

# Technological Methods and Security of Information Resources in Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education

**Onyinyechi O. Opara**

<https://orcid.org/0009-0006-3132-3525>  
Ignatius Ajuru University of Education,  
Port Harcourt, Nigeria  
onyinyechiopara48@gmail.com

**Onyema Nsirim**

<https://orcid.org/0000-0002-9386-1699>  
Ignatius Ajuru University of Education,  
Port Harcourt, Nigeria  
onyema.nsirim@iaue.edu.ng

**Princess Lilian Irokah**

<https://orcid.org/0009-0003-6327-0956>  
Abia State Polytechnic,  
Aba, Nigeria  
princesslilian13@yahoo.com

## Abstract

This study investigates technological methods and security of information resources at Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education. The study adopted a descriptive research survey design. The population of the study was 32 library staff comprising professionals and para-professionals in Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education. A census sampling technique was used to select the entire population. The questionnaire was used for data collection and 27 copies were found valid for data analysis. The study was analysed using simple percentages and mean and standard deviation were applied. The study revealed that the information resources available in Dame Patience Goodluck Jonathan Automated Library comprise of books, e-books, journals, e-journals, databases, encyclopaedias, the bible, and fiction. The security threats to information resources were mutilation, theft, microbes, humidity, and unauthorised access. The technological methods adopted to secure library resources were computers and burglary protection. Several challenges were found to militate against the security of information resources in the library such as lack of funds to procure security equipment, poor adoption of technological methods, lack of state-of-the-art infrastructure, and nonchalant



Southern African Journal of Security  
<https://unisapressjournals.co.za/index.php/SAJS>  
Volume 1 | 2023 | #14506 | 17 pages

<https://doi.org/10.25159/3005-4222/14506>  
ISSN 3005-4222 (Online)  
© The Author(s) 2023



Published by Unisa Press. This is an Open Access article distributed under the terms of the Creative Commons Attribution-ShareAlike 4.0 International License (<https://creativecommons.org/licenses/by-sa/4.0/>)

attitudes of staff towards security measures to protect information resources. The study recommended the adoption of technologies such as CCTV, biometrics, and electronic doors in the security of library resources and training staff on their usage.

**Keywords:** technological methods; security, information resources; CCTV; electronic doors; automated library; Ignatius Ajuru University of Education

## Introduction

In this era of digital technologies and the knowledge economy, the need for technological methods and security of information resources in university libraries become essential. University libraries continue to acquire information resources to meet the diverse information needs of users through purchases, donations and subscriptions to electronic information resources. These information resources are meant to cater to the organisational needs of the institution and anticipated users. The information resources are an integral part of the university library, where the library staff satisfies user's needs by sourcing the materials according to their format. This means that there is no library that could survive without the application of information resources in their work operations. Information resources are basically sourced through different information that can be sought to meet the information needs of the users. This could comprise of media, intellectual content, human knowledge, ideas, opinions, or feelings that are preserved and secured. The information resources found in libraries have been classified into print, non-print/electronic, and digital information resources. Print information resources include books, serials, encyclopaedias, dictionaries, handbooks, almanacs, and directories. Non-print information resources are items such as compact disks, audio-visuals, tapes, slides, microfilms, and microfiche (Abubakar 2016).

According to Xiaodong (2017), the application of computer technology in library resources management marks the progress and development of an era. Dating from the emergence of libraries, the management of library resources has undergone a long period of development. As society moved forward and an abundance of resources appeared, it was increasingly difficult and challenging for the management and security of library resources. Managing library resources with traditional methods could no longer be effective. Thus, the intelligent management era of computer technology applications was an inexorable trend in the development of library management (Xiaodong 2017). Promoting the development of modernisation, the application of computer technology also enhances the modernisation level of preservation and security of library resources. To buttress this study further, it is imperative that the issue of security be considered. Security of library resources is the protection of library resources from unauthorised access, use, disclosure, disruption, modification, or destruction to provide confidentiality, integrity, and availability. Security of information resources and services are integral library operations that can make libraries remain perpetually useful. The essence of securing library resources is to preserve them for posterity and damage. Thus, Bessy et al. (2014) noted that preservation includes managerial and financial

considerations, including storage and accommodation provisions, staffing levels, policies, techniques, and methods involved in preserving library and archival materials and their information. It was noted that to secure information resources, in the medieval era, information resources were chained to open shapes, to keep them safe, and avoid theft, mutilation, underlining of sentences, writing words on the margin, joining, and sometimes ripping pages from books and other delinquencies. However, Aina (2013) and Igbeka (2008) posited that the advent of Information Communication Technology (ICT) now made libraries secure their information resources through electronic system methods. Information in printed format can now be recorded on computers using compact disks (CDs), diskettes, flash drives, and digitisation of library information resources all need an antivirus to secure them from viruses and damage. Abubakar (2016) identified the use of CCTV, RFID technology, security doors, and digitisation as some of the modern technologies used in the security of library resources. Technological methods provide new strategies that will overcome security issues associated with the safety of the library's collection. As such, securing and protecting the collection can help libraries provide an effective service in response to the information needs of the university community. Thus, there is a need to investigate technological methods and the preservation of information resources.

## Statement of the Problem

Library resources constitute an essential part of the university library as they are the major reasons users approach the library for information. They continue to increase in multiple formats and if they are not properly secured, there can be no information resources to offer in the university library. However, university libraries and other information centres are faced with the challenge of securing their hybrid resources which include print and electronic resources. The development of technologies is therefore imperative to pinpoint issues for the security of library resources in the university library. Nevertheless, university libraries have adopted security measures to ensure the security of information resources. This includes the use of fire alarms, fire extinguishers, security staff, deacidification etc. Yet, it seems that the security of information resources in the library was not effective. Thus, to effectively secure library resources, there is a need for the adoption of modern technologies such as CCTV, RFID/barcode technology, security doors, antivirus, passwords, etc. Although studies have been carried out to unravel the application of technologies in the security of information resources in the library none to the researchers' knowledge and from the literature reviewed, has been carried out to specifically investigate the technological methods and security of information resources in Donald Ekong library, University of Port Harcourt. The study therefore sought to fill this gap.

## Objectives of the Study

The main objective of the study is to determine the technological methods and security of information resources in Dame Patience Goodluck Jonathan Automated Library,

Ignatius Ajuru University of Education. To buttress this study further, the following research questions were used to guide the study, namely:

- What are the types of information resources available?
- What are the security threats militating against information resources?
- What are the technological methods adopted in the library for the security of information resources?
- What are the challenges faced in the security of information resources?

## Literature Review

### **Information Resources**

Information resources are basically sources of information that constitute a major part of the library. Traditionally these resources were mostly books, journals, newspapers, and other editorials. However with the advent of the internet, digital resources have become prevalent. Consequently, libraries are repositories and access points for print, audio, and visual materials in numerous formats, including maps, print documents, microform (microform/microfiche), CDs, cassettes, videotapes, DVDs, video, e-books, audiobooks and many other electronic resources (Elejene et al., 2022). Libraries often provide facilities to access their electronic resources and the internet. 21st-century libraries are increasingly being redefined as places to get unrestricted access to information in many formats and from many sources. They are extending services beyond the physical walls of a building, by providing material accessible by electronic means, and by providing the assistance of librarians in navigating and analysing tremendous amounts of information with a variety of digital tools. Because they serve such a diverse range of people, libraries maintain collections that can span the spectrum of human knowledge and opinions. Collections include printed materials such as reference sets, paperback novels, biographies, children's and young adult literature, histories, newspapers, and magazines. They usually also contain photographs, maps, art reproductions, sound recordings, and video recordings. Information resources according to Ibenne (2018) are obtainable in two broad formats consisting of print and non-print media. However, they could be print resources, non-print resources, and electronic resources.

Print resources may include information carriers that are printed as text on paper examples include physical books, journals magazines, etc. Non-print resources are information contained in media other than books, that contain text, sound, visuals, graphics, animation, etc. They can be projectile or non-projectile. Electronic resources are resources produced or converted into electronic form and can be accessed via compact disk read-only memory (CD-ROM) and DVD databases, online databases, e-journals, e-books, etc. Ibenne (2018) also categorised information resources into white and grey literature. According to him, conventional materials which are materials published and sold for profit are white literature while grey literature is unconventional

materials that is, materials that although carrying information, are not published or yet to be published for commercial purposes. They include reports, memoranda, newsletters, working papers, patent information, thesis and dissertations, police records, bulletins, fact sheets, and conference proceedings. White literature may be secondary sources while grey literature may be primary sources.

A successful educational system depends exhaustively on the accessibility and utilisation of information sources and services. In this regard, academic libraries provide knowledge and information resources for teaching, learning, and research. Academic libraries are rapidly supporting and encouraging the adoption of new forms of teaching and learning exercises (Jamil, Tariq, and Jamil 2013). According to Ezeala and Yusuff (2011), it is natural for human beings to evaluate things, events, and people around them. Libraries are also included in this practice. They need to periodically measure the resources and services of their libraries to ensure that they are meeting the set objectives of the library. Regarding the accessibility and utilisation of library resources, many authors have highlighted that the library must ensure the required and relevant resources, adequate storage for the collection, and strategies for accessibility of these resources through classification, cataloguing, and other arrangements. Efficient and effective provision of library resources can have a positive impact on academic achievement.

Library information resources can be in both printed and electronic formats including textbooks, journals, indexes, abstracts, newspapers, magazines, reports, CD-ROM databases, internet, email, video tapes/cassettes, diskettes, computers, and microforms added to this are electronic resources such as functional computers, photocopying machines, CDROM, microforms, microform readers, fax machines, internet, local area network, radio messages, telephone, lighting, and computer workstations for library users which must be measured periodically by librarians to ensure that the resources and services of their libraries, as a way of ensuring that they are meeting the set objectives of the library. In recent years, many of the newly developed information technologies for database and information/document management can be utilised in knowledge management, such as data warehousing, data mining, text mining, content management, knowledge extraction, knowledge mapping, groupware, information visualisation, etc.

### Security Threat of Information Resources

Libraries and information centres build their collection by purchasing books from credible suppliers/publishers, donations as well and subscriptions to electronic information resources. These resources according to Igwela and Nsirim (2018) are meant to cater to the information needs of the library patrons. Adeowu (2013) stated that threats to information resources in libraries include theft, mutilation, hiding, other disruptive acts, and bad attitudes towards library collections. Theft and mutilation of information resources, natural calamities, and technical hiccups are some of the threats that pose a grave danger to the library's collection. The safety of information materials must be heightened to preserve valuable information materials for the present and future

user generation of the library. Gupta and Madhusudan (2018) outlined the security threat of library materials' security in academic libraries to include theft and mutilation, vandalism, disruptive (juvenile) behaviour, book mis-shelving, mutilation by humidity and microbes, damage and disaster and misdeeds of staff, users among other reasons.

### Technological Methods and Security of Information Resources

Security is the preservation of confidentiality, integrity, and availability of information, in addition to other properties, such as authenticity, accountability, non-repudiation, and reliability can also be involved. A good library security system must be authentic. Information security in libraries is necessary to ensure that information-bearing materials be it in electronic or print forms are genuine. The evolution of telecommunication provides suitable means and ways of reinforcing any physical security system of the library. The major element of any electronic or telecommunication security includes burglary protection, collection security, electronic access control, and video surveillance. These can go a very long way to re-enforce any physical security system.

#### **Burglary Protection**

There are different electronic systems that can be employed to prevent burglary in the library building. The most common one is the sensor. Sensors can be active or passive, covert or visible, volumetric or line detection or they can be defined by their mode of application (Oketch 2019). The experts and the library authority can get what is appropriate for their situation. Door and window contacts can be used to trigger an alarm whenever library doors or windows are opened without authorisation and can be attached to recess within the door or window frame to detect movement.

#### **Electronic Collection Security**

Many ways have been developed for securing library collection electronically. These ensure that no material leaves the library without being checked out. These systems always contain a security device that is placed on the materials or information resources such as books, magazines, videos and audio tapes, CDs, DVDs etc. This device works with a detection device that is typically located at the exit of the library. The detection device must be safe from magnetic media and usually have audible or visible alarms which can, for example, be a voice alarm. There are two major methods currently used for detection which include Electromagnetic and Radio Frequency Identification (RFID). RFID solutions are being designed to improve library operations and efficiency (Baker 2012).

#### **Electronic Access Control**

Library building's electronic access technology is the best system for controlling access to library buildings, facilities, resources, and rooms. Authorised persons are allowed to enter a controlled area by automatically unlocking doors with the use of plastic access

cards. These cards are inexpensive, and software can be programmed to restrict access to certain areas while recording the time and location of authorised and unauthorised access. Accessibility functions can be integrated into photo ID cards for library employees, and these can be used as temporary keys for library clientele to give them access to restricted areas. The electronic access system can be used for monitoring users' time and attendance, and security patrols of property and can limit access to sensitive areas, information, and equipment. Library authorities and experts in this area can work together to determine the appropriate electronic access system they need (Oketch 2019). An electronic device that emits a loud noise when someone attempts to make unauthorised entry to a building or other premises is called a burglar alarm system. A burglar alarm contains an electric circuit connected to an entryway, with a switch that opens or closes the circuit. The switch detects any act of intrusion which might include the opening or closing of a window and/or door. This kind of alarm is built into an entryway.

### **Radio-Frequency Identification System (RFID)**

It is an important tool to bring an efficient, fast, secure, and user-friendly approach to material transactions used in library circulation operations and theft detection systems. RFID-based systems are observed far beyond general security as these can act as tracking systems. This combines security with more efficient tracking of materials throughout the library and faster charge and discharge of inventory and materials handling (Gupta and Madhusudhan 2017). RFID technology could be the future of services provided by libraries, but its high cost and implementation have been encountered as the primary challenge in its proliferation.

### **Biometric System**

This method of identification with the use of biometric features such as retina or fingerprints has been widely used nowadays for various security purposes. A biometric system is a technology that measures, analyses, and verifies physiological and biological parameters of a person, which are unique to everyone, for example, hand and earlobe geometry, fingerprints, retina and iris patterns, facial features, gait, typing pattern, voice recognition etc (Gupta and Madhusudhan 2017).

### **Access Control System**

In the fields of physical security and information security, Access Control (AC) is the selective restriction of access to a place or other resource. The term AC control refers to the practice of restricting entrance to a property, a building, or a room for authorised persons. Physical AC can be achieved by a human (a guard, bouncer, or receptionist), through mechanical means such as locks and keys, or through technological means such as access control systems like the mantrap.

### **X-ray Security Machine**

There are a few common devices used for security that involve X-rays. They are generally regulated by federal or State agencies. The walk-through arch where a magnetic field is used to determine if you have any metals on or in your body does not involve X-rays.

### **Robot Security System (RSS)**

The robotic system performs some useful tasks that a human either cannot or would prefer not to do—in a better, cheaper, safer, and more reliable way.

### **Electronic Security System**

With the boom in ICT in every field of life, the library and all its concerned areas also remained untouched to provide efficient services to its patron. On one hand, these services have overhauled all the library operations and the professional routine, but the addition of misdeeds by miscreants using electronics has also increased many folds. Ongoing losses in libraries due to the lack of funding for proper electronic systems and proper training changed the expectations of staff responsibilities, with more emphasis placed on monitoring and policing patrons. This has the ability to negatively impact staff productivity and ultimately job satisfaction.

### **Closed-Circuit Television (CCTV)**

CCTV cameras cover a large portion of and record the activities in each space at a given time. The library is a hub of different types of services involving various types of activities which often need to be recorded for scrutiny and other purposes. Depending upon the use and area, a library utilises a CCTV system which may employ one or two cameras at specific places.

### **Challenges of Security of Information Resources**

An open-ended question should also be addressed to ascertain the challenges faced by the various libraries in their attempt to curb such delinquent acts in the bud. The following are the few possible reasons for such a situation. Gartner (2016) proclaimed that the application of these modern technologies in managing resources can fundamentally change society. Although libraries have shown great interest in the implementation of modern technologies, technological innovation has always been a key challenge in storing and managing records. Abubakar (2020) investigated the availability and accessibility of information resources for pharmaceutical science students at the University of Jos. The study adopted a survey as the research design, with a population of 549 undergraduate students of pharmaceutical science from which 55 samples were drawn to represent the population. The questionnaire was the instrument for data collection and a pilot study was conducted to ensure its reliability before it was finally administered. The data collected was analysed using simple descriptive statistics, frequency distribution, percentages, and mean. The findings



revealed that books, journals, electronic resources etc. were available. The study recommended that the library should sustain the available and accessible information resources, and more information resources should be acquired and given accessibility to the students because of their usefulness to the students.

Akor (2013) investigated the security management for the prevention of book thefts in university libraries at Benue State University Library, Makurdi, Benue State, Nigeria—serving as a case study. The survey research method was employed. The population of the study was 48 comprising 20 professional and 28 para-professional staff in the library. Questionnaires are the main instrument for data collection. Frequency, tables, and percentages are the main statistical tools used for data analysis. Results of the analysis showed that the security threat of mutilation due to inadequate library materials, tearing of book page(s) off, removing of the book jacket cover, and hiding of books under their clothes and their pockets. The study also recommends that university management should provide adequate library materials to meet the information needs of their users. Masenya (2020) investigated modern technologies and the management of records in libraries. A descriptive research survey was adopted using a purposive sampling technique to collect data. The study revealed that technologies such as databases, blockchain, cloud computing, and the Internet of Things were used in managing their records, these technologies were being slowly adopted due to a lack of information technology infrastructure, technical support, knowledge, and skills. Gupta and Madhusudan (2018) in their work: “Security of Library Materials: Challenges and the Solutions”, stated modern technologies applied to the security of library resources to electronic security systems include Closed Circuit Television (CCTV), electromagnetic system, burglar alarm systems etc. Similarly, Abubakar (2016) investigated the methods for the preservation and security of information resources in academic libraries in Niger State, Nigeria. The findings revealed that the academic libraries in Niger State are yet to embrace modern technologies such as RFID, security doors, CCTV, digitisation, and migration in securing and preserving their information resources. However, they used antivirus software, repairs, binding, and environmental control to preserve library resources. The study recommended that libraries should endeavour to have written policies on all aspects of the preservation and security of information resources, upgrade and maintain facilities such as binderies, air conditioning systems, fire prevention equipment etc. including the adoption of digital preservation methods. Shafack (2021) investigated the challenges faced in securing information resources in public university libraries in Anglophone Cameroon. The research design used for the study is a survey with data collecting instruments made up of a questionnaire and an interview guide from library staff and library administrators respectively. The study revealed that theft, mutilation, and unauthorised access to libraries and their resources constitute serious problems that affect users. The study recommended that libraries with physical security systems should reinforce these systems with electronic security systems.

## Methodology

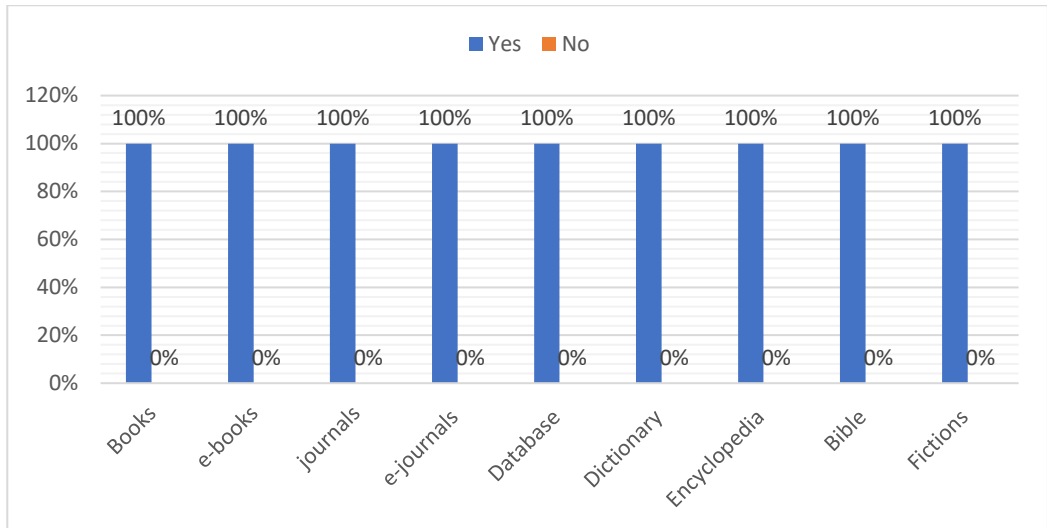
The study adopted the quantitative research approach using a descriptive research design. The population of the study comprises of 34 library staff in the categories of professionals (14) and para-professionals (18) situated at the Dame Patience Goodluck Jonathan Automated Library. A census sampling technique was used to select the entire population. The questionnaire being a method of data collection was applied in this study. During data collection, 27 copies of the questionnaires were found valid for data analysis. Due to the small size of the population, the entire population was used as a sample size. The collected data were analysed using simple percentages, mean, and standard deviation. In this study, the researchers ensured that they complied with ethical standards by seeking the consent of participants before they participated in the study. Also, the instruments used in data collection were given to experts in the field of library and information science profession for consistency and conformity to standards in research. All consulted sources were cited to ensure ethical standards were maintained. The researchers administered the data on their own to avoid disorganisation of the instruments and easy retrieval from respondents. The entire study, along with data collection and analysis was carried out within two months. The findings obtained in the study are presented in the figures and table below.

## Results and Discussion

### **Research Question 1**

What are the types of information resources in Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education?

In this segment, respondents were asked to indicate the types of information resources available in Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education, Port Harcourt. The findings obtained are presented in Figure 1 below.



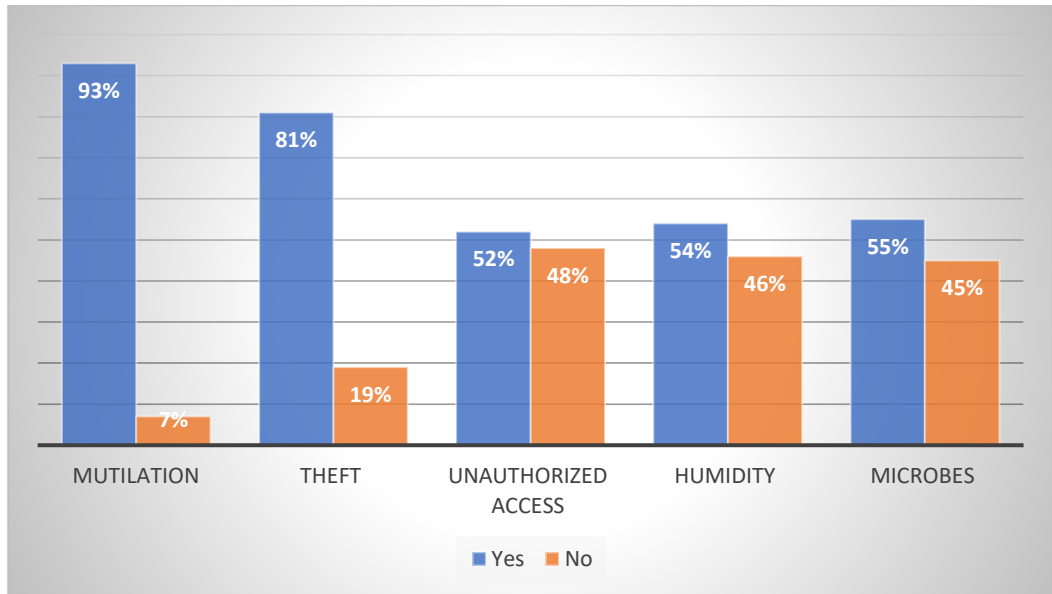
**Figure 1:** Types of Information Resources

The result in Figure 1 indicate that all the respondents agreed that Books (100%), e-books (100%), journals (100%), e-journals (100%), database (100%), encyclopedia (100%), Bible (100%) and Fictions (100%) were available at the library. This indicates that budgetary allocation is made to acquire the available information resources to support users’ information needs. One major reason that could necessitate acquiring these information resources is that the institution is private and different philanthropic organisations donate funds to the institution.

**Research Question 2**

What are the security threats that militate against the information resources at the Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education?

In this segment, respondents were asked to indicate the security threats that militate against information resources in Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education, Port Harcourt.



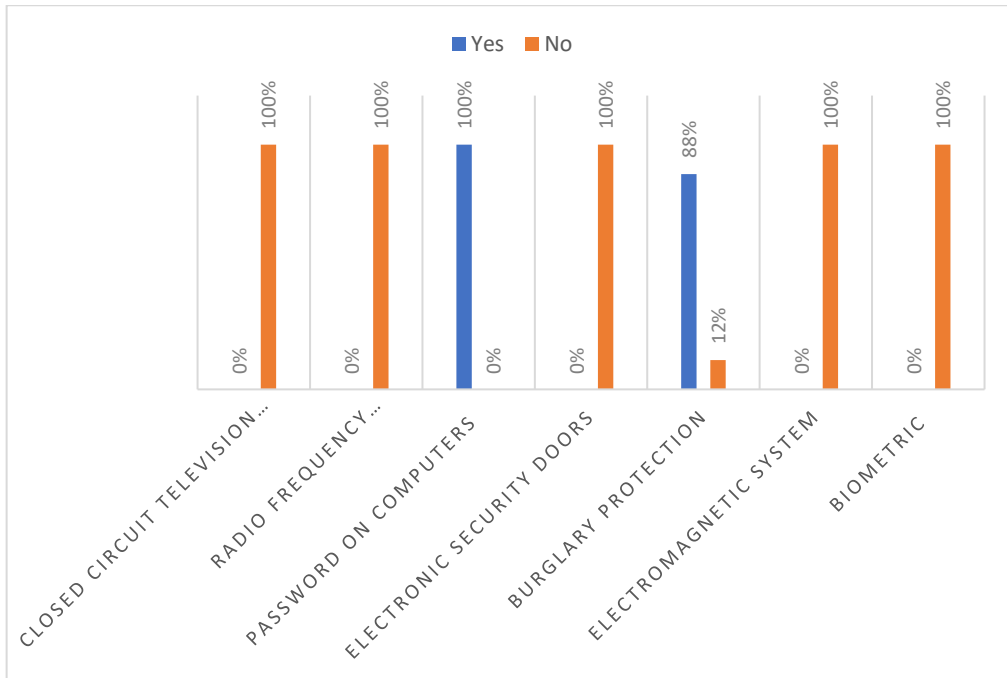
**Figure 2:** Security Threats that Militating Against the Information Resources

The results in Figure 2 indicate that several security threats that militate against information resources cut across mutilation (93%), theft (81%), microbes (55%), humidity (54%), and unauthorised access (52%). This shows that the identified security threats could lead to a shortage of library resources which could negatively affect service delivery in the library. There is no organisation that does not have threats but the ability to curb or curtail them becomes essential, hence the need to devise measures on how some of the identified threats be eradicated. Planning and implementation are key factors in eradicating threats in the organisation.

### Research Question 3

What are the technological methods adopted in the library for the security of information resources in Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education?

In this segment, respondents were asked about the technological methods in the security of information resources in Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education, Port Harcourt. Findings obtained are presented below.



**Figure 3:** Technological Methods Adopted in the Library

The result shows that the technological methods adopted in the security of library resources are computers (100%) and burglary protection (88%). On the other hand, the respondents disagreed that CCTV (100%), Radio Frequency Identification (100%), electronic security doors (100%), electromagnetic systems (100%) and biometrics (100%) were used to secure information resources in the library.

**Research Question 4**

What are the challenges faced in the security of information resources in Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education?

In this portion, respondents were asked to indicate the challenges that the Dame Patience Goodluck Jonathan Automated Library faces in terms of the security of information resources.

**Table 1:** Summary of mean and standard deviation on the challenges faced in the security of information resources in Dame Patience Goodluck Jonathan Automated Library, Ignatius Ajuru University of Education, Port Harcourt.

**Table 1:** Challenges Faced in the Security of Information

S/N	Challenges faced in the security of information resources are:	$\bar{x}$	$\pm$	Decision
1	Poor adoption of technological methods	3.4	3.5	Agree
2	Lack of funds to procure security equipment	3.5	3.5	Agree
3	Lack of state-of-the-art-infrastructure	3.4	3.4	Agree
4	Non-challenge attitudes of staff towards security	2.7	2.7	Agree
5	No punishment for offenders	2.4	2.3	Agree

The results in Table 1 indicate that certain challenges faced in the security of information resources in the library are lack of funds to procure security equipment (3.5), poor adoption of technological methods (3.4), lack of state-of-the-art-infrastructure (3.4), and non-challenge-attitudes-of-staff towards security (2.7). On the other hand, no punishment to offenders (2.4) has disagreed as one of the challenges faced in the security of information resources in the library.

## Summary and Discussion of the Findings

In this study, it was established that information resources were available in Dame Patience Goodluck Jonathan Automated Library including books, e-books, journals, e-journals, databases, encyclopaedias, bibles, and fiction. The security threats to information resources were mutilation, theft, microbes, humidity, and unauthorised access. The technological methods adopted to secure library resources were computers and burglary protection. The challenges faced in the security of information resources in the library were lack of funds to procure security equipment, poor adoption of technological methods, lack of state-of-the-art infrastructure, and non-challenge attitudes of staff towards security. The finding of research question 1 revealed that the information resources available in Dame Patience Goodluck Jonathan Automated Library include books, e-books, journals, e-journals, databases, encyclopaedias, bibles, and fiction. The study is consistent with the study of Abubakar (2020) on the availability and accessibility of information resources for pharmaceutical science students at the University of Jos and revealed that books, journals, and electronic resources were available. The finding of research question 2 revealed that the security threats to information resources were mutilation, theft, microbes, humidity, and unauthorised access. The study is consistent with the study of Akor (2013) who investigated security management for the prevention of book thefts in university libraries at Benue State University Library, Makurdi. Benue State discovered that the security threat included mutilation due to inadequate library materials, tearing of book page(s) off, removing of

the book jacket cover, and hiding of books under their clothes and their pockets. This study is in line with the study of Gupta and Madhusudan (2018), on the security of library materials—which discovered that the application of modern technologies to the security of library resources included CCTV, electromagnetic systems, burglar alarm systems etc. Drawing an analogy from the study by Shafack (2021) who investigated the challenges faced in securing information resources in public university libraries in Anglophone Cameroon, it was established that theft, mutilation, and unauthorised access to libraries and their resources constituted serious problems for library materials.

## Conclusion

The study established that in the present digital era, library resources remain a vital element of the library institution, hence the need for security. It is imperative to protect library resources from theft, mutilation, mishandling, deterioration, and damage and safeguard them for posterity and future usage. Due to the ineffectiveness of manual methods, libraries are adopting the use of technological methods for the security of library resources. Information resources that are available at the Dame Patience Goodluck Jonathan Automated Library are believed to enhance the functionality of the operations that take place in the institution. Most of what users need daily are books, e-books, journals, e-journals, databases, encyclopaedias, the bible, and fiction. The security threats to information resources are believed to help the library look inward on areas where they are not doing well. Therefore, mutilation, theft, microbes, humidity, and unauthorised access could help as a lens through which the library becomes more proactive because if there were no problems, there might not be competition on best practices. The technological methods adopted for the security of library resources were computers and burglary protection. The challenges faced in the security of information resources in the library led to improvising measures on what they had not thought about, thereby sourcing funds to procure security equipment, and adopting new technological methods of state-of-the-art infrastructure to eradicate the threat of insecurity. Based on the findings of the study, the following recommendations were made:

- Libraries should adopt technologies like CCTV, biometrics, and electronic doors in the security of library resources and train staff on their usage.
- Libraries should train security specialists who will take risk assessment and disaster preparedness towards all library resources.
- Funding from the private sector, as well as any other well-meaning individuals should be sought.
- The librarians should consistently organise orientation and current awareness programs to sensitise their users on the present and usefulness of materials.
- Security policies should be implemented.

## References

- Abubakar, D. 2020. "Availability and Accessibility of Information Resources in University Libraries for Students' Academic Use: A Case Study of Pharmaceutical Science Students of the University of Jos." *Library Philosophy and Practice* 4231.
- Abubakar, F. 2016. "Preservation and Security of Information Resources in Academic Libraries in Niger State, Nigeria." Masters diss., Ahmadu Bello University, Zaria, Nigeria.
- Adeowu, O. F. 2013. "Security risks management in selected academic libraries in Osun State, Nigeria." *The Information Manager* 13(1): 1–9.
- Aina, A. J. 2013. "E-Library Approach for Resource Sharing in an Information Communication Technology Era: Issues, Prospects and Challenges." *International Journal of Library and Information Science* 5(4): 77–84.
- Akor, P. U. 2013. "Security Management for Prevention of Book Thefts in University Libraries. A Case Study of Benue State University Library, Nigeria." *Library Philosophy and Practice* 995.
- Baker, B. E. 2012. *Library Safety: Handbook of Prevention, Policies and Procedures*. Chicago: American Library Association.
- Bessy, F., B. F. Abalaka, Y. Dauda and M. N. Okikiri. 2014. "Acquisition and Preservation of Newspapers and Magazines in Dr. Aliyu Obaje Library, Kogi State University Anyigba." *Journal of Human Ecology* 45(3): 251–255.  
<https://doi.org/10.1080/09709274.2014.11906698>
- Elejene, A. O., H. David, and O. Nsirim. 2022. "Information Resources Development: The Heart of Library Existence." In *Library, ICT and Information Management*, edited by Mmejim, I. C., H. Wiche, I. Idoniboye-Obu, O. Nsirim, and B. O. Umahi, 25–31. Port Harcourt: Supber Print Concep.
- Ezeala, L. O., and E. O. Yusuff. 2011. "User Satisfaction with Library Resources and Services in Nigerian Agriculture Research Institutes. *Library Philosophy and Practice*." Accessed January 6, 2023. <https://digitalcommons.unl.edu/libphilprac/564/>.
- Gupta, P., and M. Madhusudhan. 2018. "Security of Library Materials: Challenges and Solution." Accessed January 6, 2023.  
<https://www.researchgate.net/publication/322962889>.
- Ibenne, S. K. 2018. *Information Resources Development and Management*. Okigwe: Justman Publishers.
- Igbeka, J. U. 2008. *Entrepreneurship in Library and Information Services*. Oyo: Stirling Horden Publishers.



- Igwela, J. N. B., and O. Nsirim. 2018. "Library and Information Services for National Security and Fight Against Insurgency." <https://www.researchgate.net/publication/348560179>.
- Jamil, M., R. Tariq, and S. Jamil. 2013. "Library Resources: Utilization by Teachers and Students." *Bulletin of Education and Research* 35(2): 19–35.
- Masanya, M. T. 2020. "Application of Modern Technologies in the Management of Records in Public Libraries." *Journal of the South African Society of Archivists* 53 66–79. <https://doi.org/10.4314/jsasa.v53i1.5>
- Oketch, L. O. 2019. "Security of Information Resources in Information Centers with Particular Reference to Egerton University Main Library." Masters diss., Kenyatta University.
- Shafack, R. M. 2021. "Securing Library and Information Resources: The Situation in Two State University Libraries in Cameroon." *European Journal of Education and Pedagogy* 2(1): 25–31. <https://doi.org/10.24018/ejedu.2021.2.1.13>
- Xiaodong, S. 2017. "Application of Computer Technology in Library Resources Management." *Proceedings of the Information Science and Management Engineering* 3 287–290.