University of Glasgow

Digital Preservation Policy

1. Introduction

The University of Glasgow is reliant on digital information for its teaching, research and administrative activities. It is vital to the University's business requirements that digital records selected for retention (up to and including perpetuity) are safeguarded and digitally preserved in order that the University:

- carries out its functions and activities effectively
- meets its legislative mandates
- levers corporate knowledge and information for competitive advantage
- protects its heritage

In order to ensure the University not only maintains access to its digital resources over time but can also understand and reuse them, a Digital Preservation Strategy has been established and an accompanying implementation plan will support this. This strategy will outline the preferred approach to digital preservation within the University with an accompanying set of procedural guidelines that relate to the policy and its use.

2. Scope of the Policy

This Policy applies to all information resources in digital form including:

- those born digital (created electronically)
- those digitised (created in a non-digital format, e.g. paper)
- any metadata associated with those resources at the point of capture
- any new metadata created as part of the digital preservation process

The Policy applies to all information resources which have been created by the University and its staff, and those which are in the University's custody. It applies to all University staff, including those on placement with the University, honorary or affiliate staff, individuals working on the University's behalf and postgraduate researchers.

3. The Policy – Preservation Principles

The objective of this Policy is to ensure that the University's digital resources remain both **authentic** and **accessible** in the future, overcoming the threats of rapid technological obsolescence (currently around 5-10 years) and the inherent fragility of digital media.

3.1 Essential Characteristics

In order for digital records to be described as authentic over time they must adhere to three essential characteristics – be reliable, have integrity and be usable.

Reliability is ensured through the operation of transparent and fully documented preservation strategies, and the provision of the metadata required to describe the content, context and provenance of the record.

Integrity is ensured through the bitstream preservation function and through the provision of metadata to describe all authorised actions undertaken in the course of content and bitstream preservation.

Usability is ensured through the content preservation function, and the provision of metadata sufficient to allow the record to be located, retrieved and interpreted.

A digital record is therefore considered to be authentic only if it meets a specific set of criteria which will be developed as part of the Digital Preservation Strategy and defined in the procedural guidelines.

3.2 Preservation Metadata

In order to support the authenticity of digital resources, detailed metadata will be captured and maintained along with the digital record.

All actions undertaken as part of the preservation process (including any new metadata created as part of the process, e.g. preservation activity, custody/ownership) must also be fully documented in the preservation metadata associated with each record, to provide an audit trail.

A preservation metadata model will be defined and published.

4. Policy Requirements

4.1 Technical Framework

The following standards and best practice schemas will provide a framework for digital preservation within which the policy will operate (see also Appendix B).

- *ISO 14721:2012 and ISO 16363:2012 Space data and information transfer systems*
- Open archival information system (OAIS) reference model and Audit and certification of trustworthy digital repositories (TRAC)
- Metadata encoding and transmission standard (METS)
- Preservation metadata: implementation strategies (PREMIS)
- PRONOM file format identification
- The Dublin Core Metadata Element Set (ISO Standard 15836)

4.2 Technical Infrastructure

The underlying technical infrastructure implemented must be sustainable longer-term and available for as long as the digital records that it manages including where services are provided by third-party suppliers.

Guidance and related policies will be created around data security and access, data integrity, the use of appropriate file formats (and other technology selection issues), metadata and information management standards.

4.3 Selection and Accession

Appraisal and selection of digital resources for preservation must be managed through compliance with the University's policies. Additional guidance on selection of appropriate records will be made available.

5. University Roles & Responsibilities

Implementation of this policy requires input from a wide range of staff from around the University and as such the following roles and responsibilities have been agreed.

Overall responsibility for Digital Preservation lies with the Information Governance Group.

The Library (Archives and Special Collections, Digital Library and Research Information Management teams) is responsible for:

- setting, maintaining and monitoring compliance with this policy
- creating, maintaining and monitoring compliance with the digital preservation strategy
- ensuring the Acquisition and Collection policies comply with this policy and any associated guidance
- ensuring any external partners or contractors providing preservation and access services provide guarantees in compliance with this policy and any associated strategy
- co-ordinating the requirements gathering for a digital preservation solution

The Records & Information Management Service (RIMS) is responsible for:

- working with content creators to identify records of long-term or permanent value
- development of bespoke retention schedules to include digital preservation considerations
- offering records management guidance in relation to digital preservation
- ensuring this policy complies with the Records Management, FOI and Data Protection policies and any associated guidance

IT Services is responsible for ensuring that:

- the design and development of systems considers the proposed contents and incorporates preservation planning in to the design where appropriate
- digital preservation considerations are included in any technical roadmaps for the replacement of systems and infrastructure (particularly in relation to data migration)
- provisions are made for on-going long term access to data as and when required
- the IT strategy and policies comply with this policy and any associated guidance

All University staff are content creators and as such are responsible for:

- ensuring appropriate metadata is provided
- ensuring that digital resources are created and managed in accordance with other Information Management related Policies/Guidelines detailed in section 8
- contacting the Records and Information Management Service to develop robust records retention schedules to identify those digital records that require to be kept for the longer term

6. Monitoring and Review

The Digital Preservation Group will develop and implement procedures to monitor compliance with this Policy, and will undertake periodic audits. These audits will be used to measure the effectiveness of its implementation, identify future priorities, and inform future reviews of the Policy.

This Policy will be reviewed as required to take account of changing circumstances or at least every two years. Reviews will be conducted by the Digital Preservation Working Group and under the auspices of the Information Governance Group.

The policy will be communicated to all staff and stakeholders via the University's website, training, and other appropriate channels.

7. Other Relevant University Policies

This Policy relates to other key University information policies and strategies:

- IT Strategy
- Archives & Special Collections Collection Policy
- Records Management Policy
- Data Protection Policy
- Freedom of Information Policy
- Good Management of Research Data Policy
- Postgraduate Research Code of Practice

8. Useful Contacts

Further information on this Policy and its implementation may be obtained from the Digital Preservation Working Group, University Library. Email address: digitalpreservation@glasgow.ac.uk

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Appendix A: Glossary

Term	Definition
Accessibility	The ability to locate or use information
Authenticity	The quality of being a legitimate and true record, free from unnecessary or inaccurate alterations. Authenticity is supported and enhanced by attributes of integrity, reliability, and usability
Integrity	An attribute ensuring record completeness and an assurance against unauthorised or accidental alteration of the record
Metadata	Metadata is additional information that accompanies the digital resource to ensure that it can be accessed and understood over time, such as keywords used as tags to enable accurate searching and retrieval. Examples include the creator of the data, the creation date and time, the size of the data file, the file type (.docx, .pdf), etc.
Provenance	The origin or source of the information resource, e.g. College/Service, creator, etc.
Record	A record is a physical or electronic document or object that serves as proof or evidence of something. University records prove the various business activities of our organisation, including, but not limited to, administrative, fiscal, legal, or research activities
Reliability	An attribute ensuring that a record is a full and accurate representation of the business activity it represents
Usability	An attribute ensuring that a record is capable of being accessed by authorised users across time and changing technical environments

Appendix B: Links to Standards

Space data and information transfer systems – Audit and certification of trustworthy digital repositories
Space data and information transfer systems – Open archival information system (OAIS) – Reference model
Trustworthy repositories audit and certification (TRAC)
Metadata encoding and transmission standard (METS)
Preservation metadata: implementation strategies (PREMIS)
PRONOM
The Dublin Core metadata element set