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NATIONAL DIGITAL LIBRARY STRATEGIES: A SOUTH AFRICAN PERSPECTIVE

Douwe Drijfhout & Lesiba Ledwaba

National Library of South Africa

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Introduction

The objects of the National Library of South Africa (NLSA) and the functions it is required to perform are prescribed by the National Libraries Act, Act 92 of 1998. The NLSA is the primary resource of South African published documentary heritage. The NLSA strives to ensure equitable access to its comprehensive collections for all members of South African society. The National Library's collections contain a wealth of information including South African books, periodicals, newspapers, maps, special collections, government publications and foreign official publications.

Digital libraries

A digital library can be defined as a system or service by which information resources are collected, processed, preserved and accessed in digital form as opposed to print, microform or other media. There are three ways of building digital collections:

- Digitization: converting paper or other media to digital formats
- Acquisition of original digital works
- Access to external information resources available online on the Internet

The transformation process of the electronic publishing industry and the acceptance of national libraries as trustworthy partners led to delays in the acquisition and legal deposit of original digital works. However, digitization as a means of preserving and improving access to existing collections at libraries was accepted and applied soon after scanning technology became readily available.

Pilot digitization projects

The NLSA was one of the founding members of Digital Innovation South Africa (DISA), which was established in 1997. DISA aimed to implement digital technologies in libraries to enhance access to South African content of high socio-political interest (especially that related to the Freedom Struggle). DISA became a centre of digitization expertise in SA and provided training and support across South and southern Africa. The NLSA contributed by way of digitizing journals and other publications from its collections (e.g. *Sechaba* and *Indian Opinion*). As part of DISA Phase 2 the NLSA assisted with the scanning of historical collections that were published on microfilm. In 2003 the NLSA produced digital copies of more than 300 drawings relating to the San people of southern Africa; this collection, at the NLSA Cape Town campus, is listed under the UNESCO Memory of the World project.



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Over the years in-house research has been undertaken by the NLSA to meet the challenges of digital collection development. Topics of research included the legal deposit of web-based publications; an overview of digitization efforts in Africa; a review of existing South African policies and legislation in respect of digital preservation; and a survey of the establishment of digital libraries at South African tertiary institutions. In cooperation with seven academic libraries the NLSA took part in the LOCKSS-SA project: preservation caches for electronic journal content were installed at participating libraries. Research indicated that valuable groundwork was done in South Africa. Some South African academic institutions had well-established e-depositories.

Transformation of services

The NLSA transformed its photographic and microfilming facility to a fully operational digital services unit. Recently two large-format scanners were obtained with the purpose of scanning historical maps and newspapers. Other equipment includes flatbed scanners, microfilm and film negative scanners, and digital cameras and digital video technology. Staff are trained in the application of scanning technology and digital photography as well as multimedia and metadata.



Large format scanning at the NLSA

Future plans for digitization include the Library's collection of South African newspapers on microfilm. The microfilm collection consists of an estimated 7.5 million pages of newsprint. A selection of 40 historical newspapers (approximately 200 000 pages) that represent the Black Press of South Africa is being considered, including for example the first black owned and controlled newspaper *Imvo Zabantsundu* (1884–mid1990s).

Draft policy on digitization

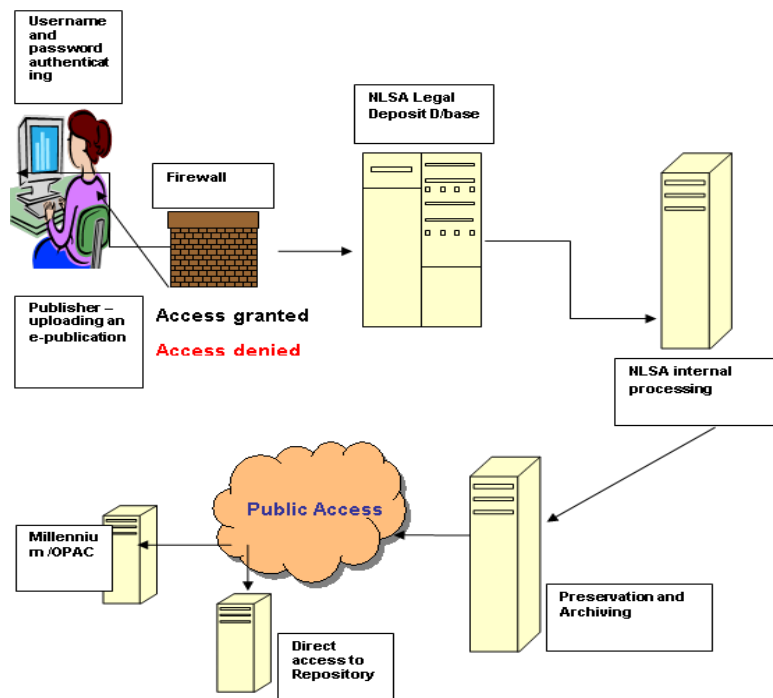
Experience with digitization projects over the past years has indicated the need for a national policy that would provide guidelines in respect of national priorities, coordination and the protection of national heritage against forms of uncontrolled export. A draft policy on the digitization of heritage resources tabled by the Department of Arts and Culture (DAC) in February 2011 indicates the role of existing national memory institutions such as the NLSA. The mandate remains unchanged in the shift from physical to digital collections (Policy 11). The establishment of a National Digital Repository should be seen as an extension of services currently provided (Policy 13). All custodians falling under DAC are required to address digitization within their strategic plans (p.42 of version 8 of policy).

Based on the draft policy developed by DAC, a digital library strategy for the NLSA would:

- establish a National Digital Repository (Library) in line with the legislative mandate of the NLSA;
- promote an inclusive information society based on open and free access to information;
- develop institutional capacity in terms of managing digital collections as a core activity;
- develop and implement national metadata and vocabulary standards to ensure semantic interoperability between digital collections;
- encourage metadata in additional South African languages;
- specify digitization projects currently in progress, including stakeholders and beneficiaries;
- establish a clear copyright management policy;
- manage digital resources in terms of location, backup and disaster recovery plans;
- develop a digital preservation strategy on how migration will ensure long-term access;
- adhere to standards of security, authenticity and integrity;
- develop and implement a skills framework for digitization; and
- promote research and development.

Deposit of e-publications

The NLSA recently developed a model for the deposit of e-publications. The Library is now in a position to accept original digital works. The following diagram illustrates the operational procedures and processes for depositing electronic publications. A web-based protocol for handling e-deposit materials has been designed as a platform to manage digital resources received from the publishers.



Protocol for handling e-deposit materials at the NLSA

Digital or electronic collections are resource-intensive and require that proper infrastructure be in place. For this reason the NLSA acquired high capacity servers to house the collection in anticipation of the high digital volumes expected. High capacity servers are not the only determining factor for managing digital collections. The ultimate goal of collecting and managing digital collections is to provide access to the users of these resources. The nature of digital collections is such that they are also bandwidth-hungry. Downloading a digital resource over a low capacity line can be very frustrating to the user. The NLSA has in this regard planned for a bandwidth upgrade on the existing line.

The Legal Deposit Act requires that electronic materials be kept in their original format. Due to this legal requirement, an original document will be kept and a compressed version be made available for access. Only materials that are cleared of copyright laws can be publicly made available.

The electronic legal deposit strategy of the NLSA is informed by the legislative imperatives governing management of electronic documents. The pilot project on the protocol for managing the e-legal deposit materials at NLSA is proving to achieve its objective. It will greatly facilitate the management and access provision of e-resources currently scattered in different libraries.

Summary

The NLSA is the primary resource of South African published documentary heritage. The NLSA accepted digitization as a means of preserving and improving access to existing collections when scanning technology became available. Experience with digitization projects

over the years indicated the need for a national policy that would provide guidelines in respect of national priorities, coordination and the protection of national heritage. The National Policy on the Digitization of Heritage Resources by DAC is applicable. The establishment of a National Digital Repository / Library should be seen as an extension of services currently provided by the NLSA. The NLSA recently developed a model and protocol for the deposit of e-publications.

References

South Africa. Department of Art and Culture. 2010. *National Policy on the digitization of heritage resources*.