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# Guidelines & Resources for Digital Preservation at the CSU Libraries

Prepared for the CSU Libraries Digital Archives Working Group

by Eric Milenkiewicz, University Archivist (CSUSB)

March 2021



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## Overview

The volume of unique digital assets that need to be managed and preserved by the California State University (CSU) Libraries has increased considerably over the last decade, a trend that is likely to continue in the years ahead. However, the necessary framework (i.e., tools, resources, expertise) to support the long-term digital preservation of these assets is still lacking across the CSU Libraries. While some CSU campuses have implemented tools such as digital asset management systems (DAMS) to gain greater control and management over their digital assets, many campuses still lack access to a DAMS and the management functions they support. Furthermore, many of the DAMS solutions currently in-use simply back-up data (to local servers or the cloud), which does not constitute long-term digital preservation.

The lack of appropriate tools, resources, and expertise in the area of digital preservation, should not preclude the CSU Libraries from taking steps toward proper long-term digital preservation, though. There are many simple actions that can be taken to help safeguard digital assets in the absence of a fully-functioning digital preservation program and/or platform. The recommendations presented below are designed to assist the CSU Libraries in advancing digital preservation efforts.

In addition to the recommendations listed below, it is suggested that the methodology outlined in “The Theory and Craft of Digital Preservation” by Trevor Owens<sup>1</sup> also be used to help guide the CSU Libraries approach to digital preservation as work progresses on this front.

## Recommendation

It is highly recommended that the CSU Libraries follow the guidelines set forth in the NDSA Levels of Digital Preservation.<sup>2</sup> Reaching Level 4 compliance would be ideal, though this is likely unattainable for most CSU campuses at this time given the current environments for digital preservation that exist across the system. An achievable goal in the current environment should be for campuses to reach Level 2 compliance at minimum and then work toward aligning their digital preservation practices with Levels 3-4.

## Alternative Recommendation

In order to lower the barrier for entry into digital preservation work for the CSU Libraries this recommendation distills the four levels of preservation recommended by the NDSA into a single level that should adequately safeguard digital assets for the immediate to short term. As digital preservation work at the CSU Libraries matures, additional steps can be taken in order to better align our processes/actions with the NDSA Levels of Digital Preservation.

<b>Storage</b>	<ul style="list-style-type: none"><li>• Transfer content from obsolete physical storage media to server-based storage</li></ul>
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<sup>1</sup> <https://doi.org/10.31229/osf.io/5cpjt>

<sup>2</sup> <https://ndsa.org/publications/levels-of-digital-preservation/>

	<ul style="list-style-type: none"> <li>• Maintain 2 complete copies of content in separate locations using stable storage</li> <li>• Create/maintain inventory of all places where content is stored</li> </ul>
<b>File Integrity</b>	<ul style="list-style-type: none"> <li>• Use write-blockers when transferring content from physical storage media</li> <li>• Verify integrity information if available OR generate integrity information if none exists, performing periodic integrity checks</li> <li>• Perform periodic virus checks on all content</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>• Store content in a secure environment with defined permissions for user-based read, write, move, and delete actions</li> </ul>
<b>Metadata</b>	<ul style="list-style-type: none"> <li>• Include descriptive metadata based on simple Dublin Core<sup>3</sup></li> <li>• Maintain administrative metadata including file type, creation date, image resolution/color space, etc that is typically embedded in the file by the image capture equipment automatically</li> <li>• Include rights management metadata outlining usage permissions and/or copyright status</li> </ul>
<b>File Format</b>	<ul style="list-style-type: none"> <li>• Adhere to the Library of Congress' "2020-2021 Recommended Formats Statement"<sup>4</sup> when possible (Alternatively, at minimum use widely adopted and accessible lossless file formats)</li> <li>• Create/maintain inventory of all represented file formats</li> <li>• Perform migrations/normalizations on obsolete file formats</li> </ul>

## Tools

- Community Owned digital Preservation Tool Registry (COPTR)
  - [https://coptr.digipres.org/Main\\_Page](https://coptr.digipres.org/Main_Page)
- Preserving digital Objects With Restricted Resources (POWRR): POWRR Tool Grid v2
  - <http://www.digipres.org/tools/>

## Sample Workflows

- "Digital Preservation and Processing Procedure/Workflow" by Nat Wilson (Carleton College)
  - <https://wiki.carleton.edu/pages/viewpage.action?pageId=12246353>
- Archivemata Workflow
  - <https://wiki.archivemata.org/images/d/dc/Archivemata-architecture-7May2010-2.png>

## Online Guides/Tutorials

- Digital Preservation Handbook (Digital Preservation Coalition)

<sup>3</sup> Please Note: Guidelines from the Metadata Working Group and Digital Archives Working Group on suggested descriptive metadata elements is forthcoming and will supersede this recommendation when available.

<sup>4</sup> <https://www.loc.gov/preservation/resources/rfs/TOC.html>

- <https://www.dpconline.org/handbook>
- Novice to Know-How: Online Digital Preservation Training (Digital Preservation Coalition)
  - <https://www.dpconline.org/digipres/train-your-staff/n2kh-online-training>
- Digital Preservation Management: Implementing short-term strategies for long-term problems (Cornell University Library / MIT Libraries)
  - [https://dpworkshop.org/dpm-eng/eng\\_index.html](https://dpworkshop.org/dpm-eng/eng_index.html)
- Digital Preservation Essentials: Pre-ingest and Ingest Workshop (Australasia Preserves)
  - <https://www.australasiapreserves.org/p/digital-preservation-essentials.html>

### Workshops/Conferences

- Upcoming Events (Digital Preservation Coalition)
  - <https://www.dpconline.org/events>
- Introduction to Digital Preservation (Library Juice Academy)
  - <https://libraryjuiceacademy.com/shop/course/183-introduction-digital-preservation/>
- Preserving Digital Archives (Society of American Archivists)
  - <https://www2.archivists.org/prof-education/course-catalog/preserving-digital-archives>
- International Conference on Digital Preservation
  - <https://ipres-conference.org/>
- Northeast Document Conservation Center (NEDCC) Digital Directions
  - <https://www.nedcc.org/preservation-training/digital-directions>

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