

LITERATURE REVIEW

As part of the Hydra-in-a-Box discovery process, we conducted an environmental scan, examining relevant literature, websites, and other documents to learn from related research and to better understand the current digital repository landscape. We learned the main considerations and concerns facing those who plan to implement, or lessons learned by those who have recently implemented, a digital collection or asset management solution.

Methodology

We seeded the list of resources to be reviewed with early input from the project team. Additional articles and websites of interest were added, drawing on current conference proceedings as well as article citations surfaced through the initial list of readings. Finally, we searched several article databases (Library, Information Science, & Technology Abstracts; Library and Information Science Source; ProQuest Research Library) for relevant literature published since 2010. Keywords searched included “asset management”, “digital repository”, and “migration”.

Goals

The goal of the literature review was to be able to answer the following questions:

- What are the primary concerns of those implementing, or planning to implement, digital repositories or asset management systems for cultural heritage collections?
- How do institutions select a solution? What are the most important selection criteria?
- Why do implementers choose to migrate from one system to another? What are the issues that arise during system migrations?

Findings

Based on the readings, it's clear that a common topic of interest among implementers of digital repositories and asset management systems for cultural heritage collections is the evaluation of available options. Institutions make a great effort to carefully investigate and compare a prospective repository's features, technical components, specifications, and available support or add-on services. Teams of staff are charged or third-party consultants are hired to carry out and report on these evaluations. The results of such efforts are shared, formally or informally, for the benefit of the broader community, indicating that implementers understand that these evaluations are highly valuable, given the investment of time and resources to carry them out, and stand to be useful resources to many other institutions in similar circumstances.

Another primary theme that runs through the literature is repository migration. With the emergence of digital libraries and asset management for cultural heritage institutions over the past decade, there now exist a healthy number of institutions who have been running and growing repository systems and services in production. Institutions report that their current solution or set of solutions are falling short of today's needs. These needs include: support for a broad range of content types, metadata flexibility and standards-based control, easy interface customization, streamlined workflows and bulk operations, more API-based interoperability, improved discoverability, content-specific functionality, ability to scale, and better support for preservation.

Recent research shows that there is a trend away from proprietary systems towards open source systems: institutions are seeking a more sustainable solution, one that offers more local control and/or the ability to consolidate various services that have been added incrementally over time—each in a stand-alone, unintegrated system—into a replacement system that is based on open and widely adopted components that promote re-use and persistent access.

Institutions look closely at the relative benefits of hosting versus local deployment, particularly in terms of overall cost and timeline to implement. The availability of technical support in any and all forms—access to current and complete documentation, licensing a hosted service or other third-party service, developing local support talent, engaging with an active and welcoming community of developers and users, ongoing training—is a major factor when considering the costs of implementation, maintenance and growth. Small institutions with limited technical resources or infrastructure try to take advantage of consortial or other collaborative arrangements in order to be able to offer hosted repository services. Larger institutions or consortia are looking to scale and/or multi-tenant support. Local deployment tends to be more expensive in terms of staffing and infrastructure costs, while a hosted service will offer limited options in the way of customization and system enhancement.

The experiences and lessons reported by those who have migrated from one repository system to another show that structural and descriptive metadata pose big challenges in many migration projects. Inconsistent descriptive practices and poorly-documented, customized metadata result in digital collection migration projects that take longer to complete and require increased project management. There is a broad need for tools that better support migration, especially in metadata mapping, content packaging, bulk actions, and overall quality control.

References

Bankier, J. G. & Cleason, K. (2014). UNESCO Institutional Repository Software Comparison. http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/news/institutional_repository_software.pdf

Byrne, E.J. (2014). CONTENTdm and Content Pro: A Comparison and Evaluation. *Library Philosophy and Practice*. <http://digitalcommons.unl.edu/libphilprac/1082/>

Castagné, M. (2012). Institutional repository software comparison: DSpace, EPrints, Digital Commons, Islandora and Hydra. <https://circle.ubc.ca/handle/2429/44812>

Davis, R.M. & Subirats-Coll, I. (2011). Changing Platforms: Parallel case studies in repository platform migration. <http://aims.fao.org/capacity-development/publications/changing-platforms-parallel-case-studies-repository-platform>

Estlund, K. (2015). EIRE Platform Options. Internal report. <https://drive.google.com/open?id=0B8ETyFnKCnQSTjg0UEM2NjBYQmM>

Florida Council of State University Libraries. (2010-2016). Islandora FLVC. https://islandora.pubwiki.fcla.edu/wiki/index.php/Main_Page

Gilbert, H. & Mobley, T. (2013). Breaking Up with CONTENTdm: Why and How One Institution Took the Leap to Open Source." <http://journal.code4lib.org/articles/8327>

Gregory, L. (2012). Migrating from OCLC's Digital Archive to DuraCloud. <http://www.slideshare.net/GHLdigitalinfo/bpe2012migrating>

Kucsma, J., Reiss, K. & Sidman, A. (2010). Using Omeka to Build Digital Collections: The METRO Case Study. *D-Lib Magazine* 16, 3/4). doi:10.1045/march2010-kucsma

Lampert, C., Dolski, A. & Egan, B. (2010). dmBridge: Building a collaborative solution for streamlined digital library design and development. *OCLC Systems & Services: International digital library perspectives* 26, (2). doi: 10.1108/10650751011048470

Madalli, D. P., Barve, S. & Amin, S. (2012). Digital Preservation in Open-Source Digital Library Software. *The Journal of Academic Librarianship* 38, (3).

Masood, K. & Neatrou, A. (2014). Digital Asset Management System Options: Report Of The University Of Utah Libraries Dam Review Task Force. http://www.mwdl.org/events/DAMS_options.php

Neatrou, A., Brunsvik, M., Buckner, S., McBride, B. & Myntti, J. (2014). The SIMP Tool: Facilitating Digital Library, Metadata, and Preservation Workflow at the University of Utah's J. Willard Marriott Library. *D-Lib Magazine* 20, (7/8). doi:10.1045/july2014-neatrou

Perrin, J. M. (2013). CONTENTdm to DSpace - Why? <https://conferences.tdl.org/tcdl/index.php/TCDL/TCDL2013/paper/view/582>

Ramsey, E., Gaynor, A., Heinze, J., Lake, S., Lubinsky, R. & Onega, E. (2015). Repository Comparison Report. <http://libra.virginia.edu/catalog/libra-oa:11638/>

Robertson, W. (2010). Improving our Local Electronic Serials Through Standardization and Migration to New Platforms. *The Serials Librarian*, 58.

Stein, A. & Thompson, S. (2015). Taking Control: Identifying Motivations for Migrating Library Digital Asset Management Systems. *D-Lib Magazine* 21 (9/10). doi: 10.1045/september2015-wu

Stevenson, V. & Hodges, S. (2008). Setting up a university digital repository: experience with DigiTool. *OCLC Systems & Services: International digital library perspectives* 24, (1). DOI: 10.1108/10650750810847242

Thacker, C. & Knutson, C. (2015). Barriers to Initiation of Open Source Software Projects in Libraries. *Code{4} Lib Journal* Issue (29). <http://journal.code4lib.org/articles/10665>

TriCollege Library Consortium Digital Asset Management and Preservation Working Group. (2015). Creating a Foundation for Digital Asset Management and Preservation. Internal report.

Wu, M. (2015). The Future of Institutional Repositories at Small Academic Institutions: Analysis and Insights. *D-Lib Magazine* 21, (9/10). DOI: 10.1045/september2015-wu