

Digital preservation and digitisation policy

POL-C-028

Version 2.2, 29 August 2012

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Metadata

ID	POL-C-028
Version	2.2
Version date	29 August 2012
Type	Council
Council/Executive approval date	Original approved by Council April 2009; this version approved by Executive 21 May 2012
File	09/474
Availability	Public & all staff
Keywords	Digital assets, Digitisation, Records, Preservation, Management, Documentation
Responsible officer	Associate Registrar (Collection Documentation and Digitisation)
History	Digital preservation and digitisation policy, version 1.0, 20 August 2009
Review date	January 2014
Related documents	
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1. Title

Digital preservation and digitisation policy

2. Introduction

The National Museum of Australia (the Museum) is a major cultural institution charged with researching, collecting, preserving, exhibiting and making accessible historical material of the Australian nation. The Museum focuses on the three interrelated areas of Aboriginal and Torres Strait Islander history and culture, Australia's history and society since European settlement in 1788 and the interaction of people with the environment.

Established in 1980, the Museum is a publicly funded institution governed as a statutory authority in the Commonwealth Arts portfolio. The Museum's building on Acton Peninsula, Canberra opened in March 2001.

3. Scope

3.1 Overview

The Digital preservation and digitisation policy applies to all digital collection items and collection-related content materials that are held by the Museum and that are considered by Museum business units to be valuable and worthy of long-term preservation. This policy also applies to physical items, such as documents, photographs and audio/video recordings, which contain information that should be digitally preserved to enhance public access or to prevent loss through degradation, physical damage or technological obsolescence.

This policy does not apply to the Museum's corporate records, in digital or analogue formats.

This policy applies to the following Museum business areas:

- Collections, including Exhibitions, Registration, Curatorial and Conservation
- Copyright & Production Services
- Education
- Library
- Marketing
- Media Operations
- Photography
- Print Publishing
- Public Programs
- Multimedia & Web.

3.2 Description

3.2.1 This policy applies to collection items and other collection-related content materials managed by the Museum that are in either digital or analogue forms and that have been identified for preservation and/or digitisation.

3.2.2 This material includes:

- 'born-digital' collection items and collection-related works in all formats
- digital records of collection items
- physical and analogue collection items and related material requiring digitisation to preserve content or improve access.

3.2.3 This material is held on a variety of formats, including:

- audio recordings, such as oral histories and other sound recordings on tape or in digital form
- digital files containing digitised material in the categories listed above
- documents, such as electronic and paper documents
- images and photographic materials, including transparencies, negatives (glass and acetate), prints on paper, and digital photographic images
- moving image material, such as documentaries and other footage held on film, videotape or as digital files
- multimedia software, including Flash, HTML interactives and other digital formats that may emerge.

3.2.4 Digital material that consists of digitally encoded content and analogue material that carries a signal that transmits content is prone to obsolescence due to changes in playback hardware and software. Where it is held on physical storage media, this content is also at risk of being lost due to physical damage to, and degradation of, the carrier itself. Digitisation of text, audio, and visual material is therefore required to ensure the long-term accessibility of this content.

3.2.5 This policy establishes the guiding principles for the Museum in:

- digitisation (for both access and preservation purposes) of content held by the Museum
- preservation of both 'born digital' and digitised analogue materials to ensure that content is available and accessible into the future.

3.2.6 Separate operational procedures and guidelines will give effect to the principles outlined in this policy.

3.3 Purpose

This policy aims to ensure the ongoing availability of, and access to, items in the Museum's collections and other records and content materials, regardless of the carrier or digital file format on which they were originally created or acquired. It also provides a framework for achieving best practice outcomes when undertaking digital preservation and digitisation activities. These outcomes ensure that:

- the risk of permanent loss of content, through software/hardware obsolescence or degradation or damage to the carrier is minimised
- international standards for digitisation and preservation, including the adoption of interoperable file formats, are met
- metadata required for ongoing preservation, discovery, access and rights management of digital assets is captured

- legal obligations are met, specifically those relating to copyright and intellectual property, when copying content for preservation purposes
- digitisation work performed at the Museum is compatible with ongoing preservation requirements
- digitisation and digital preservation is prioritised to meet public access requirements and mitigate the risk of content being lost.

4. Principles

4.1 Digital asset management at the Museum

Digital asset management involves acquiring and creating digital files (for both access and preservation) and recording metadata (of both the cataloguing information associated with the content of the digital file and technical details of the file, as well as details of its relationship with other files). It also involves storing files in secure electronic storage, undertaking preservation activities (by copying), and providing controlled access to the files by creating derivatives (copies) from designated master files.

4.2 OAIS model for digital asset management

The Museum will base its digital preservation model on the Open Archival Information Systems (OAIS) Reference Model (ISO 14721:2003). The OAIS model applies to the whole life-cycle of digital assets, from capture to storage and distribution, with the aim of providing long-term access to the digital assets through effective preservation.

4.3 Metadata standards

The Museum will use the AGLS metadata standard to meet its ongoing business requirements to ensure appropriate interoperability with external systems and stakeholders. AGLS is issued by Standards Australia as AS 5044:2010 and has been recommended by National Archives of Australia for use by all Australian government agencies.

4.4 Interoperable metadata standards and protocols

The Museum shall conform to the requirements of major metadata standards that have been developed to enable the sharing of digital resources. These include AGLS and the OAI – Protocol for Metadata Harvesting.

4.5 Technical standards for digital capture and copying

4.5.1 The Museum will use ubiquitous, open standard formats for digital copies, including digital preservation copies, and will review the accessibility of these formats regularly.

4.5.2 These standards will form part of the Museum's operational guidelines for digital preservation and digitisation, and will be updated as required or in response to changes in international standards.

4.6 Copyright

4.6.1 Both digital preservation and digitisation involve the copying of content. Therefore, copying for preservation is subject to copyright legislation. The Museum will comply with intellectual

property rights and with other legal and moral rights related to copying, storage, modification of content, and the use of specific digital assets.

- 4.6.2 The right to conduct digitisation for preservation purposes of content held on a collection item or any other record should be obtained when an item is acquired by the Museum. However, it is recognised that copyright clearances for digital preservation will be secured for existing holdings, in line with copyright legislation. The Museum also acknowledges that securing the right to copy for preservation may not always be possible.

Since the 2006 amendments to the *Copyright Act*, copying can take place without permission of the copyright holder for the purpose of the care and management of a collection (e.g. preservation).

4.7 Exclusions

The Museum acknowledges that it may be impossible to preserve some materials by copying, where, for example:

- it is technically impossible to copy, because of the material's condition or the condition of the carrier where that is a significant object, or because it is held on a format unsupported by any available hardware or software
- it is subject to other restrictions (e.g. it is classified or sacred material).

4.8 Method of digital preservation

- 4.8.1 Copies of digital files made for preservation and access purposes shall be authentic and traceable to the original via metadata stored with the digital copy.

- 4.8.2 When appropriate, the Museum will use *migration* to more recent file formats as the preferred method of preservation by copying. Migrating to another format involves, in most cases, minimal or no loss of content and simplifies access by ensuring that format technologies are current at the time of copying.

- 4.8.3 Other methods of preservation, such as *emulation* or *software* (and where necessary *hardware*) *archiving*, may be adopted where it is not possible to migrate to another format or file type without significant loss of the content.

- 4.8.4 Digital files to be preserved will be stored in corporate data storage repositories, managed in accordance with the Museum's data management, backup and disaster recovery procedures.

4.9 Prioritisation of preservation activities

The Museum will prioritise items for preservation according to their historical significance, operational needs and the risk of content loss.

4.10 Risk management and disaster recovery

Digital files are to be stored so that no single point of technology failure or physical loss of a Museum site can result in data loss.

4.11 Security

Preservation master files and all derivative copies, including thumbnails, are to be secured to prevent unauthorised changes being made. However, where authorised changes are made, these changes must be made in a copy of the file which is identified and managed as a different version of the original file.

4.12 Retention

A mandatory retention period should be identified for all digital records, to ensure that digital files are only kept as long as they are of value to the Museum. The retention period will be reviewed periodically, and assessed prior to the disposal of a digital file.

5. Definition of terms

AGLS

AGLS refers to the AGLS Metadata Standard, formerly known as the Australian Government Locator Service and the AGLS Metadata Element Set. It is a set of descriptive properties to improve visibility and availability of online resources. AGLS is published as Australian Standard AS 5044-2010.

Carrier

The physical material in or on which information is fixed or recorded. Examples include: magnetic tape (holding audio or video content), compact disc (holding audio or other content), portable hard drive (holding multimedia content) or a sheet of paper (holding text or a photographic image).

Conservation

Active intervention by specialists to inhibit further deterioration of an object and to stabilise it in its present condition.

Content

For the purposes of this policy 'content' is defined as follows: information contained in or on a resource that is able to be copied by traditional copying processes or digitisation so that it can be reproduced. For audiovisual material, the content is the data encoded in a recording. For a book or other publication, it is the text and accompanying illustrations. For a photograph, it is the image itself not the medium the image is held on (e.g. paper, glass or plastic.) For a digital photograph, it is the image and embedded metadata. For multimedia, it is the digital files and embedded metadata, not the hard drive or disc it is stored on.

The term content does not include the physical carrier used to store the content (e.g. for a sound recording on compact disc, the carrier is the compact disc and the jewel case). The content comprises the digital files containing the sound recording burned onto the CD, and the information printed on the sleeve notes and insert.

Digital asset

A digital asset or resource is a digital file that is considered to have value. It can be either 'born digital' or the result of the digitisation of content held in an analogue form (e.g. audio tape, film etc.).

Digital preservation

Digital preservation includes the processes and systems that maintain the accessibility of digital objects over a given period of time.

Digitisation

Digitisation is the process of copying analogue material to a digital file form.

Ingest

The process by which a digital file is accepted and loaded into a digital store, along with the metadata (descriptive, administrative, structural and technical) that is required for its subsequent discovery and use.

Interoperability

Interoperability refers to the capacity of two or more systems to exchange and to use the information that has been exchanged. For digital assets, this refers to sharing digital assets with others.

Metadata

Metadata is structured and standardised data that describes a digital resource. It includes all cataloguing or indexing information created to locate, describe and manage the preservation of a resource. For example, the metadata recorded for an image of Phar Lap's heart would include data about the content of the image; the photographer (or reprographer); the date of creation and date(s) of image modification; technical information such as resolution, file type and file format; relationships with other related files (e.g. other versions of the file); and the location of the file.

OAI (Open Archives Initiative)

The Open Archives Initiative develops and promotes standards of interoperability to facilitate efficient content dissemination.

OAIS reference model

The Open Archival Information System, ISO 14721: 2003 is a best-practice standard for archiving information in both digital and physical forms.

Preservation

Preservation refers to activities undertaken to repair or treat damaged materials, activities undertaken to prevent future damage or degradation of materials, and activities associated with maintaining the content of materials for use.

Preservation copy

The digital version or copy of material that is stored securely in a physical format or on a physical carrier (e.g. compact disc, DVD, or magnetic tape) or a digital file format which is likely to be accessible in the future. It may be duplicated in an emerging physical or digital format, to protect its content.

Preservation methods

The four main methods of preserving digital material are: migration, encapsulation, emulation, software archiving and hardware archiving.

- Migration: ensuring that the digital information is re-encoded in new formats before the old format becomes obsolete.

- Encapsulation: the grouping together of a digital object and anything else necessary to provide access to that object. Physical or logical structures called ‘containers’ or ‘wrappers’ provide a relationship between all information components, such as the digital object and other supporting information such as a persistent identifier, metadata and software specifications for emulation.
- Emulation: programming computers to emulate older, obsolete computer platforms and operating systems.
- Software (and hardware) archiving: preserving the original software (and possibly the hardware) that was used to create the information so that it can be accessed in the future.

6. Definition of responsibilities

The holders of the following positions have joint responsibility for this policy:

- Assistant Director, Collections, Content and Exhibitions
- Assistant Director, Audience, Programs and Partnerships
- Chief Operating Officer

7. References

Australian Digital Record Keeping Initiative, *ADRI Digital Record Export Standard – ADRI Submission Information Package (ASIP)*, Version 1.0, 31 July 2007, www.adri.gov.au

Australian Institute of Aboriginal and Torres Strait Islander Studies, *Collection Management Policy Manual*, Section 7, Preservation Policy, 2005, www.aiatsis.gov.au

Canadian Heritage and Information Network (CHIN), *Creating and Managing Digital Content*, www.rcip-chin.gc.ca/index-eng.jsp

Canadian Heritage and Information Network (CHIN), *Digital Preservation for Museums*, www.rcip-chin.gc.ca/index-eng.jsp

CASPAR (Cultural, Artistic and Scientific knowledge for Preservation, Access and Retrieval) website, www.casparpreserves.eu/

Consultative Committee for Space Data Systems (CCSDS), OAIS – Open Archival Information System (OAIS), Reference model and diagram, <http://www.ifs.tuwien.ac.at/~aola/publications/thesis-andc/OAIS.html>

Digital Preservation Coalition website, www.dpconline.org/

National Archives of Australia, *Administrative Functions Disposal Authority*, February 2000, pp. 337–339, www.naa.gov.au/Images/AFDA_tcm2-666.pdf

National Archives of Australia, *Digital Record Keeping: Guidelines for Creating, Managing and Preserving Digital Records*, 2004, www.naa.gov.au/Images/Digital-recordkeeping-guidelines_tcm16-47275.pdf

National Archives of Australia, *AGLS Metadata Standard – Part 1 – Reference Description*, Version 2.0, July 2010, www.agls.gov.au/

National Archives of Australia, *AGLS Metadata Standard – Part 2 – Usage Guide*, Version 2.0, July 2010, www.agls.gov.au/

National Library of Australia, *Digital Preservation Policy*, 3rd edition, 2008, www.nla.gov.au/policy-and-planning/digital-preservation-policy

National Library of Australia, PADI – Preserving Access to Digital Information, <http://pandora.nla.gov.au/tep/10691>

Open Archival Information System (OAIS), *ISO 14721: 2003, Space Data and Information Transfer Systems – Reference Model*, http://www.iso.org/iso/catalogue_detail.htm?csnumber=24683

UNESCO, *Charter on the Preservation of the Digital Heritage*, 2003, http://portal.unesco.org/en/ev.php-URL_ID=17721&URL_DO=DO_TOPIC&URL_SECTION=201.html

8. Implementation

Implementation of this policy involves digitisation of content according to agreed priorities and the preservation of digital files and the secure electronic storage of these files. All relevant work areas will identify content categories and retention timeframes. Relevant work areas will then develop priorities for the digitisation of materials according to operational guidelines.

8.1 Coverage

This policy applies to digital and physical information assets of the Museum.

8.2 Other related policies

- Collections development
- Recordkeeping

This policy also relates to the Museum's Records Authority

8.3 Exclusions

Nil

8.4 Superseded policies

This policy supersedes:

Former policy title	Version number	Version date	Council approval date
Digital preservation and digitisation	1.0	20 August 2009	April 2009

8.5 Monitoring

The Museum will continue to collect and maintain statistical information on its digitisation and digital preservation activities.

This policy will be reviewed in January 2014.