

Digital preservation and digitisation policy

POL-C-028

Version 1.0 20 August 2009

Contents

| | |
|--|----|
| Metadata | 2 |
| Document control | 2 |
| 1. Title..... | 4 |
| 2. Introduction..... | 4 |
| 3. Scope | 4 |
| 4. Principles..... | 5 |
| 5. Definition of terms | 7 |
| 6. Definition of responsibilities..... | 9 |
| 7. References | 9 |
| 8. Implementation..... | 10 |

Metadata

| | |
|---------------------------------|--|
| ID | POL-C-028 |
| Version | 1.0 |
| Version date | 20 August 2009 |
| Type | Council |
| Council/GM approval date | Executive endorsed 16 Mar 2009; not yet approved by Council |
| File | 09/474 |
| Availability | Public & all staff |
| Keywords | Digital Assets, Digitisation, Records, Preservation, Management |
| Responsible officer | Manager Collections Information and Digitisation |
| History | New policy |
| Review date | January 2012 |
| Related documents | |
| Contact | National Museum of Australia GPO Box 1901 CANBERRA ACT 2601 Tel: (02) 6208 5000 Email: information@nma.gov.au Website: www.nma.gov.au |

Document control

| Version | Date | Author | Distribution | Action |
|---------|----------------|--|---|---|
| 0.a | 15 Sep 2008 | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Stephen Bounds | Action to be taken by those receiving copy |
| 0.b | 23 Sep 2008 | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Stephen Bounds | |
| 0.c | 2 October 2008 | Stephen Bounds (Acting Manager Collection Information and Digitisation) | | |
| 0.d | 3 Oct 2008 | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Stephen Bounds | |
| 0.e | 14 Oct 2008 | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Photography: George Serras and Lannon Harley C&PS: Denis French, IT&S: Chris Gill Records Management: Jenny Burgess NMA Library: Julie Philips NMA Archive: Anne Kelly Media Ops and Venue Services: Brian Elwood Multimedia: Karina West | Can everyone please review this document and highlight any errors, omissions and evaluate it for clarity and also completeness. All comments welcome. |
| 0.f | 6 Nov 2008 | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Mathew Trinca, Guy Hanson, Carol Cooper, Eric Archer, Denise Mackenzie, Karen Peterson, Patrya Kay | Incorporating changes / comments from distribution of v0.e |

| Version | Date | Author | Distribution | Action |
|---------|-------------|--|--|--|
| 0.g | 25 Nov 2008 | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Records Management NMA Library Education Media Services Registration Web and Multimedia | Incorporate changes made by Mat Trinca and feedback from v0.e. Scope of policy has been extended to apply to all of the Museums digital assets, (not just those in the Museums collections as in v0.e). |
| 0.h | 10 Dec 2008 | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Mat Trinca (General Manager <i>Collections & Content</i>) | Incorporated comments from Record Management. |
| 0.i | 6 Jan 2009 | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Mat Trinca (General Manager <i>Collections & Content</i>) | Incorporated comments from Mat Trinca |
| 0.j | 10 Jan 2009 | Mat Trinca (General Manager <i>Collections & Content</i>) | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Edited |
| 0.k | 12 Jan 2009 | Helen Ludellen Manager (<i>Collection Information and Digitisation</i>) | Mat Trinca (General Manager <i>Collections & Content</i>) | Comments on the changes and revised on 29-Jan-2009 |
| 0.l | 25 Feb 2009 | Mat Trinca (General Manager <i>Collections & Content</i>) | GMs Operations, Audience and Programs | Changes suggested by GMs have been incorporated. |
| 0.m | 16 Mar 2009 | Mat Trinca (General Manager <i>Collections & Content</i>) | Executive | Endorsement |
| | | | Roger Garland (Manager <i>Strategic Development & Policy</i>) | Edit |
| 0.n | 1 Apr 2009 | Mat Trinca (General Manager <i>Collections & Content</i>) | Mat Trinca (General Manager <i>Collections & Content</i>) | Review |
| 0.o | 6 Apr 2009 | Mat Trinca (General Manager <i>Collections & Content</i>) | Executive | Approval for referral to Council |
| | | | Council | Approval |
| 1.0 | 19 Aug 2009 | Mat Trinca | Internet Intranet | Release |

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 and exhibiting 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

The Digital Preservation and Digitisation policy applies to all digital materials held by the Museum that are considered to be valuable and worthy of being kept for the long term. This policy also applies to physical items, such as document files, photographs and video, which contain information that should be digitally preserved to enhance public access or to prevent loss through degradation, physical damage, or technological obsolescence.

The policy applies to the following areas of the Museum's activities:

- Collections, including exhibitions, registration, curatorial and conservation activities
- Public programs
- Education
- Media operations
- Web publishing and multimedia
- Print publishing
- Photography
- Copyright clearance and licence management
- Library
- Corporate records, i.e. Records Management. Any digital material that is classified as a corporate record must also comply with the Recordkeeping policy (v 2.0).

3.1 Description

3.1.1 The Digital Preservation and Digitisation policy applies to collection items and other material managed by the NMA in either digital or analogue form that has been identified for preservation and/or digitisation.

3.1.2 This content is held on a variety of formats, and includes:

- **Audio recordings**, such as oral histories and other sound recordings on tape or in digital form
- **Moving image material**, such as documentaries and other footage held on film, video or as digital files

- **Images and photographic materials**, including transparencies, negatives and prints on paper, and digital photographic images
- **Documents**, such as electronic and paper documents
- **'Born-digital' works** in all formats
- **Digitised files** of original material in the categories listed above.

3.1.3 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. Digitisation of text, audio, and visual material is therefore required to ensure the long-term accessibility of this content.

3.1.4 The Digitisation and Digital Preservation policy establishes the guiding principles for the Museum in:

- **Digitisation** (for both access and preservation purposes) of content held by the Museum
- **Preservation** (by copying) of analogue works, 'born digital' materials and the digital products of digitisation, to ensure that content is available and accessible into the future.

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

3.2 Purpose

This policy aims to ensure ongoing availability, and access to, the content of items in the Museum's collections and other records, regardless of the physical media 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 include that:

- the risk of permanent loss of content 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 are captured
- the Museum meets legal obligations, specifically those relating to copyright, when copying content for preservation purposes
- digitisation work performed at the Museum is compatible with ongoing preservation requirements
- digitisation and digital preservation is prioritised, according to public access requirements and 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

access to the files by creating derivatives (copies) from a designated 'Preservation Master'.

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, 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 internationally recognised data schemas for the capture and recording of metadata. It favours use of Dublin Core, where possible.

4.4 Technical standards for digital capture and copying

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

4.4.2 These standards will form part of the Museum's operational guidelines for Digitisation and Digital Preservation and will be updated as required or in response to changes in international standards.

4.5 Copyright

4.5.1 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.

4.5.2 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 have to be secured retrospectively for existing holdings. The Museum also acknowledges that securing the right to copy for preservation may not always be possible.

4.6 Exclusions

The Museum acknowledges that some materials may be unable to be preserved by copying, where, for example:

- permission from the copyright holder to copy an item cannot be obtained
- it is technically impossible to copy, because of its condition, 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 secret/sacred material.

4.7 Method of preservation

4.7.1 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.

4.7.2 The Museum will use *migration* to more recent file formats as the preferred method of preservation by copying, as appropriate. Migrating to another format involves minimal or no loss of content and simplifies access by ensuring that technology formats are current at the time of copying.

4.7.3 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 Prioritisation of Preservation activities

The Museum will prioritise items for preservation according to its operational needs and the risk of content loss.

4.9 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 Dublin Core and the OAI – Protocol for Metadata Harvesting.

4.10 Risk Management and Disaster Recovery

Digital files are to be managed so that no single point of failure can result in data loss. This may include the redundant storage of data in multiple repositories.

4.11 Security

Preservation Master files and all derivative copies, including thumbnails, are to be secured to prevent any unauthorised changes being made to them. 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.

5. Definition of terms

Carrier

The physical package (i.e. the disc, film, paper etc) in or on which information is fixed or recorded. Examples include: a magnetic tape (holding audio or video content); compact disc (holding audio or other content), or a sheet of paper of 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 signal encoded in a sound 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, i.e. paper, glass or plastic. For a digital photograph it is the image and embedded metadata.

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 actual 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 resource is a digital file that is considered to have value. It can be either 'born digital' or the result of the digitisation of information content held on an analogue work, e.g. audio tape, film etc.

Digital preservation

Digital preservation includes the processes and systems in place that maintain 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 all 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 the sharing of 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, 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 modifications to the image, technical information such as resolution, file type, file format, and its relationship with other related files, e.g. other versions of the file, and the location of the file.

OAI

This acronym refers to the Open Archives Initiative. *The Open Archives Initiative develops and promotes interoperability standards that facilitate the efficient dissemination of content.*

OAIS reference model

OAIS = Open Archival Information System. ISO 14721: 2003. 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 on a physical format or carrier, e.g. compact disc, DVD, or magnetic tape, or 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.

- i) **Migration:** Ensuring that the digital information is re-encoded in new formats before the old format becomes obsolete
- ii) **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 persistent identifier, metadata and software specifications for emulation

- iii) **Emulation:** programming computers to emulate older, obsolete computer platforms and operating systems
- iv) **Software (and hardware) archiving:** preserving the original software (and possible hardware) that was used to create the information so that it can be accessed in the future.

6. Definition of responsibilities

General Manager Collections and Content

General Manager Audience and Programs

General Manager Operations

Have joint responsibility for implementing this policy.

7. References

Administrative Functions Disposal Authority. National Archives of Australia. February, 2000. pp.337-339. (Publications produced for the public with government funding http://www.naa.gov.au/Images/AFDA_tcm2-666.pdf)

ADRI Digital Record Export Standard. ADRI Submission Information Package (ASIP). ADRI-Version 1.0 31 July 2007. Australian Digital Record Keeping Initiative. <http://adri.gov.au/ADRI-2007-01-v1-0.pdf>

Collection Management Policy Manual. Section 7. Preservation Policy. AIATSIS, 2005. http://www.aiatsis.gov.au/audiovisual_archives/audiovisual_archives_collection_management_policy_manual

CASPAR (Cultural, Artistic and Scientific knowledge for Preservation, Access and Retrieval) website. (CASPAR is partly funded by the EU and CASPAR researches, implements, and disseminates innovative solutions for digital preservation based on the OAIS reference model (ISO 14721:2002) for digital preservation). <http://www.casparpreserves.eu/>

Creating and Managing Digital Content. Canadian Heritage and Information Network (CHIN). http://www.chin.gc.ca/English/Digital_Content/index.html

Digital Preservation Coalition website. DPC is a UK based coalition of organizations working on digital preservation. <http://www.dpconline.org/graphics/>

Digital Preservation for Museums. CHIN. http://www.chin.gc.ca/English/Digital_Content/Preservation_Recommendations/prioritize_formats.html

Digital Preservation Policy. National Library of Australia. 17 July 2001; revised 24 February 2002 <http://www.nla.gov.au/policy/digpres.html>

Digital Record Keeping: Guidelines for Creating, Managing and Preserving Digital Records. National Archives of Australia. 2004. <http://www.naa.gov.au/records-management/publications/Digital-recordkeeping-guidelines.aspx>

OAIS. Open Archival Information System. ISO 14721: 2003. http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=24683

OAIS reference model and diagram:
<http://www.ifs.tuwien.ac.at/~aola/publications/thesis-ando/OAIS.html>

PADI – Preserving Access to Digital Information. National Library of Australia. <http://www.nla.gov.au/padi/index.html>

UNESCO Charter on the Preservation of the Digital Heritage, 2003, UNESCO
http://portal.unesco.org/ci/en/ev.php-URL_ID=13366&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 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

Access policy

Collections Development policy

Recordkeeping policy

8.3 Exclusions

Nil

8.4 Superseded policies

None, this is a new policy.

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 2012.