The History, Deployment, and Future of Institutional Repositories in Public Universities in South Africa

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A R T I C L E   I N F O

A B S T R A C T

This paper investigates the history, deployment, and content of institutional repositories (IRs) in public universities in South Africa. Some of the local, national and international drivers and enablers that ensure the establishment and survival of the institutional repositories are identified. Lastly, an attempt is made to determine the future of the IRs. Findings include that South African universities were among the first universities in the world to host IRs with the first IR established in 2000. The most prevalent and dominant content in South African public university collections are electronic theses and dissertations (ETDs). There are signs that this is changing as more libraries cover research outputs emanating from the universities. African languages are sparsely represented in IRs in South Africa. The majority of universities in the country signed the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, and the Budapest Open Access Initiative. Many of them do not have their own open access policy. The driving factors include the decline in government subsidy, increase in journal subscriptions, depreciation of the South African currency, and addition of the Value Added Tax (VAT) of 14% on electronic resources by the South Africa taxman while the enabling factors include the international open access mandates, the Carnegie Foundation grants, and the National Research Foundation's statement on open access.

Introduction

Institutional repositories are one of the newest resources in university libraries. Their proliferation in the 2000s ensured that millions of documents that would have been hidden on a shelf in a small library (in the best case scenario), on some academic's drawer (in the better case scenario), or in the dustbin (in the worst case scenario) are given life through open access (OA) via the internet. Some of the documents that find their way to IRs would not have met the standards to be catalogued in academic libraries. Though IRs are a recent phenomenon, they trace their history in 1990 when Gardner first proposed an archive of academic publications in the journal "*Psychological Science*". Africa was a late comer to hosting IRs as it traces the first known repository to the introduction of the Africa Journals Online (AJOL) in 1997 (Nyambi & Maynard, 2012). South African universities would join later with the introduction of IRs in universities in the early 2000s. The University of Pretoria was one of the first universities in the world to host an IR (Hammes & Olivier, 2009). The aim of this paper is to discuss the history and deployment of IRs in public universities in South Africa, the "pull and push factors" behind the establishment of the IRs, language representation of the IRs, and their future.

The meaning of institutional repository

Researchers have attempted to define IRs in the context of universities (Agyen-Gyasi, Corletey, & Tawiah Frempong, 2010; Crow, 2002; Lynch, 2003). The Scholarly Publishing and Academic Resources Coalition (SPARC) position paper seems to have made the first attempt to define IRs. In it IRs are defined as the "digital collections capturing and preserving the intellectual output of a single or multi-university community" (Crow, 2002). This shows that there was a realisation from the early stages that IRs may have to involve some collaboration between different institutions. They are not necessarily confined to one institution. Another definition by Lynch (2003) defines IRs as "services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members". Agyen-Gyasi et al. (2010) choose to emphasise the impact and economic benefits of IRs. IRs are described as digitised libraries of a university's intellectual outputs that are accessible in open access platforms in order to give a clearer demonstration of the impact of research emanating from that university.

Objectives of the paper

This study focuses on IRs in South African public universities, and its objectives are to:

- Establish the history of the IRs.
- Determine the deployment of the IRs.
- Determine the drivers and enablers of the IRs.
- Establish content of the IRs.
- Determine the representation of the 11 official South African languages on the IRs.
- Determine the future of the IRs.

Literature review

The literature review of this study is divided into three sections, which are: public universities and libraries in South Africa, languages in South Africa, and studies related to the present study.

Public universities and libraries in South Africa

In South Africa, universities are regarded as public if they are established, deemed to be established or declared as such by the Higher Education Act (South Africa, 1997), and as a result receive subsidy from the government (South Africa, 2004). In 1994, after decades of division of universities along racial lines, a new multi-racial and multi-lingual government came into power in the country. According to Buchanan (2008: 1, 250), this had a huge impact on academic libraries in South Africa as they grappled with the new political and social environment. However, it was not until 2002, that university libraries faced their "Mandela Moment". It was announced in 2002 that universities will be transformed and the majority merged into multi-racial multi-lingual entities (South Africa, 2002). Only five universities were not affected by the proposed mergers according to a statement by the then minister of education, Prof. Kader Asmal. Those were the Universities of: Cape Town, Stellenbosch, Western Cape, the Witwatersrand, and the Vaal University of Technology. The number of universities was decreased from 36 to 23. The number of these universities would later increase as three universities were added in 2014 and 2015. The model that was followed resulted to three types of universities in the country: the comprehensive universities, traditional universities, and universities of technology (UoTs). Table 1 provides a list of South African public universities by type.

Two of the 26 public universities, the Mpumalanga University and Sol Plaatjie University, were only established in 2014 and they currently do not offer any masters or doctoral studies. The other university, Sefako Makgatho Health Sciences University, was only established in 2015 after the failed merger with the University of Limpopo (South

Africa, 2014). The public university IRs in South Africa are the subject of this study but the three newly formed universities have been excluded given that they are still establishing themselves. It would be unrealistic to expect those universities to have established IRs as they are in the early stages of development.

Languages in South Africa

Language is an emotive issue in South Africa (Giliomee, 2004). It is mentioned as one of the causes of three historic events in the country which are the: Great Trek, Anglo-Boer War, and Soweto Uprisings. The historian, Shillington (1987) points out that the Great Trek (1835–1846), the movement of the majority of Afrikaans speakers away from the British controlled territories of Natal and Cape Colony, was partly because of the introduction of English as the only official language in all British colonies. The events that followed the Great Trek would lead to a fully blown South African war (often referred to as the Anglo-Boer War) mainly between the English and Afrikaans speakers from 1899 to 1902. In negotiating for the Union of South Africa, the Afrikaners insisted on the replacement of Dutch with Afrikaans as one of the official languages, and the recognition of both English and Afrikaans as official languages of the Union on an equal footing (Giliomee, 2004). The British relented, and Afrikaans was recognised as an official language of South Africa in 1925 (Giliomee, 2004: 39). In order to promote Afrikaans in higher education, five Afrikaans universities were established, which were: the University of Stellenbosch, University of the Free State, University of Pretoria, Rand Afrikaans University, and Potchefstroom University for Christian Higher Education. However, Afrikaners always had the fear that the Afrikaans language would die and they sought ways to expand it to the Black township schools in 1976. This triggered the 1976 Soweto Uprisings with some students raisings placards that demanded equal recognition of African languages and Afrikaans (Giliomee, 2004: 43). It was not until 1993 that nine African languages were recognised as the official languages of South Africa together with Afrikaans and English (South Africa, 1993). Those are: Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga, isiNdebele, isiXhosa, and isiZulu. The 1996 Constitution of South Africa asserted this position (South Africa, 1996). However, the official recognition of African languages did not result to the recognition of these languages as medium of instruction in universities. This prompted the formation of the Ministerial Committee appointed by the then Ministry of Education in September 2003 in order to advise on the development of indigenous languages as medium of instruction in universities. The recommendations of the Committee are in Table 2.

According to the recommendations of the Committee, African languages were supposed to have significant footprints on 11 traditional and 6 comprehensive universities in South Africa. However, these recommendations were never implemented. Ngulube (2012) opines that

Table 1
Public universities in South Africa by type of university.

	Traditional universities	Comprehensive universities	Universities of technology
	University of Cape Town (UCT)	University of Johannesburg (UJ)	Cape Peninsula University of Technology (CPUT)
	University of Fort Hare (UFH)	Nelson Mandela Metropolitan University (NMMU)	Central University of Technology (CUT)
	University of the Free State (UFS)	University of South Africa (UNISA)	Durban University of Technology (DUT)
	University of Kwazulu-Natal (UKZN)	University of Venda (Univen)	Mangosuthu University of Technology (MUT)
	University of Limpopo (UL)	Walter Sisulu University (WSU)	University of Mpumalanga[a] (UM)
	Sefako Makgatho Health Sciences University (SMU)[a]	University of Zululand (UniZulu)	Sol Plaatje University (SPU)[a]
	North-West University (NWU)		Tshwane University of Technology (TUT)
	University of Pretoria (UP)		Vaal University of Technology (VUT)
	Rhodes University (RU)		
	University of Stellenbosch (SU)		
	University of the Western Cape (UWC)		
	University of the Witwatersrand (Wits)		
Total	12	6	8

[a] Newly established university.