their functions more effectively and efficiently with the help of the Internet thereby given users satisfaction.

II. REVIEW OF RELATED STUDIES

Extant review of literature has shown that the Internet has had a great impact on the world's libraries in the past decades. Uloaku (2017) investigated the application of Internet for service delivery in some selected special libraries in Kaduna

State. The study revealed that Internet services applied for delivery of library services include: e-mail, chat groups, file Transfer Protocol, chat and instant messaging and World Wide Web. It was however found that the application of Internet to library services is not significantly high. Similarly Brinley (2010) stated that the Internet services applied in the library include Chat, World Wide Web, and electronic mail and File transfer protocol among others. Butt, Qutab and Mahmood (2011) conducted a study on access and use of the Internet in the Libraries of Lahore, Pakistan. The study reported that Internet is applied mostly in acquisition, classification and cataloguing, reference, document delivery, current awareness service, selective dissemination of information and Inter-library loan to enhance service delivery and save time. Similarly, Saeed, Asghar, Anwar, and Ranzam (2000) investigated Internet use in University Libraries of Pakistan and reported that Internet is heavily used for performing various library functions such as reference work, classification and cataloguing and document delivery service. Oso and Adesua (2017) examined the availability and utilization of internet facilities among undergraduate students of the Colleges of Education, Ikere Ekiti State and reported that internet facilities were not adequately available hence their low application. Hamidu and Hauwa (2015) conducted a study titled "Availability and Utilization of Internet Facilities by Users in Federal Colleges of Education Libraries in North Eastern, Nigeria. The study found that internet services applied were inadequate in meeting user's information needs.

Problem Statement

The application of Internet in university library services increases efficiency and effectiveness and also ensures the delivery of timely, accurate, precise and relevant information to patrons. It also places librarians in a position to face the 21st century challenges of global information society. Internet has increased not only the quality of traditional library services but also has made it possible for libraries to pioneer in new services in a constantly changing environment. It plays a significant role in area of effective and efficient services delivery in modern library

The researcher observed that many university libraries across the country and Plateau State in particular have access to the Internet and they are using it for various activities and services. But usually these libraries seem not to have a clear vision about its importance and usability of internet for library functions. Despite the prevalence and application of internet services for library services delivery in university libraries in Plateau State, little or no research has been conducted to ascertain the kind of these internet services used, its areas of application and the extent of application of these services. In view of the researcher's observation, the researcher sought to unravel the use of internet for effective library services delivery in university libraries in Plateau State.

Objectives of the Study

Specifically, the study sought to achieve the following objectives:

- i. Ascertain the kinds of internet services applied for effective service delivery in university libraries in Plateau State
- ii. Determine the areas of application of the internet services for effective library service delivery in university libraries in Plateau State
- iii. Determine the extent of application of internet services for effective library service delivery in university libraries in Plateau State

Research Questions

The following research questions guided the study:

- i. What are the kinds of internet services applied for effective service delivery in university libraries in Plateau State?
- ii. What are the areas of application of the internet services for effective library services delivery in university libraries in Plateau State?
- iii. What is the extent of application of internet services for effective library service delivery in university libraries in Plateau State?

III. METHODOLOGY

The study adopted a survey research design and was carried out in Plateau State, Nigeria. The target population for this study was the entire 285 library staff made up of professional and nonprofessionals in the university libraries in Plateau State which include: University of Jos and Plateau State University. Since the population was not large, the study made use of all the 285 staff in the universities. The instrument for data collection for this study was a structured questionnaire titled "Internet Services and Library Service Delivery Questionnaire" (ISLSDQ). The questionnaire has three sections: A, B and C and was designed in line with the research questions guiding the study. The questionnaire was validated by three experts; two from Library and Information Science and one from Measurement and Evaluation. To ascertain the reliability of the instrument, it was administered to thirty (30) professional and nonprofessional librarians from Federal University, Lafia. The reliability of the instrument was estimated using Cronbach Alpha method and a reliability coefficient of 0.75 was obtained. Data for the study was collected by the researcher with the aid of research assistants. Data collected was analyzed using descriptive statistics of Frequency Counts, Percentages, Mean and Standard Deviation to answer the research questions.

IV. RESULTS

Research Question One: What are the kinds of internet services applied for effective service delivery in university libraries in Plateau State?

Table 1: Frequency Counts and Percentages of the Internet Services Applied for Effective Service Delivery in University Libraries in Plateau State.

SN	ITEM	Frequency		Percentage (%)		
		AP	NAP	AP	NAP	DECISION
1	Electronic Mail (email)	285	0	100	0.0	Applied
2	World Wide Web (www)	285	0	100	0.0	Applied
3	Internet Chat	285	0	100	0.0	Applied
4	Internet Telephone	285	0	100	0.0	Applied
5	Online Public Access Catalogue	270	15	94.7	5.3	Applied
6	Electronic Library (e-library)	265	20	93.0	7.0	Applied
7	Own Website	260	25	91.2	8.8	Applied
8	Web 2.0	240	45	84.2	15.8	Applied
9	Archie	190	95	66.7	33.3	Applied
10	Gopher	90	195	31.6	68.4	Not Applied
11	Very Easy Rodent Oriented Netwide Index to Computer Achieved (VERONICA)	70	215	24.6	75.4	Not Applied
12	Video conferencing	230	55	80.7	19.3	Applied
13	Newsgroup	90	195	31.6	68.4	Not Applied
14	Mailing list	280	5	98.2	1.8	Applied
15	Telnet	45	240	15.8	84.2	Not Applied

AP=Applied, NAP= Not Applied

Table1 shows the kinds of internet services applied for effective services delivery in university libraries in Plateau State in Frequencies and Percentages. From the table as indicated by the respondents, items 1, 2, 3, 4, 5, 6, 7, 8, 9, 12 and 14 with ‘percentage applied’ above 50% are considered the different kinds of internet services applied for effective services delivery in university libraries in Plateau State. Items 10, 11, 13 and 15 with ‘percentage applied’ below 50% are considered not applied.

Research Question Two: What are the areas of application of the internet services for effective library services delivery in university libraries in Plateau State?

Table 2: Frequency Counts and Percentages of the Areas of Application of Internet Services for Effective Library Service Delivery in University Libraries in Plateau State

SN	ITEM	Frequency		Percentage (%)		
		AP	NAP	AP	NAP	DECISION
16	Acquisition Services	285	0	100	0.0	Applied
17	Cataloguing/Classification Services	285	0	100	0.0	Applied
18	Awareness Services	285	0	100	0.0	Applied
19	Reference Services	285	0	100	0.0	Applied
20	Selective Dissemination of Information Services	260	25	91.2	8.8	Applied
21	Inter-library loan Services	275	10	96.5	3.5	Applied

22	Documentary Services	215	70	75.4	24.6	Applied
23	Circulation Services	270	15	95.7	4.3	Applied
24	Bibliographic Services	267	18	93.7	6.3	Applied
25	Resource sharing	285	0	100	0.0	Applied

AP=Applied, NAP= Not Applied

Table2 shows the areas of application of these internet services for effective library services delivery in university libraries in Plateau State in Frequencies and Percentages. From the table as indicated by the respondents, all the items (16 - 25) with ‘percentage applied’ above 50% are considered the areas of application of these internet services for effective library services delivery in university libraries in Plateau State

Research Question Three: What is the extent of application of internet services for effective library service delivery in university libraries in Plateau State?

Table 3: Mean and Standard Deviation Analysis of the Extent of Application of Internet Services for Effective Library Service delivery in University Libraries in Plateau State

S/No	Internet services	Mean (X)	Standard Dev.	Decision
26	Electronic Mail (email)	2.86	.84	High Extent
27	World Wide Web (www)	2.89	.81	High Extent
28	Internet Chat	2.80	.97	High Extent
29	Internet Telephone	2.62	.97	High Extent
30	Online Public Access Catalogue	2.78	.92	High Extent
31	Electronic Library (e-library)	2.72	.89	High Extent
32	Own Website	2.77	.99	High Extent
33	Web 2.0	2.88	.88	High Extent
34	Archie	2.71	.91	High Extent
35	Gopher	2.24	.97	Low Extent
36	Very Easy Rodent Oriented Netwide Index to Computer Achieved (VERONICA)	2.29	1.00	Low Extent
37	Video conferencing	2.60	.97	High Extent
38	Newsgroup	2.23	.81	Low Extent
39	Mailing list	2.69	.79	High Extent
40	Telnet	2.38	.85	Low Extent

Table 3 shows the extent of application of internet services for effective library service delivery in university libraries in Plateau State in Mean and Standard Deviations. From the table as indicated by the respondents, items 26, 27, 28, 29, 30, 31, 32, 33, 34, 27 and 39 have Mean values ranging from 2.62 – 2.89 which are above the benchmark of 2.50. This showed high extent of application of the internet services for effective library services delivery in University libraries in

Plateau State. Items 35, 36, 38 and 40 have Mean values less than 2.50 which are considered low extent on application.

V. DISCUSSION

Findings of the study as shown on Table 1 revealed that, the kinds of internet services applied for effective service delivery in university libraries in Plateau State include: Electronic Mail (email), World Wide Web (www), Internet Chat, Internet Telephone, Online Public Access Catalogue, Electronic Library (e-library), Own Website, Web 2.0, Archie and Mailing list. This finding corroborate with that of Oloaku (2017) who revealed that Internet services applied for delivery of library services include: e-mail, chat groups, file Transfer Protocol, chat and instant messaging and World Wide Web. Similarly Brinley (2010) stated that the Internet services applied in the library include Chat, World Wide Web, electronic mail and File transfer protocol among others. The finding of this study as observed could be that the advanced use of Internet services enables university libraries to effectively deliver services to her users easily and effectively.

The findings of the study also revealed that the areas of application of internet services for effective library service delivery in university libraries in Plateau State include: acquisition services, cataloguing/classification services, awareness services, reference services, selective dissemination of information services, inter-library loan services, documentary services, circulation services, bibliographic services and resource sharing. This finding corroborate with that of Butt, Qutab and Mahmood (2011) whose study on access and use of the Internet in the Libraries of Lahore, Pakistan reported that Internet is applied mostly in acquisition, classification and cataloguing, reference, document delivery, current awareness service, selective dissemination of information and Inter-library loan to enhance service delivery and save time. The findings also agree with that of Saeed, Asghar, Anwar, and Ranzam (2000) who investigated Internet use in University Libraries of Pakistan and reported that Internet is heavily used for performing various library functions such as reference work, classification and cataloguing and document delivery service. The findings of the present study as observed from the data collected implied that, internet services has a wide range of areas of application to enhance the delivery of university library services.

Lastly, the findings of the study revealed that, Internet services such as: Electronic Mail (email), World Wide Web (www), Internet Chat, Internet Telephone, Online Public Access Catalogue, Electronic Library (e-library), Own Website, Web 2.0, Archie, video conferencing and Mailing list are to a high extent applied for effective library services delivery in university libraries in Plateau State. The findings of this study disagrees with that of Uloaku (2017) who investigated the Application of Internet for service delivery in some selected special libraries in Kaduna State and found out that the application of Internet to library services is not significantly high. This finding also disagrees with that of Oso

and Adesua (2017) who examined availability and utilization of internet facilities among undergraduate students of the Colleges of Education, Ikere Ekiti State and reported that internet facilities were not adequately available hence their low application. Similarly, the finding disagrees with that of Hamidu and Hauwa (2015) who reported that internet services applied were inadequate in meeting user's information needs. The findings of the present study as observed from the data collected implied that, internet services have been found to be useful in enhancing library services delivery in universities in Plateau State, hence the high extent of application observed.

VI. CONCLUSION AND RECOMMENDATIONS

Based on the findings of the study, it was concluded that, Internet services are to a high extent applied for effective library services delivery in university libraries in Plateau State, Nigeria. It is sufficed to state that no other recent innovation has impacted the library profession to such a great extent as Internet services.

Based on the findings, the study recommended that:

- i. Network and related internet services should be provided in university libraries to enhance library services delivery since the need for connectivity can no longer be ignored in this era of information and communication technology
- ii. Management of university libraries should ensure that adequate hardware support facilities are provided that can enhance effective library services delivery in university libraries

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