Chapter 8
Preservation and Access to Digital Materials:
Strategic Policy Options for Africa

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ABSTRACT

As the digital world unfolds, Africa continues to grapple with the issues of preservation and access of digital materials. This chapter demonstrates through a systematic literature review how Africa could learn from other efforts in the world to develop and guide their own strategic and policy options to deal with issues of preservation and access of digital materials. The chapter reviews literature on global or universal collaborative strategies and efforts on digital preservation initiated in the developed world as a learning curve for Africa. The current challenges of national and institutional capacities regarding the preservation of digital materials in selected African countries that have made some visible efforts and impact are also discussed. The chapter then makes several recommendations on the strategic and policy options for improving the state of material preservation, human and material requirements in order to improve the long-term preservation, and standards for the longer-term usability and interoperability of digital materials in Africa.

INTRODUCTION

In memory institutions of the world, preservation, in general terms, involves understanding the spiritual, ritual, or cultural perceptions of the value for specific objects, and ensuring these values are maintained and respected. The assigned connotation is "something assigned to objects of cultural or spiritual significance based on interpretations and perceived values by user populations, a process known as social construction of an object" (Barker, 2003, p.77). In these institutions, the focus is often placed on the "informational content and physical attributes, or artifactual value, of collected materials" (Foot, 2006, p.19). In that regard, preservation policies "are primarily concerned with the maintenance of these two things, either through reformatting to preserve textual information, or repairs and environmental controls

to ensure continued existence of their physical structure" (Foot, 2006, p.19). In library and archival science, the term 'preservation' can thus be said to be an umbrella word under which most librarians and archivists group all the policies and options for preservation action, including conservation treatments of different formats of information materials (Kalusopa & Zulu, 2009).

Historical accounts show that the challenges of preserving paper-based information materials were propelled by the discovery of the Fourdrinier machine in 1806, which was driven to meet the high demand for paper (Harvey, 1993). However, owing to developments in science and technology over the past two centuries, we are now in the midst of a transition from essentially output of information in paper format to output in a variety of multi-media such as picture, sound, text or combination of these; and increasingly being stored in electronic media (Zulu, 2005; Kalusopa & Zulu, 2009). These information resources in the digital era now range from simple text based files e.g. word processing files to highly sophisticated web based resources such as; databases, websites, e-mails and storage mediums such as; diskettes, flush drives, CD ROMS, etc. For that reason, the world is continuously witnessing challenges of digital material preservation of the digital surrogates (Kalusopa & Zulu, 2009). These are created as a result of converting analogue materials to digital form (digitization) and those that are born digital for which there has never been and is never intended to be an analogue equivalent, and digital records.

This chapter focuses on issues of preservation and access of digital materials with specific reference to Africa. The chapter is a systematic review of extant literature that sought to present how Africa could learn from other efforts in world in developing and guiding their own strategic and policy options to deal with issues of preservation and access of digital materials. The chapter initially presents the definitional and conceptual view of digital preservation and access. It reviews literature on some selected digital preservation requirements and strategies. Then, some of the selected significant universal as well as national efforts in digital preservation in developed countries are presented. The current challenges of national and institutional capacities regarding the preservation in digital materials preservation from selected countries that have made some visible efforts and impact in Africa are discussed. The chapter then makes several recommendations on the strategic and policy options for improving the state of material preservation; human and material requirements in order to improve the long term preservation and standards for the longer term usability and interoperability of digital materials in Africa.

DIGITAL PRESERVATION AND ACCESS: CONCEPTS AND DEFINITIONS

In existing literature reviewed, there appears to be some lack of precise definitions regarding the concepts and terms that embrace digital preservation as an emerging area of research and discipline. However, what is true is that there is some relative consensus on some working definitions that continue to evolve over time.

In that light, digital material has been defined as a broad term encompassing digital surrogates created as a result of converting analogue materials to digital form (digitization), and 'born digital' for which there has never been and is never intended to be an analogue equivalent, and digital records (DPC, 2015, p.1). Digital preservation thus refers to all of the actions required to maintain access to digital materials beyond the limits of media failure or technological change. Those "materials may be records created during the day-to-day business of an organization; 'born-digital' materials created for

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