

Volume 6 Number 1 June, 2009

An International Journal of Information and Communication Technology (ICT)

The pioneer ICT journal in Africa

Available electronically!

www.ajol.info

OBJECTIVE AND SCOPE

The Information Technologist: An International Journal of Information Communication Technology (ICT) is a referred Journal by Nigerians and foreign renowned Scholars who have distinguished themselves in the field of Information Communication Technology (ICT)

Essentially the journal concerns itself with the pervasive impact and the changes in the basic character of library and information operations and services occasioned by the use of technology.

The journal deals mainly with the publication of the results of empirical research in the field of Library, Information Science Communication and Information Technology as they affect Developing Countries. The journal is also devoted to articles of high quality on the theoretical aspects of its area of concern. Book reviews, letters to the editor, news items and other brief communications are also welcome.

THE INFORMATION TECHNOLOGISTS

An International Journal of ICT

Editor in Chief: Dr. E.C. Madu

E-mail: evamadu@yahoo.com

Phone: 08055063324

Associated Editor:

Dr. (Mrs.) Clara C. Okoro

The Library, Imo State University,

Owerri, Imo State, Nigeria E-mail: clarif2002@yahoo.com

Circulation Manager:

Mr. Chidi Onwubiko
Department of Library and Information

Science,

Abia State University,

Uturu, Nigeria, E-mail:cpcbikolis_absuedu_ng@yahoo.com

EDITORIAL BOARD

Dr. Charles Omekwu

Nnamdi Azikiwe Library, University of Nigeria, Nsukka, Nigeria.

E-mail: omekwucharles@mail.com

Ms. M. A. Greaves FCLIP

307, Sprowston Rd., Norwich, Norfolk, United Kingdom.

E-mail: monica.a.greaves@talk21.com

Dr. Emma Camble

Department of Library Science University of Maiduguri, Nigeria.

Prof. M. Afolabi

Department of Educational Technology and Library Science, University of Uyo, Akwa-Ibom, Nigeria

Dr. (Mrs.) J. U. Igbeka

Kenneth Dike Library University of Ibadan, Nigeria.

Dr. (Mrs.) A, Agbaje

Nigerian Institute of Educational Planning and Administration, Ondo, Ondo State.

Dr. E. A. Apeji

Nigerian Educational Research and Development Council (NERDC) Abuja, Nigeria.

Prof. B. C. Nzotta

South Africa

Prof. Ochogwu

Department of Library Science, Bayero University, Kano, Nigeria.

SUBMISSION OF MANUSCRIPTS

Manuscripts and other editorial communication should be sent on-line to:

DR. E. C. MADU

Editor-in-chief

E-mail:evamadu@yahoo.co.uk

Phone: 08055063324

Mr. Chidi Onwubiko

Circulation Manager:

Department of Library and Information Science, Abia State University, Uturu, Nigeria. E-mail: cpcbikolis_absuedu_ng@yahoo.com

ANNUAL SUBSCRIPTION RATES

Individual (Nigeria) N2,000.00 Institutions (Nigeria) N3,000.00 Individual (Overseers) US\$50 or £30 Institutions (Overseers) US\$70 or £50

Overseas Subscribers can pay cash through WESTERN UNION MONEY TRANSFER to DR. E. C. MADU

The Information Technologist: An International Journal of Information Communication Technology (ICT) is published twice a year (June and December) by the Association of Information Professionals of Nigeria.

THE INFORMATION TECHNOLOGIST AN INTERNATIONAL JOURNAL OF INFORMATION AND COMMUNICATION TECHNOLOGY

Volume 6 No. 1 June, 2009

CONTENTS

Margaret Uyoyou Ugboma An Appraisal of Public Branch Libraries in Nigeria: The Case of Delta State Public Branch Libraries	1	R.C. Okoro, M.U. Onuu and U.E. Asuquo Data Security Using Cryptograhic Approach.	77
A.E. Adetimirin Use of the Internet by Information Professionals in some Selected University Libraries in South West, Nigeria	9	R.I. Echezona and B.E. Edoka Information services Provided by Special Collections Units in Federal and State University Libraries in Nigeria	85
O.O. Fagbami and T.E. Ogunjobi Availability and Use of Information Communication Technologies (ICT) Facilities		Samuel Olu Adeyoyin and Abayomi Imam The Changed Role of Reference Librarian by Cultural Disposition of Users in the Post-Internet Era.	91
in Agricultural Research Institutes and Information Centres in Ibadan, Nigeria: Problems and Prospects	17	G.C. Umunnakwe and C.N. Nwachukwu Indigenous Knowledge in Imo State: A Case of Ife Community in Ezinihitte	
Emmanuel Camble and Pius Musa Availability and Utilization of Information and Communication Technology in		Local Government of Imo State, Nigeria Idayat Odunola Agboola	99
Adamawa State Civil Service Samuel Arubam Amkpa and Tukur Abba Factors Inhibiting the Implementation of	25	Printed and Electronic Resources Utilization by Agricultural Science Students in Nigerian Universities.	107
Information and Communication Technologies (ICTs) in Nigerian University Libraries	33	'Niran Adetoro Information and Communications Technology (ICT) as an Access Equalizer of Information: Opportunities and Challenges for Nigeria's	
Joseph O. Omoniyi and Evelyn O. Akinboro Repositioning Librarianship Education and Practice for ICT Challenges in Nigerian		Persons with Visual Impairment Ferdinand Chijioke Ugwuanyi	115
University Libraries. Clara C. Okoro Career Choice of Students of Library and	45	Information and Communication Technology (ICT) Literacy among Academic Librarians in Enugu State.	123
Information Science in Tertiary Institutions of Imo State, Nigeria.	53	Patience Uzezi Otolo Women's Involvement in Fish Farming: Access to Agricultural Information in	122
Catherine Enatta Joel-Ikokoh Internet Access and Usage by Nigerian Educational Research and Development Council Staff at the Headquarter in Abuja.	61	E . Nwelh and F.N. Efozia Design and Implementation of Steganography	133 139
K.O. Ogunbote and A.O. Odunewu Library, Information and Communication Technology use in Teaching Non-Regular Students in Nigerian Universities	69	O.O. Fagbami, B.A. Akintola and O.J. Peler Cybercafé's use by the Research Scientists in Agricultural Research Institutes in Ibadan, Nigeria.	mo 151



USE OF THE INTERNET BY INFORMATION PROFESSIONALS IN SOME SELECTED UNIVERSITY LIBRARIES IN SOUTH WEST, NIGERIA

A. E. Adetimirin* Ph.D.

*Dr. (Mrs.) A.E. Adetimirin holds a Ph.D in Library, Archival and Information Studies, University of Ibadan. She is currently a lecturer in the same Department.

e-mail:aedetimirin@gmail.com; aeadetimirin@yahoo.com; Phone: 08023336038

Abstract

The Internet in Nigeria is a veritable tool to access information due to the poor economic situation and the non availability of current library materials. This study attempted to find out the level of use of the Internet and problems faced by information professionals. Thirty-two information professionals were selected from three university libraries in South West Nigeria and the questionnaire was used for data collection. The Internet was used mainly for Electronic mails and the main access point was through cybercafes. Slow Internet connection, cost of bandwidth and little knowledge of Internet facilities were the major problems highlighted.

KEYWORDS: Internet, ICT, Information Professionals, University Libraries, Nigeria

Introduction

Information and communication technology (ICT) has been found to be beneficial in many professions as it facilitates the ease with which activities are carried out. The information environment has changed rapidly in the last few years with new advances in technology to facilitate easy accessibility to information by different users.

Studies have been carried out on the application of information technology in libraries (Kanton, 1994; Warner & Barber, 1994; Mitchell & Mooney, 1996 and Ede,

1996). IT in libraries has changed the mode of information storage and retrieval, acquisition, cataloguing and classification, circulation of materials, serials control, management statistics and administrative activities such as budgeting. This has ultimately led to the provision of more efficient information services to the users and the overall improvement in the performance of the libraries and other related information institutions (Chisenga, 1995).

ICT had been responsible for the changing role of traditional library setting of

handling information packaged in printed format to that of computer networks dealing with all forms of knowledge. Nigerian libraries are adopting ICT and major development and achievements in the use of automated systems in Nigeria have been mainly in the academic and research libraries (Adeniran et. al. 1993; Mosuro, 1996; Ogunleye, 1997; Idowu & Mabawonku, 1999 and Ajala, 2001). The National Universities Commission/World Bank (NUC/WB) credit facility agreement of 1991 led to the supply of books, journals and one personal computer (PC) and four user Local Area Network (LAN) version of The Information Navigator (TINLIB) to federal universities in Nigeria subsequently (Ogunleye, 1997). This improved the library collections resources of these universities.

However, ICT use in libraries developing countries have been hindered by many problems which include insufficient fund allocation, inadequacy of manpower requirement, power outages, prohibitive cost of importation of hardware, software and the accessories of ICT, conservatism on the part of management and unfavourable government policy. Others include the lukewarm attitude to alleviate the sufferings of academic institutions by the government, lack of training culture in computer skills, inadequate infrastructure such as personal and communication facilities computers (Olalude, 2007; Osunade and Ojo, 2006; Badu, 2004; Ibeagwam, 2004; Chifwepa, 2003; Ikem and Ojo, 2003; Adeyemi, 2002 and Ogunleye, 1997).

The Internet has been described as an information superhighway of information infrastructure to emphasize the expectation that it would transform the way information is created, manipulated, stored, retrieved, transferred and utilized (Ehikhamenor, 2003). Yumba (1997) corroborated this as a powerful tool to search for, retrieve and disseminate information. He also reported that its technology offers new opportunities for rapid communication and access to

information worldwide as it is increasingly being used by all sectors of the society and this has made the resources of the world more accessible to ordinary people all over the world.

The Internet is the fastest growing computer network with millions of users worldwide and has been found to assist users easily obtain and share information available worldwide. According to Internet World Statistics 2005, Africa had an Internet user growth rate of 258.3% between 2000 and 2005, but this still accounted for only 1.7% of the world's Internet usage (Olalude, 2007). As at January 2002, there were 148 million Internet hosts around the world and the United States of America has 33% of the Internet users worldwide (Leonard, 2003). This has increased to over 1.2 billion users world wide (Internet World Statistics, 2008), with over 44.2 million Internet users are found in Africa, with Nigeria having eight million representing 18.21% of the Inter net users in Africa (Internet World Statistics, 2008).

The Internet can be used to provide the following services: Electronic mail, Listserv, Newsgroups, File Transfer (FTP), Remote Login (using Telnet) etc. Olalude (2007) reported that the Internet is a powerful and efficient tool for searching, retrieving and disseminating information. It may be used for education, research, trade and commerce, entertainment, sports and news, communication such as email and discussion groups.

The wealth of information such as journals, full text documents e.t.c., which is increasingly becoming available on the Internet in addition to the ability to update materials more rapidly with multimedia features means that it should be an integral part of information services. The Internet is employed in the library for technical functions, information services and Web pages (Younis, 2002) and it is perceived by a supplement to libraries' collections, as a substitute for databases on CD-ROMs, and a

way of saving on subscription charges for printed journals, but not as a replacement for printed books. The Internet's main administrative effect is on staff's satisfaction, motives, speed and ease of services, users' satisfaction, and turnouts, but it has the little effect on libraries' budget (Younis, 2002).

The librarian was formerly concerned library with library orientation. bibliographic instruction, but this changed to include teaching their users viable information and computer skills to cope effectively in this era of information technology (Rader, 1999). This therefore, means that the role of librarians should be include assistance sophisticated searches, which necessitates the use of the Internet (Jordaan & Jones, 1999) and thus has made the acquisition of computer skills essential for all information professional.

Librarians have recognized the future potential of the Internet as a means of creating and sharing new resources and will likely remain a viral access route into the world of cyberspace through the provision of hardware and suitable training. Abdoulage and Majid (2000) carried out a study on the use of the Internet by library professionals in Malaysian academic libraries and reported that the Internet contributed positively to reference work and enhanced effectiveness and efficiency. Also librarians were expected to possess good computing and Internet skills for provision of effective reference services.

Jones (2002) reported that college students are heavy users of the Internet as compared to the general population as it is the students' daily routine since it has been integrated into their daily communication habits and has become a technology as ordinary as the telephone or the television. This makes it important for the information professionals in such educational setting to become conversant with the use of the Internet.

challenge for information professional therefore, lies in the utilization of opportunities offered by the Internet to improve the services provided. The use of the Internet by academic librarians were analysed by Devlin and Burke (1997) and it was revealed that existing bibliographic structure was not used to best advantage and simple strategies. which would limit these deficiencies, such as the use of electronic mail were not used. They recommended suitable training to acquire the needed skills, from an introductory to advanced level in order to alleviate this problem.

The information professional in the developing world should undergo training in the use of the Internet for retrieving information to satisfy the information needs of its users as most users are knowledgeable in the use of the Internet. Such training and on the job experience will further enhance the computer skills especially the searching skills of such professional, which will make them competent in the use of the Internet. Holland (1997) corroborated this by writing that increased staff training is mandatory for user education as information professionals can only train their users if they have the necessary skills both in web navigation and in teaching.

Changes in libraries like the use of ICT and the expectations of their clientele are related aspects of LIS training (Ramaiah & Moorthy, 2002). Their study was on the need impact of continuing education programmes (CEP) for library information science (LIS) professionals in India, particularly for college librarians and it was observed that information professionals continually develop themselves must professionally through various continuing education programmes that will be relevant to the profession.

Klobas and Clyde (2001) reiterated that librarians and the managers of libraries and information services are experts who are best placed to exert their influence on attitudes to the Internet by providing recommendations, demonstrations, and training about the Internet as a source of information and knowledge, This therefore, compels the information professionals particularly in Nigeria to seek training in the use of the Internet in order to remain relevant in this information age and provide the needed services to the users.

The existing infrastructure- telecommunications facilities for the dissemination of information are not capable of meeting this requirement in Nigeria (Adeloye, 2000). This is however, gradually improving particularly in the area of accessibility to the Internet with the establishment of many commercial cyber cafés in many cities in the country. The erratic problem of electricity in Nigeria has over the years, adversely affected installation of computer networks, consequently, large sums of money earmarked for computer hardware and training are sometimes spent on acquiring private generators for the supply of electricity, hence the high cost of accessing the Internet (Adetimirin, 2008).

Objectives

The main objective of this study is to investigate the level of adoption and usage of the Internet by information professionals in some university libraries in Nigeria. The specific objectives are to:

- 1. identify the access points to the Internet;
- determine the extent to which the Internet is used for professional development and
- 3. identify the problems associated with its use.

Methodology

The target population for this study was practicing academic information professionals in Oyo and Ogun States, Nigeria. The libraries of three universities were used namely:

 Kenneth Dike Library of the University of Ibadan (UI) Ibadan, Oyo State;

- 2. The Library of Ladoke Akintola University (LAUTECH), Ogbomosho, Oyo State and
- 3. Nimbe Adedipe Library of the University of Agriculture (UNAAB), Abeokuta, Ogun
- 4. State.

The cluster sampling technique was used to select respondents across the libraries. The study investigated a cluster of information professionals who have masters' degrees in library and information science and work in academic institutions and the sample size was thirty-two. Questionnaire was the only method used for data collection for this study. The number of questionnaire administered to the UI, UNAAB and LAUTECH libraries are eighteen, seven and seven, while ten, seven and five copies of the questionnaire were returned giving a response rate of 55.56%, 100% and 71.43% respectively.

Results And Discussion

The data collected were analysed using percentage frequencies based on a number of variables. These variables include demographic information about the respondents, access points to the Internet, frequency and duration and the problems associated with its usage. Male respondents were more in all the libraries studied, however, the higher male ratio to female ratio was more pronounced at UI and LAUTECH libraries than UNAAB library.

Access points to the Internet

The study showed that the Internet was accessed from different sources such as office, cyber cafes and in homes. More than half of the respondents in UI, UNAAB and LAUTECH libraries access the Internet in cyber cafes (60%, 71% and 60% respectively), only a minority accesses the Internet from home in LAUTECH library (20%). The remaining respondents' point of access to the Internet is through their offices.

Purpose and frequency of Internet usage

The study sought to find out the reasons for using the Internet and the respondents were allowed to pick as many as were applicable. It showed that the Internet is used mostly for email and searching for academic information in all the libraries studied (Table 1). However, the Internet is also used for chat and discussion, news and teleconferencing by a minority (less than 8%) in all the libraries.

The study found that more than half of the respondents (70% and 57%) in UI and UNAAB libraries respectively used the Internet at least two to three times a week, while 60% of the respondents in LAUTECH library use the Internet once a month or seldom use it (Table 2). This can be attributed to the fact that the respondents in UI and UNAAB libraries have access to the Internet in their offices and there are many cyber cafes available in these towns, unlike the majority of the respondents in LAUTECH library who do not have access to the Internet in their offices (Table 2).

A large number of the respondents in UI and LAUTECH libraries spent more than 60 minutes browsing the Internet at a particular time (90% and 60% respectively) as shown in Table 3. This indicated that the respondents found the Internet to be a useful tool in their different responsibilities in the library.

Problems

The respondents identified slow Internet connection as the major problem in their use of the Internet in all the libraries. Others included too many hits (retrieved items) when searching as a result of limited knowledge in the use of Internet facilities. The major problem, which is slow Internet connection, is as a result of the non availability of an orbiting Internet satellite over Nigeria until late October, 2003, thereby making all Internet Service Providers (ISPs) to link up with countries such as USA, UK and other countries in Europe for bandwidth.

Furthermore, bandwidth is expensive and this makes the libraries and cyber cafes purchase small bandwidth that subsequently leads to slow connection when many users link up to the Internet. It is expected that with Nigeria having its own satellite, the need to link up to far away countries to purchase bandwidth will be eliminated. This will subsequently lead to lower prices of bandwidth and institutions will be able to afford the required bandwidth.

Inadequate knowledge of Internet facilities was also listed as a major problem. This can be attributed to the lack of continous professional development among some of the respondents. Younis (2002) corroborated this, citing lack of experience, misconceptions about the Internet, misuse of web sites, authenticity of information, censorship, copyright, insufficient high quality terminals, and language problems are prime reasons limiting the optimal use of the Internet.

Table 1:Use of the Internet

Facilities	UI		UNAAB		LAUTECH	
	Number	Percentage	Number	Percentage	Number	Percentage
E mail	9	32	6	32	5	33
Academic						
Information	9	32	6	32	5	33
General						
Browsing	5	18	4	21	3	20
News	2	7	1	5	-	
Entertainment &						
Sports	-	-	-	-		-
Other						
organizations'					OX	
websites	3	11	1	5	2	13
Chat &				0		
Discussion	-	-	-	1 -	-	-
Teleconferencing	-	1	1	5	-	-

Table 2: Frequency of Usage of the Internet

Frequency	UI		UNAAB		LAUTECH	
	Number	Percentage	Number	Percentage	Number	Percentage
Daily	4	40		-	-	-
2-3 times/						
week	3	30	4	57	1	20
4-5 times/						
week	1	10	1	14	1	20
Once a week	1	10	2	29	-	-
Once a						
month	1	10	-	-	1	20
Seldom	-	-	-	-	2	40

Table 3: Duration of Internet Search per access time

Duration of	UI		UNAAB		LAUTECH	
access (minutes)	Number	Percentage	Number	Percentage	Number	Percentage
Less than 30	-	-	-	-	-	-
30-59	1	10	3	43.	2	40
60-89	7	70	2	29	-	-
90-119	2	20	1	14	1	20
Over 120	-	-	1	14	2	40

Conclusion

The study revealed that the information professionals are aware of the importance of Internet for their professional effectiveness, but are not using it optimally. This is due to a large extent to their little knowledge about the Internet. It is therefore, recommended that the institutions investigated in this study should conduct relevant courses on Internet search for their information professionals. On the other hand, information professionals must continually develop themselves through the attendance of courses on computer application, Internet searching and Web site design and become more ICT literate.

REFERENCES

- Abdoulaye, K., and Majid, S., (2000), "Use of the Internet for reference services in Malaysian academic libraries", Online Information Review, 24, 5, 381-389.
- Adeloye, A., (2000), "The Information Market in Nigeria", *Journal of Information Science*, 26 (4), 282-285.
- Adeniran, O., Adigun, T, Okoh, M., (1993), "The use of microcomputers in Nigerian libraries and Information centers", *Journal of Information Science*, (19), 239-246.
- Adetimirin, A., (2008), Factors affecting Undergraduates' Use of Information And Communication Technologies In Nigerian Universities. Unpublished Ph.D Dissertation, University of Ibadan, Nigeria.
- Adeyemi, B., (2002), Problems and challenges of automating cataloguing process at Kenneth Dike Library, University of Ibadan, Nigeria. African *Journal of Library, Archives and Information Science*, 12, (2), 213-222.
- Ajala, E., (2001), "Information accessibility and retrieval of manual and automated library systems: A case study of the Polytechnic and Latunde Odeku libraries, Ibadan, Nigeria", Nigerian Library and Information Science Review, 19, 1/2, 17-24.
- Badu, E., (2004), Strategic Management of Information Technology in University Libraries in Ghana. *The Information Technologist*, 1.1 & 2, 25-37.
- Chifwepa, V., (2003), The use of Internet by teaching staff of the University of Zambia. *African Journal of Library, Archives and Information Science*, 13, (2), 19-32.

- Chisenga, J., (1995), "The status of Information Technology in Zambian Libraries", African Journal of Library, Archival and Information Science, 5, (1), 19-24.
- Devlin, B. and Burke, M., (1997), "Internet: the ultimate reference tool?", Internet Research: Electronic Networking Applications and Policy, 7, (2), 101-108.
- Ede, S., (1996), "Libraries and technology in the European Union: Soldering the connections", Information Technology and Libraries, 15, (2) 117-122.
- Ehikhamenor, F., (2003, "Internet resources and productivity in scientific research in Nigerian universities", *Journal of Information Science*, 29, 2, 107-116.
- Holland, M., (1997), "Getting the Web into libraries", The Electronic Library, 15, part 2, 118.
- Ibegwam, A., (2004), Internet access and usage by students of the College of Medicine, University of Lagos. The Information Technologist, 1.1&2:81-87
- Idowu, A, and Mabawonku, I., (1999), "Information Technology facilities and application in some Nigerian research and university libraries", African Journal of Library, Archival and Information Science, 9, 1, 27-35.
- Ikem, J. and Ojo. B., (2003), The Challenges of Human Resources for Information Communication Technologies (ICTs) in Nigerian Universities Libraries. Nigerian Library and Information Science Review, 21, (1) 7-17.
- Jones, S., (2002), The Internet Goes to College. How students are living in the future with Today's Technology. Pew Internet and American Life Project, Washington D.C. at http://www.pewinternet.org/reports/toc.asp?Report=71 Accessed on 6/3/02
- Jordaan, M., and Jones, R., (1999), "Adoption of Internet technology by UK postgraduate centers: a questionnaire survey", *Health Libraries Review*, 16, (3) 166-173.
- Kanton, P., (1994), "Information retrieval techniques", Annual Review of Information Science and Technology, 29, 53-90.
- Klobas, J. and Clyde, L., (2001), "Social influence and Internet use", *Library Management*, 22, (1-2) 61-67.
- Mitchell, S., and Monney, M., (1996), "Infomine- a model web-based academic virtual library", Information Technologies and Libraries, 15, (1), 20-25.
- Mosuro, T., (1996), "CD-ROM technology and its application at the Kenneth Dike Library, University of Ibadan, Nigeria", Nigerian Libraries, Archives and Information Science Review, 14, (1/2), 46-50.

- Ogunleye, G., (1997), "Automation of the Federal Universities Libraries in Nigeria: A state of the Art", African Journal of Library, Archival and Information Science, 8, (1), 71-79.
- Olalude, F. (2007), Utilisation of Internet Sources for Research by Information Professionals in Sub-Saharan Africa. African Journal of Library, Archives and Information Science, 17, (1) 53-58.
- Osunade, O. and Ojo, O., (2006), Library and Internet usage: A case study of University of Ibadan. *The Information Technologist*, 3, (2) 19-29
- Rader, H., (1999), "Information Literacy in the Reference Environment: Preparing for the future", The Reference Librarian, 66, 213-221.
- Ramaiah, C. and Moorthy, A., (2002), "The impact of continuing education programmes on library and information science professionals", *Library Review*, 51, (1) 24-31.

- Warner, B, and Barber, D., (1994), "Building the digital library", *Information* Technologies and Libraries, 13, (1) 20-24.
- Younis, A., (2002), "The perception and administrative effect of Internet usage in Jordanian university libraries", Online Information Review, 26, 3, 193-208.
- Yumba, D., (1997), "Internet in the Library: Potentials", African Journal of Library, Archival and Information Science, 7, 2, 163-168.

Internet Sources

Internet World Stats: Usage and Population Statistics http://www.internetworldstats.com/stats1.htm Accessed January 2, 2008.