

Challenges and Prospects for the Digitization of Historical Records at the National Archives of Zimbabwe

By

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Background to the study

- ① Digitization is growing and active within the sub-Saharan region;
- ② Digitization is innovative technology that continues to resonate with attractive benefits and (some hidden drawbacks as well) for the preservation and access to selected archival materials.

The state of digitization at the National Archives of Zimbabwe

- ◉ The NAZ has an archival collection of *historical records*
- ◉ The National Archives of Zimbabwe Act (1986) subsection 13 has declared that *historical records* in particular must be *protected against any destruction, defacing, alteration, mutilation or damage.*

The state of digitization at the National Archives of Zimbabwe

- ◉ **Historical records** have traditionally been **protected** through microfilming.
- ◉ The Conservation Unit within the NAZ has also successfully restored some historical records that have been damaged from accidental and general usage over time.

The state of digitization at the National Archives of Zimbabwe

- Microfilming has been hindered as a result of the occasional breakdown of the microfilm reader equipment and the expensive cost of replacing microfilming components which are unavailable locally. Historical records on microfilm have therefore not been readily available for use to researchers.
- Efforts to preserve historical records at the archival facility face an ominous future since the temperature-humidity conditions have been uncontrolled after the environmental air conditioner broke down almost ten years ago. The NAZ has since not been able to repair it. This exposes historical records to threats of mould, dust and discolouring which may render them unfit for public use.
- This is the greatest threat yet to historical records, which may still suffer *destruction, defacing, alteration, mutilation or damage* when also made available to researchers.

Can digitization be the answer...?

- Digitization is a process of converting, creating, and maintaining books, art works, **historical documents**, photos, journals, etc., in electronic representations so they can be viewed via computer and other devices. (Hazen, Horrell & Merrill-Oldham, 1998)
- It is a means of creating digital surrogates of analogue materials such as books, newspapers, microfilm, and videotapes. (Bayissal, et al, 2010:2)
- Digitization can provide a means of preserving the content of the materials by creating an accessible facsimile of the object in order to put less strain on already fragile originals. (Bayissal, et al, 2010:2)

Can digitization be the answer...?

- The NAZ can effectively use **digitization as an access strategy** to make available historical records in digital form because this fits well within their mission statement mandate.
- To a lesser extent (as the study will show) **digitization may yet to be considered a viable strategy for the ultimate preservation (and enhanced access) to historical records.**

To digi-it or dodge-it?

- ◉ Digitization appears to offer the **SOLUTION** to preservation problems for historical records but what **challenges** face the NAZ in light of the attractive **opportunities** given by digitization?
- ◉ Can the NAZ continue to lag behind in digitization when the opportunities exist? What challenges hinder the organization from crossing into the next archiving domain of digitization?

NAZ digitization at crossroads

1. Are there any historical records at the NAZ that can benefit from a digitization programme to either enhance their access and/or preservation?
2. What criteria informs the NAZ on which historical records to digitize?
3. If digitization is being done for selected historical records, what file formats and technologies are used?
4. What digitization software and hardware is being used by the NAZ to digitize selected historical records?

NAZ digitization at crossroads

5. Are records managers and archivist staff at the NAZ competent in the skills and knowledge to effectively carry out a digitization programme?
6. What considerations are given to issues related to reproduction and copyright of digitized historical records?
7. What preservation strategy or policy exists (if any) for digitized historical records?

Research Methodology

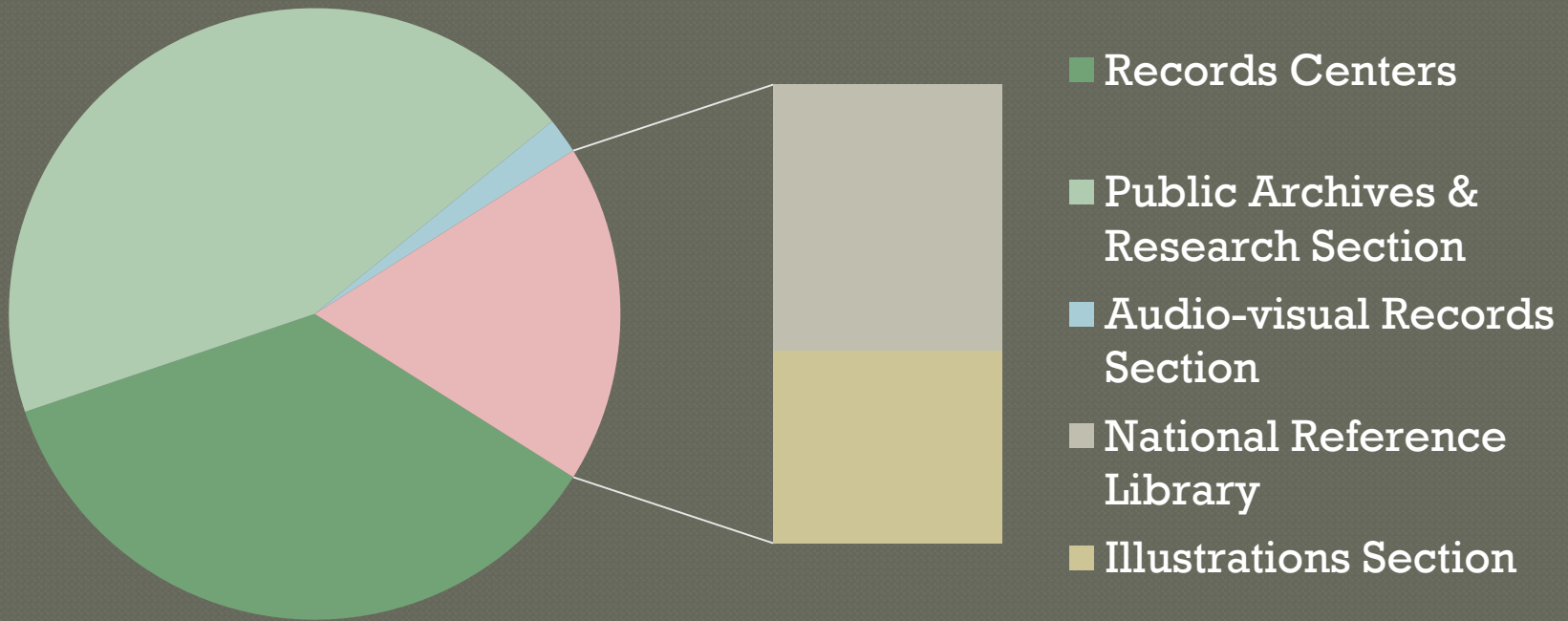
Quantitative methodology for the study on digitization at the NAZ was used in light of the questions identified earlier. Quantitative methodology was ideal as it would reveal the status of digitization on an objective basis.

Questionnaires were distributed to the two main centres of the NAZ, in Harare and Bulawayo, for responses from key officials who were sampled for their responses and post-questionnaire interviews.

The results of the study were displayed and illustrated using conventional pie-charts and percentages.

Are there any historical records at the NAZ that can benefit from a digitization programme to either enhance their access and/or preservation?

Historical Records



Are there any historical records at the NAZ that can benefit from a digitization programme to either enhance their access and/or preservation?

The NAZ has the most **historical records** in its archives collection, followed by the records centres, the National Reference Library section, the illustrations section and, lastly, the audio-visual records unit.

Each section has various historical records selected on a basis of their *enduring or historical value which make them worth preserving; it is in the national interest that they are preserved within the National Archives of Zimbabwe.*

Are there any historical records at the NAZ that can benefit from a digitization programme to either enhance their access and/or preservation?

- Responses from the interviews and questionnaires showed that the following historical records have been requested by researchers for digitization.
 1. **Serials/journals/magazines/newspapers**
 2. **Photographs/images**
- Responses also highlighted that finding aids used to retrieve historical records from the public archives had to be digitized though it was unclear if they meant computerisation of the index or the direct digitization of catalogue entries.

What criteria informs the NAZ on which historical records to digitize?

From the findings of the questionnaires and interviews...

1. Currently, the major criteria that inform archivists at the NAZ about which materials can be digitized are those that are grounds **for improving access** and “**this is carried out on a case by case basis**”.
2. Currently, there is **no specific digitization policy document to guide the NAZ in rolling out a digitization programme** for any select series of historical records.
3. Currently, proposals have been submitted to the funding Ministry for the purchase of the requisite digitization equipment.

If digitization is being done for selected historical records, what file formats and technologies are used?

From the findings of the questionnaires and interviews...

1. Digitization of historical records is carried out by the NAZ.
2. Digitization of photographic prints is into JPEG format (lossy compression scheme) is carried out on a “case by case basis”. However, users may specify a file format they may desire besides JPEG.
3. Digitization of photographic prints is carried out from the original image formats in black and white as well as sepia tone. Conversion is made possible through a **scanner**.
4. Digitization of audiovisual film records from VHS format into DVD format is carried out on “case by case basis.” Conversion is made possible through a **SONY VHS player PANASONIC DMR-EH59 DVD recorder**.

What digitization software and hardware is being used by the NAZ to digitize selected historical records?

- From the findings of the questionnaires and the interviews...
 1. Currently, the NAZ uses open source software available on Windows XP operating system to carry out digitization.
 2. The computer hardware is limited for digitization, since there is only one **scanner and computer** available for the purpose of digitization hence microfilming continuing to take a leading role in preservation of historical records.
 3. Currently, no digitization of sound recordings is being carried out.
 4. Currently, for the VHS films that do get digitized on a “case by case basis” no proprietary compression methods or software is used.
 5. Currently, no optical character recognition (OCR) software is in use.

What considerations are given for issues related to access, reproduction and copyright of digitized historical records?

From the findings of the questionnaires and the interviews...

1. Currently, digitized historical records are made available as electronic documents on-site at the NAZ at a computer workstation and not through a website, or a portal or external link or server. Users download their digitized images to a removable flash stick or copy to DVD disc for a fee.
2. Currently, the NAZ does allow for the digitization of copyrighted material within the statutory confines of the National Archives of Zimbabwe Act (1986), the Copyright Act (1967) and the Printed Publications Act (1975). Therefore, the NAZ adheres to the copyright laws and regulations of Zimbabwe for the digitization of historical records

What considerations are given for issues related to access, reproduction and copyright of digitized historical records?

From the findings of the questionnaires and the interviews ...

(continued)

3. Currently, for historical records within the public archives the NAZ is vested with the copyright of the material.
4. Currently, users of digitized historical records are warned against violating the provisions of the Copyright law where the NAZ informs users that **no reproductions or copies can be made in paper, electronic or other format without the express permission of the copyright holder.**
5. Currently, there are no electronic management systems (firewalls, logical security mechanism) that are used to control digital copying.

Are records managers and archivist staff at the NAZ competent with the skills and knowledge to effectively carry out a digitization programme?

- From the findings of the questionnaires and the interviews...
 1. Currently, records managers and archivists involved with digitization services are qualified personnel with at least two years experience.
 2. One respondent is holds an honours degree in Records and Archives Management and has benefited from an international training programme in Latvia. Other respondents are holders of Diplomas and Certificates in Library & Information Science. However, one respondent alluded to their lack of contemporary training in the area of historical records digitization.

What preservation strategy or policy exists (if any) for digitized historical records?

- From the findings of the questionnaires and the interviews...
- 1. Currently, the digitized historical records are not stored on any removable media such as CD ROM/DVD within the NAZ. Apparently, the users download their digitized images to a removable flash stick or to a DVD disc for a fee.
- 2. Currently, the original historical records are returned to permanent storage in special conditions. Film records are directly returned to the cold room repository.
- 3. Currently, later access to an original historical record is treated as a new request altogether and the users download their digitized images to a removable flash stick or copy to a DVD disc for a fee.

Recommendations

- Digitization is the most feasible strategy for enabling access to historical records by a greater research community, which now constitutes the “global village”.
- Of paramount importance for the NAZ is to train its staff in contemporary digitization technology through accredited training programmes abroad since the requisite training is unavailable locally.
- The development of a digitization policy for historical records is also important and must be addressed as a matter of urgency to cater for the preservation of deteriorating historical records that can be possibly be saved from the declining conditions in archival storage.
- Before the purchase of digitization equipment, microfilming equipment must be repaired and replaced with more modern reader and printing technologies such as COM that is faster and can be seamlessly integrated into a digitization programme.
- The NAZ must rely on the expertise of consultancies that will recommend ideal software and hardware technologies for a digitization programme.

Challenges

- An underskilled staff establishment that requires further training and exposure to modern digitization technologies
- The absence of a digitization policy programme
- The protracted efforts to secure funding for the purchase of digitization software and hardware technologies
- The misconception that digitization will replace paper records/microfilming technology

Opportunities

- International bursaries and training programmes are available for digitization and digital archiving e.g. UNESCO, ICADLA and ESARBICA (participation is key!)
- The NAZ has a rich documentary, audiovisual and photographic collection of historical records that date as far back as the late 18th century, and this is of global interest to many researchers in Zimbabwe and across the world.
- The NAZ has a well developed microfilming records unit which can be integrated into a digitization programme and thereby save “re-inventing the wheel” i.e. retrieving historical records over and over again for digitization requests (let’s use our microfilm resources!) Kleifeld’s model (2010) offers a hybrid solution.
- Approach affiliate Ministries for funding such as Ministry of Information and Communication Technology or external funding bodies such as the foreign embassies of Germany, China etc.

Thank You

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