



# Digital Preservation Policy

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## 1 Document Control

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Document version (2.0) approved July 2018.

## 2 Authority

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State Librarian and Chief Executive Officer

## 3 Policy Statement

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The Libraries Act 1988 assigns to the State Library of Queensland the responsibility to enhance, arrange, and preserve the library, archival, and other resources held by it, and to exercise administrative control over access to these resources.

The recent increase in digital content being collected by, and created for the Library has resulted in associated technological and organisational challenges. We respond to these challenges through the development and implementation of new strategies, technologies and workflows to ensure the ongoing preservation of, and access to, its digital content.

## 4 Purpose

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This statement documents the State Library of Queensland's policy on preserving its digital collections and defines the principles that guide the Library when preserving and maintaining digital content within its collections. The Digital Preservation Policy is the responsibility of the Preservation Services Branch, and should be read in conjunction with the Preservation Policy [<http://www.slq.qld.gov.au/about-us/corporate/policies/preservation-policy>] and policy documents and procedures relevant to the way digital resources are created, selected, acquired, described and accessed.

## 5 Scope

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This policy applies to all digital content selected for permanent retention in the State Library's collections including:

- born digital content acquired for the John Oxley Library collection through legal deposit, donation or purchase
- born digital content created by the Library for its collections
- turned digital content, digitised from the Library's physical collections
- content from other private or public collections, loaned to the Library for digitisation and access
- websites and online publications not preserved by the National Library of Australia.

#### Out of Scope

The Digital Preservation Policy does not apply to corporate records created by State Library staff during the course of their business.

#### Retention and Withdrawal of Digital Material

The withdrawal of digital material is guided by the State Library's Financial and Administrative delegations: Policy and Schedule and content guidelines: "Disposal of collections will be in accordance with the procedure for withdrawal and disposal of collection items. Items will be de-selected and withdrawn if they are assessed to be outside the scope of requirements articulated in the Content Guidelines which underpin the Content Strategy [<http://www.slq.qld.gov.au/about-us/corporate/policies/content-strategy>]".

## **6 Principles**

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The State Library of Queensland is committed to preserving and maintaining access to digital content in its collections that is significant to Queensland's cultural and documentary heritage, and the Library upholds the principles of digital preservation as developed by the National and State Libraries Australia (NSLA) Digital Preservation Working Group and approved by the NSLA CEOs:

1. Preserving digital content is intrinsically linked with enabling access to it
2. Digital preservation practices must ensure confidence in the integrity and authenticity of digital collections
3. Digital preservation must be effected in a timely manner
4. Digital preservation practices must respect intellectual and copyright responsibilities
5. Collaboration is necessary (at a national and international level) to research, develop and implement best practices in digital preservation.

## **7 Preservation Strategies**

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The State Library will employ three key strategies to enable the effective preservation of its digital content.

- Creation

When digitising collection items, the Library will use and develop best-practice standards and guidelines for the creation of digital material. We will actively promote open standards-based formats and accepted industry standard formats for the creation of digital material to help facilitate ongoing access and preservation.

- Monitoring

The Library will employ a preservation-watch mechanism to help identify any formats that are at

risk of obsolescence. It will also monitor the larger technological environment for signs that equipment and standards are becoming obsolete.

- **Action**

Different approaches will be used on an as-needs basis for digital material that is deemed at-risk because of probable hardware or software obsolescence, media deterioration or media failure, to ensure ongoing preservation and access. Activities will include:

- When possible, collected digital material that is in a non-standard or at-risk proprietary format will undergo pre-ingest activities to create a master preservation file in a pre-determined format, before being stored in the secure digital repository
- Digital material that is collected, stored or published on physical carriers at risk of obsolescence (CDs, DVDs, disks, tape, etc.) will be migrated and ingested to the secure digital repository
- Digital material created by the Library and stored on local servers will be created according to agreed capture standards, and ingested to the secure digital repository if selected for ongoing preservation. If capture standards change, then the files will be migrated to new formats accordingly.

It is recognised that strategies need to be flexible to manage ongoing changes in technology and standards. Staff will monitor and adapt strategies to reduce risk and achieve best practice in preserving and maintaining access to its digital content.

## **8 Models and Standards**

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The State Library adheres to international best practice when it comes to digital preservation. The adherence and application of internationally recognised models and standards ensures good management of our digital collections.

The Library will use the broad understandings and concepts embodied in the Reference Model for Open Archival Information Systems (OAIS), ISO 14721:2012 as a conceptual model for the architecture and management of its own secure digital repository.

The Library will adopt international standards for preservation metadata, such as the PREMIS Data Dictionary, which outlines 5 core units associated with digital preservation:

- Intellectual Entities
- Rights
- Objects
- Agents
- Events.

## **9 Challenges and Accessibility**

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The State Library aims to have all of its digital content stored in its secure digital repository and provide ongoing access to the content. The preservation of digital content presents many challenges for the library:

- Obsolescence of physical carriers used to store digital media
- Obsolescence of file formats
- Obsolescence of hardware required for reading digital content
- Increasing numbers of file formats
- Rapid growth of digital content
- Natural and man-made disasters
- Complexity of collections

- Rights issues – copyright, access (passwords, encryption)
- Security of content – ensuring safe storage of content
- Integrity of content – monitoring accidental or malicious changes made to files

Occasionally digital content will be stored and preserved, but not made accessible to the public due to issues such as: embargos applied by donors and content creators; technological constraints; and rights issues. This content will receive the same levels of preservation and conservation as other digital content, and will be made accessible at such time that embargos are lifted, new technologies are acquired, or rights expire.

The Library aims to mitigate the above challenges through this policy and other work practices (including continued workforce development), to ensure continued access to our digital content.

## **10 Priorities and timeliness**

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Digital preservation activities are to be appropriately prioritised for action. Some digital preservation activities may be delayed without adverse effect; others may require more urgent action. In some instances the technical complexity of maintaining and preserving access to digital material will impact the options and the scheduling of digital preservation actions. State Library will be proactive in identifying areas of risk for digital content, and will take necessary action to ensure the longevity of our collections.

State Library will comply with the OAIS Reference Model, which describes preservation planning as “providing recommendations and preservation plans to ensure that the information ... remains accessible to, and understandable by, the Designated Community over the Long Term, even if the original computing environment becomes obsolete.”

“Preservation Planning functions include:

- evaluating the contents of the Archive and periodically recommending archival information updates
- recommending the migration of current Archive holdings
- developing recommendations for Archive standards and policies
- providing periodic risk analysis reports
- monitoring changes in the technology environment and in the Designated Community's service requirements and Knowledge Base.”

*(OAIS - Reference Model for an Open Archival Information System).*

Prioritisation of preservation actions will be based on:

- Regular and planned actions (eg. regular file fixity checks, migration of content)
- Identifying risks to digital content
- Identifying new and emerging technologies
- Obsolescence watch (obsolescence may occur with the physical carrier, the file format, the hardware or the software required to render a file).

## **11 Preservation Metadata**

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Preservation metadata includes technical, administrative and descriptive information about the intellectual entities, files and bit streams of digital objects. This metadata helps to track and address the challenges identified in Point 9 ‘Challenges and Accessibility’, using the standards identified in Point 8 ‘Models and Standards’.

The State Library will record preservation metadata about each digital object and allocate unique persistent identifiers to successfully manage and preserve its digital content over time. Preservation metadata will assist in ensuring essential contextual, historical, and technical information are preserved along with the digital object.

As some digital preservation activities may result in changes to the digital material all digital preservation processes will be documented in the provenance metadata to ensure the authenticity of the digital records.

Other information which affects preservation actions, such as rights associated with content, software, and access, will be documented in the digital preservation system.

## **12 Legislative Responsibility**

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*The Copyright Amendment (Disability Access and Other Measures) Bill 2017* gives provisions to libraries to make publicly accessible preservation copies of material that is of cultural or historical significance to Australia. The State Library will undertake all digital preservation activities in accordance with this legislation.

## **13 Collaboration**

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The State Library will actively foster collaboration with other local, national and international organisations to share information and experiences, seek guidance and work together to address digital preservation challenges. We will endeavour to provide a leadership role to organisations and public libraries in Queensland through mentoring and fostering digital preservation activities.

## **14 Risk Management and Mitigation**

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Risks have been identified and mitigated against in the State Library's Risk Profile register.

## **15 Definitions and Commonly used Digital Preservation Terms**

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<b>Word</b>	<b>Definition</b>
Access	The method of obtaining data resources and programs. Access may be restricted in some instances because of copyright or security classification. For digital preservation purposes access also means the continued, ongoing usability of digital materials, retaining all qualities of authenticity, accuracy and functionality deemed to be essential for the purposes the digital material was created and/or acquired for.
Analogue	An electrical signal that varies continuously. Analog is the traditional

Word	Definition
	method of modulating signals so that they can carry information. Amplitude modulation (AM) and frequency modulation (FM) are the two most common methods of analog modulation.
Authenticity	The quality of being reliable or trustworthy. In the case of digital materials it refers to the fact that whatever is being cited is the same as it was when it was first created unless the accompanying metadata indicates any changes. Confidence in the authenticity of digital materials over time is crucial owing to the ease with which alterations can be made.
Born-Digital	Digital material that was created and exists only in a digital format, for which there has never been and is never intended to be an analogue equivalent.
Digital Content / Digital Material	A broad term for an object of some sort (text, image, sound, and video) captured in digital format. Can refer to one or many files. Includes both born digital and turned digital objects. The terms can be used interchangeably.
Digital Object	Data stored as computer files and requiring applications software for viewing, including databases, spreadsheets, word processor documents, web pages, video, audio, images, maps, 2 and 3-D models etc.
Digital Preservation	The series of managed activities required to maintain continued access to digital materials beyond the limits of media failure or technological change for as long as necessary.
Digitisation	The process of converting a non-digital object into a digital object. The resulting digital surrogate would then be classed as digital material and subject to the same broad challenges involved in preserving access to it as born-digital materials.
Metadata	Data about data. Information which describes significant aspects of a resource such as context, content and structure of records and their management through time. Metadata supports a variety of operations on objects.
Migration	The transfer of digital materials from one hardware/software configuration to another or from one generation of computer technology to a subsequent generation. The purpose of migration is to preserve the integrity of digital objects and to retain the ability for clients to retrieve, display, and otherwise use them in the face of constantly changing technology.
Preservation	The processes and activities involved in protecting something from loss and ensuring the survival of material through time.
Preservation Metadata	Preservation metadata is intended to store technical details on the format, structure and use of digital content, the history of all actions performed on the digital material including changes and decisions,

Word	Definition
	the authenticity information such as technical features or custody history, and the responsibilities and rights information applicable to preservation actions.
Secure digital repository	A storage system in which digital objects are stored for subsequent access or retrieval. A secure digital repository aims to provide reliable, long-term access to managed digital resources to its designated community, now and in the future.
Trusted digital repository	A storage system with the features of a secure digital repository, but additionally a trusted digital repository will also meet the assessment criteria in developed certification checklists.
Turned digital	A digital copy of an analogue object that has been created using digital technologies.
Workforce development	Staff responsible for managing and preserving digital collections will be provided with relevant professional development opportunities to ensure they can fulfil the requirements of their job roles.

## 16 References

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The Policy is to be read in conjunction with the State Library Preservation Policy [<http://www.slq.qld.gov.au/about-us/corporate/policies/preservation-policy>].

The Policy is supported by the following documents:

### Digital Preservation Standards and Models

- OAIS - Reference Model for an Open Archival Information System  
<https://public.ccsds.org/pubs/650x0m2.pdf>
- PREMIS - PREMIS Data Dictionary for Preservation Metadata  
<http://www.loc.gov/standards/premis/v3/premis-3-0-final.pdf>
- Trustworthy Repositories Audit & Certification: Criteria and Checklist  
[http://www.crl.edu/sites/default/files/d6/attachments/pages/trac\\_0.pdf](http://www.crl.edu/sites/default/files/d6/attachments/pages/trac_0.pdf)

### Metadata Standards

- Digital Standard 1 – Metadata for digital objects and other specified resource types, v1.4 Guidelines for the use of metadata in the description of digital images  
[http://www.slq.qld.gov.au/\\_data/assets/pdf\\_file/0008/166076/SLQ\\_-\\_DS1Meta\\_v1.5.pdf](http://www.slq.qld.gov.au/_data/assets/pdf_file/0008/166076/SLQ_-_DS1Meta_v1.5.pdf)
- Directory and file naming conventions for digital objects, v1.06  
[http://www.slq.qld.gov.au/\\_data/assets/pdf\\_file/0011/93377/DirectoryFileNamingConventions\\_v1\\_06.pdf](http://www.slq.qld.gov.au/_data/assets/pdf_file/0011/93377/DirectoryFileNamingConventions_v1_06.pdf)

### Image Capture Standards

- Digital Standard 2 – Digital capture & format, v2.05  
[http://www.slq.qld.gov.au/\\_data/assets/pdf\\_file/0009/139815/digital\\_standards\\_2.pdf](http://www.slq.qld.gov.au/_data/assets/pdf_file/0009/139815/digital_standards_2.pdf)

### Policies/Strategies

- State Library of Queensland Digital Strategy

<http://digital.slq.qld.gov.au/>

- State Library of Queensland Content Strategy  
[http://www.slq.qld.gov.au/\\_data/assets/pdf\\_file/0017/229022/Content-Strategy-Web.pdf](http://www.slq.qld.gov.au/_data/assets/pdf_file/0017/229022/Content-Strategy-Web.pdf)
- State Library of Queensland Digitisation Policy  
<http://www.slq.qld.gov.au/about-us/corporate/policies/digitisation-policy>
- State Library of Queensland Preservation Policy  
<http://www.slq.qld.gov.au/about-us/corporate/policies/preservation-policy>

#### Other

- Digital Preservation Coalition, *Preservation Management of Digital Materials: A Handbook*  
<http://www.dpconline.org/docs/digital-preservation-handbook/299-digital-preservation-handbook/file>

## **17 Approval**

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Vicki McDonald	<u>13/07/2018</u>
State Librarian and Chief Executive Officer	Date

## **18 Creative Commons license**

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