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## **DIGITISATION: A PANACEA FOR INCREASED ACCESS TO HISTORICAL INFORMATION AT THE NATIONAL ARCHIVES OF ZAMBIA**

By

**Chrispin Hamooya, Felesia Mulauzi and Benson Njobvu**

University of Zambia, Department of Library and Information Studies, Lusaka, Zambia

### **ABSTRACT**

*Digitization which is the process of converting analogy information into digital format is mostly meant to safeguard and ensure the preservation of the most valuable and perishable components of the archival information as well as make it more accessible and facilitate their future fruition by a broader number of researchers and interested parties. The paper discusses the research which was undertaken at the National Archives of Zambia whose main objective was to assess the utilization of digitized archival information by researchers at National Archives of Zambia. The study population consisted of all the 120 registered researchers. The findings of the study revealed that all while the majority of researchers were able to access digitized information whilst at the National Archives of Zambia, they did not know initially that most of the historical information was digitized. It was thus recommended that National Archives of Zambia members of staff should guide researchers by providing information on what has been digitized and can be accessed on the computer terminals. A guide or manual should be given to all researchers especially those using the National Archives for the first time. Furthermore, the study revealed that the majority of the researcher considered using computer terminals in accessing archival information faster as people could access the same information at the same time. However, researchers were concerned with the inadequacy of computers at the National Archives of Zambia. It was thus recommended that National Archives of Zambia should provide more computers for researchers to use to access digitised archival information. It was finally concluded that the provision of digitised archival information allows users to access the required information effectively and efficiently.*

**Key words:** Archival Information; Digitisation; Accessibility; National Archives of Zambia.

## **1.0 INTRODUCTION AND CONTEXT**

Archives administration in Zambia is the mandate of the National Archives of Zambia (NAZ) which is under the Ministry of Home Affairs. This mandate is derived from the National Archives Act Chapter 175 of the Laws of Zambia, 1995 edition. The Act is meant to provide for the preservation, custody, control and disposal of public archives including public records in Zambia. Currently, the National Archives of Zambia holds a lot of archival information. Schellenberg (1956:16) defines archival information as ‘those records of any public or private institutions, which are judged worthy of preserving for reference and research purposes and which have been deposited or selected for deposit in an archival institution. Mckemmish in Ellis (1993:8) contends that archival information acts ‘as long term memory, enabling better quality planning, decision making and action by providing for continuity, access to the past experiences, expertise and knowledge, and a historical perspective. It can thus be argued that archival information is useful as it enables informed planning and decision making as well as consistency and effectiveness of human action.

However, it should be noted that the value of archival information can only be seen when it is used by not only the creator of records but also by other individuals and the society at large for a variety of current social and organizational purposes. Furthermore, archival information must actually be available and accessible. This is especially so in that archives are part of the wider world of information and are consulted by a wider range of users. In this regard, and in order to enable better accessibility of archival information, National Archival Institutions need to bridge the gap between archival information and users more effectively than they have in the past. One of the ways of bridging this gap is by digitisation of archival information. Miller (2005) refers digitisation as all the steps involved in the process of making collections of historical materials available online in a local area network or in internet. One of the institutions that embarked on the digitisation of its historical archival information is the National Archives of Zambia.

Digitisation of National Archives of Zambia documents started in 2005 with the view of safeguarding and ensuring the preservation of the most valuable and perishable components of the archival patrimony and to render them more accessible and facilitate their future fruition by a border number of researchers and interested parties nationally and internationally.

The digitised documents included the District Notebooks, which are the most requested items among the National Archives of Zambia's holdings. Mukula (1981) notes that the District Notebooks are a valuable source of historical, political, administrative, ethnographical and anthropological information. They were kept at district administrative Stations (bomas). Entries were made in these notebooks by district officials on wide range of administrative and historical subjects. In many cases, they contain the only written sources of tribal histories. The notebooks were vulnerable tear and wear as a result of weight. They cover the period from 1896-1964. To further the goal of bridging the information gap, the department extended the digitisation of materials to the British South African Company files (1896-1924). Additionally, historical maps, photographs and newspapers have been digitised

After the digitisation process, the need to create an extensive database was therefore obvious to facilitate the access of archival information. A multimedia room was expanded for the installation at National Archives of Zambia with a software and hardware available therein to provide users with the means to consult digitised information. This is in line with Asogwa (2011) who points out in an archival environment, digitised materials can be linked to other materials to create multimedia. Subsequently, two computers were installed in the research room to enable researchers utilise the digitised materials through simple keyword searches.

The dissemination of information on what materials are digitised has been enhanced through the creation of the website and posters in the Library to assist researchers know what has been digitised. This has helped to increase accessibility of historical material to the public, to reduce the handling of fragile material and to develop human resources and technical infrastructure.

### **1.1 Statement of the Problem**

National Archives of Zambia has digitised materials in order to increase the accessibility of these materials and reducing on handling the fragile material as they can now be accessed on the computer. Despite this intervention, some of the researchers have continued to request for the physical materials and still use and handle the fragile materials. It was expected that after digitisation of archival materials, all researchers will start accessing these materials electronically. On the other hand, there has been no research to evaluate the failure or successes of the digitisation project undertaken by the National Archives of Zambia. It is in this vain that a research was needed to be carried out to determine if the project accomplished its goals and objectives. It was expected that the findings of the research would help the department identify

gaps and weaknesses in accessing archival information and subsequently measures be taken to bring about effective use of digitised materials by all researchers and staff at National archives of Zambia.

## **1.2 Objectives of the Study**

The general objective of the study was to evaluate the effectiveness of using Information and Communication Technologies (ICTs) in accessing digitised archival information by researchers at National Archives of Zambia. In this regard, the study had the following specific objectives;

- To determine the extent to which the ICT services provided by the National Archives of Zambia are used.
- To determine the extent to which the ICT services provided by the National Archives of Zambia meet the user needs.
- To make recommendations on how best the National Archives of Zambia can provide archival information using ICTs.

## **2.0 LITERATURE REVIEW**

Pearce –Moses (2005) views digitisation as the process of transforming analogy material into digital format. Hughes (2004) on the other hand views digitisation as the process by which analogue contents is converted into a sequence of 1s (ones) and 0s (zeros) and put into a binary code to be readable by computer. Basically, digitisation is the transformation of analogue information from whatever form and from whatever support to digital code using computer technologies. Currently digitisation is becoming the most popular trend among archival and related institutions. The Institute of Museum and Library Services (2006), after conducting a survey of archives, museums, public and academic libraries, and state library administrative agencies, announced that 94 percent of archives have reported some digitisation activity over the past year. Additionally, The University of Illinois in Asogwa (2011) submits that more institutions are developing digitization initiative, and hundreds of libraries, museums, history, and archives have launched projects designed to digitize their collections and place them on the web.

It is in this regard that Asogwa (2011) reports that most cultural institutions in many parts of the world are now investing on digital projects for several reasons which may include;

providing access, reduction of over-handling of materials, and assisting in promoting the collections and visibility of the institutions. DeGracia (2009) points out that the main advantage of digitisation increased access of archival information to researchers. This has become possible because digitised materials can be accessed by more people at different times and with less effort. This is so, because by digitising and putting the materials online, the materials become available to people all over the world. Furthermore, multiple users can view the same materials simultaneously. Additionally, researchers no longer need to spend time and money travelling to the archival institution to research as they can do this where ever they are as long as they have the necessary computer facilities.

It should be further noted that by increasing the number of researchers that can get their hands on a particular archival item, Smith (1999) submits that digitisation also improves the quality of that access. For instance, materials from different collections located thousands of miles apart can be viewed side by side in a researcher's living room. Furthermore, digital versions of documents can be manipulated to aid a researcher in ways that the original object cannot. One example as reported by Smith in DeGracia (2009) is the digitization of a 1791 architectural plan of the District of Columbia, which has been described as so badly faded, discoloured, and brittle that it resembles a potato chip. It cannot be used by researchers and yields little detailed information to the unaided eye. However, its digital counterpart can be enhanced in size, sharpness, and colour so that users can decipher the details of the map and understand the planning of the nation's capital.

Similarly, CDP Digital Audio Working Group (2005:11) submits that when digitizing sound recordings, it is possible to edit the audio stream and actually improve upon the quality of the original. This can make more of the recording audible to researchers, allowing them to extract more value from the item. Furthermore, James –Gilboe in DeGracia (2009) points out that when dealing with a text-based item like a newspaper, the digital copy is often clearer than the microfilm version from which it is derived. Through benefits like these, digitization enhances access, in addition to increasing it. Additionally, James –Gilboe (2005) submits that through digitisation, researchers are given new search and browsing options that enable them to find information with greater speed and accuracy. For example, when dealing with hard-copy written material, the only way to locate specific information within the document is to read through the text.

Furthermore, DeGracia (2009) argues that digitisation of archival documents reduces some of the costs faced by the archival operation providing access. For instance, the time archival staffs require serving the public when dealing with paper records. Researchers typically have to request an item from an archival staff member, who then must go to the shelf to retrieve it and record that it has checked out. Once the researcher no longer has a need for the documents, he or she will return it to a staff member, who then must place the document back its proper location. This process is time-consuming and tiring. However, in the case of digital archival information, a researcher can obtain the document in question without the involvement of archival staff. This reduces the staffing and time burden placed on the archival institutions when providing reference services using paper records.

Generally, Asogwa (2011) has summarised that digitisation of archival materials has tremendous benefits for administration, education and research as digital materials can be read in new and creative ways and may be delivered directly to end-users, and retrieved remotely. Since the data is not fixed like printed text, it is easy to reformat, edit, and print. Therefore, the flexibility of the digital content and the ability to provide a large number of user's access to unique special collection materials is an added benefit and the most attractive feature of digital conversion.

### **3.0 METHODOLOGY**

The research was conducted at the National Archives of Zambia headquarters in Lusaka where the digitisation was done and hence research services being offered. It should be noted that only registered researchers are allowed to conduct research at the National Archives of Zambia. At the time of the research there were 120 registered researchers. Since the registered researchers were considered to be few, all of them were picked as respondents. A questionnaire, which contained both opened and closed ended questions used to collect data. The 120 questionnaires were distributed and all responded. The data collected was analysed using both quantitative and qualitative methods. Quantitative data was analysed using the SPSS package to run the frequencies and cross tabulations. Qualitative data was analysed from the descriptive notes taken from the open ended questions.

### **4.0 PRESENTATION AND DISCUSSION OF THE FINDINGS**

The general objective of the research was to evaluate the use of ICTs in accessing archival information at National Archives of Zambia by researchers. According to the research findings, it was established that 70% of the researchers interviewed were aware of the availability of digitised materials while 30% of the respondents were not aware of the availability of digitized materials. Therefore, from the findings it is clear that most of the researchers who patronize the National Archives of Zambia are aware of the availability of digitised materials at National Archives of Zambia. The high rate of researchers knowing about the digitised materials can be attributed to the computers that are in the research room which some researchers are found using and being assisted by the members of staff. These findings are in line with the research conducted by Checkland (1981) who reveals the importance of people in organizations and that information systems usually have human and computer elements and both aspects of the systems are interrelated. On the other hand, those few respondents who did not know about the digitised materials at National Archives of Zambia could be attributed to the personal failure on their part by not embracing technology and opting for physical hard copies while the remaining few opted to access information using both the physical documents and the digitised material on the computers.

The research study further sought to establish how often researchers used computers at National Archives of Zambia. The majority of the respondents indicated that they used the computers very often while a few opted not to use them. However, there is need for National Archives of Zambia to publicize the use of computers and materials that have been digitized in order to reduce on the handling of physical documents that will continue to deteriorate due to mishandling and continued photocopying of the same materials. It is therefore prudent that researchers are educated on the preservation measures of archival materials. It should be noted that usage of digital archives reduces tear and wears of the old or fragile materials and it hopefully extends the life span of the original (De Stenfano, 2000; Jones, 2001). Furthermore, there is improved quality of accessing digital archives as reported by Smith (1999).

The research revealed that the majority of the respondents consisting 65% claimed that they were able to find information from the computers while 20% of the respondents were unable to find the required information they were looking for on the computers. Therefore, the relevance of computers at National Archives of Zambia is cardinal as more researchers will be accessing the same information at the same time than them waiting for one person to finish using the physical document if they request for the same information. It also makes their

research faster as they are able to browse through within a few minutes than on the physical documents where they have to wait for the staff to bring the document, which takes a bit of time. These findings also agree with Kaiser (2000) who summed up the importance of digitisation as a motivation strategy that is perceived by other benefits like quick access and as a preservation measure for archival collections.

In terms of efficiency in accessing digitized archival information on the computers, the study found that the majority 50% of the respondents mentioned that it was fairly effective and 20% mentioned it to be very effective, while a few mentioned that it was not effective. The reason for the majority of the respondents to say very effective and fairly effective could be that the system is user friendly and there is quick access in retrieving the required information. Again the study established that the majority of the respondents constituting 70% were accessing information on terminals compared with original hard copy.

Digitisation has now come to be appreciated in archival institutions as it serves both as a preservation measure and provides quick access to the user in terms of retrieval. As the study revealed that the majority of the researchers' 70% considered using computer terminals in accessing archival information than the physical copies, information is accessed faster especially if it coupled with a faster network and different people can access the same information at the same time and that it can be accessed in the remotest areas as well. However, a few of the respondents 30% opted to use the physical hard copies. This is a challenge on the part of National Archives of Zambia management to educate the users of archival information to use the digitised materials on the computers in order to preserve the physical copies even for future generations as the materials will continue to deteriorate and it will assist them to access information faster. As Sutton (2004) has noted, the rapid rise of digitization has significant impact on the work performed by preservation staff in the way in which they organize their work and the expertise required to perform it. He further argues that digitisation has now come to be recognized as a fundamental preservation responsibility and part of daily collections tasks. In addition, Jacob (2002) observes that successful implementation and integration of Information and Communication Technology in institutions depends more on the need to design an appropriate and effective research environment with clear benefit for its users.

Furthermore, the respondents were asked on the adequacy of computers at National Archives of Zambia, the majority (70%) indicated that they were inadequate and suggested that more



computers should be provided. This implies that researchers are happy with the provision of digitised materials, which are accessed on the terminals though the computer terminals were not enough to cater for all the researchers. They also suggested that rules should be relaxed by providing a printer in order for them to get the required information within the shortest time possible.

In investigating whether or not the members of staff were helpful in assisting the researchers in retrieving relevant information. The research findings indicated that 65% of the researchers said that they were very helpful and 35% said they were helpful. These findings are in agreement with Bates (1995), which states that technology has provided an opportunity to teach differently in a way that can meet the fundamental needs of new and rapidly changing society. Therefore, members of staff at National Archives of Zambia should always be assisting researchers to access the required information from the computers. Additionally, Smith (2000) and Hughes (2004) points out that participating in digitization projects allow for professional development as staff involved in the project normally gains new computer skills, knowledge and expertise that are useful when it comes to assisting researchers.

In an attempt to ascertain the rating of the competence of the National Archives of Zambia members of staff computer skills, 65% of the respondents said they are very competent while 35% said they are competent. This shows that National Archives of Zambia members of staff have the basic computer skills and satisfy the provision of ICT services to their users. These findings agree with the research conducted by Jacob (2002) who argues that effective technological infusion occurs when leadership is matched with corresponding management staff and learner ownership readiness. With staff assistance, researchers can develop a positive attitude that would enable them use ICT effectively.

## **5.0 RECOMMENDATIONS**

In the quest to make the ICT effective in accessing archival information at National Archives of Zambia, a number of recommendations have been put forward through the findings of this research and the findings of other researchers. The recommendations made were as follows:

- National Archives of Zambia should provide more computers for researchers to use, as the two computers that are used to access archival information, which has been digitized, are not adequate.

- National Archives of Zambia members of staff should guide researchers by providing information on what has been digitized and can be accessed on the computer terminals.

## **6.0 CONCLUSION**

Digitisation which is the process of converting analogy information into digital format is mostly meant to safeguard and ensure the preservation of the most valuable and perishable components of the archival information as well as make it more accessible and facilitate their future fruition by a broader number of researchers and interested parties. The findings of the study revealed that all while the majority of researchers were able to access digitised information whilst at the National Archives of Zambia but they did not know initially that most of the historical information was digitised. It was thus recommended that National Archives of Zambia members of staff should guide researchers by providing information on what has been digitised and can be accessed on the computer terminals. Furthermore, the study revealed that the majority of the researcher equally considered using computer terminals in accessing archival information faster network as different people could access the same information at the same time and that it could be accessed in the remotest areas as well. However, researchers were concerned with the inadequacy of computers at the National Archives of Zambia. It was thus recommended that National Archives of Zambia should provide more computers for researchers to use. In this regard, that the provision of information through Information, Communication and Technologies requires proper and adequate facilities to allow users access the required information effectively and efficiently.

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