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Scholarly Electronic Journals: Availability and Use in Universities in Nigeria

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Abstract

Current print journals have become scarce commodity in university libraries of the developing countries. Serials have become a scarce commodity in university libraries of developing countries. This is because of the high cost of these materials. In Nigeria the situation is worsened by the high exchange rate of the Naira to foreign currencies. Electronic journals have come as a better, cheaper alternative to the print format. Knowledge seekers and information professionals need to be familiar with the use of this novel resource format. This research explored the availability and use of electronic journals (e-journals) in the University of Nigeria, Nsukka amongst academics, including librarians. A structured questionnaire was used to elicit information from respondents. Descriptive statistics were used to present the data for discussion. Findings showed that majority of the sampled population were well aware of the existence of e-journals. 93.13% of the respondents have used them to source information pertaining to their research and studies. Internet-ready computers provided by the university; cybercafés in and around the University and personal laptop computers with wireless access were sources of access. Respondents face varied challenges against smooth access to e-resources. The university library is poised to tackle many of the challenges in order to give their user unrestricted access.

Introduction

Many libraries in Nigeria are clamoring to see how they can improve on the allocations given them to increase their resources, without much success. Yet the cost of serials, especially scientific journals, continues to rise higher and higher in price. Okerson (1991) has said that, "in recent decade, print journals prices have continued to rise beyond inflation especially for scientific journal."

This paper seeks to put electronic serials in perspective to libraries and librarians who are not yet familiar with e-resources, about their nature, utility, viability for enriching serial collections of university libraries. The extent of availability and usability of these resources in the University of Nigeria will be ascertained. Academics are co-producers of electronic serials. The paper will unravel the willingness and readiness of the university academics in Nigeria, to participate in the production and growth of e-serial. It will also seek to know what hindrances users experience towards effective use of e-serials.

Research Questions

1. Are electronic serials available for use at the University of Nigeria?
2. From what sources are electronic journals made available?
3. For what purposes are electronic journals used by academic in UNN?
4. To what extent do staff of the University of Nigeria access and use e-resources in their subject areas?
5. What problem do users encounter in accessing and use of e-journals?
6. What are the strategies for enhancing access and use of e-journals?

Significance of the Study

This study is significant because it will drive home to academics the concept, characteristics, sources and usefulness of e-serials. It will be an exposition of the existence of and accessibility to many of these electronic resources in the University's library. In this period of scarcity of print serials (especially journals) as a result of cancellations due to limited funds, there is need for academics to familiarize themselves with the opportunities provided by electronic journals. They will also be encouraged to participate in the production and development of these e-resources. It will help serials librarians in Nigeria to adopt new strategies for improving access and use of e-serials for effective service to their clientele.

Scope of the Study

The study is limited to academic staff of the University of Nigeria, including librarians.

Literature Review

The transition from print based serials to a predominantly electronic based serials is a recent phenomenon. Nevertheless library historians have identified three major phases of this transition between 1990 to 2002. According to Rowlands (2007), Mahe (2004), and Boyce, et al. (2004) there are three phases in the evolution of electronic journal. The earliest phase was 1990-1993, when electronic full text was confined to CD-ROM. The second phase was the "evolving phase," between 2000-2002, which marked the availability of print and electronic alternatives. The third phase was the "advanced phase," with the emergence of sophisticated information systems designed to enhance scientific work (Rowlands, 2007).

Obst (2003) carried out a survey in a medical science library, comparing print and electronic materials use in 2003. The study revealed that between 1999 and 2001, print use declined dramatically. Within the same period, there was accelerated use of electronic journals.

Thus, electronic serials have been in existence since the 1990s. Many of these are scholarly or academic electronic journals. As pointed out by McEdowney (1995) some academics are aware of these trends in scholarly communications and participate in their production. Others remain unaware. The nature of electronic serials can be seen from their definition. Strangelove states that e-serials attempt to emulate the characteristics of their print counterparts through organization, periodicity, and topical focus. Okerson has a more elaborate definition:

Some electronic serials are electronic only, but various of them either index or review paper publications, and others move between electronic and more traditional formats. Some electronic journals produce paper or microform spin off and some paper journals appear selectively in electronic form (Okerson 1993, iii).

Electronic serials are also said to encourage more rapid publication and more readership than paper journals (p-journals). (Kling and Covil, nd). According to this research one of the virtues of electronic journals is 'Rapid dissemination of acceptable articles'. The writer also states that e-journals provide access to journals that were usually also available in printed form.

Krieb (1999) describing the nature of e-serials, stated that “the ability to access the full text of an article without the hassles of foraging from the bindery, has certainly been a value added service to patrons. The author opine that some libraries have chosen to drop long standing print subscriptions to their electronic counterparts to save both money and shelf space.”

Corroborating this statement, Jogle and San (1999) state that, “an electronic journals contains original work which is subject to a peer review process, and is published only in the web at no cost.” Jasso (2001) in agreement with Jogle and San preferred the term “digital journals”. These serials are generally accessed electronically through communication devices along with listservs and other electronic fora. (McEldowney 1995).

Access and Use of E-Serials

Access to some electronic journals are sometimes included free with a print subscription. Some electronic journals do not have print equivalents. Journals articles can be accessed from the Internet. They can also be accessed directly from the publisher’s websites or from journal aggregators. Many of these journals are usually not open access.

Researchers have shown that different groups of scholars use e-resources differently. A study carried out by Rowlands (2007) revealed the findings of Bar-Ilan, Peritz, and Wolman in 2003 of a survey of eight Israeli universities exploring their use of electronic journals. That study revealed that “there were major differences between broad disciplines: life sciences and medicine were the heaviest users and humanities the lightest”. This study also emphasizes age as a factor in the use of electronic journals, “Older faculty were less likely to use e-journals than their younger colleagues, who tended to be heavy users and early adopters of electronic journals”(Rowlands, 2007).

One of the problems in accessing e-serials is that they are not free. Lure Joseph (2003) stated in his finding on this, that “there are a few free online journals, but most are available only by subscription”. This point to the fact that having Internet access does not guarantee full access to electronic journals. Individuals or their Institutional libraries need to subscribe to e-journals for full accessibility.

Methodology

Scholars and academic staff of the University of Nigeria who use the resources of the university library were surveyed to discover their knowledge of availability, usability, and attitude towards electronic serials. This will show their reception of this technological shift.

Instruments

A questionnaire which has four sections was used to elicit information from the respondents. Section A sought information on the sources available for access to e-journals in the University of Nigeria. Section B dwelt on the usability and appreciation of e-resources for sustenance in the new paradigm. Section C sought to know the problems that hinder smooth access and usability of e-resources in the University. Section D provided information on the strategies available for the enhancement of access and use of e-journals by academics. Many of the respondents were academic librarians and other teaching staff of the University of Nigeria. Out of 120 copies of the questionnaire distributed to respondents, 102 were filled, returned, and made use of.

Methodology

For each item in section A (i), (ii) and (iii) and C (i) and (ii) frequencies of items of responses were shown in simple percentages on table. For the items in section B (iii) and D the total weighted frequencies were used to determine the mean score of 2.5 and above on the four point Likert rating scale were accepted.

Results

Table 1. Awareness of the existence of Electronic Serials in the University of Nigeria (N = 102)

Responses	Respondents	Percentage
Yes	102	100%
No	0	0%

The table above shows that all the academic staff who responded to the questionnaire were totally aware (100%) of the electronic serial in the University Library and in the Internet.

Table 2: Usability of Electronic Serials

Responses	Respondents	Percentage
Yes	95	93.13%
No	07	6.86%

Table 2 also shows that but the population sampled are not only notionally aware of the existence of e-serials a good number representing 93.13 % in the table have made use of electronic resources at one time or another, pertaining to their areas of study/profession.

Table 3: Sources of access to e-serials the University

S/N	Sources	Respondents	Percentage
1	Licensed Data bases in the Library (OARE,HINARI, AGORA, EBSCO HOST, JESTOR etc)	45	44.11
2	Google Scholar	52	50.99
3	Yahoo Search	5	4.90

Table 3 shows that majority of respondents access e-serials (especially e-journals) using the google scholar as their search engine. They represent 50.99%. A good number of the respondents representing 44.11% access e-serials through the Data bases licensed to the university library (OARE, HINARI, AGORA, EBSCO HOST, JSTOR etc). Not many people use the Yahoo search engine to access their e-serials. The percentage that use it represent only 4.90% on the table above.

Table 4: Assessment of Respondent opinions of the Nature of e-serials

S/N	ITEMS	ITEM MEAN
1	Electronic serials are issued successively at Regular intervals like print serials.	3.5
2	They are accessed through a computer connected to the internet.	3.7
3	They can be accessed from CD ROM	3.6
4	Article in e-journals can be downloaded free of charge.	3.0
5	E-journals can be accessed through licensing from Data base Agencies.	3.4
6	Publication in e-journals are peer reviewed.	3.2
7	Some of the publication do not go through an editorial process.	2.8
8	Electronic journals provide paralele access to their print counterparts.	2.8
9	Accepted articles for publication have the privilege of rapid dissemination in the net to a wider audience in e-journals than in print journals.	3.1
10	Contributors have the privilege of being published faster than in print journals	3.1
11	When articles in e-journals are abstracted an authors work is linked with other scholarly works world wide	3.3
12	It is easier to publish in e-journals	2.5

N = 102

All the twelve items in this table have Mean above 2.5. therefore they are all acceptable as the true nature of electronic serials. These points are in agreement with the literature citations. Never- the- less the weighted items on the above table shows the degree of the respondents acceptance of them, depending on their knowledge of e-serials at the point in time.

Table 5: Respondents Mean of Access to e-serials

S/N	ITEM	RESPONSES			
		Yes	%	No	%
1	From my personal computer (lap top) Connected to the Internet.	85	83.33	17	16.66
2	From my office computer connected to the Internet.	92	90.19	10	9.80
3	From commercial cybercafés	82	80.39	20	19.60
4	From the University's MIS services	60	58.82	42	41.17
5	From my GSM Telephone with Internet access	40	39.21	62	60.78

(N=102)

Table 5 shows the variety of means of access through which the respondents get to the internet to use their e-serials.

Figure 1 shows a clearer illustration of the result presented in Table 5. This presentation shows

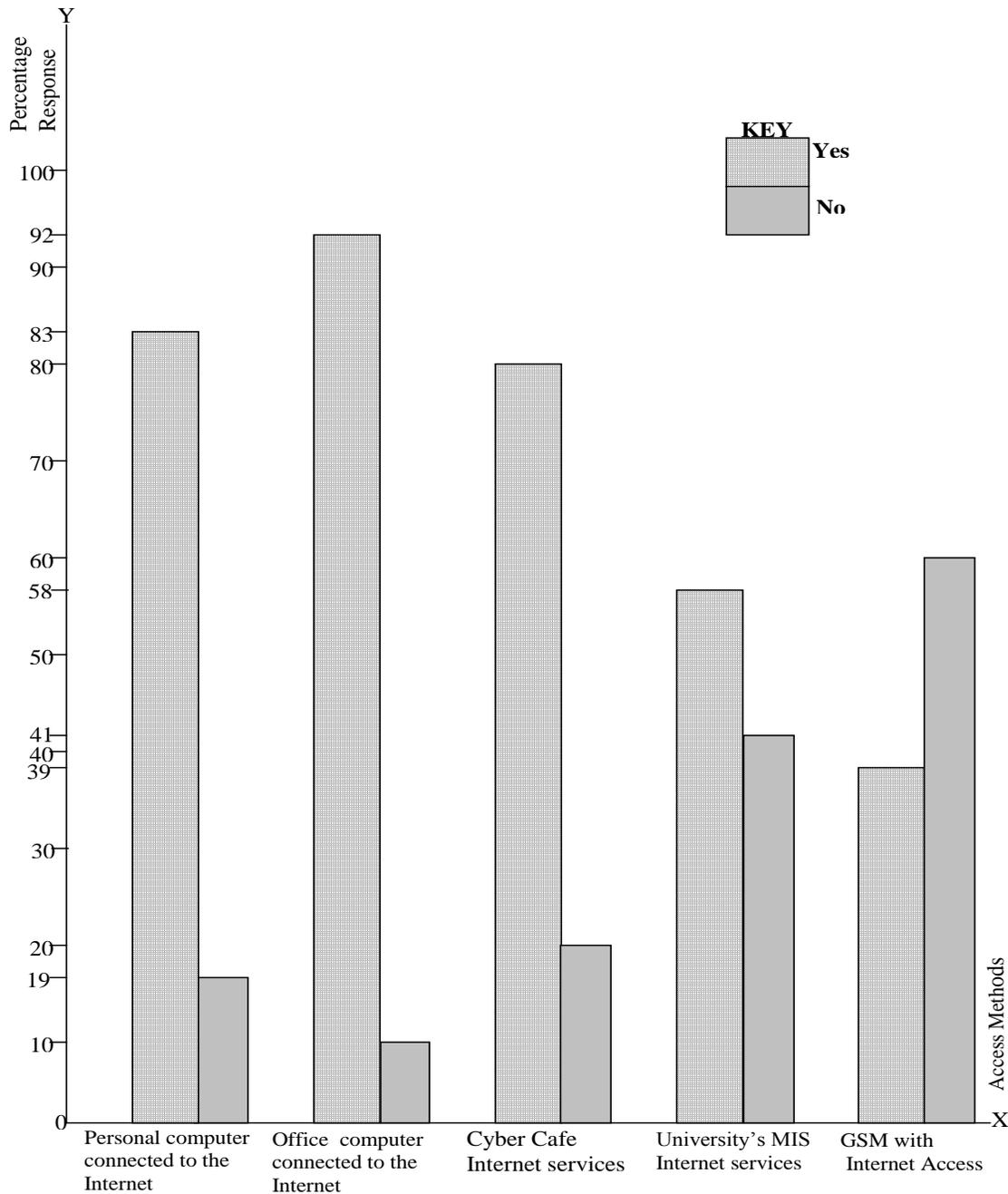


Figure I: Multiple bar chart showing mean Responses of Access to e-Serials

that the greater number of the respondents (90.19%) access e-serials through their office computers connected to the Internet. A good number of them (83.33%) have their lap top computers connected to the Internet with which they gain access to download articles in electronic journals. Another group of users representing (80.39%) receive internet access through the commercial cybercafés on campus.

Those who use the University's MIS cybercafé to get their Internet services represent (58.82%) a little over half the population. A minimal number of respondents (39.21%) access the internet through their GSM cell phones that have internet connectivity of the service providers. From these various points of access the respondents have ample opportunity to use electronic serials in the web and from the Library's licensed data bases.

Table 6: Relevance of Electronic Serials to Respondents

S/N	ITEM	RESPONSES			
		Yes	%	No	%
1	Used to gather information on my area of study.	100	98.03	2	1.96
2	Used for literature search	98	96.09	4	3.92
3	Used to obtain current information in my area of research	102	100	0	0
4	Used to augment information collected from print serials	100	98.03	2	1.96
5	Used to upgrade my lecture notes	92	90.19	10	9.80

(N=102)

Table 6 shows the various reasons for which respondents seek electronic serials from the internet and the relevant purposes it serves them.

All the items listed as relevance of e-serials were all acceptable to the individual respondents in varying degrees, shown in the table. A good number of the respondents use e-journals to: gather information on their areas of study; for research and to augment what they gather from print serials. Others use e-serials for literature search and to upgrade their lecture notes.

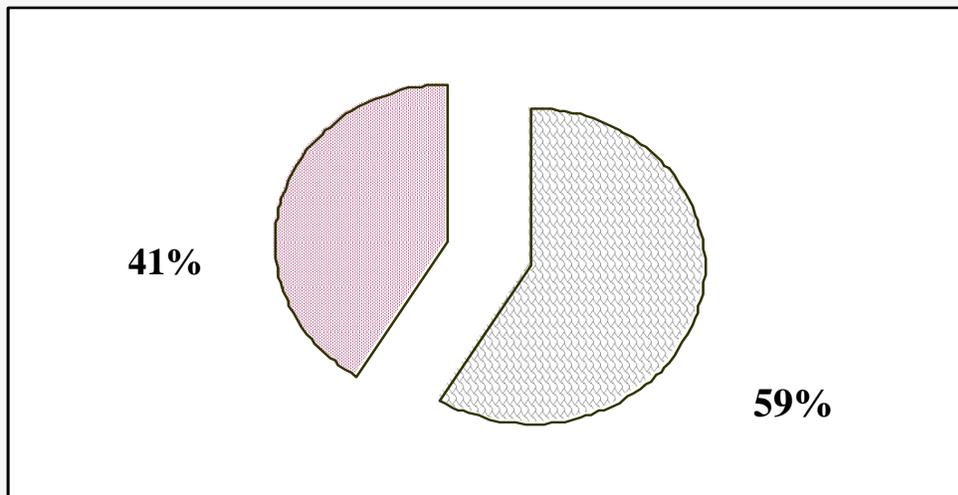


Figure 2: Likelihood to contribute to the growth of Electronic Serials

The pie chart in figure 1 clearly shows the division of opinions of respondents towards contributing to the growth of electronic serials by publishing their future articles in e-journals. Respondents were willing, by 59%, to publish their future research works in e-journal. Never-the-less 42 of the respondents toyed with the idea. Perhaps these numbers are not yet totally convinced on the quality and effectiveness of electronic resources, in terms of peer review.

Table 7: Problems encountered by Respondents in the use of E-serials.

S/N	ITEM	ITEM MEAN
1	Limited knowledge of effective search strategy .	2.8
2	Limited computer skills for retrieval capacity	2.8
3	Slowness of the Internet connectivity	3.7
4	Erratic electricity power supply	3.8
5	Expensive nature of subscription to internet connectivity	2.5
6	The demand for passwords before access to vital materials	3.5
7	The demand for identity before accessibility to many e-serials	3.4
8	Difficulty in downloading articles from the internet	2.8
9	The demand for subscription to journals	3.4
10	Virus contamination in my saving devices (flash etc).	3.2
11	There are not many e-serials in my area of study	2.5
12	Not having the relevant navigation skills to perform effectively	2.8
13	Insufficient bandwidth for effective networking.	3.8
14	Space constraint for users in faculty computer labs.	3.1
15	Insufficient computer system in private cybercafés	3.1

Items 3, 4, 6, 8, and 13, in Table 7, have the higher mean between 3.5 to 3.8 and represent the most serious constraints that respondents encounter in accessing materials from the internet. These problems include insufficient bandwidth, erratic power supply, slowness of the internet and the demand for passwords. Equally problematic are items: 7, 9, 10, 14 and 15 on the table with mean between 3.4 to 3.1. These are: demand for identity; demand for subscription; virus contaminations; space constraint and insufficient computer systems with internet connection. Never-the-less all the fifteen items in the table have mean above 2.5 and therefore are acceptable by respondents as problems.

Discussion

Respondents to this survey agree that electronic serials have the same nature with their print counterparts in terms of quality, going through editorial process and are peer reviewed. Articles published in them have the privilege of rapid dissemination to a wider audience, and linked to similar scholarly works in the world by abstracting journals. University libraries licensed to data bases, have the benefit of accessing very important core journals without any further subscription or demand for payments. Articles in such journals enlisted can be downloaded free of charge.

From the presentations in tables 1 to 4 it shows that the academic staffs of the University of Nigeria are very conversant with, and fully use electronic serials-a stock in trade amongst academic scholars' world wide. Awareness the existence of electronic serials is 100% among the sampled population. Usability of the e-serials among the academic staff is also very impressive (93.13%) in the University of Nigeria.

This is not surprising but rather the fruition of the forthright vision of the outgoing vice chancellor (Prof. Chinedu Nebo) who put the University and its staff on the pedestal of information and communication technology (ICT) aquisition. On assumption of office the vice chancellor mounted a programme on ICT capacity building in which staff of all levels became ICT compliant, from the cleaner messenger to the professor. Through knowledgeable and hardworking technical staff employed, the University of Nigeria is now comfortably, enjoying global web presence. Thus, the Lion which is the symbol of UNN is restored to continue to roar in restoration of the dignity of man.

Two third of the academic staff have lap top computers receiving wireless internet connectivity from the University's Management Information Services (MIS) Internet Provider (IP). Every faculty have a computer laboratory with full internet connectivity. The university is set for e-learning programmees. The university library has also developed a web portal accessible at www.unnportal.com, in which many of her programmes and local resources are digitalized and made visibility in the web. The library is also licensed to many notable Data bases (OARE, HINARI, AGORA, EBSCO HOST, JSTOR and MEDLINE) from which faculty and students and librarians access current electronic journals to aid their teaching and research.

There are however, certain problems that hinder the smooth sail and stabilization of internet access to the community. These problem are presented in Table 7. They include, insufficient bandwidth which slows internet access at peak periods of use. This is as a result of the growing population needing this access. There are also the problems of: erratic power supply; virus contamination of computer saving devices, the demand for passwords and subscription to access important core journals. The growing population of uses have also brought about space constraints in the laboratories and cybercafés. On the four point Likert table, these problems have mean above 3 points, and accepted as problems that hinder smooth access to the internet.

Conclusion

The continued rise in the prices of print serials (journals in particular), which is said to have reached inflationary rate makes it obvious that Librarians should have a positive policy towards subscription to digital resources. Electronic journals have established themselves as viable alternative to the print version. Most of among them are exactly the electronic version of their print counterparts. They are therefore peer reviewed and also the best sources of information on current research. Those knowledge users who are hesitant to admit them as equivalent to print journals should re-think. After all they are produced by the same authoritative authors and publishers of the print versions. Librarians who subscribe to these materials know their quality and authority. They also know that there is now a paradigm shift to digital domains that can not be ignored if their libraries should remain relevant.

Serials, especially journals still hold the ladder for academic proficiency and excellence. University Librarians still dragging their feet on internet connectivity are obviously doing a disservice to their host communities. Internet access opens the flood gate for the sharing of invaluable resources with all the

libraries of the global village, the world has turned to. The doors of great repositories of information are permanently open, in the global network, to scholars anywhere, any time with internet connectivity.

Processing a lap top computer with wireless access should be a must-do among university academics. The libraries may be worrying about internet host operators, but the individuals can with his/her GSM cell phone access internet connecting this to his/her GSM service providers.

The socio-economic well being of a nation is dependent on the ability of its members to access and exploit both indigenous and extra-territorial knowledge stock which are laid bare in the digital world.

Recommendations

University libraries in Nigeria should urgently seek Internet connectivity to enable their patrons access resources in the network, in view of their immense value to academics. This brings about academic growth and interaction with their peers in the world. In view also of their considerable low cost (than print journals) libraries are advised to seek liscence from Database producers and check out the privileges offered by Journal Publishers. This will enable them access their archived journals. University lecturers and research students will be better off with electronic resources, because they bear reports of very current researches of authors worldwide.

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