Chapter 11
Supporting Data Preservation Through Institutional Repositories of the Academic Libraries in South Africa:
A Case Study of Three Academic Libraries

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ABSTRACT

Institutional repositories (IRs) are open access platforms that could be viewed as ideal platforms for supporting the management of the scientific knowledge which enhances knowledge generation, preservation, use, and sharing and for increasing the scale of research performance in a research community. This chapter investigates the use of IRs in preserving data at selected academic libraries in KwaZulu-Natal province, South Africa, guided by the Digital Curation Centre (DCC) Lifecycle Model. The interpretivist research paradigm following a qualitative research approach through a case study was employed. The findings of the study reveal uniform IRs for data preservation in the participated academic libraries. The findings also show a strong need for training and workshops to equip the librarians and researchers with the necessary skills and knowledge for preserving data in the IRs. A lack of resources is the biggest threat to preserving data for most academic libraries.

INTRODUCTION AND BACKGROUND

Institutional Repositories (IR's) are open access platforms that serve as archives for intellectual output for different research disciplines in higher education institutions (HEIs). The emergence of institutional

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repositories has proven to be integral for the dissemination and preservation of intellectual content. Institutional repositories have also been on the frontline of the open access movement by offering wide and unrestricted access to research output from a variety of faculties in higher education institutions (Adjei, Mensah & Amoaful, 2019). The literature on the subject matter essentially highlights access and preservation of data as the two underlying functions of institutional repositories (Francke, Gamalielsson & Lundell, 2017). From a global landscape, it would seem that long-term preservation of data in institutional repositories is still a grey area, as most institutional repositories focus on providing access and dissemination of data. Li and Banach (2011) argue that the implementation of data preservation is still at its infancy. Barrueco and Termens (2021) state that the scarce number of articles published confirms that the interest of repository managers has been focused on other issues other than to assure the long-term availability of the assets they store.

Seemingly, developing countries in Africa are still far behind in terms of long-term data preservation. Against this backdrop, this study investigated the University of Zululand, University of KwaZulu-Natal and Durban University of Technology's academic libraries in South Africa to establish how they support data preservation through their institutional repositories while adding to the body of literature in the Library and Information Science domain. Kari and Baro (2016) as well as Adjei, Mensah and Amoahful (2021), claim that many IR activities in most academic libraries only focus on creating repositories, depositing content, promoting discovery and access and/or encouraging the necessary cultural change, but not on how to preserve the content for long-term accessibility. Mensah (2015:2) also identify that there are inadequate data preservation methods in institutional repositories of African libraries which could result in serious ramifications such as inaccessibility and loss of data. Moseti (2016:137) attained findings of a similar nature in Kenyan universities, and further states that digital preservation has not been embedded as an integral part of the repositories' workflow and there is neither much experience nor commonly agreed best practice as to how digital preservation is best performed.

Data preservation is a term that is seldom left out in the definition of institutional repositories, yet as above mentioned, it serves as one of the key functions of institutional repositories. Barrueco and Termens (2021) view data preservation as a fundamental element in institutional repositories, owing to its potential to ensure accessibility and availability of research content in its original form over a long-term period. In the same vein, it can also be observed that the implementation of data preservation in higher education institutions is not congruent to its wide discussion by researchers in the library and information science discipline. For the successful preservation of data in an institutional repository, a variety of factors come into play, some of them being the software programme used, strategies for long-term data preservation, training for institutional repository managers among others (Prabhakar & Rani, 2017). According to Masenya and Ngulube (2020), software programmes are intended to provide academic institutions with the capability to create, capture, store, preserve, track and retrieve digital resources, regardless of the format. Strategies for data preservation are paramount for institutional repositories, as alluded to by Ebele, Anthonia and Ebikabowei (2019), who posit that strategies for the preservation of IR content and the decisions about what content requires preservation should be driven by preservation policies. The training and education of staff is an essential element when preserving or digitizing materials, as it is an extremely complex area that requires a great deal of knowledge to comprehend the phenomenon (Masenya & Ngulube, 2021).

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