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# The nexus between digitization, preservation and access in the context of selection of materials for archives

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## **Introduction**

Records of enduring value are archived for the purpose of long-term preservation and for easy retrieval and access for future use. Archival materials are generated by an individual, establishment or family and this may be private or public. Archival materials have enduring value and due to this, they are preserved and used as evidence of the affairs or responsibilities of the agent which created them, especially certain records maintained using the principles of original order, collective control and the principle of provenance (ISO 16175-1: 2010; ICA, 2012). Some of these records deteriorate after a period of time due to external causes like poor handling or storage, theft or vandalism, fire and flood, pests, pollution, light, incorrect temperature and relative humidity. Preventive measures should be taken in order to considerably extend the lifespan of collections (Eden, 1998).

Previous studies (Conway, 2010; McKay, 2003; Bishoff, 2007; Hedstrom, 2001) have shown that advanced countries like UK, USA, Canada, Australia and New Zealand among others have invested in digitization and digital preservation of archival materials. Webb and Jones (1998) cited in Woodyard (2000: 1) also supports this by pointing out that “Australia has been seriously examining digital preservation issues since at least 1994”. To a large extent, the progress made in preserving digital resources in Australia has been achieved in the Archival and Library sectors. The reason being that these sectors have firm background in preserving traditional documentary records on a long-term basis, which is responsible for providing a strong foundation for continuing work with digital resources (Singh, 2008: 119). According to the findings of a three year study conducted by the World Bank and the International Records Management Trust (IRMT) on legal and judicial records in Singapore, digitization of records management facilities for legal and judicial purposes helped to reform and simplify criminal and civil procedures (IRMT, 2002). This proves that countries that have completely digitized their records management procedures are reaping the enormous benefits from records in terms of the storage, retrieval of information, accessibility, among other actions taken on records on a daily basis.

However, the situation in Africa is different because less value is placed on archives due to lack of appreciation and understanding of digitization of archival materials (UNESCO, 2006; Kamatula, Mnkeni-Saurombe & Mosweu, 2013). South Africa is leading other African countries in the efforts put into the digitization of several archival and institutional collections through the Digital Innovation South Africa (DISA) initiative funded by the Andrew W. Mellon Foundation (Pickover M, 2010; Britz & Lor, 2004). Other African countries must make an effort to adopt technology in the management of archival collection. Therefore, there is need to understand principles relating to the selection of materials for digitization.

### **Contextual setting**

Nigeria is a country in West Africa located on the Atlantic coast and shares borders with Benin Republic on the West, Cameroon on the East and Niger Republic and Chad on the North (Onuoha, 2013). In Nigeria, the National Archives of Nigeria is responsible for the regulation of archival administration and records management in Nigeria (public and private).

The National Archives of Nigeria was first set up at Ibadan in 1954 and it was formerly known as Nigerian Records Office. It is the repository of both the old and current records of the Government of Nigeria, which are held in trust for the use of interested members of the general public,

administrators and scholars. The Nigerian Records Office was established due to the recommendation and tireless effort of Kenneth Onwuka Dike who showed much concern about the state in which public records were preserved in Nigeria and it was commissioned on 9<sup>th</sup> January, 1959 (Abioye, 2009).

The National Archives of Nigeria is currently one of the 18 Departments under the Federal Ministry of Information and Culture with its headquarters in Abuja, Nigeria and zonal offices in Ibadan, Kaduna and Enugu. The institution has 10 additional branches located in Abeokuta, Akure, Benin, Calabar, Ilorin, Jos, Owerri, Port Harcourt and Sokoto with headquarters in Lagos. The institution currently operates within the provision of the National Archives Act of 1992.

According to the Federal Ministry of Information and Culture website, the objectives of the institution include:

- Locating, assembling and rationalizing documentary source material of Nigeria and permanently preservation for research and other functions.
- Enhancing efficiency and the economy of Nigeria in the administration of government Agencies, through advice and development of methods for the riddance or transfer of non-current records to the Federal Records Center and the National Archives.
- Extending the interest of the department beyond that of non-current records in creating agencies through records management programs.
- Restoration and preservation of historical records by conserving them.
- Serving as information storage for government records or documentary materials.
- Publishing historical records, materials and guides for public benefit and education through the training of the public regarding the documentary heritage, value and importance of archival materials.
- Preservation and management of records of individuals, private bodies, companies and business.

The Vision of the Department is to make sure that the institution takes permanent custody, preservation and have control over all archival institutions of the Federal Government of Nigeria and other archives or historical records of the nation using the best modern technology. The Mission of the Department is to build a well-informed Citizenry through the development, promotion and improvement of records, archives and information services by dissemination from its holdings using the best modern technology. The Department also has the following mission:

- Transfer and Acquisition of Public Records to National Archives Repository.
- Implementation of Records Management program in Nigeria in the Federal Public Service.
- Establishment of Archives by State Governments.
- The digitization of archives
- Annual Training programs for Departmental Records Officers.
- Microfilming of archives.
- Preservation and Management of Company Records.
- Preservation of Archives.
- Communication/Dissemination of Records
- Preservation and Management of individual and Private Bodies
- Provision of Library Services.

Professional Archivists at the rank of Deputy Director are in charge of the National Archives of Nigeria zonal offices located in Ibadan, Kaduna, Jos, Maiduguri, Port Harcourt and Enugu. The National Archives of Nigeria (Ibadan) was the first National Archive in Nigeria. Several government, institutions and private records are stored in the archives.

There is a Search Room which is also called the Reference Room and this is where searchers or researchers register and request access to particular records. There are finding aids such as the simple list, class list, index list, catalogue, special list and other findings aids which holds the lists and kinds of records held by the organization. Records are therefore, produced from the appropriate repository upon request by the researcher or searcher after filling a request form.

Initially, the National Archives of Nigeria attracted individuals who were mainly students and researchers especially in the field of historical studies. However, the patronage of the National Archives of Nigeria increased over the years and cuts across several individuals and agencies in the society such as lawyers, students, traditional leaders or their representatives and members of the society who visit the archives for several reasons.

### **Statement of Problem**

The overarching problem that prompted this study is the fact that the National Archive of Nigeria and other archives in Africa have weak or no digitization plans which highlights important issues such as the selection of materials for digitization (e.g. Balogun & Adjei, 2018, Sigauke & Nengomasha, 2011, Bayissa, Ketema & Birhanu 2010, Kalusopa & Zulu, 2009).

Based on preliminary investigations by the researcher and a previous study by Balogun & Adjei, (2018) it was gathered that the National Archives of Nigeria has not yet digitized its collections. Even though there seems to be are interests/plans to digitize, its collection but without a digitization plan which clearly states the policy to assist in the selection of materials for digitization, the digitization project might not be very successful. The National Archives of Nigeria, Ibadan holds vital historical records plans to digitize its fast deteriorating archival collection but there is no written policy on the selection of these materials for digitization. A lot of records are also on the verge of being lost due to the rate at which they are deteriorating, and need to be properly duplicated for the purpose of preservation of the contents of such collection. If these vital documents are lost without digital surrogates a backup, there will be gaps in the archival collections. Digitization is seen as a viable option to create back-up for the collection and help enhance preservation through the reduction in the handling of the materials. Selection is a key aspect of any digitization project.

Balogun & Adjei (2018) pointed out that the National Archives of Nigeria does not have a digitization policy to guide the selection of materials for digitization. Although there is abundance of literature on digitization and the selection of materials for digitization, there is need to deal with the contextual and local nature of the phenomenon of the selection of archival materials for digitization.

Based on this backdrop, this study analyzed the importance of selection of materials for digitization of the collection of the Department of National Archives, Ibadan, Nigeria.

## **The purpose and objectives of the study**

The study sought to assess the importance of archival materials and its selection for digitization with a view to make recommendations for the National Archives of Nigeria in ensuring a successful digitization project. The specific objectives of this paper are:

1. To examine the importance of archival materials.
2. To analyze nexus between preservation and access in the context of digitization.
3. To examine the importance of selection in digitization.
4. To recommend methods for selecting materials for digitization at National Archives of Nigeria.

## **Methodology**

The study adopts documents analysis anchored on the qualitative research approach. Both electronic and print documents relevant to the study were searched and retrieved. A document analysis checkbook was used and the search terms used to retrieve relevant materials for the study are “importance of archives”, “digitization”, “selection for digitization”, “digitization and preservation”, and “digitization and access”. Also, information was gathered from the National Archives of Nigeria through observation. The Search Room of the institution was observed to find out types of records held by the institution and the current state of digitization. The observation was used to complement the document analysis and to get a better understanding of the original setting of the study with the aid of an observation checklist. The data collected from the document analysis was therefore triangulated with the data collected through observation.

## **Importance of Archival Materials**

It is very necessary to discern what archival collections are and their importance to the society. Some individuals might not know the importance of archival materials and some individuals might view archives as a dumping ground for old and unwanted records. This may be considered as one of the reasons the profession is not appreciated as it should, hence, it is poorly funded (Akotia, 2012). Akotia (2012) states that archives are not esoteric or irrelevant as large numbers of people with a great range of interests seek information from archival records. According to Hoiberg & Ramchandani (2000: 253), “archives are collection of papers, documents, and photographs (often unpublished or one-of-a-kind), and sometimes other materials that are preserved for historical reasons”. They are created in the course of conducting business activities by a public or private body. Archival materials are generated or obtained by an individual, establishment or family and this may be private or public. With regards to the importance of archival materials and their enduring value, they are preserved and used as evidence of the affairs or responsibilities of the agent which created them, especially certain records maintained using the principles of original order, collective control and the principle of provenance (ISO 16175-1: 2010).

Archival materials are non-current records of an organization, institution or individual are selected for preservation because of their enduring value (Maidabino, 2010). Akotia (2012) states that

archives are important because they are considered as an important component of any civilized society. The human experience over a period of time and collective memory of civilization are documented in the archives (Akotia, 2012). Preservation of archival materials makes it possible for our cultural heritage to be sustained and transmitted from one generation to another (Ekwelem et al, 2011). Mckemmish (1993) also affirms this by pointing out that archives are a part of our cultural heritage and they have significant relationship with other forms of evidence of past and present human activity.

Individuals and organizations create and make use of records in the process of conducting business transactions and in relating to each other. These are threads in the social fabric of human interaction which provides evidence of several activities and interrelationships, information about people, events, organizations, and places. Archivists disseminate knowledge and experience of past and present human interaction to present and future generations. They do this by identifying, documenting and preserving archives and also enabling their continuing use (Mckemmish, 1993).

However, the distinction between a public and private archives has to be clarified. Neugebauer (2012) explains that public archives are governmental archives, they hold records of a nation's democracies and examples include archives of ministries, sediments of policy makers who have to rule our society because we gave them the right to do so. On the other hand, Neugebauer (2011) further explains that contrary to the misconception of people that private archives refer only to the records of people do not meet at public arena; it also refers to huge corporate or company archives, multinational business archives, which have a great impact on our society.

Nations across the world have recognized the need to preserve their official records and are also expected to maintain a system of archival administration built on the function of collection, preservation and ensuring availability of these records to the public after the appropriate lapse of time. Among the best known are the Archives Nationales in France, the U.S. National Archives, and the British Public Record Office. Non official archives, the records of the day-to-day activities of an institution or a business are now recognized as having great value for socio-economic history, and they are frequently sought by libraries for their historical value and preserved in manuscripts and similar collections. It is the practice of many institutions, such as universities, professional and commercial organizations, and ecclesiastical establishments, to set up their own archives departments (Encyclopaedia Britannica, 2010).

### **Digitization: *Preservation or Access?***

The issue of digitization as a way of preserving materials or not has been widely debated by scholars and researchers, some support the idea while others do not support the idea of digitization as a form of preservation. According to Matusiak & Johnston (2014: 242), "digitization as a form of preservation met with strong skepticism in the preservation community, especially in the early stages of digitization and digital development". Digital conversion was however viewed as an approach for creating surrogates for access and reproduction, but not in the context of preservation (Matusiak & Johnston, 2014).

It is important to note that digitization affords archives the opportunity to place original material in appropriate archival and secure storage areas, to which access can be justifiably restricted by making digital surrogates available (Balogun & Adjei, 2018). This restriction would drastically reduce the risk of damage from unnecessary handling, exposure to light and theft (Astle & Muir,

2002). Ostrow (1998) cited in Astle & Muir (2002) also seems to echo this concern. According to Ostrow (1998) cited in Astle & Muir (2002: 69), “using digital images as preservation surrogates can be a valuable supplement to (though certainly not a substitution for), an ongoing preservation program that follows such traditional strategies as improving storage conditions (with special reference to temperature and humidity control), and using film as a medium for preservation copying”.

The widespread of preservation as a major benefit of digitization does not appear to be widely supported by the subsequent actions in public archives (Astle & Muir 2002). According to them, digitization improves preservation in two ways which are the fall in demand of original and the access restrictions, but these have not been universally seen or adopted. They discovered that despite digitization in archives, demand for access to original materials does not necessarily decline and it was recommended that archives should need to consider placing restrictions on access to original materials where appropriate. The point being made is that, even though preservation is a potential benefit of digitization, restricting access to original material after digitization does not happen automatically. It requires a well planned and strategized action by the library and archives which may take some time.

Hamooya & Njobvu (2009) in a study on the digitization of archival materials at the National Archives of Zambia discovered that one of the main reasons for digitizing archival materials was to reduce handling and use of fragile and heavily used original materials in the institution. A similar discovery was made by Bayissa, Ketema & Birhanu (2010) in a study in Ethiopia where record preservation was a major factor motivating the digitization of records in selected institutions. This point out that digitization is considered as a preservative measure of archival materials and records generally, and this measure could be preventive or to create substitutes for deteriorating or damaged archival materials. In a similar study in the National Archives of Zimbabwe (Sigauke & Nengomasha, 2011), it was admitted that digitization is a means of preserving historical records in the National Archives but may not be achievable if issues such as acquisition of modern digitization technologies and training and skill development of professionals are not well addressed.

There is also need for digital preservation of digitized materials in order to ensure the continued access for as long as possible. According to Astle & Muir (2002), there are basically three possible strategies for digital preservation. George Mackenzie of the National Archives of Scotland has provided a concise overview and discussion of these. Mackenzie (2000) stated that the first strategy is the preservation of the original technology which is the hardware and software. A second possible strategy is emulation which involves taking steps that will enable future computer systems to read digital information with minimal loss of its original look, feel and functionality. The third strategy is migration. Migration involves the periodic transfer of data from one technology to another to avoid issues of technological obsolescence. This process is a response to the frequent updating of software, coupled with a corresponding lack of technical support for previous versions.

Unfortunately, it is possible that with each migration, some level of functionality or even data will be lost (Smith, 1999). As digital collections increase in size, the process of migration may turn out to be exceedingly time consuming and expensive, and it could become a continuous process. However, stressing the point of the role for emulation in digital preservation, Granger (2000) points out that migration is currently the only practical strategy open to large-scale digital archives.

Even though it is believed that a digitization program is a means of preserving the original materials or at least the information contents of the originals, there are scholarly debates about digitization being a way of preserving archival materials. For example, Youngs (2001) in a report for the National Preservation Office (United Kingdom) states that digitization is not preservation and does not provide a preservation medium. The correct digitization of an object according to Youngs (2001) will create a high quality digital copy but digital versions of materials are “not a substitute for the original item” and it may allow a policy of restricted access to the original. In this context, Youngs (2001) classifies preservation into two categories:

- Preservation of digital objects which is the preservation of the digital images/text and the associated digital metadata, achieved in practice through ‘refreshing’ and ‘migration’;
- Preservation of analog materials which involves the preservation of the original collections and any film intermediaries.

The preservation of digital objects or collection should always be considered at the project planning and costing stage within a digitization project, so that a budget for the cost of storing and maintaining the digital files can be factored into the project (Balogun & Adjei, 2018). The technical benchmarks specified will allow prediction of the storage costs associated with preservation. A digital preservation strategy will require the continuing commitment of financial resources in order to incorporate the changes in technology which will ensure the continued accessibility and usability of the digitized collections (Youngs, 2001: 22-23).

However, Smith (1999) emphasizes that digitization entails lots of access but digitization cannot be considered as a form of preservation. Gertz (2007) also expressed a similar opinion but added that digitization is capable of aiding preservation by protecting fragile and valuable analog materials from excessive handling. Gertz also points out that even though the digital copy of a material can serve as the only record of an object that has deteriorated or is being destroyed, it is still maintaining a form of duplication or copying not preservation. Kleifeld (2010) is also of the opinion that digitization may never successfully be a replacement for conservation, and that microfilm resources and digitization strategies should be combined for collective achievements of objectives related to the preservation and access of records.

Arthur et al (2004) in a paper published for the Association of Research Libraries (ARL) endorsed digitization as preservation. This was a new development and considered as a turning point in the debate of digitization as preservation although the paper focused on paper-based materials (Arthur et al., 2004). Matusiak & Johnston (2012) also supports the view that "preservation not only protects deteriorating archival materials but also restores their usefulness as information resources. The Endangered Archives Program (EAP) by the British Library (2012) supports digitization as a preserved means of copying of archival materials that are considered to be in danger of deterioration physically or face possible damage. This recommendation is considered relevant in developing countries in particular where other methods of preservation (e.g. microfilming) may not be readily existent. As a matter of fact, there is a perceived increase in the awareness of preservation and conservation issues because of digitization which has enabled the creation of copies of endangered archival and library materials worldwide (British Library, 2012).



## **Selection of Materials for Digitization: *First things first***

Selection should be considered first in the creation of a digital image archives because it identifies the items or the collections that are suitable for digitization and it allows an assessment of the prospective importance or value of the resource in relation to user needs. It is also critical for defining the feasibility of the digitization project. At the selection stage, it may be necessary to make decisions not to go ahead with digitization of the entire collection and it is useful in excluding certain materials. The National Preservation Office points out that selection of materials suitable for a digitization project is a very time consuming activity and should be done after determining justification for the project, but before all the other stages (Youngs, 2001).

According to a study conducted by JISC (2005) on digitized contents in the UK Research Library and Archives, manuscripts and archives are considered as the most frequently digitized type of materials due to their perceived ease in capturing and the improvement of access to materials. Other types of materials such as artifacts have also been digitized. In addition, many digitization projects in the UK have focused on specific themes or topics. It was recommended in the study that in selecting materials for digitization, users' needs should be investigated in order to know what to select for digitization.

According to Asogwa (2011: 8), selection for the purpose of digitizing materials involves the process of selecting specific items to be digitized employing standards such as "value, significance to the overall collections, user demand and interest, availability and fragility of the original material". Asogwa (2011) affirms this by adding that the Guidelines for Digitization Project of UNESCO, IFLA and ICA in 2002 proposes that the major driving force for digitization projects should be based on high demand by users, that is, the project must be user driven. This points out that it is not very necessary to digitize materials which are not in high demand or frequently used. Digitization should only be encouraged when Archivists are trying to attract more users of certain documents and or as a measure to restricting certain documents from circulation or handling of certain records. Asogwa (2011) added that when there is high demand of fragile records, digitization may therefore be adopted as a means of preserving the original as use of surrogates is likely to protect the original from frequent handling.

Youngs (2001: 9) points out that "it is important that the selection process involves those who have detailed and expert subject knowledge of the collection and the materials, for example, the curator or archivist, manager, conservator, and someone external to the institution (for an unbiased opinion)". The reason given for this according to Youngs (2001) is for the good understanding of the importance and relevance of the collection to be achieved. The institution should fully understand that the effort involved in the selection process is usually underwritten by the host institution or partners in the hope or expectation of attracting grant funding.

There should be selection criteria which help to justify what and why a collection is being digitized. Youngs (2001: 9) added that a selection checklist may not necessarily include certain criteria such as "intellectual justification, demand, relevance to funders, relevance to the institution, copyright, relationship to the other projects, feasibility of image capture. Metadata, condition of original collections and sensitivity of contents are also selection criteria for digitization of a collection".

According to a report by Rieger (2008) for the Council of Library and Information Resources in Washington D. C, the priority of their digitization project was placed mainly on the preservation of brittle and rare materials. However, due to early digitization technologies which required books

to be unbound before they were scanned, the possibility of damage to originals was being considered as a factor in making decisions for selection (Rieger, 2008: 11). The Association of Research Libraries (ARL) endorsed digitization as an accepted reformatting option in 2004; arguing that the choice to adopt digitization remained a local decision, not prescriptive (Arthur et al, 2004). They further encouraged institutions engaged in digital reformatting to ensure financial and organizational commitment to comply with the best practices and standards of digitization.

According to the Canadian Council of Archives (2014), a digitization tree is recommended for the digitization project and it is intended to help archivists in the identification of records when embarking on a digitization project by reviewing certain fundamental issues was illustrated. The first fundamental issue is that the project objectives must be clear and should act as a guide to the identification and purchase of the required technology and resources to achieve the goals of the project. The second issue relates to the long-term costs of a digitization project which requires maintenance and support by institutions and their parent organizations. The steps in a digitization project at a macro level were addressed in the document. Similarly, Sauer (2011) proposed some factors to be considered when digitizing and there are obvious (copyright and permission, cost, physical condition), subtle (purpose, audience, intrinsic value) in-between these two major groups lies discovery and access.

Hamooya & Njobvu (2009) in a publication on the digitization of the National Archives of Zambia pointed out that records for digitization were selected based on criteria such as Intellectual contents of the material, level of demand from public, among others. For a digitization project to be successful there must be a standard criteria for the selection of materials to be digitized.

On the other hand, in a similar study in the National Archives of Kenya, Namande (2012) declared that 1.7 million document pages were selected for digitization in the National Archives of Kenya. The major factors which were considered in selecting the records for digitization were “physical conditions, age, uniqueness and demand, over and above the fact that such documents exist in the public domain and are not tied to copyright restrictions”.

The intellectual value of the collections, number and location of existing and potential users of library collections, pattern of use of library materials, intellectual property issues, and cost are some of the key issue that should be considered in the selection of materials to digitize.

Asogwa (2011) emphasized on the importance of developing policies for the selection of materials for digitization and these policies are important in order to easily identify collections that add value to these goals. However, Sigauke & Nengomasha (2011) pointed out that even though there is no digitization policy at the National Archive of Zimbabwe, the selection criteria that inform the selection of historical records to digitize is on the grounds of improving access and the digitization process is carried out on a case by case basis. The Guidelines for Digitization Project by UNESCO, IFLA, and ICA (2002) recommends that digitization projects should be user driven, opportunity driven or preservation driven. Depending on the reasons for digitization, this suggests that selection of materials for digitization should be based on the need to make materials available to more people due to high depend or frequency of use of the material. Due to high demand for particular archival materials which are considered to be fragile or are deteriorating fast, they may be considered for digitization in other to preserve the original copies of such materials.

In the selection of archival materials for digitization, there is need for a clear understanding of copyright law and rights of ownership (de Stefano, 2000; Tennant, 2000). Copyright issues are quite complex and might pose as a major challenge that limits the selection of archival materials for digitization. While there are plenty of challenges to digitization projects such as costs and time, copyright still represents a very significant and sometimes insurmountable obstacle (Akmon, 2010). Gertz (2011: 99) advises that "once selectors establish that the materials merit digitization, they must then determine whether they have the legal right to make digital copies and disseminate them, and if not, whether they can get clearance from the rights holder".

## **Conclusion**

Archival materials are very important and there is need for developing countries to pay more attention to their preservation for posterity. Digitization of archival materials has become a popular concept in the preservation of original materials and in creating better access to archival materials but the issue of selection of materials for digitization must be considered carefully. Most archival institutions in Africa are still far behind in the formation of digitization policies to guide digitization projects. Without a digitization policy which clearly outlines the selection of materials, the purpose of the digitization exercise might not be fulfilled. Knowing what to select and how to select materials for digitization using a strict policy or organizational guideline is very key in the success of any digitization project. It is important to note that there are few studies on the digitization of archival materials in Africa, especially in Nigeria. Most of the studies on digitization and selection of materials focus on library materials. There is need to conduct more studies on the digitization of archives in Africa.

## **Recommendations**

It is recommended that archival institutions in Nigeria should take the issue of policy formulation seriously as this is the only way these institutions can achieve a successful digitization project. The purpose of digitization clear (i.e. either for preservation or access or both) should be clear. The selection of materials for digitization should also be a step-by-step approach which makes it possible and easier for the digitization projects to be done in stages. The fast deteriorating materials or those at brink of being lost should be digitized first in order to salvage them. It is also recommended that the digitization of the Search Room such as the registration process and making the finding aids should be in formats such as PDF/A format. This will enable searchers to retrieve information easily by using key words.

Also, due to problems like the lack of skilled personnel, the expertise of the professionals can be used in the area of purchase of digitization equipment; they can also offer professional advice on the ideal or recommended software and hardware required for the digitization program. These professionals can also help train the staff so that they can acquire skills to help them manage the digitized collection afterwards.

The institution should make sure that a good manual system is in place in anticipation of digitizing them. Keeping a good and well organized manual system with the assistance of some of the knowledgeable staff, the professionals can easily adapt the same process to digitizing the collection successfully. With a poor manual system in place, digitization will not be easy because these records have to be classified according to folders and other techniques adopted in the shelving of

these Records in the various Repositories. It is easy to mix records up if not well organized before they are digitized.

### **Areas for further studies**

Further studies should be carried out on the digitization of archival materials in Africa, especially in Nigeria. There needs to be more research discussing the contextual and local nature of digitization in developing countries. Qualitative research methods should be employed in these studies in order to contextual the studies in get quality and in-depth information about the National Archives of Nigeria through the use of instruments such as interviews and observation.

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