

**Challenges, Causes and Ways forward in Using Computer System for Library Information Works: A case study of Nnmadi Azikwe University Library, Nsukka, Nigeria**

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**Abstract**

The paper discusses computer system as a device use for library information works. The paper purposely identified the challenges, causes of the challenges and the ways forward in using computer system by library and information professionals. The study employed a descriptive survey design. The instrument of data collection are questionnaire, literature search and personal interview while, population of the study comprises 34 library workers who use computer system for library information works in Nnmadi Azikwe Library, Nsukka. Data gathered by using of questionnaire were analyzed by simple percentage to determine the challenges faced when using computer system for library information works. The findings shows that, out of 17 itemized challenges 15 (88.2%) were considered agreed while 2 (11.8%) were considered disagreed. The causes of each challenge were determined through literature search, while recommendations/ways forward were determined through literature search and personal interview with computer maintenance and training institute resource persons.

**Keywords:** Computer system, Library information works, Challenges, Causes, Ways forward, Nigeria.

## 1.0. Introduction

Using of Computer system for information works in the library became more essential as a result of information glut that led to high volume of publications to meet the information needs of the seekers. Also, it is worth noting that, university library as a center, where information resources are kept and utilized by the patrons; its activities are managed with the use of computer system to buttress the primary aim of its establishment: learning, teaching and research. This is because computer system is a machine that is under the control of a stored programmed which can automatically accept and process data, and supplies the results of that progressing. According to Sawyer (2003), computer system is a programmable, multiuse machine that accepts data – raw facts and figures- and processes, or manipulates its function we can use, such as summaries, totals or reports. This implies that computer system is a device that can also accept input data, process it according to programmed logical and arithmetical rules, store and output data/ or calculate results. Hence, its purpose is to speed up problem solving and increase productivity regardless of its classification: super computer mainframes, mini- computers and macro-computer (Popoola, 2002). However, the library and information professionals in all the sections in the Nnamdi Azikwe University Library uses computer system for their library information works.

Nsukka. Nnamdi Azikwe Library is a University library established in University of Nigeria Nsukka. University of Nigeria is a Federal owned University in Eastern part of Nigeria. The current (new) Nnamdi Azikwe Library is referred to as the biggest library in West Africa, and was opened on June 2009. The new library features digital cataloguing and Campus digital connect library, which was adopted by MTN. Its Collections (print and non-print) is about 735,157 volumes of book and 99760 bound volumes of Journals and the reading facilities capacity is above 15000. It is one of the one depositories library in Nigeria and growing collection of publication by international bodies/ Organization such as United Nation, UNESCO, just among others. The sections in Nnamdi Azikwe Library are; United Nation depository section, Africana, Cataloguing and Classification section, Collection Development section, Documentation section, Serial/ News paper section, Data base section, Circulation section, Reference section, Reserved section, Consultation section, Guidance and Counseling section.

## 2. 0. Computer System and Library Information Works

The use of computer in the library for information works can be grouped into four such as word processing, spreadsheet, data management and networking of information

**2.1. Word processing:** words processing as part of information works in the library it includes; create, edit, format, store, and print text materials or documents. With the use of computer system, these activities or tasks are empowered by words processing softwares with the use of keyboard keys and mouse/ control pad. Among the common word processing applications programmes which are use for library information works are Microsoft words, Corel wordperfect, Lotus Smart Suite and Microsystems' Star office. It is very imperative to note that, Word processing software allows information workers to maneuver through a document and delete, insert, and replace text, the

principal correction tasks. It also offers such additional features as creating, editing, formatting, saving and printing.

**2.2. Spreadsheet:** most library activities involve a grid of rows and columns which can be used to produce reports and financial projections. With the use of computer, the spreadsheet allows library information workers to electronically create tables, financial schedules by entry data and formulas into rows and columns arranged as a grid on a display screen. Among the principal spreadsheets application programmes are Microsoft Excel, Corel Quattro Pro, and Lotus 1-2-3. Spreadsheet are used in library information works for maintaining numbers of materials used or consulted, tracking acquisition, creating and tracking budgets, calculating money, estimating project cost, just among others. It is worthy to note that, with spreadsheet, when data is charged in on cell, values in other cells in the spreadsheet are automatically recalculated.

**2.3. Database Management:** Database is a collection of interrelated files in a computer system. In library information work, database management is very important. This is because its helps to organized data/ information in tables, records and field, it aid linking of records, in querying and displaying records and putting search results to use such as; saving, formatting, printing, copying and transmitting of information.

**2.4. Information Network:** This involves linking of computer system to together both physical and virtual for the purpose of selection, collection, discussion, teaching, downloading, uploading, shearing and transferring of information. This practice can be carried out among the library and information workers or between the library clientele and the library and information professionals in the library.

### **3.0. Brief Literature Review**

With the emphasis on the challenges of computer system in information works, the use of computer system for word processing, spreadsheet and data management attracted some challenges that could affect the activities of library information works. According to Young (2009), with the use of computer system, some information prepared in document format change and become unreadable after a longtime. That is; Microsoft word information that is created today will not be readable in the next few years. Asogwa (2003) opined that information prepared in computer system deteriorates overtime especially when it is not in compliance with the generic document standards such as Extensive Make-up Language (XML) and the Standard Generalized Mark-up Language (SGNL). Consequently, the need to guarantee technological access to information is one of the major problems posed by computer system.

More to these, Haritz (2002), noted that, information stored in computer system can be subject to undetectable changes, unless precautions are taken because it is possible for an electronic files to be altered without any way of detecting that a change has occurred, which might cause evidentiary status of the information to be compromised. Hence, according Kennedy (2012), the context of an electronic information and its relation to other records can easily be lost, when information are

documented at the time of creation with different version control. Davis (2006) mentioned that, capturing totality of electronic information can be expensive. Mean while, appropriate contextual information is needed for future or later use.

Moreover, according to Hedstorm (2008), some information workers are incompetent on how to word process, spreadsheet and managing of database and the product of information technologist, coupled with continuous changes in technological and systems. This is a great challenge. Furthermore, Philip (2002), asserted that, without standard computer system and appropriate software for managing information, most information work will not be carry out effectively. Likewise, Dollar (2012) asserted that, power failure, virus attack, key board malfunction, slow booting, jumping of cursor, old age of part of computer system, sticky key, constant blinking of computer screen light could affect the using of computer system for information work.

#### **4.0. Statement of the problem**

With the increase in information needs in the academic community for learning, teaching and research which stirred up by information glut; the use of computer system for library information works is very essential to speed up problem solving, store large amount of information and easy accessibility for use, as well to increase of productivity. However, it is worthy to note that, using computer system in library information work might embrace some challenges. This justifies the present study and the problem of the study put in question is; what are the challenges the library information workers faced when using computer system in their offices.

#### **5.0. Research Objectives**

The following objectives guide the study.

1. To identify the challenges library information workers faced when using computer system.
2. To know the causes of the challenges faced by the library information workers when using computer system.
3. To know the ways forward to the challenges faced by the library information workers when using computer system.

#### **6.0. Significance of the Study**

The findings of the study will help library information workers to get acquainted with different challenges associated with the use of computer system, its causes and the ways forward.

#### **7.0. Research Methodology**

Descriptive survey design was adopted for the study. Questionnaire, literature search and personal interview were used as instrument of data collection. Forty (40) copies of questionnaires were administered to the library information workers at Nnmadi Azikwe Library, Nsukka. The questionnaire consists of table 1, 2, 3 & 4. Table 1, were design to know if the library staff are computer literate and use computer for library information works. 34 agreed to be computer literate and use computer for their library information works hence, their questionnaires were used to determine the challenges faced by library information workers when using computer system (table

2). Simple percentage were used for the data analysis where 50% and above were considered agreed, while below 50% were considered disagreed. Furthermore, to identify the causes that is (table 3) and ways forward which is (table 4) literatures, computer maintenance and training institutes' resources persons were consulted at Pagelink System Technology School, Port Harcourt, Of truth internet café and computer training center, Anyigba, Excel Computer and information center, Nsukka, Nigeria.

## **8.0 Data Analysis**

### **8.1. Computer literate and Use computer for library information works**

From table 1, the respondents with "Yes" option has 34 (85%) while, those with "No" option has 6(15%). It can be concluded that, those that are computer literate and use computer for library information works are more. So, they can be use to determine the challenges faced by library information workers when using computer system.

### **8.2. Challenges faced when using Computer System for Library Information Works**

From table 2, it is observed that, almost all the itemized challenges are faced by the library information workers when using computer system. However, "virus attacked", "slow booting" ranked most with 88.2% followed by "sticky key" with 85.3%, "jumping of cursor during typing" has 82.4%. While, "Problem of inferior computer parts" and "Lack of competent practitioners", has 41.2% and 44.1% respectively are not considered challenges because they are less than 50%.

## **9.0. Discussion of the findings**

The data earlier presented shows that bane of using computer system for library information works are all itemized challenges except lack of competent practitioners and problem of inferior computer parts. However, the challenges are; information change and become unreadable after some time has suggested by Young (2009). Dollar (2012) noted power failure, virus attack, sticky keys, blinking of computer screen light. Philip (2002) noted trail version of soft wares. Davis (2006) observed capturing of context of information is expensive, Asogwa (2002) noted not using Standard Extensive Mark-up Language (XML) and Standard Generalized Mark Language (SGNL) can make information unreadable, Haritz (2002) noted undetectable changes, Kennedy (2012) noted loss of information context on related information. Hence, before, computer system can be use for effective library information works such as word processing, spreadsheet and database management all the agreed challenges most be conscious of, and eliminated as the case may be.

## **10.0. Summary of the Major Findings**

The following is the summary of the findings;

It was discovered that, out off 17 itemized challenges, 15 were agreed by library information workers as the challenges they faced when using computer system for library information works in their offices. These are: Virus attack, Slow booting, Sticky keys, Jumping of cursor when typing, Undetectable changes of stored information in computer system, Contact blinking of computer

screen light, Context of information and its relation to other information can easily be lost, Loss of information stored in computer hard drive, Loss of information on networked computers, Using of trial version of softwares, Undetectable copy and print of information from computer system, Sudden power failure, Network computer not connected, Capturing of information context can be expensive, Unable to read stored information in computer system after some time. While, lack of competent practitioners and problem of inferior computer parts are not regarded as challenges.

### **11.0. Implication of the Study**

The findings of the study show that, there are a lot of challenges, the library information workers faced when using computer system. For effective using of computer system for word processing, spreadsheet and database management in library information works for high productivity, storage and retrieving of information and problem solving as reflected by Sawyer (2008), the challenges needs to be death with. Hence, failure on the side of library staff to maintain the findings- causes and ways forward to each of the challenges will affect their role as library information workers in using computer system

### **12.0. Conclusion**

It can be concluded that, computer system is an important electronic device that can use for library information works such as word processing, spreadsheet, database management and networking of information in this contemporary time of information explosion for speed problem solving, maintaining accurate statistic, and identification and dissemination of information. However, before it can be effectively use for library information works, the causes of its challenges most be identify which are shown in table 3.

### **14.0. Recommendations /Ways forward**

For library and information professionals to ensure university libraries achieve their primary aim of been established which are learning, teaching and research with the use of computer system to carried out their information works the identified causes of the challenges of using computer system must be overcome. Hence, recommendations/ ways forward are proffered to each of the challenges in table 4.

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**Table1: Computer literate and Use computer for library information works**

Items	Frequency	Percentage
Yes	34	85%
No	6	15%
<b>Total</b>	<b>40</b>	<b>100%</b>

*Source: Field Survey*

**Table 2: Challenges faced when using Computer System for Library Information Works**

<b>Challenges</b>	<b>Freq</b>	<b>%</b>	<b>Rank</b>	<b>Decision</b>
Virus attack	30	88.2	1 <sup>st</sup>	Agreed
Slow booting	30	88.2	1 <sup>st</sup>	Agreed
Sticky keys	29	85.3	2 <sup>nd</sup>	Agreed
Jumping of cursor when typing	28	82.4	3 <sup>rd</sup>	Agreed
Undetectable changes of stored information in computer system	27	79.4	4 <sup>th</sup>	Agreed
Contact blinking of computer screen light	26	76.5	5 <sup>th</sup>	Agreed
Context of information and its relation to other information can easily be lost	25	73.5	6 <sup>th</sup>	Agreed
Loss of information stored in computer hard drive	24	70.6	7 <sup>th</sup>	Agreed
Loss of information on networked computers	23	67.6	8 <sup>th</sup>	Agreed
Using of trial version of softwares	22	64.7	9 <sup>th</sup>	Agreed
Undetectable copy and print of information from computer system	21	61.8	10 <sup>th</sup>	Agreed
Sudden power failure	19	55.9	11th	Agreed
Network computer not connected	18	52.9	12th	Agreed
Capturing of information context can be expensive	18	52.9	12th	Agreed
Unable to read stored information in computer system after some time	17	50.0	13th	Agreed
Lack of competent practitioners	15	44.1	14th	Disagreed
Problem of inferior computer parts	14	41.2	15th	Disagreed

**Source: Field Survey**    **Key:** Frq= Frequency, %= Percentage



**Table 3: Causes of the Challenges faced by Library Information Workers when using Computer System**

Challenges	Causes
Virus attack	*using of virus infected storage devices such as flash drive *login and copy of non-authorized online information sources
Slow booting	*computer hard drive is full or small in size *computer operating system is affected.
Sticky keys	*damage of key board panel *damage of some part of key board on mother board * wrong setting of internal key board and cursor
Jumping of cursor during typing	*damage of key board * wrong setting of internal key board and cursor
Undetectable changes of stored information in computer system	*virus attack the information *when computer is not password * when common/ information title is use, as file name *when data/ documents are not physically locked *not shutting down computer when not in use
Contact blinking of computer screen light	*old age of computer screen * damage of computer screen fluorescent *when the computer system is connected/plug to power directly
Context of information and its relation to other information can easily be lost	*documenting of information with different version control
Loss of information stored in computer hard drive	*storing of different information with the same file name *virus attack the files *storing information with non-generic symbol such as < > ^ # //
Loss of information on networked computers	*sever not properly connected *connection error *improper network of computer system *improper store of information
Using of trial version of soft wares	*original soft ware are expensive *mismanagement of funds *embezzlement of funds
Undetectable copy and print of information from computer system	*when computer is not password * when common/ information title is use, as file name *when data/ documents are not physically locked *not shutting down computer when not in use.
Sudden power failure	*when computer is not properly connected to power sources *when the computer charging point is faulty *when the computer system is connected/plug to power directly *when computer microprocessor is over heating
Network computers not connected	*improper use of network cables *breaks in transmission *signal failure *wrong of network topology
Capturing of information context can be expensive	*when information are not properly created at the initial stage
Unable to read stored information in computer system after some time	*when Microsoft application use is expired *if information created in lower version are open in higher version *if information not prepare with Generic document standard such as XML, SGML

**Sources: Field Survey and Literature Search**

**Table 4: Recommendations/ Ways forward on Challenges faced by Library Information Workers when using Computer System**

Challenges	Recommendations/ Ways forward
Virus attack	*install original anti-virus in the computer system *scan every external storage devices before transfer information therein.
Slow booting	*use of large capacity hard drive *store information on desktop environment *use computer booting operating system soft ware for cleaning and repair damage files that are invisible
Sticky keys	*computer system should be protected against dust. *the key board, should be change/replace with new one *the internal key board should be set appropriately
Jumping of cursor during typing	*the key board, should be change/replace with new one *the internal key board should be set appropriately *computer system should be protected against dust.
Undetectable changes of stored information	*activate anti-virus *always password confidential information/ the computer system *give all information distinct files name
Contact blinking of computer screen light	*do not plug computer system directly to power sources, always use UPS and stabilizer *consult computer maintenance experts to replace the affected screen fluorescent.
Context of information with others can easily be lost	*document information with the same version control *use appropriate metadata to link information, copy and paste information at appropriate folder and save with appropriate file name
Loss of information stored in computer hard drive	*related information should be store in related computer folder but with different files name *activate of original anti-virus *don't store any information with such symbol < > ^ # //
Loss of information on networked computers	*severs should always connected to appropriate ISP- Internet Service Provider *appropriate codes should be use for connectivity * information should be properly store in a place like my network in the computer system.
Using of trial version of soft wares	*the parent organization management should endeavor to purchase original soft ware needed from reputable vendors *the library management should be careful not miss-manage or embezzle the allocated funds
Undetectable copy and print of information from computer	*activate anti-virus *always password confidential information *give each files distinct files name * remove the printed cable * erase or clean the memory of the printer after usage.
Sudden power failure	*proper connection of computer system to power sources with stabilizer or UPS *faulty charging point should be replace *don't connect computer to system directly *use and store computer system in a well ventilated environment *when the computer system is overheating switch it off and on after a while.
Network computers not connected	*internal internet hard ware should be checked and change if need be *appropriate cables such as coaxial, fibre optic should be use for networking computers *there should be steady power supply *computer server should be mounted in a signal sensitive area or location
Capturing of information Context can be expensive	*all information should be properly created/generated at the initial stage
Unable to read stored information in computer system after sometime	*use original Microsoft application programme *use appropriate Microsoft office to open files *always appropriately create and store information

**Sources: Field Survey and Literature Search**