



Academic Libraries and Information Resources Preservation Strategies: Past, Present and the Way Forward

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Abstract: This paper is an attempt to document the preservation of information resources in academic libraries. After the introductory part the paper begins by explaining the rationale for preserving information resources in academic libraries. The preservation of both print and non-print information resources were well explored. Factors for considerations in preserving information resources like policy, fund, skilled labour, infrastructure and management support were explained so that they could be simply understood. The study suggests that universities offering library science programs should consider making the subject of preservation compulsory so that every librarian could have skills on how to preserve the library information resources. The study further recommends that modern preservation strategies need to be adopted by all libraries in order to safely guide the information resources for current and future generation.

Keywords: Preservation, Information resources, Information resources preservation, Preservation of library materials

Introduction

Information resources in academic libraries subsidize significantly to the open repository of shared knowledge.

Society depends on such repositories to protect and transfer knowledge and skills on various developmental issues across generations. It is through

preservation of information resources, that scholars and other members of the public explore and understand historical events, shape the present and plan for the future. Preservation of information resources gives library users access to important information resources that have been identified, acquired, organized, stored and made available for teaching, research and consultancy purposes (Asiamah, 2008). Preservation formally concentrated on printed information resources but with the development of ICT millions of information resources are produced daily in non-print format. The mixture of two formats in the same library make it to be hybrid. As a result, the strategies for preserving and conserving information resources need to reflect what constitutes the library collection (Michael, 2016). It is against this background information that this study explores literature on academic libraries and information resources preservation strategies by looking at the past present and the way forward. Specifically, the study reviews the rationale for information resource preservation in academic libraries, Preservation of print and non-print information resources and factors for considerations in preservation of information resources and suggests the way forward.

Rationale for Information Resource Preservation in Academic Libraries

Preservation of information resources is crucial and incorporates part of library operations. Therefore, library staff should be empowered to apply their knowledge to secure and protect library information resources for the sake of

prolonging their life span. In 2012 Segaletsho and Mnjama noted that preservation of information resources is the most important building block in ensuring the long term accessibility of information. Furthermore, Mnjama (2019) stressed that preserving records, archives and library resources long-term ensures that organizations are protected against costly legal actions and that its interests and those of its employees are protected.

With regard to information literacy and preservation of information resources, Alex-Nmecha and Owate (2019) established that preservation of information resources can enhance and contribute to the success of information literacy when the users are free from the barriers hindering their accessibility. In the same vein, Odutola and Alegbeleye (2019) claimed that information resources preserved in various libraries play an important role in the process of intellectual development, learning and research which expands users' perspectives in terms of learning, self-development and evaluation. This implies that if information resources are not properly preserved it would not be possible for library patrons to retrieve important information for academic, research and consultancy services.

Moreover, Akande (2009) conducted a study in Nigerian Federal University on knowledge, perceptions, and attitudes of library personnel towards preservation of information resources. The study revealed that preservation practices help to prepare the library's information resources for access as long as they are required for permanent learning. In this regard, Hisle (2019)

maintained that one of the greatest concerns of academic libraries today is to preserve the information resources and keep them in a good condition so as to ensure their future accessibility for addressing information needs of library users. This implies that, the more the information resources deteriorates the more difficult it becomes in accessing and retrieving the information as it may be impossible to obtain the information contained in them.

Scholars like Iyishu, Nkanu and Ogar (2013); Adetunla and Osunride (2016) maintained that deterioration of information resources has been one of the greatest challenges facing libraries today. Additionally, the survey conducted by Olatokun (2008) on preservation and conservation practices and techniques in university libraries established that most of the academic libraries are filled up with books and other information resources with various degrees of damage. This situation therefore, makes preservation of information resources to be one of the universal agenda that needs to be addressed through research in all libraries globally.

Preservation of Print and Non-Print Information Resources

The strategies for preserving printed information and those for preserving digital resources are different although both aim at stabilizing, strengthening and ensuring that information resources are protected and they remain available for use by the present and future library clients. The following subsections provide an overview of preservation of

print and non-print information resources:

Preservation of Print Information Resources

Preservation of print information resources is crucial as people feel more at home with paper based information sources. According to Zintah, Timothy and Oyinloye (2017) printed information resources are more predominant in academics than the digital information resources. Anyaoku, Echedom, and Baro (2019) established that printed information resources suffer from deterioration due to the acids present in paper that cause damage to its fibers, and hence causing it to become brittle and discolored over time. Therefore, preserving them through various strategies for future use is inevitable otherwise libraries will fail to share knowledge found in printed information resources with the next generations.

The preservation of printed information resources has been discussed by various scholars in the field of library and information studies. Masenya and Ngulube (2019) conducted research on preservation of print information resources and proposed the appropriate strategies that could be adopted in academic libraries for preserving their print information resources. Masenya and Ngulube (*op. cit.*) suggested that the best strategies for preserving information resources in libraries is through monitoring and controlling of environmental conditions where print information resources are housed. However, the study conducted by Matusiak and Johnston (2014); Shigwan (2015) and Ifijeh, Iwu-James

and Osinulu (2015) recommended mass deacidification, binding, lamination and restoration as the appropriate strategies that need to be adopted in order to preserve the print resources. The suggested strategies for preserving print information resources implies that researchers in the field of library and information science are working hard to ensure that suitable strategies are discovered that could help to protect print information resources from harm, damage and deterioration in libraries. Preservation of information resources is done to keep information resources safely from blurring and staining of papers and media materials which would lead to prompt loss of information that is contained in them.

Furthermore, Asiamah (2008) revealed that to preserve library information resources, librarians at the Kwame Nkrumah University of Science and Technology library used various methods, such as fumigation, lamination, backing, de-acidification, encapsulation, stain removal, joining and winding, substitution, copying, re-recording and binding. The goal of all these methods is long term preservation of library information resources. In addition, Shigwan (2015) added digitization as another strategy that could assist in preserving printed information resources in academic libraries in order to address the information needs of their clients. This suggested solution for preserving information resources is likely to increase accessibility and visibility of newspapers to stakeholders. However, digitizing information resources like newspapers and books need people to be

careful in assigning the relevant metadata that would help people when they want to access and retrieve the same. In this case, the metadata is the information that describes the digitized information resources like: title, creator, date of creation and publisher (Haynes, 2018).

Sunil and Kumar (2009) jointly conducted a study on preservation of library materials: problems and perspective. Sunil and Kumar (*op. cit.*) showed that availability of information resources in print and digital formats have changed the ways of preserving information resources. To preserve information resources in good condition, it is important to maintain and control the environment to avoid the fluctuations of temperature and humidity. Additionally, Kayengo (2009) in the study on preservation and conservation of information resources in the University of Zambia library revealed that binding of books and journals is the main preservation method for print information resources. Although the University of Zambia is still using binding strategy for preservation of print information resources. Kaminyoge and Chami (2018) in their study conducted at Zanzibar National Archives argued that the method of bindings, lamination and photocopying are traditional and therefore, outdated preservation methods. It is therefore important for librarians responsible for information resource protection to learn and adopt new preservation strategies and leave aside the outdated methods.

Similarly, Phillips (2015) conducted a study on a defense of preservation in

the age of more products, less process. He revealed development of significant strategies for preservation of information resources which include: emergency preparedness, climate control, integrated pest management, care and handling policies. Although Philips (*op .cit.*) conducted a study in the United States of America, the strategies identified could also be applicable in other countries due to the fact that information resources are affected by factors like; climatic changes, pests and lack of preservation policies (Ogunmodede & Ebijuwa, 2013). Morris (2015) examined how librarians developed a preservation program with in-house repairs by conducting training in book repair, paper repair and book binding to support collection care. Findings revealed that although a large number of information resources are currently available in digital platforms, libraries still have countless materials that can only be found in the printed word and image. Therefore, without the support of trained preservation professionals, libraries may find it difficult to preserve their information resources that exist in non-digital form. Safeguarding print information resources is significant – particularly in the ICT age due to the fact that, information resources that are not online as well as some that are online will in the long run disappear without preservation measures.

Preservation of Non-Print Information Resources

Preservation of non-print information resources is also referred to as preservation of digital information resources. According to Shah and Gul

(2019), digital preservation is the protection of library information resources, which were created in digital form and those that were converted into digital form but formerly existed in an analog form. Digital preservation combines policies, strategies and actions to ensure the accurate rendering of authenticated content over time, regardless of the challenges of media failure and technological change. The objective of digital preservation is the accurate rendering of authenticated content over time.

Several strategies have been identified by researchers in the field of preservation on how librarians and preservation administrators can effectively preserve digital information resources. Nworie (2019) conducted a study on preservation strategies for electronic records and found out that the digital preservation strategies that are in use for addressing the problem of deteriorating digital information resources were refreshing, migration and emulation. Study conducted by Kavishe (2014) at the University of KwaZulu-Natal, South Africa on the management of digital information resources realized similar findings. Kavishe (*Op. cit.*) revealed that the preservation strategies of digital information resources that could be taken to reduce the speed of deterioration are migration, emulation and bit preservation.

Furthermore, addressing a framework for preservation of electronic government information in Ghana, Adu, Dube and Adjei (2016) suggested that back up strategy, migration and implementation of trusted information

repositories be adopted for sustainable preservation of information resources that exist in the electronic format. Although, Adu, Dube and Adjei (*op. cit.*) suggested the African countries to adopt such preservation strategies in 2015, the same findings were noted by Horban (2019) revealed that the solution to the problem of media deterioration is the transfer of information to the new and modern storage devices that would enable the information to continue being accessible.

Furthermore, Tripathi (2018) noted that in this digital age preservation of information resources has become complex due to the fact that electronic information is fragile and they encounter many challenges including technological obsolescence and the deterioration of digital media used to store them. A different strategy for preserving digital information resources was proposed by Michael (2016) who conducted a study titled “Digital Preservation Strategy and Preservation Planning at the British Library”. The study established that proper digital preservation strategies occur when information resources are separated from dependence on the original creating infrastructure and when the preservation administrators have developed a comprehensive preservation planning capacity. That means, it is not possible to preserve digital information resources as stored in physical objects, but only the ability to reproduce it.

In contrast, Ruusalepp and Dobрева (2013) claimed that preservation of information resources is done while considering the preservation of

hardware and software that was originally used to create and design such information resources. In this modern era librarians dealing with digital preservation need to be well equipped with knowledge on how to protect information resources of all formats such as; video recordings, photographs, microfiches, microfilms, Compact Disk – Read Only Memory, computer software, online databases and the quick obsolescence of associated technologies. Ravenwood, Mathews and Muir (2012) jointly conducted a study on “Selection of digital material for preservation in libraries”. The authors revealed that the most prevalent criteria for selection of digital information resources in libraries include; historical and cultural value, to increase access, academic importance and to reduce damage. Although the study was conducted in the United Kingdom, these criteria could also be applied in libraries of the developing countries in selecting the right digital information resources to be permanently preserved.

Factors for Considerations in Preservation of Information Resources

Preservation of information resources in libraries requires a combination of issues such as availability of favorable preservation policy, fund, skilled workforce, infrastructure and management support. These issues are further explained in the following subsections.

Preservation Policy

Having a preservation policy in the library is a substantial indicator showing how the library cares for the information resources it houses. Masenya and

Ngulube (2019) claimed that good preservation policy must guarantee access to information and minimise information resources deterioration from various enemies like water, fire, mishandling, mutilation, humidity and temperature. Preservation policy provides guidelines and directs preservation administrators on their responsibilities relating to preservation. Emphasizing on the importance of preservation policy to information resources caretakers, Masenya and Ngulube (2019) noted that it is through the preservation policy that librarians, records managers and other information stakeholders can be reminded on the challenges they must accept if they are to preserve the information resources for the present and future generations. On the other hand, Noonan (2014) established that preservation policy is an important instrument that provides direction to library staff in carrying out their collection management responsibilities relating to preservation.

Availability of Fund

Funding for the preservation projects in libraries is momentous for the information resources to persist. In the process of preservation fund is required to pay the preservation administrators, purchase of necessary equipment like bindery machine, scanner, photocopy machine and stationeries. However, Kanyengo (2009) claimed that in developing countries financial resources to support library services including preservation of information resources have been declining every year.

Skilled Personnel

Staff training is important in keeping library preservation administrators aware of what is new in their field of specialization. It is through training that libraries will have competent workforce that could perfectly preserve, conserve and restore the library information resources that have been damaged. According to Iyishu, Nkanu and Ogar (2013), information resources deteriorate due to internal agents that are introduced during the manufacture and external agents that like biological, environmental, mechanical and chemical.

Availability of Preservation

Infrastructure

Preservation infrastructures that are common in use today are the institutional repositories in academic libraries whereby academic works are preserved and accessed by users from different parts of the world with the support of the internet. For instance, the library of congress is the largest library that uses a digital library whereby millions of information resources have been digitized like books, photographs, films and sound recordings and preserved in the cloud. Development of infrastructure to carry out preservation activities is vital and it should be supported by all information professionals (Northeast Document Conservation Center, 2020).

Management Support

Institutional management plays a key role in the preservation of information resources in libraries. It is the management that formulates the library preservation policies and finances all the library operations. According to

Kanyengo (2009), library internal revenue collected from overdue is not enough to support all requirements and thus, library management support is significant. Zintah, Timothy and Oyinloye (2017) further noted that information resources in academic libraries suffer from technological obsolescence, lack of registration policy, and lack of collaborations with other stakeholders' and therefore management support is crucial in arresting these problems.

The Way Forward

This study has critically reviewed literature related to information resources preservation in academic libraries. Therefore, the study concludes that the academic library of the twenty-first century will continue to be hybrid for a long time holding both print and non-print resources which will deteriorate and or get lost after some time. Consequently, preservation of information resources will remain a major issue requiring attention. The researchers recommend that due to the rapid rate of information resource deterioration in various libraries and academic libraries in particular, modern preservation strategies should be used to

safely protect the resources in both formats for current and future generation. It is also noted that preservation of information resources requires actions and interventions throughout life cycles, choices need to be made about which preservation strategies to adopt and which are mostly in use like databases, institutional repositories, technological emulations, and content migration for digital resources. The study further suggests that all universities offering library science programs should consider making the subject of preservation and conservation of library information resources to be compulsory so that every librarian could have some knowledge on how to preserve and conserve the library resources. Librarians and preservation administrators need to work hard to ensure that proper measures are to slow down the decay and disintegration of the information resources by the application of various strategies suggested by various experts in the field of librarianship including carefully handling and provision of a sympathetic environment for the information resources.

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