



University of Sheffield Digital Preservation Policy

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1. Introduction

1.1 The Digital Preservation policy sets out the principles that will guide digital preservation activities at the University of Sheffield. It formalises the University's commitment to securing the long term preservation of its digital assets, and confirms the roles and responsibilities for that work.

1.2 The University recognises the need to manage the content it creates and receives to appropriate standards. Keeping digital information that has enduring value to the University accessible over time requires active management of the data and an understanding of the context of its creation. Failure to do so carries an unacceptable level of risk for the University, and its ability to succeed in its strategic goals.

1.3 The University also acknowledges the opportunities generated from having a Digital Preservation Service. It demonstrates not only a commitment to transparency and accountability by sustaining an accurate digital record, but also provides us the opportunity for innovation and reuse of our information assets.

1.4 There are significant challenges associated with managing digital content. Digital media is inherently fragile, and 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 that we could lose the ability to access and understand their content. This in turn threatens our ability to maintain and ensure the reliability and accuracy of our digital content.

1.4 The University Library on behalf of The University of Sheffield leads on this work, but relies on a range of stakeholders to enable digital preservation to happen across the University.

2. Purpose of the Policy

- Highlight the scope of digital preservation activities in the University.
- Frame digital preservation within the context of the organisation, and also the wider context of the sector.
- Define the principles used to guide the management of digital content that falls within the scope of the policy.
- Establish roles and responsibilities relating to digital preservation work at the University

3. Scope

3.1 The University will aim to preserve material which fits within existing collecting policies. The commitment to digitally preserve specific content will be a commitment to preserve content for as long as material is required according to those policies.

3.2 The Scope of the Digital Preservation Policy covers the following:

- Born-Digital content held by the University Libraries Special Collection, Heritage and Archive service and University Archive

- Digitised content held by the University Libraries Special Collection, Heritage and Archive service and University Archives. This includes material from the National Fairground and Circus Archives. Master copies only.
- Research Outputs by the University of Sheffield, including:
 - Research Publications deposited in White Rose Research Online, WRRO
 - Theses deposited in White Rose ETheses Online, WREO
 - Theses deposited with the University Library which include data on digital containers
 - Research Data and related material deposited in the University's Digital Repository, ORDA
- Information created in digital form by the University for business purposes and is identified in the University's Retention Schedule as requiring long-term preservation. For example, the core student and Staff Records.

3.3 The University also commits to preserving associated metadata which supports digital content in scope .

3.4 The following types of digital content are currently out of scope of the Digital Preservation Policy:

- Any digital material which is not intended for permanent or long-term¹ retention
- Active research data. Guidance for the management and collection of research data at the University is via the Library Research Data Management and IT Research Data teams.
- Library collections including eBooks (electronic books), journals and articles made available via the Library's catalogue, that are not directly published by the University.
- Access copies of digitised content by the University Libraries Special Collection, Heritage and Archive service and University Archives..

4. Organisational Strategy Alignment

4.1 The University Vision and Strategic Plan 2020-2025 states that the University will, “deliver life-enhancing research, innovation and education that not only transforms the lives of our graduates, but shapes the world we live in. We believe the best way to achieve this is by fostering an ambitious, inclusive, collaborative community”². The strategy for delivering this is outlined by four core pillars: Research, Innovation, Education, and One University. Digital preservation at the University can support our ability to meet these core commitments including developing mechanisms for sharing good practice in digital preservation throughout the organisation, and support a collaborative and transparent working environment.

4.2 The Library's mission is to “enable our University to access and use the information universe for the creation, application and communication of knowledge”³. As part of that mission, the library aligns to the Research Excellence and Impact pillar of the University Strategy specifically for its work in digital preservation by stating our comment to, “Secur[ing] digital assets for the future by establishing the University's preservation service for both born digital and digital surrogate material”⁴.

4.3 Digital preservation directly aligns to the University's approach to Information Security, as coordinated through the University Executive Board's Information Management & Security Group (IM&SG). Digital preservation is a key part of the University's work in developing a considered and proactive approach to the long-term protection of availability to information. As with good practice in other areas of Information Management at the University, it is intended that the University's approach to digital preservation will be to

¹ 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’.

² University vision and strategic plan: <https://www.sheffield.ac.uk/vision>

³ University Library's Our five year plan (2022-2027) <https://www.sheffield.ac.uk/library/about/five-year-plan>

⁴ University Library Strategic Plan: <http://www.sheffield.ac.uk/library/about/strategicplan>

embed it within the people, processes and culture of the organisation and not just in technical solutions. The digital preservation policy, strategy and implementation is therefore a key part of the UEB IM&SG roadmap.

5. Digital Preservation Stakeholders

5.1 Internal Stakeholders include:

- Senior University Management - via the University Executive Board's Information Management and Security Governance Sub-Committee (IMSG)
- Library Executive, including the University Librarian
- Special Collections, Heritage and Archives
- University Archives and Records Management
- Scholarly Communications Team - who oversee Research Data Management
- Information Technology Services who facilitate the availability of IT systems and manage information security for the University
- University of Sheffield students
- University of Sheffield staff in academic or professional services departments

5.2 External Stakeholders may include:

- Commercial service providers
- Funders of research and heritage projects
- Legislative bodies
- Peer organisations - such as the Digital Preservation Coalition (DPC) and White Rose Libraries (WRL)
- Donors and prospective donors
- National and international collection users
- Prospective students and members of university staff

6. Related Documentation

6.1 University of Sheffield:

- University's Vision and Strategic Plan: <http://www.shef.ac.uk/ourplan>
- University of Sheffield Policy on Trusted Research
<https://staff.sheffield.ac.uk/research-services/trusted-research>
- University of Sheffield Policy on Good Research and Innovation Practices
<https://students.sheffield.ac.uk/media/1516/download>
- Information Security Policy:
<https://students.sheffield.ac.uk/it-services/policies/information-security-policy>
- Risk Management Policy: <https://students.sheffield.ac.uk/it-services/policies/risk-management>
- Information Principles

6.2 University Library:

- University Library Strategic Plan: <http://www.sheffield.ac.uk/library/about/strategicplan>
- Special Collections, Heritage and Archives Collection Development Policy:
<https://www.sheffield.ac.uk/library/special-collections-heritage-and-archives/about-us>
- Special Collections Collection Development Policy and Care and Conservation Policy:
<https://www.sheffield.ac.uk/library/special-collections-heritage-and-archives/about-us>
- National Fairground and Circus Archive Access Policy:
<https://www.sheffield.ac.uk/nfca/about/nfcaaccesspolicy>

- University of Sheffield Archive Collection Policy
- Records Management Policy:
<https://www.sheffield.ac.uk/uso/records-management-policy-and-guidance>
- Records Retention Schedule: <https://www.sheffield.ac.uk/media/18641/download?attachment>
- University of Sheffield Research Data Management Policy
<https://www.sheffield.ac.uk/media/16522/download?attachment>
- Research Publications and Copyright policy:
<https://sheffield.ac.uk/media/38757/download?attachment>

6.3 Digital Preservation specific:

Digital preservation Website: <https://staff.sheffield.ac.uk/library/digital-preservation>

7. Preservation Principles

7.1 The University recognises digital preservation as a necessary activity to support business functions and enable the University to meet its Vision and Strategic Plan. Digital preservation is identified as part of the lifecycle of information management at the University, as defined in the University's Information Principles.

7.2 Digital preservation activities will seek to align with the University's core information security pillars of ensuring confidentiality, integrity and availability of our information.

7.3 The University will endeavour to preserve content created and managed by the institution that has enduring and long-term value to the staff, students, and the wider public.

7.4 The Digital Preservation Service will provide guidance and support to the University that meets industry standards and recognised best practice in the field.

7.5 Digital content held by the University Library on behalf of the University will be managed in a way that ensures preservation of the following attributes of our digital:

- 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

7.6 Preservation activities are undertaken by the University Library, with the support of Information Technology Services to ensure these attributes will, where appropriate, include the following activities:

- 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
- Migration - To ensure readability and accessibility over time, items may be migrated to new file formats to assist with this where necessary
- Metadata management and maintenance.

7.7 By engaging in active preservation, the University will be able to make informed decisions about what necessary steps need to be taken to preserve accessibility of content. Permanent audit trails will be maintained to detail when actions such as refreshment of content, migration of content, or emulation of software and hardware have been taken.

7.8 The University is committed to continuous improvement of its digital preservation programme of work. The maturity of the provision will be routinely monitored and benchmarked against sector capabilities.

8. Roles and Responsibilities

8.1 University Executive Board's Sub Committee Information Management and Security Group (IM&SG)

Accountable for ensuring that appropriate frameworks, policies, standards and systems exist for information management and data governance, including digital preservation and its subsequent future development, monitoring and compliance.

8.2 University Library and Staff

The University Library is responsible for providing the Digital Preservation Service for the University of Sheffield.

8.3 The Director of Library Services & University Librarian

Director of Library Services & University Librarian has overall accountability and ownership of the digital preservation function at the University

8.4 Associate Director, Digital Strategies, Research & Engagement

Responsible for oversight and line management of the Digital Preservation Manager role, along with the resourcing and budgeting of Digital Preservation Service at the University

8.5 Digital Preservation Manager

The digital Preservation manager has responsibility for:

- Ensuring the principles detailed in the Digital Preservation Policy are upheld
- Developing and strategically managing the University's Digital Preservation Service
- Overseeing the development of digital preservation solutions to support University needs
- Produce guidelines and procedures for long-term preservation of both digital and digitised assets, including research data outputs
- Providing digital preservation expertise and enabling best practice at the University
- Developing and managing relationships with suppliers and external partners
- Facilitate library engagement with the wider digital preservation community and contribute to sector development

8.6 Special Collections, Heritage and Archives (SCHA), University Archives and Records Management, and Scholarly Communications

Staff within these Library teams have a responsibility to:

- Comply with the Digital Preservation Policy
- Embed best practice in digital preservation into to their work
- Collaborate with the Digital Preservation Manager to develop procedure and systems to manage their collections
- Select representative(s) to the Digital Preservation Advisory Group

8.7 Digital Preservation Advisory Group (DPAG)

The DPAG acts as an advisory group and provides leadership and oversight for the coordination of digital preservation activities within the University.

The Digital Preservation Advisory Group is chaired by the Digital Preservation Manager, with the Terms of reference available [here](#).

8.8 Information Technology Services (ITS)

The University Information Technology Services are consulted on digital preservation activities which have implication on the following:

- Storage and Infrastructure
- Working practises in regards to information management and information security
- Actions that require alteration to ITS advice given to users in terms of managing digital records

Information Technology Services are also consulted regarding collaboration opportunities

8.9 University Staff, Academic and Professional

Depending on their roles, University Staff will be:

- Expected to comply with the Digital Preservation Policy
- Provided guidance and support, where appropriate, on what steps will be undertaken to ensure the long-term preservation of digital content
- Provided with appropriate access to digital collections

8. 10 Donors and Archive Service Users

Via the Special Collections, Heritage and Archives team, donors and service users will, where appropriate:

- Be kept informed of what steps will be undertaken to ensure the long-term preservation of digital content transferred to the Special Collections, Heritage and Archives
- Provided with appropriate access to digital collections

See Special Collections Collection Development Policy and Care and Conservation Policy and NFCA Access Policy for further information.

9. Standards, Specifications and Related Legislation

9.1 This policy is underpinned by legislation and internationally recognised standards which provide a framework for preserving digital assets. Standards and technical specifications will be used to inform and support digital preservation. The University will be pragmatic in terms of compliance to these standards.

9.2 Operational standards

- ISO 14721:2012, The OAIS Open Archival Information System conceptual reference model
- DCC life cycle curation model
- ISO 16363 - standard, or the Data Seal of Approval using the European Framework for Audit and Certification of Digital Repositories

9.3 Metadata standards and specifications

- ISO 15836-1:2017 - DublinCore
- METS Metadata Encoding and Transmission Standard
- PREMIS Data Dictionary for Preservation Metadata
- ISAD(G): General International Standard Archival Description - Second edition
- ISAAR (CPF): International Standard Archival Authority Record for Corporate Bodies, Persons and Families, 2nd Edition

9.4 Archival Standards and Specifications

- NCA PSQG 2008 - Standard for Access for Archives
- PD ISO/TR 18492:2005 - Long-term preservation of electronic document-based information
- PAS 197:2009 - Code of practice for cultural collections management
- Archive Service Accreditation – Standard, 2018

9.5 Information Management standards

- ISO/IEC 27001:2022 - Information security, cybersecurity and privacy protection — Information security management systems — Requirements
- ISO 15489-1:2016- Information and Documentation – Records Management.
- ISO 30300 / 30301 30302 - Management systems for records
- PD ISO / TR 21965:2019 - Records Management in enterprise architecture
- BS ISO 10008:2020 - Evidential weight and legal admissibility of electronic information
- PD ISO / TR 18128:2014 - Risk Assessment for records processes and systems -
- PD ISO / TR 26122:2008 - Work Process analysis for records
- ISO 10012: 2017+A1:2018 - Data protection. Specification for a personal information management system

9.6 Research Data Management

- FAIR Data Principles

9.7 Related Legislation

- The Copyright, Designs and Patents Act 1988
- The Data Protection Act 2018 and the UK-General Data Protection Regulation
- Freedom of Information Act 2000

10. Review and Certification

10.1 The University will be responsible for carrying out self-audit of its digital preservation activities. These will be carried out by the Digital Preservation Manager with input from stakeholders. The self-audit will be monitored by the Digital Preservation Advisory Group, and reported to both the Library Senior Leadership Team and IMSG. The following mechanisms will be utilised during self assessment process:

- DPC Rapid Assessment Model: <https://www.dpconline.org/digipres/implement-digipres/dpc-ram>
- NDSA Levels of Digital Preservation: <https://ndsa.org/publications/levels-of-digital-preservation/>

- DPC Competency Assessment Framework:
<https://www.dpconline.org/digipres/train-your-staff/dp-competency>

10.2 The University will aim towards achieving a formal accreditation and audit of its digital preservation capabilities as appropriate. Work to achieve these will be led by the business needs of both the University and digital preservation stakeholders. The University may seek formal accreditation via the following:

- Core TrustSeal Data Repository Certification
- ISO 27001 - Information security, cybersecurity and privacy protection
- Archives Service Accreditation - maintained by The National Archives (UK)

11. Glossary

The Digital Preservation Coalition maintains a useful glossary of digital preservation vocabulary:
<http://handbook.dpconline.org/glossary>

12. Review Schedule

Digital Preservation Policy to be reviewed by the Digital Preservation Advisory Group every 12 months. Significant changes will be presented to the Library Senior Leadership team and the Information Management and Security Group.

13. Version Control

Version	Date	Action	Author
1.0	November 2017	Digital Preservation Policy 1.0 UNIVERSITY [restricted access]	Laura Puert - Digital Preservation Manager
2.0	May 2023	Approved by University Executive Board	Bryony Hooper - Digital Preservation Manager