



Digital POWRR Interim Report
to
Institute of Museum and Library Services
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Jaime Schumacher
Project Director
jschumacher@niu.edu
Northern Illinois University
DeKalb, IL 60115

Project Partners
Chicago State University
Illinois State University
Illinois Wesleyan University
Northern Illinois University
Western Illinois University

<http://digitalpowrr.niu.edu/>

INTRODUCTION

This document serves as the second interim report for the Digital POWRR project, a National Leadership Grant Award exploring digital preservation solutions for small and medium-sized college, university, and research libraries. While many larger institutions have made considerable advances in digital preservation, institutions with fewer resources have struggled to make similar progress for a variety of reasons. The Digital POWRR team is investigating and evaluating scalable, sustainable digital preservation solutions for these smaller institutions. The team is also exploring potential business and implementation models for equitable access to digital preservation, so that these memory institutions can become a driving force in protecting their organizations' significant digital objects.

YEAR TWO ACTIVITIES & ACCOMPLISHMENTS

Digital Preservation Tools/Services Testing

1. After conducting initial investigations of the tools/services selected by the Advisory Board for inclusion in the study in Year 1, some changes to the list were required. Under advisement of the Board, the team eliminated 2 tools/services from the initial list, added a new one, and altered the approach to the testing of another. Below are the tools/services that are either being tested by the project team (including its status) or have been eliminated from the testing pool (including the reason).
 - **DuraCloud:** Established an account with this hosted service and received the standard training on the use of the service offered to all customers. Testing commenced [on schedule](#) – currently 80% complete.
 - **MetaArchive:** Established a contract with Educopia Institute for a pilot instance of this service. Agreed to pilot a new process, using Bagger, that is believed to be a simpler method of ingesting content into the MetaArchive LOCKSS network. Set up the pilot in a way that mimics a Collaborative Membership with a staging server at NIU to which the partner institutions transfer their content for harvesting. Testing commenced [on schedule](#) – currently 85% complete.
 - **Archivematica:** This free, open source tool required no contract. Since part of the evaluative framework for testing these tools/services includes the ease of downloading and installing the software for practitioners within our target audience, the partner institutions attempted to do so without the aid of the project's technical coordinators. After these attempts were documented, the technical coordinator and project director assisted with the installations as necessary. Testing commenced [on schedule](#) – currently 50% complete.
 - **Preservica:** After receiving an estimate for \$28,890 (included 1 year of licensing fees for the software, 1TB of cloud storage, and training) and rejected negotiation attempts with the vendor, the Advisory Board concluded that this service would

not be affordable or scalable to the study's target audience, particularly considering the quoted rate of \$8100 for storing 1TB/year. It was, therefore, removed from the testing list. Very recently, however, project team members were informed that the company's pricing model for this service may have changed to more closely reflect the model our team proposed to the vendor in the original failed negotiations. This could mean that the project may choose to do a limited evaluation of Preservica in Year 3, pending feedback from the Board of Advisors.

- **HOPPLA:** After initial investigations revealed that HOPPLA had not been updated in some time and that parts of the tool did not appear to be functional, we reached out to the creators of this tool. They stated that they are not maintaining the HOPPLA prototype and that there are no plans to update it. After presenting this development to the Board of Advisors, they voted to remove the tool from the testing list.
- **Curator's Workbench:** With the removal of both Preservica and HOPPLA from the testing list, we were left with only 1 "processing" type of tool to evaluate. In light of this, the team suggested a handful of potential processing tools to add to the list. The Advisors selected Curator's Workbench to round out the types of tools/services that the project team would be testing. It is a free, open source tool that requires no contract. Since part of the evaluative framework for testing these tools/services includes the ease of downloading and installing the software for practitioners within our target audience, the partner institutions attempted to do so without the aid of the project's technical coordinators. After these attempts were documented, the technical coordinator and project director assisted with the installations as necessary. Testing commenced [on schedule](#) – currently 70% complete.
- **Internet Archive*:** Upon additional investigation by the project team after the Advisory Board recommended its inclusion, it was determined that Internet Archive, while not necessarily a robust digital preservation solution for most mid-sized and smaller institutions, could prove to be effective for the smallest of organizations, like local historical societies. Team members proceeded to establish several pilot projects where very small memory institutions would attempt to use Internet Archive as an off-site storage solution for their digital materials. Based on the experience and feedback the team receives, a tutorial is being created to walk a practitioner at this type of institution through the entire process of using Internet Archive in this manner. Testing commenced [on schedule](#) – currently 60% complete.

*Note that the team based these determinations on the traditional Internet Archive service (free) and not its Archive-it subscription service.

2. During a [2 day in-person meeting](#), the project team and the Board of Advisors jointly developed the [evaluative framework](#) for the testing and evaluation of the final selection

of digital preservation tools and services. It was agreed that the testing should focus largely on the accessibility and usability of the tools/services by a practitioner at an under-resourced institution and the constraints they could possibly be working within such as:

- Outdated technical infrastructure
- Little to no budget for licensing fees, additional equipment, etc.
- No programmers on staff and no access to server administrators
- Limited personal technical skills
- No data, metadata, or digital collections librarians on staff
- “Lone-Arranger” set up
- Etc.

Given the wide range of technical, personnel, and administrative structures at each of the 5 partner institutions, it was agreed to test most of the tools/services at all locations. Project leads would also recruit additional people to participate at their institutions to apply a variety of skill sets to the testing process, including archivists, manuscript processors, graduate assistants, etc. Several operating systems would be used in the testing phase, but all institutions would test the same version of the tools/service, where applicable. A wide variety of selected digital objects were collected at each institution for testing.

3. Populated the digital preservation tool grid that was created in Year 1 with over 60 tools, services, etc. that were not selected for in-depth testing. The tool grid graphically maps, at a high level, each tool’s capabilities against an OAI-based digital preservation functionality matrix and provides comments and costing information, where applicable and available. It has proven to be well-received by the community, based on comments by practitioners and its inclusion in some workshops and training materials. The project team provided its data to the [COPTR](#) registry upon the request of its creator and is working on integrating the tools grid’s design with the community-owned and updated registry. The POWRR tool grid can be viewed on the [project website](#).

Outreach & Education

1. Kept the project [website](#) and [blog](#) up-to-date and expanded the digital preservation 101 section to include additional resources for digital preservation practitioners. Posted all working materials to the project [wiki](#).
2. Conducted presentations on digital preservation and the POWRR project on several of the partner institution campuses as well as in off-campus forums including:
 - The Faculty Colloquium at Illinois Wesleyan (~50 attendees including the President and Provost)
 - The Annual CARLI (Consortium of Academic and Research Libraries of Illinois) meeting (~100 attendees) [Presentation](#) [Video Recording](#)

- Multiple [presentations](#) throughout International Open Access week
 - Presentations to smaller groups on the campuses
3. Attended several professional conferences to build awareness of POWRR activities and deliverables, investigate the current availability and adoption of digital preservation solutions, and inform the research of the project. See appendix for summaries and outcomes of each event. Conferences included:
 - CurateGear 2013
 - iConference 2013
 - PASIG (Preservation and Archiving Special Interest Group) Meeting
 - IS&T's (Society for Imaging and Technology) Annual Archiving Conference
 - NDSA's (National Digital Stewardship Alliance) Annual Conference
 - Northeast Document Conservation Center's Digital Directions Conference
 4. Presented at several professional conferences to build awareness of POWRR activities and deliverables, shape the ongoing digital preservation dialog to include the unique needs and challenges of smaller organizations, and provide digital preservation education. See Appendix for presentation materials, summaries, and outcomes of each conference. Conference included:
 - RBMS (Rare Book and Manuscript Section of ACRL) Annual Pre-Conference
 - ALA (American Library Association Annual Meeting
 - SAA (Society of American Archivists) Annual Conference
 - ANADPII (Aligning National Approaches to Digital Preservation) Action Assembly
 5. Completed more than 60 campus-wide [interviews](#) of faculty, staff, and administrators at each of the 5 partner institutions to build awareness, gather digital objects to be used in testing, and collect data on the following:
 - The format types and size of digital materials being created
 - The methods of storing files and the media used (network storage, local media, cloud storage, repositories, etc.)
 - Instances of data loss and its impact
 - Which digital materials are highest priority for recovery in the event of a catastrophic loss
 - The confidence levels that data can be recovered if lost and that files in general will be usable in 25 years.
 - The desire to have digital material accessible and usable by colleagues in 25 years.

The data from the interviews were collected into a database and analysis has revealed interesting and surprising findings. A report detailing these findings is in the final stage of preparation.

6. Created a preservation exhibit entitled “Our Gift to the Future: The Present” that focused primarily on digital preservation. It was displayed for 2 months at NIU and can be seen on the [POWRR blog](#).

Other Activities & Deliverables

1. Recognized that practitioners at smaller organizations require specialized and discrete assistance with communicating the need for and benefits of a digital preservation program to key stakeholders within their organization. Partnered with a communications consultant to create slides and 1-page handouts for practitioners to use in these efforts that are targeted to specific stakeholders like Academic Administrators, Content Creators, IT Administrators, etc. These documents will be publicly available under a Creative Commons License and provided in a modifiable format for practitioners to customize as needed.
2. In testing MetaArchive within a Collaborative Membership model, the team recognized that the development of appropriate organizational forms and legal relationships between collaborating institutions represented a significant barrier to smaller organizations seeking higher levels of digital preservation, due in part to the cost of legal counsel required for the drafting of original agreements. The team is currently collaborating with Dr. Dwayne Buttler, a lawyer and librarian who helped shape the MetaArchive Cooperative, to create the business model and legal framework for this type of partnership. All deliverables, including models and legal contracts, created in this endeavor will be made publicly available under a Creative Commons License and provided in a modifiable format for practitioners to customize as needed.
3. Members of the Digital POWRR project team from all 5 partners institutions conducted monthly conference calls and engaged one another more frequently via email and telephone. Team members also met in-person 4 times at NIU and NIU team members traveled to the partners’ locations multiple times for project coordination and testing assistance.
4. Requested and received a 1 year no-cost extension from the granting agency to support a dissemination model that allows for intensive traveling by project members in the final 9 months of the project to perform digital preservation workshops in all regions of the country. This dissemination model is a result of recommendations by the Advisory Board regarding how to best reach the project’s target audience. Workshop proposals that have been submitted and accepted thus far can be found on the [wiki](#). The project team is also being contacted independently by organizations hearing of our efforts and looking to host one of the POWRR workshops for their practitioners.
5. Met with NDSA (National Digital Stewardship Alliance) leadership at the Library of Congress to brainstorm viable methods for bringing smaller and medium-sized institutions into its membership and potential barriers to entry for those organizations.

Discussed the possibility of creating regionally-based opportunities and how the POWRR dissemination plans for regional workshops might further these opportunities. Currently working to coordinate at least 2 regional NDSA events and POWRR workshops. Also, as a result of these discussions, 2 POWRR partner institutions, Chicago State University and Northern Illinois University, have formally joined the NDSA and are active in all of its working groups.

CONCLUSION

Professionals who are responsible for digital preservation in their institutions, but who have been given few or no resources to accomplish this crucial task, are demonstrating a high level of interest in the outcome of this study. Indeed, the Digital POWRR project partners are driven by the critical need in their own organizations to create a scalable, sustainable digital preservation solution. Compelled by the urgency demonstrated by our target audience, encouraged by our accomplishments, and motivated by our challenges, the Digital POWRR team is eager to progress into the activities of our final year.

Digital POWRR Project Team

Advisory Board

Liz Bishoff - Principle Partner, Bishoff Group
Steve Bromage - Executive Director, Maine Historical Society
Martin Halbert - Dean of Libraries, University of North Texas
Jerry McDonough - Associate Professor, University of Illinois
Chris Prom - Assistant University Archivist, University of Illinois
Amy Rudersdorf - Assistant Director for Content, Digital Public Library of America

Northern Illinois University

Lynne Thomas, Co-PI
Drew VandeCreek, Co-PI
Nathan Books
Stacey Erdman
Sarah Fraser
TJ Lusher
Jaime Schumacher
Matthew Short
Danielle Spalenka

Partner Institution Leads

Jeff Hancks, Western Illinois University
Aisha Haykal, Chicago State University
Meg Miner, Illinois Wesleyan University
Patrice-Andre Prud'homme, Illinois State University

A special thank you to these colleagues and individuals who have been instrumental in our achievements this year:

Dwayne Buttler	Annie Oelschlager
Sharon Campbell	Gayle Porter
Felix Chu	Amanda Rinehart
Stephanie Davis-Kahl	Matt Schultz
Patrick Dawson	Phyllis Self
Chet Derry	Katherine Skinner
Cindy Ditzler	Carissa Smith
Chengren Hu	Amy Sutter
Martin Kong	Julia Thompson
Butch Lazorchak	Linda Wade
Michael Lorenzen	Paul Wheatley
Judy Michaelson	Susan Wilson

APPENDIX

Summaries and Outcomes for Conferences (links to presentation materials where applicable)

CurateGear, January 2013

Stacey Erdman and Jaime Schumacher

This event brought together people across the digital preservation and curation fields, and featured numerous tool overviews and demonstrations, which was helpful in our development of the Tool Grid.

IS&T's Annual Archiving Conference, April 2013

Stacey Erdman

Attended presentations on developing technology within the areas of digitization, metadata, digital preservation, and data curation, which was helpful in our development of the Tool Grid.

PASIG Meeting, May 2013

Jaime Schumacher

Attended panel presentations discussing the scalability of current digital preservation solutions and the unique risks associated with cloud-based storage providers. Participated in a full-day digital presentation workshop to both discover the latest methods and inform the development of the POWRR workshops.

Rare Books and Manuscripts Section Pre-Conference, June 2013

Lynne Thomas

Moderated discussion group for small and medium-sized libraries with a focus on digital preservation. Distributed information about POWRR project as part of session.

Outcomes:

1. Increased awareness of project's existence among special collections professionals in attendance, particularly those at smaller institutions just beginning the digital preservation conversation
2. Gathered additional questions and concerns to be addressed in our study.

ALA Annual Conference, June - July 2013

Aaisha Haykal & Patrice-Andre Prud'homme

[Presented](#) as a part of the ALA Digital Preservation Interest Group at the 2013 ALA Conference in Chicago, IL. Other panelists spoke about the NDIPP's levels of preservation, ETD ingest, and on preserving newspapers. The core content of our panel presentation was to connect people with what the Digital POWRR is about and the Tool Grid that had been developed in the

process of preparing for the testing and evaluation of selected tools. By presenting the evaluation framework and objectives of the project, the audience was inquisitive and responsive to the tool discovery. The level of awareness this short panel brought up resonated well with many people as more questions were raised than time allowed. This spontaneous lightning presentation was well received.

Outcomes:

1. Increased awareness about the grant and what we are doing to assist small to mid-size cultural heritage institutions.
2. Obtained feedback on the work that was done and confirmation that the work that we are doing is necessary and needed in the field.

NDSA Annual Conference, July 2013

Stacey Erdman and Jaime Schumacher

Met with NDSA leadership and were able to make the POWRR project a more visible force among the NDSA membership. We learned about other initiatives occurring throughout the country, and heard details about the National Agenda. This led to formal partnership between POWRR and NDSA, including looking at coordinating POWRR workshops with NDSA recruiting events. We also used this opportunity to discuss the creation of a framework for the Collaborative Membership with the Executive Director of Educopia and seek out input on the process of creating the POWRR workshop.

NEDCC Conference, July 2013

Aaisha Haykal

Attended the Northeast Document Conservation Center (NEDCC) Digital Directions Conference in Ann Arbor Michigan. According to their website the conference will bring together “experienced digital collections curators, and colleagues from institutions large and small...to identify new answers and opportunities for some of the challenges, considerations, and choices surrounding today’s digital collections care.” I definitely experienced this and was able to talk with these experts in the field to get their take on digital preservation tools and also able to make connections with people in the field who are looking for answers.

Outcomes:

1. Confirmed what we (Digital POWRR team) discussed previously about how incremental steps are necessary, that it is not just the library’s role; and that one has to know their institution.
2. Learned about metadata and other types of tools that assist in the DP process.
3. Learned about the type of environment that one should have in order to create quality digital materials that should be preserved.

SAA Annual Conference, August 2013

Meg Miner & Lynne Thomas

Gave joint [presentation](#) about initial findings of POWRR project to standing-room-only audience.

Provided an overview of the steps leading to securing the grant and the work to date on campus interviews and the tool grid. Also outlined communications strategies at the partner institutions and the work ahead with tool testing.

Outcomes:

1. Raised awareness of grant project among SAA members.
2. Obtained feedback on the work that was done and confirmation that the work that we are doing is necessary and needed in the field.

ANADP II, November 2013

Jaime Schumacher & Lynne Thomas

Presented [poster](#) about project; participated as delegate to address major problems in digital preservation, predominantly as representative of smaller institutions.

Outcomes:

1. Increased recognition of the roles and challenges of smaller and less-well resourced libraries in the international discussion on digital preservation.
2. Aligning our study with those underway at larger institutions.
3. Connected with experts in the field who may be able to lend their expertise to the issues faced by smaller libraries in particular.