

# UTILIZATION OF ELECTRONIC INFORMATION SOURCES (EIS) BY THE ACADEMIC STAFF OF HEZEKIAH OLUWASANMI LIBRARY, OBAFEMI AWOLOWO UNIVERSITY, ILE – IFE NIGERIA

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## **Abstract**

*Information and Communication Technologies (ICTs) have become basic ingredients in the operations of libraries, and the education sector in general. Libraries are finding it increasingly difficult to acquire and make available to their users the full range of information in print form. Besides, electronic information sources (EIS) are becoming more popular with users who find them rewarding and preferred over the print sources. Libraries are subscribing to EIS as an alternative way of avoiding the problems associated with print sources. This paper examines the impact of the use of EIS on scholarly publications, job performance and ICT skills acquisition of librarians in Hezekiah Oluwasanmi library. It also highlights some of the problems associated with the use of EIS in this library and emphasizes the importance of ICTs training for librarians in a rapidly evolving technologically driven profession.*

## **Introduction**

Society today, is experiencing a veritable explosion of different but new information resources and formats. The changes are not at the expense of the books and other traditional print media but a transformation of the traditional formats into electronic miniatures. The Internet- based electronic resources (e – sources) and the emerging network technologies have been revolutionizing the field of Librarianship, by changing the packaging and presentation of information items to library users. There is a growing shift to the use of electronic materials, leading to a need for radical change in the skill acquisition and operations of Librarians in order to maintain their roles as information providers. Sara and Lindquist (1995), argue that “Electronic documents offer significant advantages to the library in four different ways as listed below:

- Some documents are more useful in an electronic form due to enhanced searching process and manipulation;
- Electronic form is sometimes the only alternative, so it represents a net increase in the information base;

- The volume of printed materials is continuously increasing at great speed and the library can only afford to acquire a diminishing part of it, and
- The increases in cost of keeping printed materials make electronic forms more attractive from an economic view Point”.

The afore-mentioned points suggest that users could use an electronic material without physically handling it. There exists in the electronic domain, a broad and multiple real time access of a particular information material from diverse locations within and outside the library. The traditional operations of the library which entails generation, processing, storage, retrieval and dissemination of information items to potential users have been simplified. According to Atkinson (1990), “the advent of the Internet, Information Technologies and database acquisition has reduced library operations to uploading and downloading of information materials” This is true since most databases acquired by libraries are purchased on the shelf. Libraries subscribe to databases which are tied to the library web site and made public to their users. Librarians generate newsletters, memos, and web log resources etc, which they upload to their library website for public use. Library users perceive electronic information sources to hold many advantages, which include convenience, timeliness and ability to search text.

### **Objectives of the Study**

The paper examines the following:

- the importance of the use of electronic information sources by Librarians at Hezekiah Oluwasanmi Library
- how EIS has impacted the job performance, scholarly publications and ICT skills acquisition of Librarians in Hezekiah Oluwasanmi Library
- the advantages of using EIS over print media
- problems associated with the use of EIS in the Library; and
- an overview of existing ICTs infrastructure and how it enhances the use of Electronic Information Sources in Hezekiah Oluwasanmi Library.

### **Preamble**

Electronic Information Sources (EIS) are complimentary virtual sources of information used alongside the print media. However, its easy accessibility gives it a preference over other formats. Yin (1998) defined Internet-based electronic resources (e-sources) as “resources available from the internet, used as alternatives and / or additions to traditional means of scholarly communication”. Electronic Information Sources include the following:

- Publications available via gopher, web or File Transfer Protocol (FTP), which could be self publications, newsletters, electronic serials, articles

in electronic journals, working documents, technical papers, pre-print conference papers, and electronic books;

- Electronic mail correspondence, messages posted to mailing lists, listserv groups, and;
- Commercial electronic markets where transactions are carried out electronically.

According to Shim and McClure (2002), Electronic Information Sources are one of the network services that users access electronically via a computer network in the following ways:

- from on-site in the library
- remote to the library, but from a campus facility, or
- remote from the library and the campus. He further gives examples of Electronic Information Sources to include local, regional, and statewide library hosted or authored websites, library licensed databases, text and numerical databases, electronic journals and books; e-mail, listservs, online reference and so on.

The advent of EIS has brought success to libraries particularly in the acquisitions and management of serials. Serials in print form, pose some of the most vexing problems for libraries due to their cost and high mortality rate. Malinconico and Warth (1995), Observed that between 1990 and 1992, Association of Research Libraries (ARL) in the United States of America, cancelled journal subscriptions worth \$21,000.00. In 1994, these Libraries spent nearly 100% more on serials subscriptions than they did in 1986, yet they received 4% fewer journal titles and purchased 22% fewer monograph volumes in order to pay for journal subscriptions. The problems associated with the acquisition, use and management of serials necessitated the quest for a substitute. Stoller (1992), cited a 2003 UNESCO report on alternatives to the scientific periodicals and identified several shortcomings of scientific journals. Among the shortcomings is their high cost which results in the failure of libraries and abstracting services to maintain complete coverage of any field. The problems of cost and coverage are more acute in the third world countries where libraries are facing increasing reduction in government funding and near absence of external grants. Most libraries in the developing countries do not have endowment programmes as compliments to government subventions, and neither do they commercialize their services. This brings about budgetary fluctuation based on government disposition to funding.

Bailey (1995) states that whereas the number of books and print journals grows from 2% to 7% per year, the number of electronic sources is growing many times faster. He concludes that, from 1985 to 1994, the number of online databases had been increasing more than 28% per year. Those with

full text had grown to 40% per year and the number of CD-ROM database had grown more than 100% per year.

However, modern Librarianship has virtually grown, placing high premium on databases and CD-ROM technologies above traditional print media. This is apparently so, because libraries are increasingly unable to supply their users' information needs with their decreasing resources. This has necessitated a shift to electronic sources rather than retaining subscriptions on costly and infrequently used journals. Tenopir and Read (2000), are of the opinion that there are diverse interests in the patterns of database utilization by academic staff, students and non-academic staff of any given library.

### **Internet Infrastructure and Access in Hezekiah Oluwasamni Library**

The Internet is widely viewed as the forerunner of a ubiquitous global web of digital communication that uses an intricate web of computers connecting billions of people. Goodyear (1994), averred that "The Internet is a vast network of computers linking most Universities and many companies around the world" The Internet is a platform that enhances digital divide and digital solidarity at the same time, depending on the dexterity of the navigator. The history of Internet infrastructure and access in Hezekiah Oluwasamni Library, started in 1997 with a Local Area Network (LAN) connecting fourteen computers to a Novell Netware Server; offering print, file transfer and e-mail services. Williams-Osula (1999) stated that "The library was connected through Obafemi Awolowo University Network (OAUINET) - a campus wide network of the University via a Linux based server and Wireless Radio." However, the library's network has grown considerably to about forty-one workstations fully connected to the internet. Four out of these are dedicated to Online Public Access Catalogue (OPAC) under the Circulation Section of the Library. Two of the Servers run on Linux operating systems while the third runs on Windows 2000 Server platform.

Presently, the library backbone has been changed to fiber optics, a more rugged and enhanced network. The digitization of Newspapers and Abstracts of Postgraduate Theses have reached an advanced stage. When completed, links would be created to tie these resources to the intranet for local usage and Internet for wider public access. The library subscribes to notable multidisciplinary academic databases such as-

Infotrac one file, Esbcohost, Hinari(for Biomedical and Medicals) ,Agora (Access to Global Research in Agriculture), Widernet Digital Library and so on. Hezekiah Oluwasamni Library also subscribes to some free online resources relevant to the information needs of its patrons.

## Methodology

### Design

The research designs used for this study were questionnaires, direct observation and personal interviews to elicit unbiased responses.

### Population

The study population consisted of twenty Librarians out of twenty one in all. The twenty Librarians studied carry out professional duties in their respective sections covering all the core aspects of Librarianship. Twenty questionnaires were distributed and collected for analysis.

### Findings and Discussion

From the data collected, 60% of Librarians in Hezekiah Oluwasanmi Library were males while 40% were females. Five percent of the study population recorded the highest years of experience which ranged between 30 -35 years, the range of 10 – 19 years of experience had 35% of the population studied, another 35% came from within the range of 20 – 29 years of experience, while twenty five percent of the Librarians fell into the lowest range of experience of less than ten (10) years. Thirty five percent of the study population had their subject background in Arts, 10% in Social Sciences, 15% in Sciences and 40% in Education and allied disciplines.

**Table 1: Professional Status of Librarians in H.O. Library**

STATUS	FREQUENCY	PERCENTAGE
Librarian II	4	20%
Librarian I	4	20%
Senior Librarian	7	35%
Principal Librarian	5	25%
TOTAL	20	100

**Table 2: Age Distribution**

AGE GROUP	FREQUENCY	PERCENTAGE
30 - 35	-	0
36 – 40	6	30
41 – 45	3	15
46 – 50	2	10
51 – 55	4	20
56 – 60	2	10
60+	2	10
No Response	1	5
TOTAL	20	100

The youngest group of Librarians in Hezekiah Oluwasanmi Library falls within the age bracket of 36-40 years, this is 30% of the whole population studied and the majority. This implies that the Library has an appreciable population of young professionals that can give it the needed technological lift if they are exposed to quality and regular ICT trainings.

**Table 3: Educational Qualifications**

LEVEL OF EDUCATION	FREQUENCY	PERCENTAGE
Postgraduate Diploma	2	10
Master's Degree	17	85
Doctoral Degree	1	5
TOTAL	20	100

All the Librarians have postgraduate qualifications in librarianship. There is one Ph.D holder and three other librarians are pursuing Ph.D studies.

**Table 4: Internet Search Engines/Database Utilization**

Search Engine/ Database	Very Often	Often	Occasionally	Not Used
MSN.com	2 (10%)	1 (5%)	3 (15%)	5 (25%)
Yahoo.com	14 (70%)	4 (20%)	2 (10%)	0 (0%)
Google.com	9 (45%)	5 (25%)	3 (15%)	0 (0%)
Inforseek.com	1 (5%)	1 (5%)	2 (10%)	7 (35%)
Gopher/Veronica	1 (5%)	0 (0%)	2 (10%)	7 (35%)
www.Virtual Library.org	1 (5%)	1 (5%)	0 (0%)	7 (35%)
Infotrac one file	4 (20%)	2 (10%)	4 (20%)	2 (10%)
Henari	0 (0%)	1 (5%)	1 (5%)	6 (30%)
EBSCOHOST	2 (10%)	2 (10%)	1 (5%)	5 (25%)
Infoplease.com	0 (0%)	0 (0%)	0 (0%)	7 (35%)
Alltheweb.com	2 (10%)	0 (0%)	1 (5%)	7 (35%)
Searchhabit.com	0 (0%)	0 (0%)	0 (0%)	6 (30%)
Others(specify)	1 (5%)	0 (0%)	0 (0%)	1 (5%)

The study revealed a high rate of Internet search engines and databases. 100% of the study population use yahoo facilities for personal communication and research, 85% use Google search engine. 50% of the

population uses the Infotrac one file database; while 25% use the Ebscohost database. From the above table there is evidence of higher use of multidisciplinary databases (Infotrac one file and Ebscohost) over the mono-discipline database- Henari which attracted only 10% of the population.

### **Computer Skills**

All the respondents agreed that they had access to Information Technologies and that the use of EIS had improved their ICT competency and research productivity. Some of the gains of EIS enumerated include:

- self – browsing ability
- acquisition of web based navigation skills
- flexible format presentation e.g. PDF, Word, etc
- multiple database availability and multidisciplinary search
- taking advantage of digital solidarity through collaborative research across borders
- availability of current information
- improved interpersonal communication
- cost reduction and time saving when compared with the print media
- high quality research

### **Demerits or Concerns with Electronic Information Sources**

Though, Electronic Information Sources has wider acceptance and usage in developed countries where adequate infrastructural provisions are made for its smooth operation, the same cannot be said of developing countries. Although the advantages far outweigh the perceived problems or concerns, as use increases and more resources are available, most librarians and users still retain their preference to read print outs; this they attribute to the discomfort of reading from the screen or poor graphic quality. Paper print outs ensure the readers ability to browse, aesthetics, portability, and convenience. Access to appropriate technologies and skills or otherwise could make or mar the utilization of electronic information sources.

Online access is time consuming and expensive. Lack of ICT knowledge could hinder effective use of Electronic Information Sources, while database subscription restriction could discourage use of Electronic Information Sources in developing economies or areas with low income per capital. The following are some of the problems associated with the use of Electronic Information Sources in developing countries;

#### **❖ High Rates of Power Outrages**

This has continued to be a major problem militating against the success story of ICTs application in most libraries in Nigeria. The power issue is central to computerization; libraries cannot rely solely on the

national electricity grid for power due to incessant outages which constitute a major threat to the functionality and life span of computers. On the other hand, it is very expensive to have and maintain an independent power source.

❖ **System Failure**

Electronic information Sources are stored on hard disk, servers' e.t.c. Most of this data is lost at an instance of system failure. Accesses to these materials are often denied within the period of troubleshooting the affected systems. Most libraries do not have good backups to safeguard against loss of data.

❖ **Virus Attack**

Virus attack is a serious concern in the virtual environment. These viruses come in rapid successions and are more resistant to existing anti-virus software. Viruses spread faster through web pages, diskettes etc. It damages the computers and corrupts existing documents stored in the system. Its spread and impact are more devastating in a network environment than on stand alone computers.

❖ **High Cost of Access Time and Print-outs**

These constitute a discouragement to the use of EIS, particularly in developing countries where the income per capita is low. Patrons pay for limited air time which might not be enough to permit access to wide range of EIS materials available on the Internet; as well as print-outs. Compared with traditional information sources, particularly books, Electronic Information Sources ensure availability of current information sources; but are very expensive.

❖ **Low Bandwidth Subscription Leading to Slow Real Time Operation**

Most Electronic Information Source materials exist mainly on the Internet. Libraries and cyber cafes often have a low bandwidth subscription which affects the rate of traffic flow within and outside their network. Bandwidth subscription is usually very expensive. Most institutions set subscriptions within the limit of their budgets. Low subscription leads to loss of man-hours due to low speed and slow access time. Users' are often time conscious and are therefore frustrated.



## Conclusion and Recommendations

There is no doubt that the application of ICTs and use of Electronic Information Sources have increased the research materials available to the academic staff of Hezekiah Oluwasanmi Library; as well as their capacity to use these facilities in carrying out their professional and academic responsibilities. There is unprecedented increase in the level of local and international electronically driven research collaborations between Librarians in Hezekiah Oluwasanmi Library and their colleagues in other parts of the world.

Hezekiah Oluwasanmi Library is making remarkable progress in its Information Communication Technology (ICT) application project. The library has been repositioned through the strategic ICT infrastructure and manpower development to enhance its services.

In view of the virtualization of library services in the 21st Century and the increasing global preference it is attracting, that libraries in developing countries should strive:

- to put in place necessary Information Communications Technologies (ICTs) infrastructure.
- to be more committed to the provision of multidisciplinary databases so as to meet the yearnings of their patrons. This would also ease the cost of print media management and space.
- to provide access to staff and students to use these databases as justification for subscriptions and the high cost of infrastructural development.
- to embark on effective and regular ICT trainings for Librarians and supportive staff that provide online services for library patrons.
- Libraries and Librarians should show more interest in the acquisition of web technology skills that can enable them to develop, manage, store, and utilize customized databases peculiar to their library's operations, instead of relying on foreign customized library software that are very expensive and might not meet their library operation demands.

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