1. Introduction

This policy sets out the principles that will guide digital preservation activities at the University of Sheffield Library. It formalises the Library’s commitment to securing the long term preservation of its digital assets by developing a reliable and sustainable digital archive and adhering to internationally recognised standards and practice.

Many of the University of Sheffield’s information assets exist purely in a born digital format. In addition, paper based and analogue information assets are being digitised in order to save on physical storage, widen access, and safeguard fragile formats (such as film and sound collections).

The University recognises the need to manage the content it creates and receives to appropriate standards.

There are significant challenges and risks associated with managing digital content which do not apply to paper based content. The rapid pace of technological change means that within a short space of time file formats, hardware and software can be at risk of obsolescence meaning we no longer have tools required to access and understand the content of digital information assets. Moreover digital media is inherently fragile. These things together threaten our ability to reliably and accurately make digital content available over the very long term. Keeping digital information accessible over time requires active management of the data and understanding of the context of its creation.

Digital preservation means combining policy and strategy to provide a coherent, actively managed approach to the risks facing our digital content and to ensure we can demonstrate the integrity and reliability of our digital content over time.

2. Scope

The University Library will aim to preserve specific University digital assets for as long as material is required, according to current policies.

The University of Sheffield is committed to preserving its digital collections to the same level of care with which it has preserved more traditional physical collections. Digital preservation is a key part of the Library’s strategic plan and key to its ability to support the University to ‘access and use the information universe for the creation, application and communication of knowledge’.
3. Relationship with other policies

The University of Sheffield’s Digital Preservation Policy aims to support the University’s strategic plan, in particular its guiding principles of sustainability and resilience. The current University Strategic Plan can be found [here](http://www.shef.ac.uk/ourplan).

This Policy will aim to support and contribute towards the key strategic themes and objectives set out in the current Library Strategic Plan, in particular Research Excellence and Impact aiming to ‘Secure digital assets for the future by establishing the University’s preservation service for both born digital and digital surrogate material, including the National Fairground Archive and our unique special collections’.

See University of Sheffield Library Strategic Plan [here](http://www.sheffield.ac.uk/library/about/strategicplan).

See The University of Sheffield Policy on Good Research and Innovation Practices [Policy on Good Research and Innovation Practices](https://www.sheffield.ac.uk/library/about/strategicplan).


4. Preservation Objectives

The OAIS Reference Model (ISO 14721) states ‘Long Term is long enough to be concerned with the impacts of changing technologies, including support for new media and data formats, or with a changing user community’.

This Policy has been created to ensure that digital content created and held by the University will be managed in a way that ensures preservation of the following attributes:

- Accessibility - the ability to access the data over the period of time required
- Integrity - the data is complete and unaltered
- Authenticity - what the data purports to be
- Reliability - trusted contents which accurately reflects the output of a transaction
- Usability - can be located, retrieved, presented and interpreted
Preservation activities may include:

- Bitstream preservation - Maintenance of access to an existing digital resource - passive preservation.
- Content preservation - Continued accessibility to a digital resource over time - active preservation.
- Ensuring the physical infrastructure required to store and manage digitally preserved content is protected from accidental / deliberate damage
- Integrity management - Integrity of a digital resource will need to be maintained and periodically checked - a fundamental goal of bitstream preservation.
- Metadata management and maintenance. Also key is linking the object to the metadata.
- Storage management - Physical management of the hardware.

Active preservation means we will have the information we need to decide when it is necessary to take action to preserve accessibility of content and provide a permanent audit trail to show when such actions have been taken. Actions might include refreshment of content, migration of content, or emulation of software and hardware.

Some basic principles of preservation include:

- We aim to ensure continued readability and accessibility over time
- Items may be migrated to new file formats to assist with this where necessary.
- It may not be possible to guarantee the readability of some unusual file formats.
- The original bit stream is retained for all items, in addition to any upgraded formats.

5. Procedural Accountability

The University Librarian is responsible for overall ownership of the Digital Preservation function.

The Associate Director, Academic & Digital Strategies is responsible for the ownership of the Digital Preservation activities undertaken on behalf of the University.

The Digital Preservation Manager is responsible for developing policy, strategy, processes and procedures relating to operational activities.

A Digital Preservation Advisory Group has day to day oversight of policies, strategy and procedures relating to digital preservation activities. The group will be made up of a cross section of relevant stakeholders including library technical systems staff and Research Services and will adhere to an agreed Terms of Reference which will be reviewed periodically (Appendix 1). This group will be responsible for ensuring audit procedures are conducted on a self assessment basis and for identifying risks associated with digital collections.

CiCS are responsible for providing technical infrastructure to support Digital Preservation activities
6. Standards, Guidance and Implementation

This policy is underpinned by internationally recognised standards which provide a framework for preserving digital assets and works towards meeting these standards and best practice. The University will be guided by the OAIS Open Archival Information System conceptual reference model when implementing this policy
http://public.ccsds.org/publications/archive/650x0m2.pdf

The National Digital Stewardship Alliance ‘Levels of Digital Preservation’ framework will also inform the implementation of this policy
http://ndsa.org/activities/levels-of-digital-preservation/

The University will create a robust, scalable and sustainable framework to support the development, dissemination and preservation of its digital collections. Staff skills, content workflows and technical infrastructure will be identified and addressed in order to demonstrate trustworthy custodianship of digital content.

7. Review and Certification

The University will be responsible for carrying out self-audit of its digital preservation activities. The University will aim towards achieving a formal accreditation and audit of its digital preservation capabilities as appropriate. This may include the ISO 16363 standard (measurement of trustworthiness of digital repositories), or the Data Seal of Approval using the European Framework for Audit and Certification of Digital Repositories TRAC: Audit and Certification of Trustworthy Digital Repositories
http://datasealofapproval.org/en/

The Library will maintain a risk register in relation to the care of its digital collections.

8. Stakeholders

Stakeholders include the Digital Preservation Advisory Group who will review this policy annually and submit to Library Executive. Corporate Information and Computing Services (CiCS) are key stakeholders as providers of the infrastructure underpinning digital preservation activities. Other stakeholders include University researchers, students, University Secretary’s office and the general public.
9. Glossary
The Digital Preservation Coalition maintain a useful glossary of Digital Preservation vocabulary.
http://handbook.dpconline.org/glossary

10. Review Schedule
Policy to be reviewed every 12 months

11. Version Control
Version 1.0 November 2017
Appendix 1

Digital Preservation Advisory Group - Terms of Reference

1. To act as a steering group and provide leadership for the coordination of digital preservation activities within the Library and beyond in line with broader institutional priorities.

2. To be made up of representatives and stakeholders from relevant Library and wider University departments.

3. To develop and approve policy and guidance documents in this area.

4. Establish and maintain risk profile and register for Library digital collections.

5. Prioritise digital preservation work according to needs.

6. Develop framework for taking digital preservation actions.

7. Develop and approve process for acquiring new digital collections; build capacity to support acquisition of digital collections.

8. Develop communications plan for digital preservation activities and increase visibility of digital preservation issues within institution.

9. Establish and review training for digital preservation related activities.

10. Liaise with related stakeholders within Library and beyond.

11. Report regularly to Library Executive Committee and other university committees as appropriate.

Version control:
2nd draft. November 2017