

MANAGING CIRCULATION RECORDS IN A DIGITAL ENVIRONMENT: A BASIS FOR EFFECTIVE PUBLIC SERVICES DELIVERY IN ACADEMIC LIBRARIES

By

Martha N. ASOGWA¹, Gabriel I. ASOGWA², Anthonia N. AGBO³ & Brendan E. ASOGWA⁴

Department of Library & Information Science & Nnamdi Azikiwe Library, University of Nigeria¹²³⁴.

Email: mnasogwa1@gmail.com¹, gabrieljamb2021@gmail.com²
anthonia.agbo@unn.edu.ng³ & ezeb.asogwa@unn.edu.ng⁴

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Abstract

Purpose: *Preservation and management of records is the hub of successful transaction in libraries. Knowledge of the principles and practices of records management enhances efficiencies in public services. Despite the importance and usefulness of circulation records, little or no serious research had been undertaken on their preservation and management in academic libraries. This paper discusses managing circulation records as an imperative for effective public services delivery. It examines the kinds of records created and preserved in the circulation; the justifications for keeping such records; the problems and strategies in a digital environment.*

Design/Methodology: *The authors dwelt on practical experiences, reviewed literature and documentary evidence to fortify their discussions.*

Findings: *The paper revealed that there are much challenges associated with managing circulation records in a digital environment. These problems include changes in hardware and software, paucity of experienced ICT personnel, poor funding and intermittent power outages. These problems could be minimized through employing competent ICT personnel, adequate funding and prudent management available resources.*

Originality: *The paper has added to other research findings in the field of librarianship and resources management in academic libraries.*

Keywords: *Circulation Records, Digital Records Management, Public Services, Management System Software, Preservation.*

Paper: *Opinion Paper*

Introduction

Records management is a branch of management that concerned with the

competent and systematic control of the creation, receipt, preservation, retention, use disposal and destruction of records. Circulation service refers to the practice of managing the borrowing and returning of

materials within a library. It involves the movement of books, magazines, DVDs, and other resources from the shelves to users and then back to the library's shelves once they are returned. Digital services entails automating library processes like charging and discharging materials, managing borrowers accounts, and providing remote access to library resources to distance users, among other services. This could be enhanced using integrated library management systems (ILMS) - Koha or Millennium, which automate tasks, track item status, and manage patron accounts. This is why Yemi-Peters, Sokari, Olayemi, Abba-Haliru, and Gama (2019) noted that the provision of library services using information and communication technologies (ICTs), has come to stay with the introduction of (ILMS); Integrated Library Management Systems has enabled circulation tasks to be carried out effectively without much efforts (Mashilo, 2022). Furthermore, 'the infusion of ICT-based library services' Yemi-Peters, *et al* (2019), continued 'has revolutionized the way routine operations are undertaking in many libraries and has tremendously improved the level of customer' satisfaction.

For Ashikuzzaman (2025) circulation system typically includes checking out materials, setting due-dates, renewing loans, and handling over-due fines. Library circulation ensures that library resources are available for users, tracks the where-about of items, and maintains and organize and efficient library collections. In academic libraries, as the primary function of Circulation Department is to make reading materials available to users, it is pertinent to note that in the process of providing such services, records are created, received and managed. Abudullahi, Abdulhamid, and Hayatu (2021) concurred with this mission when they noted that circulation section in

most academic libraries play critical roles in accomplishing the missions and visions of the universities...and for these visible functions to be effectively provided, the circulation staff must have: Familiarity with the holdings of the library; Knowledge of the needs and interests of users; An appreciation of the techniques employed in enforcing service policy of the institution (Echezona, Asogwa, & Asadu, 2011); A willingness to cooperate with other departments in the library; and Knowledge of all the services provided and the kinds of records preserved.

In other words, the responsibilities of Circulation Department are broad: inter-library loan, registration of users, document delivery (charging and discharging), issuing clearance, records of consulted books, overdue notices, compilation of debtors list, statistics of transactions, and readers' advisory services, among others (Asogwa, Asadu, & Mbajiorgu, 2023). To be able to provide these services satisfactorily, records of the activities must be properly documented, preserved and managed. Records are created, received and used in university libraries to document actions, confirm or reaffirm decisions, identify roles and responsibilities and to transmit information (Asogwa, Ezeani & Asogwa, 2021); demonstrate not only structure and content, but also context, i.e. who borrowed what, where, and when in circulation section; and are kept in the Public Services Division as evidence of services delivered (Echezona, Asogwa, & Asadu, 2011) since university administrators are interested more on records management because records of the past activities of the institution. These, Yemi-Peters, *et al* (2019) continued, are essential in making informed decisions, maintaining accountability and generally fulfilling the university's vision and mission. In view of that, circulation records ought to

be managed properly as basis for good administration and quality services provision.

Justifications for Managing Circulation Records in Libraries

The International Records Management Trust IRMT (2009) defines records as the practice of controlling the creation, receipt, maintenance, use and disposal of records for the purpose of making them available to the right persons at the right time. It also includes the task of ensuring that recorded information is preserved over time for steady reference and research purposes. Also, Adebowale, Okiki, and Yakubu (2013) adapted the views of the IRMT (2009) and further maintained that where a good records management system persists;-

- Information they carry could be readily retrieved;
- The disposal of unneeded records and the retention of valuable ones are well planned;
- The spaces, facilities and resources can be used effectively and economically.
- There is always a schedule for the appraisal, retention and transferring of records to the Archives or final destruction.

This suggests that good records management has some important benefits in promoting the provision of quality library services. If record of vital circulation services are not properly kept and managed, it will lead to poor strategic planning and decision-making (IRMT, 2009); critical business transactions and information may not be accessible; it will lead to loss of credibility, lowers public confidence; the reputation of the university librarian, the image of the Public Services Division and the entire library could be thrown into

confusion and unnecessary embarrassment. For example, consider the level of confusions, ineptitude, and embarrassments if: **a)** Consider a situation where a library client had lost some books borrowed but requested to be issued a clearance and the Circulation Librarian has no evidence of the number of books drawn from the library due to poor records management. In the midst of such confusion, a clearance was issued. **b.)** Or the Circulation Librarian could not ascertain the number of registered users when it was needed for annual report because the software and hardware hosting the records were not upgraded (Omohwovo, Madukoma, & Ojutawo (2023); c.) when the security of records are not guaranteed and students can infiltrate into circulation section and alter their records at whims; **d.)** A backup for network files in each computer is not regularly made or a strong anti-virus was not installed and the e-records of all the registered users in a session are invaded by viruses leading to the loss of the entire information. Furthermore, Jatto, (2021), and Nnenda (2022) have related views on the benefits of good records management: protection of organization (university/library) in time of litigation; protection of the interest of the (university librarians), the rights of employees and users; robust management of confidential information in libraries; ability to render services to users in an efficient and consistent manner, and reduction of risks of data loss or accidental destruction of records; identification and preservation of vital records so that libraries can continue to function in the event of disaster or severe disruption of operations. These suggest that records, if properly managed, are important assets that assist academic and research libraries in meeting the optimal goals of their clients.

Why Manage Circulation Records?

A catalogue of reasons have been advanced in the literature behind proper management of circulation records: *Efficiency* – Professional management of circulation records increases administrative efficiencies. Souhweir and Boukerzaza (2024) shared the same view when he stated that poor management of the records leads to unnecessary retention of worthless records that may occupy valuable office spaces and makes useful records difficult to retrieve and waste staff time; *Decision-making* – A good record keeping guarantees complete, authentic, accurate and reliable documents that support planning, reporting and evaluation of services provided in libraries. On the other hand, with poor records management, the original context in which policies, decisions and practices were undertaken could be forgotten and the evidence they provide disappears. This implies that poor management of circulation records increases the dangers of providing inaccurate and unreliable information that could jeopardize the image of the university library; *History* – When circulation records are properly preserved and managed, circulation librarians could schedule records, appraise records and transfer valuable historical records to the Archives section for permanent preservation and use by future library administrators and researchers; *Continuity* – Good management of circulation records minimizes loss of knowledge and guarantees services continuity. Adebowale, Okiki, and Yakubu (2013) maintained that memories are unreliable with the passage of time, and therefore effective records capture, management and preservation are essential for recalling actions or decisions taken in the past; and poor records management in this digital era could be one of the great consequences many Circulation Librarians always went home with their tacit knowledge after their retirement - their

knowledge was not tapped or transferred to the younger staff due to poor records and knowledge management. That may also be the reason new staff are unable to fully understand the past practices in many academic libraries in developing countries; *Easy Access* – Good record keeping and management in circulation services makes librarians easy to locate, retrieve and make references. Poor management of circulation records leads to frustration, despair, embarrassment and disgrace; *Accountability* – Circulation records are evidence of actions, activities, services rendered and decisions taken. Therefore, it provides the means by which staff or users could be held accountable. This implies that without good records management, university librarians cannot adequately render accurate account of their stewardship; *Liability* – When circulation records are well preserved and managed, it enables the university libraries to defend its legal rights and minimize legal liability. By this, they could ensure that the library could possess and provide substantial evidence in events of legal dispute. This implies that the corporate image of libraries suffer when records needed by customers, auditors and attorneys service are missing.

The Issues – The critical issue is that: various changes have taken place in the format records are created, received and utilized; the introduction of information technologies in library operations has fundamentally changed the process and practice of generating and or receiving records not only in their creation but also in their transmission, storage, preservation and retrieval. This scenario has brought out remarkable challenges that needed to be addressed. In addition, despite the importance and usefulness of circulation records, report on their management in academic libraries remains sketchy and therefore implies the paucity of research

about the management of circulation records in digital environment. This paper takes up the issue of managing records created and received in the circulation sections of academic libraries. It examines the kinds of records generated, the justifications for creating and keeping such records; its management in a digital environment and the challenges.

Significance - Since effective management of circulation records enhances efficiencies, this paper will guide the library management in their efforts to maintain effective records in a digital environment and bridge the gap and paucity of literature on circulation records management.

Records Created in Circulation, Uses and Justifications for Preservation

Table 1: Kinds of Records created in Circulation Section, Uses, and Justifications for Preservation

<i>Kinds</i>	<i>Justifications for Preservation</i>
Registered Users	<p>One of the circulation policies is that every user must register with the library before accessing library resources. The library registration forms which contain the personal profile of every user are preserved in Circulation Department for reference and research purposes. Therefore, the purpose of keeping records of registered users in Circulation Section includes:</p> <ul style="list-style-type: none"> - It enables the university librarian to determine the number of registered users in an academic session; The date and month of registration, the names, department, hostel, registration numbers, course of study, permanent home address, mobile phone numbers, and their signature are vividly captures; It contains the name, and signature and official stamp of the head of department; - The data about the patron is very important as it is used to contact a user in time of need; example include, when writing and sending overdue notice to library defaulters; When recalling books; reconciling clashing registration numbers of users and other uses; Authenticate or verify whether a user has registered with the library
Materials on loan	<p>Records of books checked out to students and staff are preserved for circulation librarian to ascertain:</p> <ul style="list-style-type: none"> - the number or volume of books users borrowed from the library daily, weekly, monthly and annually; The volume of books borrowed by categories of users – staff (senior and junior), students – (postgraduate, regular and sandwich, undergraduates regular and sandwich); departmental or inter-library loan. - Keeping this record helps the library and researchers to determine the level of usage of library resources, i.e. be able to determine users traffic (the period when library is heavily or least used)
Records of Debtors	<p>At the close of every academic session, names of users that have not checked in (submitted) borrowed library materials are compiled. The aim include;</p> <ul style="list-style-type: none"> - to balance the volume of books checked out with those checked in (returned) in a session and be able to determine the number of defaulters

	<ul style="list-style-type: none"> - to write a notice/reminder to; this record is used for issuing clearance to graduated students and retired/transferred staff; it is also used for renewal of expired card during registration, and replacement of lost library card.
New Books	<p>Books are considered new in circulation section when they are moved from the Cataloguing Department for addition into the existing collections on the Starks. The record is used to:</p> <ul style="list-style-type: none"> - Know the volume and class of new books that are added into the shelf for circulation. Since books in circulation are classified and housed using subject affinity such as science and technology libraries, humanities and social sciences libraries and reserve collections, this information is required to know which class is mostly or least acquired. - The record is used for writing annual report and to provide statistical information to researchers and the university administration.
Lost Library Book(s)	<p>List of books that are reportedly lost or mutilated are compiled either for replacement, or payment of the cost by the borrower. Records about the book contains the following information – Name and registration number of the user, his or her phone number, department, hostel and permanent home addresses; the name, address/phone number/e-mail address of parents; Found in the record also are the author(s), title, edition and imprint [place, publisher and year of publication of the book(s); the call number, accession number and the date-due of the book in question. For mutilated books, the range of the missing page is indicated.</p> <p>This record enables library management and users to: ascertain the number of library books that are lost or mutilated and therefore no longer in circulation; Helps the acquisition librarian to determine the number of books that needed to be re-purchased or replaced; the names of users that are owing the library due to loss of book; and to write annual report or for academic research, etc.</p>
Impounded Cards	<p>Record of impounded library card is created and preserved as a result of failure on the part of a library user to pay overdue fine immediately. Consequently, his/her card is withheld and thereby disabled him/her from using to the library or drawing books till payment is made.</p> <p>Record of impounded cards in libraries:</p> <ul style="list-style-type: none"> - helps circulation librarian to encourage readers to return library materials on time; It is used during library registration, clearance of retiring staff and graduating students, and replacement of lost library card, respectively to forestall delinquent users from double registration or evading payment. The name of a user wishing to obtain any of those services is always cross-checked against debtors’ records and confirmation made before any service or clearance is issued. - Keep statistics or write annual reports, and to appraise security networks in the library.
Duty/Leave Roster/Job Description	<p>Record of circulation staff who report for work every day or who is not on duty is kept in the duty or annual leave roster. These records show names of staff that came to work; what he/she does as well as the period he/she is on leave or out duty as a result of annual leave. The purpose of maintaining these records is to ensure punctuality, regularity, staff control, and accountability.</p>

<p>Overdue Notice</p>	<p>Job description x-rays the names of staff and the job assigned to him/her in the section; who does what, when and how? As well as who should be held responsible for work done or left undone?</p> <p>Materials on loan to users always have due-date (a period when they are to be returned to the library). When such period elapses, defaulters are send overdue notices, reminding them that the materials have over-stayed, and are therefore needed urgently in the library. Record of names and address of such defaulters, as well as full information about the materials in question, are documented and dispatched to them. It reminds and makes defaulters to return expired book(s) to the library.</p> <p>This record is used to determine the number of material debtors monthly; the class of materials that are mostly held back after the due date; the department that defaults mostly and the frequency.</p>
<p>Lost Library Card</p>	<p>Users who obtained library ticket often lost them before the end of academic session. The lost card may be replaced after proper investigation establishes no evidence of the user's indebtedness to the library.</p> <p>Records of replaced lost cards are preserved and used for issuing clearance, statistical report, academic research, writing annual report and other activities pertaining to circulation and library services.</p>
<p>Record of Fines</p>	<p>Records of fines paid by users on account of overdue charges, replacement of lost cards, clearance and other damages on library materials are also kept in Circulation Department. The purpose is to render accurate account of financial transactions in the section.</p> <p>Fines are considered as a source of income but generally the purpose of a fine is to encourage prompt return of borrowed books by the end of loan period. Failure to return overdue materials interferes with the rights of other borrowers and the result is poor service provision.</p>

Managing Circulation Records in a Digital Environment

Today, managing records in electronic format is inevitable since computer operations are now used as the work horses of office life. They are used to carry out major operations that either generate or receive electronic records. A digital environment as an integrated communications field where digital devices communicate and manage the content and activities within it; a cyber-generated environment created and accessed through the use of one or more digital devices such

as a computer or a cellular phone; an integrated or unified communications environment where digital devices communicate and manage the content and activities (Asogwa, Ezeani & Asogwa, 2021).

In this paper, digitized circulation records are seen as machine readable records that are created or received, born or made with the help of ICTs technologies. Drawing from the IRMT (2009) and Tsabedze (2023), it is a documents that can be manipulated, transmitted or processed by computers; that can be written offline on magnetic/optical

medium; that can be accessed using computer software and hardware; easily updated, reformatted or deleted deliberately or inadvertently with just a click of computer mouse and unless strict security provisions are put in place, they are vulnerable to alteration or destruction (Osagie & Oladokun, 2024).

To be considered ready to manage circulation records in a digital environment, Circulation Librarians must provide a web-based catalogue that shows: all the books available in the library and records of registered users which should be maintained using *Integrated Library Management Software (ILMS)*. This circulation module performs all the analogue services such as receiving, charging discharging, renewal of books, and put on hold. It can electronically send reminders, controls users' database, profiles, privileges, computation and payment of overdue fines or lost library cards, etc. In a digitized circulation services, two technologies for automated charging systems are popular – i) Bar code Technology and ii) Radio Frequency Identification Technologies, RFID. Omohwovo, Madukoma, and Ojutawo (2023) have noted that RFID technologies have some advantages which include:

- The efficiency of the Circulation Section enhanced and improved;
- The technology brings in more accuracy in services provision;
- It is fast and user-friendly;
- The records of readers and books can be checked easily;
- It reduces the number of staff in circulation

In a digitized circulation system, analogue circulation records could be digitized and migrated to electronic environment where they are maintained with

the help of automation software; designed & developed to conduct some activities (lending library books and other materials) to users. The key purpose of the *Software* is to computerize the charging system, records maintenance, issue, return & renewals, registration of users, overdue/recall notices, holidays/long vacation loan, library clearance, notices and reminder, fine management, inter-library loan (ILL), etc. (Asogwa, Asadu, & Mbajiorgu, 2023), and enables librarians to access and analyze the information at just a click of a computer button (Yemi-Peters, *et al* (2019).

Computerized Charging System - Asogwa, Ezeani & Asogwa (2021) and Nnenda (2022) observed that in developed countries, academic libraries use computerized charging system in their circulation services because the system a) has in-built sub-systems whereby librarians or a user can find out the number of borrowed books, b) when books should be returned, c) books that are reserved, d) calculation of overdue charges, etc. The main advantage of computerized charging system is the speed with which issue and return is carried out. For big libraries such as the Nnamdi Azikiwe libraries, University of Nigeria and other universities, this system is the only alternative because it can perform the work of several employees in a second. For example, Bello, and Abdulsalam (2023), and Isiaka (2023) investigated how Artificial Intelligence, AI, can be applied in academic libraries and found that: it can significantly improve services in the Circulation section by automating human tasks; by improving accessibility, optimizing resource and inventory management, as well as cataloguing and classification AI makes services seamlessly for librarians and users.

Another type of automated circulation system is Radio Frequency Identification (RFID) which is described as a technology that uses radio waves to

identify and track library resources; can be used to automate circulation management and improve inventory control; librarians can easily track library resources, monitor books in and outside the circulation, and manage over-due fines; identifies unique items using radio waves (Asogwa, Asadu & Mbajiorgu 2023); keeps information relating to the specific item in the library, and other bibliographical details RFID Technology has some advantages over analogue circulation services: It makes the check in/checkout procedures very simple because the information from the RFID tags can be read much faster compared to bar codes (Shahid, 2005); reduces over-congestion of readers at circulation lending-desk; ensures instant updating of the databases; minimizes the rate of stealing library materials; generates different kinds of reports (example, users statistics, lesser used books, heavily used collections, etc.) using circulation management system software.

Circulation Management System Software (CMSS): Features

Circulation management software has some essential features which help in the creation and management of digital records for efficient library records management in many: *Borrowers Information & Document Circulation* - The software effectively manages and stores in a centralized databases some critical records about the borrowers, which can be easily accessed by every librarian; makes things easier to keep a detailed track of movement of books and simplifies the day-to-day circulation of library items (Manuwa, Abdulsalam, & Dawha, 2023); *Easy Identification of Borrowers* - Apart from issuing identity cards to the borrowers, it's vital for the library staff to keep a constant tab on the users and book issuers to ensure proper inventory of library items. With proper circulation control system, the circulation

librarians can get the facility to add the photograph of borrower's to the database for easy identification purposes; *Collection of Penalties & Dues* - This software automatically calculates and updates the library database with fines and dues if the borrower doesn't return the books on time or delays the delivery. Also, if the user loses the book, he/she can be asked to pay the fine. The system helps in tracking the book issuing and deposit date to monitor late submission of books.

Management Software for Circulation Services

Literature has revealed that by these feature, one can understand that all the traditional operations in circulation services can be easily and faster replicated in a digital environment within a second. By reducing of workload for staff, circulation management software eliminates extensive paperwork in the library, allows faster check-in and check-out of books, prevents manual repetitive data entry, and automatic referencing; *Saves Time and Money* by reducing overhead costs, automate data entry and storage, issues and deposit books within a few clicks of computer keyboard, and minimizes manual work for librarians. *Effective Data Management* – guarantees cloud-based data backups, ensures hundred percent (100%) data security, frees from human error, and automated book cataloguing and indexing, among others. Supports *Online Public Access Catalogue, OPAC* is a digital catalogue that enables users to search for books, journals, or any other material by entering keywords such as the name of the book, its title, author's name, etc. A *Mobile Online Public Access Catalogue, M-OPAC* is a mobile-based Smart phone app that enables users to search for any book via their Smart phones by entering correct keywords.

The circulation control function enables the borrower to reserve or book library items well in advance for a specific number of days. You can reserve books and journals for weeks or months before an exam or assignment and prevent the library items from getting loaned to another borrower. *Scanning and Reading Bar codes* - The circulation system is able to read bar codes on the books & can be used for the purpose of accessioning, issuing, returning, and renewals of the books. Each bar code helps in identifying author name, publishing year, title of the book, etc. Scanning bar codes offers better inventory management and ensures easy sorting of books (Asogwa, Ezeani & Asogwa, 2021); *Inter-Library Loan* - Multi-academy trusts can maintain a detailed record of books and related library items that are borrowed or issued from other branches with the inter-loan facility of the circulation control system. This is applicable even when the institutions lend or borrow their library materials from other institutions. However, these are not without some impediments.

Problems of Managing Circulation Records in a Digital Environment

Inadequate funding - Poor funding has been a major impediment to development in Nigeria. In academic libraries, records management requires enough funding due to frequent hardware and software upgrades (Nnenda, 2022). Internet connectivity is very expensive. Due to the huge amount of capital involved in providing necessary ICT facilities, academic libraries are bound to face some critical challenges - the task of efficient management of circulation records. This result is at tandem with the report of study by Abdullahi, *et al* (2021) on the problems of effective circulation services at Muhammadu Wabi Library, Federal Polytechnic Bauchi for effective service

delivery. They identified lack of fund, lack of awareness, poor ICT experienced staff, etc. among the major challenges to effective circulation services in the polytechnic. The budgetary policy of National Universities Commission, NUC which mandated 10 per cent of university budgets to be allotted to University Libraries is ideal, but most university administrators hardly implement the policy directive. Consequently, academic libraries continue to suffer from poor funding and poor provision of modern tools for digital records management.

Incessant power outages - Frequent power outages constitute serious bottlenecks to management of digital records in libraries. Jagboro, 2007 cited in Asogwa, Ezeani, & Asogwa (2021) identified low supply of electricity in most parts of Nigeria as a major setback digitized circulation system. Consequently, academic libraries are plagued by epileptic power supply in libraries (Jatto, 2021). Most countries in Sub-Saharan Africa do not have reliable supplies of electricity. Consequently, this frustrates every effort to maintain a conducive and stable technological environment suitable for sustaining ICT infrastructures. For example, Igbo, Ibegbulem, Asogwa and Imo (2022) also found that one of the serious effects of power outages in libraries is that it abruptly halts the flow and progress of works in electronic machines, and consequently results in damaging technology hardware and possible loss of vital records in the system. Where there is an alternative power supply, the cost of fuelling and maintaining the machine is very prohibitive.

Low bandwidth - The capacity of the wired or wireless connection in a computer network to carry information is like comparing highway road traffic with two lanes and the other with four lanes. In an institution where there is low bandwidth, electronic record-keeping systems can be

difficult to use (Echezona and Ugwuanyi, 2010). Experience has shown that in most academic libraries in Nigeria, Internet access is very slow due to low bandwidth. This result therefore sees the existence of slow Internet as a serious threat to the management of digital records in university libraries.

Low level of ICT literacy among academic librarians - ICT illiteracy is still trailing many Nigerian librarians in Nigeria and other African countries. This is attributable to myriads of inferior quality ICT skills courses in the marketplace. Professional educators, librarians and their students must either develop high levels of information technology competences or risk becoming functionally obsolete in the information modern super-highway.

Lack of experienced ICT technicians - The existence of few skilled technicians to maintain and assess the quality of ICT facilities is a serious impediment to digital records management. This situation is compounded by ineffective dissemination of information on ICT. This alone has placed a high magnitude of serious lack of ICT competency among librarians in Nigeria if compared to skilled professionals in other parts of the world.

Frequent Changes in software and hardware - Frequent changes in software and hardware create greater pressure on records management in university libraries because preservation of digital archival collections centers on providing long-term access. One of the greatest issues facing the longevity of digital collections in Nigeria and other countries in Sub-Saharan Africa is not only storage media deterioration, but also the problem of rapidly changing storage devices. Unlike analogue information which places emphasis on the preservation of physical artifacts, it is the informational contents of the digitized material that is preserved. It will therefore take a conscious

effort of librarians, records managers and archivists to make sure that the digital information is preserved.

Strategies for Management of e-Circulation Records

Preservation Strategies - In addition to maintenance strategies, electronic circulation records officer is responsible for establishing a trusted preservation system for implementing preservation strategies adopted for all records. Some of the preservation strategies are enumerated and discussed hereunder.

Use of standards - This strategy involves the use of global standards and file formats that ensues increased stability and longer-term support. Such standards may either be formally agreed on or may have been widely adopted by many institutions. Compliance to standards may also either simplify the application or maximize the effectiveness of later preservation strategies.

Migration/Refreshing - Migration involves transferring digital materials from one hardware/software generation to another. It is distinct from refreshing. While refreshing maintains data stream by transferring records from one carrier to another, migration entails transforming the logical form of a digital record. By this, the conceptual object can be presented by new hardware or software. The most commonly proposed migration method involves permanently transforming one circulation record format into another in line with technological changes.

Emulation - Emulation is a system that makes one technology behave like another (i.e., making future technologies behave like the original environment of the preserved digital object so that the original

object). Osagie and Oladokun (2024) saw this behaviour in Artificial Intelligence (AI) which they described as an emerging technology that is likely to shape and safeguard the future of circulation management and services. For example, AI-powered chatbots and virtual assistants is found to be able to answer patron's queries, locate library resources and provide real-time information and their records and statistics on library operations.

Common Data Security - Below are some common data securities measures that could be employed to customize security system for effective management of digital records in Circulation Section: *Risk Analysis* - Software packages should be made available to help quantify potential exposure to security breaches. This is a good starting point in determining circulation librarians' needs for developing efficient plans for good records management in academic libraries; *Backup of Data* - Backing up data on electronic records systems is also important for basic computer security. Data backup is an important safeguard against an unauthorized user from gaining access to and altering an electronic file or document; *Use of Passwords* - Passwords can be used to control unauthorized access to files or records in computer systems in libraries. Multiple levels of passwords can provide entry to different layers of information in a circulation database. The best approach is to use passwords known only by the circulation librarian to create security code such that users are disabled from unauthorized access to their files.

Conclusion

Public Service Division in academic libraries is the image of the library. It serves as the 'ears and the eyes' of the library. Though the Circulation section is the

heartbeat of library services, the image and the public relations section of the library, it faces significant challenges in safeguarding the vast collections of records and control of users through appropriate documentations. To be able to sustain these noble functions, proper records of vital activities in the section must be effectively maintained. These notwithstanding, Artificial intelligence AI has demonstrated remarkable advancements across various fields of human endeavour, showing the potential to revolutionize how records are created, received, utilized and maintained in libraries. The purpose maintaining circulation records is to prevent misinterpretation of facts, figures and decisions or the laws made. In a digital environment, these records must be effectively managed according to global best practices if they are to remain accessible over time. If records created or received in circulation are not properly preserved, it could lead to unnecessary embarrassment, loss of confidence and poor decision-making for quality services in academic libraries.

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