Storage and Technology Obsolescence: Evaluating Digital Preservation Capacity Using the Digital Preservation Capability Maturity Model (DPCMM)

Fatemeh Rezaei, Kristin Conlin, Laura Bell

frezaei@ubalt.edu kconlin@ubalt.edu lbell@ubalt.edu

Mid-Atlantic Regional Archives Conference, Morgantown, WV April 12, 2019



Overview

- The RLB Library
- Assessing Digital Curation and Preservation Readiness
- Digital Preservation
 Capability Maturity Model (DPCMM)
- Results & Discussion
- Next Steps for RLB Library
- Questions



Photo taken by Laura Bell





The RLB Library

File Explorer

 The Robert L. Bogomolny Library at University of Baltimore

Why we need a digital preservation program





Archival collections that have been scanned and are available online.

R.L. Bogomolny Library

Home

Digital Collections Complete Collections - Archival collections that have been completely digitized





Browse All





Advanced Search

DIGITAL

COLLECTIONS

Keys to a Successful Digital Preservation Program

- Continuously supported program
- An ongoing process
- Sustainability
- Recognized and valued by the entire community
- An understanding of the value must be communicated



Assessing Digital Curation and Preservation Readiness

- Categories of Stakeholders
- Categories of Resources
- The Survey Reveals:

Strengths:

- Our collections
- Our staffing
- Support from the library's administration

Weaknesses:

- Documentation and policies
- Our technological infrastructure



Survey of Institutional Readiness

We created this checklist to help you prepare for the workshop and to get you to think about your organization's digital assets in terms of scope, priorities, resources, and overall readiness to address digital preservation concerns.

You will see that the themes of organizational, technological, and resource concerns, which are interwoven throughout the tutorial and workshop, are also reflected in this checklist. Organizational infrastructure confirms institutional commitment to digital preservation, sets the goals and priorities for the program, and acknowledges accepted community practice and standards. The technological infrastructure translates the objectives of the program into technical requirements, recommends and initiates appropriate solutions, and assumes responsibility for ensuring that the organization is able to meet the technological needs of the program over time. Sound decision making for digital preservation is a joint activity that brings together the both organizational and technological components. Undergirding the program are resource commitments—funding, staff, training, services, etc.—that need to be identified and secured as an on-going commitment of the institution.

Do not be alarmed if you answer "no" to most or all of the questions. This survey is intended to help you take stock of the requisite components of a digital preservation program and to help you begin or proceed with your digital preservation planning.

Digital Preservation Management: Implementing Short-term Strategies for Long-term Problems: Digital Preservation Management Workshops. [https://dpworkshop.org/]. (2003). Survey of Institutional Readiness. Retrieved from https://doworkshop.org/site/default/files/readiness.pdf





Digital Preservation Capability Maturity Model (DPCMM)

The Council of State Archives (CoSA) lists the DPCMM as a valuable assessment tool for organizations seeking to preserve and provide access to their digital materials

So far state archives seem to have used the tool more often than universities



Council of State Archivists (CoSA). (2014). Resource Center: Digital Preservation Capability Maturity Model (DPCMM). Retrieved from: https://www.statearchivists.org/resource-center/resource-library/digital-preservation-capability-maturity-model-dpcmm/





Digital Preservation Capability Maturity Model (DPCMM)

The Capability Maturity Model

(CMM) is a set of structured levels and identifies a series of associated activities and baseline metrics used to measure performance in a given area. The DPCMM identifies core digital preservation requirements

The DPCMM has two goals:

- 1. Help the organization identify the current level of capabilities required to create a digital preservation program
- 2. Draw attention to a continuous discipline for addressing digital preservation issues





Five Stages of the Digital Preservation Capability Maturity Model

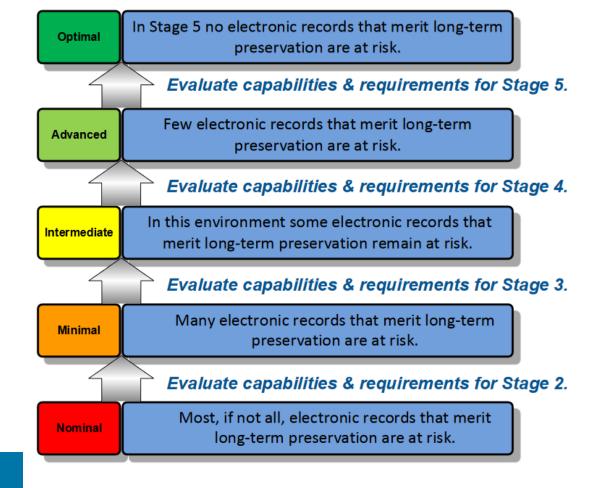




Figure 1. Five Stages of Digital Preservation Capability

Dollar, C., & Ashley, L. (2015). Digital Preservation Capability Maturity Model (DPCMM) Background and Performance Metrics. Retrieved from: https://static1.squarespace.com/static/52ebbb45e4b06f07f8bb62bd/t/55a7ed87e4b016f840ba1adb/1437068679137/DPCMM+Background+and+Performance+Metrics+v2.7_July+2015.pdf

Digital Preservation Capability Maturity Model Components

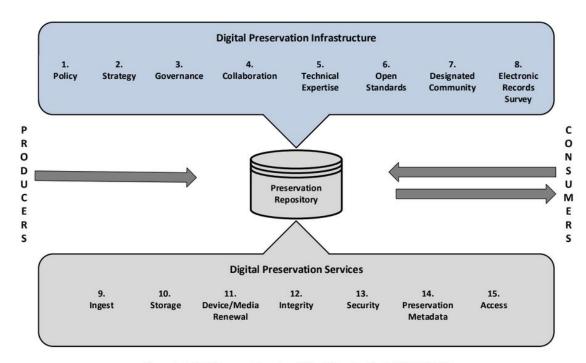


Figure 2. Digital Preservation Capability Maturity Model® (DPCMM)

Dollar, C., & Ashley, L. (2015). Digital Preservation Capability Maturity Model (DPCMM) Background and Performance Metrics. Retrieved from:

https://static1.squarespace.com/static/52ebbb45e4b06f07f8bb62bd/t/55a7ed87e4b016f840ba1adb/1437068679137/DPCMM+Background+and+Performance+Metrics+v2.7_July+2015.pdf



RLB Library Departments

- Access Services
- Special Collections & Archives
- Administration
- Reference
- Integrated Digital Services
- Academic Success





| Robert L. Bogomolny Library | Nominal (0) | Minimal (1) | Intermediate (2) | Advanced (3) | Optimal (4) |
|---|----------------|----------------|------------------|-----------------|----------------|
| Digital Preservation Policy | Х | | | | |
| Digital Preservation Strategy | Х | | | | |
| Governance | Х | | | | |
| Collaboration | | X | | | |
| Technical Expertise | Х | | | | |
| Open Standard Technology Neutral Formats (OSTNF) | | x | | | |
| Designated Community | X | | | | |
| Electronic Records Survey | X | | | | |
| Ingest | X | | | | |
| Archival Storage | Х | | | | |
| Media/Device Renewal | Х | | | | |
| Integrity | X | | | | |
| Security | X | | | | |
| Preservation Metadata | X | | | | |
| Access | | X | | | |

Capability Index Score of 3/60 Stage 1 Minimal Digital Preservation Capacity

Digital Preservation Capability Self-Assessment Scorecard



Reflection & Assessment

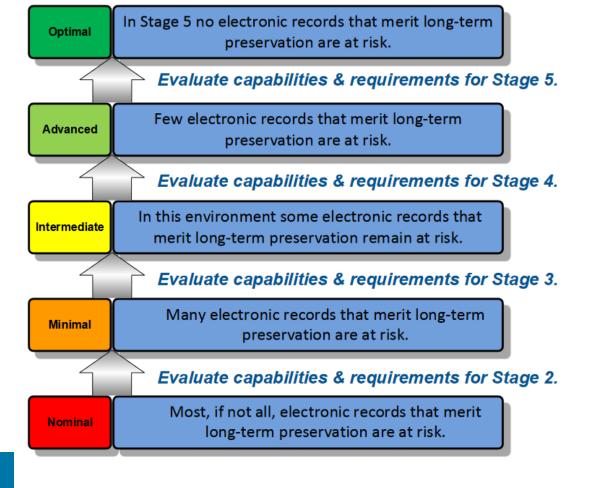




Figure 1. Five Stages of Digital Preservation Capability

Dollar, C., & Ashley, L. (2015). Digital Preservation Capability Maturity Model (DPCMM) Background and Performance Metrics. Retrieved from: https://static1.squarespace.com/static/52ebbb45e4b06f07f8bb62bd/\/55a7ed87e4b016f840ba1adb/1437068679137/DPCMM+Background+and+Performance+Metrics+v2.7_July+2015.pdf

| DPCMM Components | Current Capabilities | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|----------------------------------|-------------------------|--------|--------|--------|--------|--------|
| Policy | 0 | 1 | 2 | 2 | 3 | 3 |
| Strategy | 0 | 1 | 2 | 2 | 3 | 3 |
| Governance | 0 | 1 | 2 | 2 | 2 | 3 |
| Collaboration | 1 | 2 | 2 | 3 | 3 | 3 |
| Technical Expertise | 0 | 1 | 1 | 2 | 2 | 3 |
| Open Standard Technology Formats | 1 | 2 | 2 | 2 | 3 | 3 |
| Designated Community | 0 | 2 | 2 | 2 | 2 | 3 |



Next Steps for RLB Library

- Include the digital preservation plan in the Mission and Vision statements of the library
- Create a task force for digital preservation and draft a policy
- Work with library stakeholders to gain support



Photo taken by Laura Bell

Meeting with Library Leadership

- Presenting the Internal Report
- Discussion and gaining Buy-In
- Outcomes and Lessons Learned



Photo taken by Laura Bell

Digital Preservation Task Force

Agenda and Goals for the First Year:

- 1. Further educate ourselves regarding digital preservation
- 2. Create and test a digital preservation workflow for existing collections
- 3. Draft a digital preservation policy and submit it to Library Leadership for discussion and approval

After the first year: provide outreach and workshops for others within the library in order to educate our stakeholders and gain further buy-in





References/Bibliography

Ashley, L. and Dollar, C. (2012) A Digital Preservation Maturity Model in Action. [Slide Presentation]. Retrieved from: http://web.stanford.edu/group/dlss/pasig/PASIG_January2012/Governance/12F2_Dollar_Maturity.pdf

Digital Preservation Management: Implementing Short-term Strategies for Long-term Problems: Digital Preservation Management Workshops. [https://dpworkshop.org/]. (2003). Survey of Institutional Readiness. Retrieved from https://dpworkshop.org/sites/default/files/readiness.pdf

Council of State Archivists (CoSA). (2014). Resource Center: Digital Preservation Capability Maturity Model (DPCMM). Retrieved from: https://www.statearchivists.org/resource-center/resource-library/digital-preservation-capability-maturity-model-dpcmm/

Dollar, C. and Ashley, L. (2015). *Digital Preservation Capability Maturity Model (DPCMM) Background and Performance Metrics*. Retrieved from: https://static1.squarespace.com/static/52ebbb45e4b06f07f8bb62bd/t/55a7ed87e4b016f840ba1adb/1437068679137/DPCMM+Background+and+Performance+Metrics+v2.7_July+2015.pdf

Dollar, C. and Ashley, L. (2014). Assessing Digital Preservation Capability Using a Maturity Model Process Improvement Approach. Retrieved from: https://static1.squarespace.com/static/52ebb45e4b06f07f8bb62bd/t/53559340e4b058b6b2212d98/1398117184845/DPCMM+White+Paper_Revised+April+2014.pdf

Dollar, C., Ashley, L.Charles M., & Misic M. (2014). Building the Business Case for Digital Preservation Using the Digital Preservation Capability Maturity Model. Retrieved from:

http://www.girona.cat/web/ica2014/ponents/textos/id195.pdf

Dull, Maggie. (2017). Assessing Digital Curation and Preservation Readiness at the University of Baltimore's Langsdale Library. [Poster and unpublished report]. Poster retrieved from: https://slideplayer.com/slide/15438966/

Kenney, A. & Buckley, E. Developing Digital Preservation Programs: The Cornell Survey of Institutional Readiness, 2003-2005. (2005). RLG DigiNews 9, no. 4. Retrieved from: http://worldcat.org/arcviewer/1/OCC/2007/08/08/0000070519/viewer/file1088.html

Perservica (2015). Achieving a Step Change in Digital Preservation Capability, An assessment of Preservica using the Digital Preservation Capability Maturity Model (DPCMM). Retrieved from:

https://preservica.com/uploads/legacy/2015/02/Preservica-Essential-Guide-Achieving-a-Step-Change-in-Digital-Preservation-Capability-Feb-2015.pdf





Questions?

Acknowledgements:

We thank Maggie Dull for her previous work in 2017 which helped us begin this project.





Storage and Technology Obsolescence: Evaluating Digital Preservation Capacity Using the Digital Preservation Capability Maturity Model (DPCMM)

Fatemeh Rezaei, Kristin Conlin, Laura Bell

frezaei@ubalt.edu kconlin@ubalt.edu lbell@ubalt.edu

