UCT Libraries Digital Preservation Strategy

One of the core values of the university is the protection and responsible use of the University’s assets and resources, including access to its repositories of knowledge and stewardship of intellectual property. Digital Library Services (DLS) has been given a remit to preserve, promote, exhibit and provide access to the University’s corporate memory, historic and cultural collections in digital format.

Our vision for digital preservation is that by 2020 we define and establish clear workflows to ingest, store and preserve UCT’s digital collections of data in a trusted repository that can ensure the long term storage, access and security of UCT’s primary digital assets.

Motivation

This strategy is driven by the need to sustainably make research resources and their data available to communities worldwide. It is encouraged and supported by Open Sciences practices, as well as the decolonization of the university - allowing for discoverability, access and reusability of institutional outputs and collections. Digital Preservation ensures the availability of these resources in perpetuity, while the online exhibition and open accessibility of these citable, scholarly resources increases the stature and recognition of the institution on the African continent.

Scope

This strategy is developed to create a common understanding of how digital preservation activities will be managed and undertaken at UCT Libraries in the period 2019-2020. It is a living document that will be updated over time as conditions change within the UCT Libraries context. The records covered in this strategy include born-digital records and digitised analog records that have been selected for preservation.

Digital preservation ensures that data remains accessible and usable in the long term. Data may vary widely in format and content (e.g. born-digital research data, digitised legacy audio-visual formats, 2D and 3D imaging reproductions et al). The basic steps in digital preservation include:
- creation of representative information to ensure discoverability (metadata),
- transformation of file formats to standards that ensure long-term access (normalisation),
- auditing of data to ensure integrity (file fixity).

DLS will support a multiplicity of preservation approaches including content migration, hardware emulation, and software and hardware dependency preservation.

Online showcasing provides a display platform for digital collections, ensuring that those collections which are accessible and/or preserved, are showcased in a manner that is accessible, informative and aesthetically pleasing. They are also integrated with access and preservation systems, ensuring their long term adherence to the FAIR guiding principles of scholarly data management.
A lifecycle management approach to digital preservation is taken, where action is taken at regular intervals and future, standards-led activities are strategically planned for. Acknowledging that resources are finite, this approach includes various policies, scheduling, resource allocation, technologies, actions and recommendations for appraisal and selection of digital data for preservation.

Strategic goals
DLS, within UCT Libraries, is mandated to identify, prioritise and coordinate preservation efforts across the whole of the university. The initial goals of this mandate are as follows:

1. To facilitate access to preserved UCT collections through the implementation of an institutional instance of AtoM, which records the existence of archival collections generated by the university online.
2. To ingest digital collections that have been selected for long term preservation into Arkivum Perpetua (Archivematica & AtoM in a stable, SaaS release, with on-site storage), to steward the universities’ primary digital assets.
3. To manage an institutional instance of Omeka-S as an online exhibition platform for UCT Digital Collections.

Appraisal and selection
We do not have an appraisal and selection policy. At present we require the following agreements at the point of deposit:

1. If / which preservation activities will need to be undertaken.
2. If / which dependencies the digital objects have, incl. retention periods.
3. Funding for digitisation, and/or data curation, and/or preservation, and/or online exhibition.

Expected outcomes or deliverables
By the end of the year 2020, DLS should have the following:

a. A fully functional, trusted and reliable digital preservation repository to preserve digitised and born-digital collections in our custody.

b. Digital curation workflows in place for arranging, processing, ingesting and providing access to data in our custody.

c. A fully functional institutional instance of Omeka-S for exhibiting digital collections for stakeholders across the UCT campus community.

d. A fully functional institutional instance of AtoM for providing archival description of collections across UCT campus.

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1 Bodleian Libraries’ Digital Preservation Policy. (Online) Accessible: https://libguides.bodleian.ox.ac.uk/digitalpreservation/whatisdp
2 [ISO 9001, 2015](https://www.iso.org/standard/57628.html)
3 ISO27001
Guiding Principles & Standards
DLS will adhere to the following principles in order to ensure the preservation of digital content that it is responsible for:

1. **Integrity and authenticity**: DLS will ensure that the integrity and authenticity of preserved digital objects can be proven from point of ingest. Authentication comes in the [SIP OAIS model](https://www.openarchives.org/sip/) to make sure that these records are what they purport to be.

2. **Compliance**: DLS endeavours to provide digital preservation services that are compliant with international standards for quality management systems. The aim is for the repositories concerned to be maintained according to international standards for a security management system, in view of achieving [GDPR compliance](https://www.gov.uk/guidance/gdpr-data-protection-act-2018), as well as compliance with [POPIA](https://www.inforegs.info/pipoa-privacy-bill/).

3. **Obsolescence**: DLS will monitor preserved digital objects to identify when content is in danger of becoming obsolete and inaccessible due to technological changes, and enact migration actions accordingly.

Context:
This strategy links with related policies and strategies within the University of Cape Town.

- [Draft proposal for a university collections stewardship policy](https://www.library.uct.ac.za/services/collections/) to promote the management and use of physical and digital research collections that come to comprise the university archive
- [Open Access policy](https://www.library.uct.ac.za/services/open-access/) for taking forward open scholarship and open education as part of a commitment to scholarly communication, e-research and digital content stewardship
- [UCT Libraries: Collection Development Implementation Guidelines and Procedures](https://www.library.uct.ac.za/services/collections/)
- [UCT Libraries Special Collections and Archives: Collection Development Implementation Guidelines and Procedures](https://www.library.uct.ac.za/services/collections/)
- [UCT Research Data Management (RDM) policy (2018)](https://www.library.uct.ac.za/services/data-management/)
- [UCT Web Governance](https://www.library.uct.ac.za/services/WebGovernance/) policy framework:
  - Policy 1: [Web content Management Policy](https://www.library.uct.ac.za/services/WebGovernance/)
  - Policy 2: [Web hosting policy](https://www.library.uct.ac.za/services/WebGovernance/)
  - Policy 3: [Domain name policy](https://www.library.uct.ac.za/services/WebGovernance/)

External Policies and Strategies (International):

- [Bodleian Libraries’ Digital Preservation Policy](https://www.lib.ox.ac.uk/services/delivery/digitalpreservation/) version 2.0.3
- [Cambridge Digital Preservation Policy](https://www.lib.cam.ac.uk/services/digitalpreservation/) version 1.0. DOI: [https://doi.org/10.17863/CAM.32927](https://doi.org/10.17863/CAM.32927)
- [Dartmouth College Library Digital Preservation Policy](https://www.dartmouth.edu/~library/digital/preservation/)
- [Digital Preservation policy Cambridge university Library](https://www.lib.cam.ac.uk/services/digitalpreservation/)
- [Edinburgh Digital preservation policy (2017)](https://www.libed.ac.uk/services/digitalpreservation/)
- [ERPANET Digital preservation policy tool](https://www.erpnet.eu/)
- [GLAM (Gardens, Libraries and Museums) Digital Preservation Strategy 2018-2021](https://www.glam.ad/e/strategy/)
- [Princeton University library Digital Preservation Framework](https://www.princeton.edu/edrs/)
- [Purdue Digital preservation policy](https://www.lib.purdue.edu/digitalpreservation/)
- [The British Library Digital Preservation Strategy 2017-2020](https://www.bl.uk/collections/digitalpreservationstrategy/)
- [The University of Edinburgh Digital Preservation policy](https://www.libed.ac.uk/services/digitalpreservation/)
- [University of Glasgow Digital Preservation Policy](https://www.lib.gla.ac.uk/services/digitalpreservation/)
- [University of Maryland Libraries Digital Preservation Policy](https://www.lib.umd.edu/digitalpreservation/)
- [Yale University Library’s Digital Preservation policy](https://www.library.yale.edu/digitalpreservation/)