

Chapter 31

The Link Between Climate Change and Digitization of Archives in South Africa

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ABSTRACT

This chapter assesses the link between climate change and digitisation of archives in South Africa. The study found linkage between flooding, fire, and digitization of archives in the sense that records required long-term preservation to be accessible. The chapter focuses on converting paper-based records into digital platforms as a strategic role to prevent records from damage. Heritage institution such as the National Archives of South Africa is in the forefront of the preservation of archives in South Africa. It is their national mandate to preserve archival materials and make them accessible to various stakeholders. The success of digitization is dependent on the organisation strategy. This means that partnership, privacy, copyright need to be considered. The research found that most of the heritage institutions in South Africa lack digitization strategy, which led to loss of institutional memory.

INTRODUCTION

This book aim to assess the link between climate change and digitization. This is because South Africa heritage institutions experienced a loss of archives because of ineffective records management systems such as paper-based records. Implementing a sound records management program needs organizations to develop and implement a digitization program to protect records against flood and fires. There is a linkage between climate change such as flooding and fire and digitization of archives in the sense that records need to be preserved to enhance long-term preservation to be accessible. The heritage institutions need to convert paper-based materials into the digital domain, as stated by (Chronos and Sundel, 2011) to ensure long term preservation. Analog materials are digitized to facilitate preservation and access to users (Garaba, 2014). The process of converting paper records into digital platform prevent records from

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damages as a strategy to prevent records from fire and flood. Heritage institution such as the National Archives of South Africa is in the forefront of the preservation of the public archives (Netshakhuma 2019). It is the national mandate of the National Archives to preserve archival materials and made them accessible to stakeholders.

The book is based on a qualitative research method. Literature and document about digitization in South Africa and another part of the world were reviewed. The review of the literature demonstrates that research on digitization of heritage materials is still in its infancy in South Africa.

Heritage institutions are to digitize archives to protect them from floods and fires and to make them accessible. Preservation of archives with technological components improves authenticity, readability, and intelligibility of records (Boutard, Guastavion, and Turner, 2013). It appears that heritage institutions in South Africa faced the challenges of paper-based records deterioration because of handling. Hence, there is a need to develop a digitization strategy for archives' long-term preservation and access to archives because of the lack of control over heritage resources (Anderson and Hart, 2016). In the context of global warming, changes in weather and climate events are expected because of changes in temperature and precipitation regimes areas (Mallet, Fortin, Germain, 2018). Understanding the impacts of climate-triggered phenomena on archival repositories is imperative for the present and future security records. Lack of digitization is not only a challenge, but it is also an increasingly strategic issue in the management of records in Africa. Adoption of a digitization strategy is vital to ensure the preservation of archives. The quality of technology platforms has an impact on how users view the quality of information communication technology (Leveille and Timms, 2015).

Digitization is defined as an organization's commitment to preserving digital content for future use, specific file format preservation, and ensure compliance with standards and best practices (Delaney and De Jong 2015, Boamah, Dorner and Oliver, 2015). Digitization is conducted to ensure the long-term preservation of records (Bhat, 2018). Organizations are to develop a digitization strategy to preserve records for a long period. Integrity and authenticity are key to ensure the preservation of archives.

Digitization is guided by a records management standard. Standards provide guideline on digital life-cycle management processes, spans an archive's operations, acquisition, ingest, metadata creation, storage, preservation management, and access. According to Leresche (2008), the standardization of description rules and an access point is essential to heritage institutions. According to Leresche the statement of Principles regarding Archival Description, adopted at the International Congress on Archives in Montreal in 1992 identified the aim of archival description standards as follows:

- To ensure the creation of consistent, appropriate, and self-explanatory descriptions.
- To facilitate retrieval and exchange of information about archival material
- To enable sharing of authority data
- To make integrate descriptions from different locations into a unified information system.

Encoded Archival Description (EAD) cares automation and access to a detailed and hierarchical description of archival materials. Based on ISAD (G), ISAAR (CPF) and ISDF standards are necessary for both librarians and archivists. These standards were adopted by the heritage institution to improve access to archives. The standards enable users to identify records for permanent preservation.

Archives stored by the heritage institutions are historical collections, as indicated by (Anderson, 2005). He further elaborates that libraries and archives are products of historical struggles because they keep primary sources for histories. For example, colonial libraries and archives provide a rich history

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