Connecticut Historical Society Collection Digital Preservation and Digitization Policy *Draft*

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Review date: a year from date policy is adopted

1. Introduction

In keeping with the mission of the Connecticut Historical Society ("CHS"), "Connecting You and the Story of Connecticut", the CHS has developed a policy regarding digital collections, and the digitization of collections.

2.0 Purpose

This policy aims to ensure the ongoing availability of, and access to, items in the CHS's collection 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 digitization activities. These outcomes ensure that CHS:

- minimizes the risk of permanent loss of content, through software/hardware obsolescence or degradation or damage to the carrier
- meets professional standards for digitization and preservation, including the adoption of inter-operable file formats
- captures metadata required for ongoing preservation, discovery, access and rights management of digital assets
- meets legal obligations, specifically those relating to copyright and intellectual property, when copying content for preservation purposes
- performs digitization work that is compatible with ongoing preservation requirements
- prioritizes digitization and digital preservation to meet public access requirements and mitigate the risk of content being lost.

3. Scope

3.1 Overview

The Digital Preservation and Digitization Policy applies to all digital collection items and collection-related content materials that are held by the CHS and that are considered to be valuable and worthy of long-term preservation. This policy also applies to physical items, such as documents 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 CHS's institutional records, in digital or analog formats. Digitization or retention of administrative documents is covered by the institutional retention policy.

3.2 Description

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

3.2.2 This material includes:

- 'born-digital' collection items and collection-related works in all formats
- digital records of collection items
- physical and analog collection items and related material requiring digitization 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, disk or in digital form
- digital files containing digitized material in the categories listed above
- moving image material, such as documentaries and other footage held on film, videotape or as digital files
- multimedia software, including Flash, HTML inter-actives and other digital formats that may emerge.
- 3.2.4 Digital material that consists of digitally encoded content and analog 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. Content on such physical media must be digitized to ensure the long-term accessibility of this content.
- 3.2.5 This policy establishes the guiding principles for the CHS in:
 - digitization (for both access and preservation purposes) of content held by the CHS
 - preservation of both 'born digital' and digitized analog 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.

4. Principles for Digital Asset Management (DAM)

4.1 Digital asset management (DAM) at the CHS

Digital asset management (DAM) 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.

See separate DAMS guidelines (under construction)

4.2 OAIS model for digital asset management (DAM)

The CHS 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 Technical standards for digital capture and copying

- 4.3.1 The CHS will use ubiquitous, open standard formats for digital copies, including digital preservation copies, and will review the accessibility of these formats regularly.
- 4.3.2 These standards will form part of the CHS's operational guidelines for digital preservation and digitization, and will be updated as required or in response to changes in international standards.

4.4 Copyright

- 4.4.1 Both digital preservation and digitization involve the copying of content. Since the 1998 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). The CHS will comply with intellectual property rights and with other legal and ethical rights related to copying, storage, modification of content, and the use of specific digital assets.
- 4.4.2 The right to conduct digitization for purposes other than preservation of content held on a collection item or any other record should be obtained when an item is acquired by the CHS. However, it is recognized that copyright clearances for digitization will be secured for existing holdings, in line with copyright legislation, namely 17 U.S. 302. The CHS also acknowledges that securing the right to copy may not always be possible.

4.5 Exclusions

The CHS 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).

4.6 Method of digital preservation

- 4.6.1 Copies of digital files made for preservation and access purposes shall be authentic and traceable to the original via metadata embedded with the digital copy.
- 4.6.2 When appropriate, the CHS 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.

4.6.3 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.

4.6.4 Digital files to be preserved will be stored in a secure data storage repository, managed in accordance with best practices for data management, backup and disaster recovery procedures.

4.7 Prioritization of preservation activities

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

4.8 Risk management and disaster recovery

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

4.9 Security

Preservation master files are to be secured to prevent unauthorized changes being made. However, where authorized 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.

5.0 Other related policies

- Collecting Policy
- Retention Policy
- Collection Management Policy
- Conservation Policy

This policy will be reviewed in. [a year from when it is adopted]

APPENDIX I

7. References

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APPENDIX II Definition of terms

Analog

A device or system that represents changing values as continuously variable physical quantities (for example a clock face with moving hands). Analog information is information in a non-digital format such as printed or manuscript text, photographs or other graphics, or 3-D objects. Digitization is the conversion of analog information into digital information.

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 stabilize 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 digitization 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.

Derivative

Something that is based on another source, specifically a digital copy derived from an archival master. Derivatives include thumbnails and reference copies as well as large-scale digital surrogates.

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 digitization 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.

Digital surrogate

A digital file that results from the process of scanning, photographing, or otherwise converting analog materials, used in place of the original.

Digitization

Digitization is the process of copying analog (i.e.: anything that is not digital) 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 standardized 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.

MODS

Metadata Object Description Schema (MODS) is an XML schema for a bibliographic element set that may be used for a variety of purposes. It is maintained by the Library of Congress.

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 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.