

Spartan Archive: A Program in Transition

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Michigan State University (MSU) was founded in 1855 as a prototype for the 69 land grant institutions created under the Morrill Act of 1862. Today, it is a Tier One research university with more than 47,000 students and nationally recognized programs in such fields as nuclear physics, education, psychology, and engineering. As the university grew, the need to preserve and maintain its history became a concern, and in 1969 the MSU Board of Trustees mandated the creation of the University Archives & Historical Collections (UAHC) to serve as “the depository for university records which are no longer administratively useful. . . .” The authorization resolution claims all records of the “official activities of university officers and offices” as the property of the university and states that such property cannot be destroyed without the approval of the director of the University Archives.

University Archives: The Early Years

Within this administrative framework, UAHC began a records management program in the 1970s to collect permanent records and store inactive business records. The collections consisted mostly of twentieth-century analog formats such as paper, publications, photographs, ledgers, and scrapbooks, with some film and audio media. During the 1980s, MSU staff developed the MicroMARC computer software system to manage and access the archival collections. Although this system, which was based on the library world’s MARC (MAchine Readable Cataloging) standard, provided innovative public access to processed collections, it used a flat database structure rather than a relational database, severely limiting functionality.

Alongside its aging collection management system, UAHC employed workflows developed in the 1980s and 1990s to address analog business records. Records retention schedules had not been updated to acknowledge new work processes, born-digital records, or new media formats. Approval processes still required paper forms and hard-copy signatures. Inventory and appraisal of records necessitated physically reviewing hard copies with the records creator. Transfer of records to the University Archives required an actual physical transfer of the files, and there was no process in place for the transfer of electronic records. Similar to the situation at other archival repositories, the staff knew that UAHC needed to evolve to meet the

archival challenges of the twenty-first century—but didn’t know where to start.

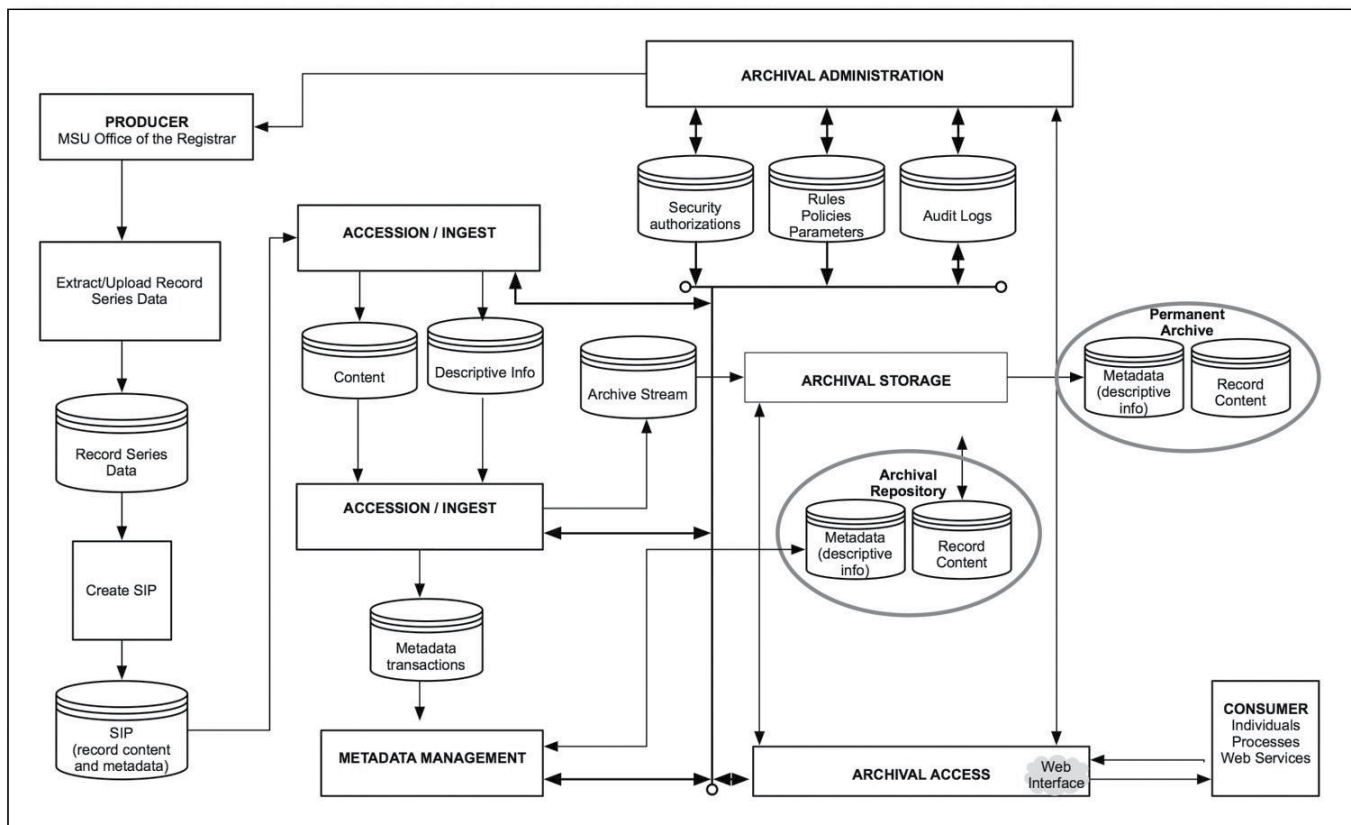
New Enterprise Business Systems

Opportunity for change came from outside the University Archives. In 2006, MSU began a multi-year project to replace and upgrade its existing finance, human resources, and research administration business information systems. Although records management, or even enterprise document management, was not within the scope of the new enterprise business systems, UAHC was invited to participate in the project’s steering committee and influence critical business policy and procedural decisions.

When the new business systems go live in January 2011, MSU will transition from paper-based workflows to “paper-sparse” processes. This enormous undertaking has given UAHC staff an unparalleled opportunity to strengthen the university’s records management program and re-envision goals and activities to meet the needs of a modern campus community. The UAHC now provides support and training in records management, imaging business records, indexing and storing digital files, E-mail management, developing file plans, and good practice guidance for the digital office.

NHPRC Grant Proposal

With a revitalized program and vision securely in place, UAHC applied for and received a National Historical Publications and Records Commission (NHPRC) Collaborative Electronic Records Project grant to build a prototype electronic records archives for born-digital records of enduring historical value: the “Spartan Archive.” During the three-year project, which began in April 2010, UAHC will test the sustainability of an archival solution designed to preserve four large electronic records series from the MSU Office of the Registrar. These include the full catalog of academic programs, the descriptions of courses offered each semester, the annual student directory, and the schedule of courses. The UAHC intends to build a scalable solution that can be implemented with other records series containing both structured and unstructured data types. The solution also will be designed with utilization at other colleges and universities in mind. Most of the \$251,079 received from NHPRC will fund a



Spartan Archive conceptual model.

full-time information technologist position to help build a preservation environment for the Spartan Archive.

The UAHC is collaborating with a number of on-campus units on the Spartan Archive project, as well as the Data Intensive Cyber Environments (DICE) Center at the University of North Carolina at Chapel Hill. In addition, project progress and outcomes will be shared with members of the Committee on Institutional Cooperation (CIC), a consortium of Big Ten universities and the University of Chicago, and other interested colleges and universities. Spartan Archive will be based on traditional archival principles and the Open Archival Information System (OAIS) model,¹ utilize the Integrated Rule Oriented Data Systems (iRODS) distributed data grid solution,² and incorporate other open source tools and software as appropriate.

Goals of Spartan Archive

Spartan Archive will include all components of the archival process: the *appraisal* of born-digital records, the *accession and ingest* of electronic records, the long-term *preservation and management* of database records, and the *on-line access*

and research use of the record series. The UAHC plans to capture the four records series directly from the records creator and will work with the Office of the Registrar to appraise their SQL databases and determine the data fields that hold historical information. Those data fields identified as having historical value and subject to permanent retention will be extracted from the databases and transferred to UAHC's custody for long-term preservation and research use. The UAHC will select and implement archival management software to enforce administrative control of the transferred records, implement iRODS as a means for long-term preservation and storage, and develop a Web interface to the archival records to enable access by the user community. A self-audit of the system will be conducted using the *Trusted Repositories Audit & Certification (TRAC): Criteria and Checklist*.³

The Spartan Archive project will result in UAHC creating new policies, procedures, and a technical infrastructure to accession, provide access, and preserve born-digital database records in the university environment. As part of the project, UAHC will implement a new collections

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management system, Archivists' Toolkit,⁴ running on an Oracle relational database platform, as a replacement for the MARC-based software. Institutional metadata standards, including business classification schemes, will be developed and defined.

A processing manual based on the Spartan Archive model will be created for internal use and as a guide for other institutions that wish to establish a similar program. The manual will define submission information packages (SIPs), the digital files to be ingested into the system; archival information packages (AIPs), the form of the records as they will be managed and preserved in the Spartan Archive repository; and dissemination information packages (DIPs), the files that will be made available for retrieval. The use of iRODS in managing and preserving the records also will be documented. Project funding will allow a representative from the DICE group to travel to MSU in East Lansing and train select IT and archives staff from MSU and CIC member institutions in iRODS programming. Finally, progress reports, project documentation, and links to presentations and publica-

tions will be posted to the Spartan Archive project Web site (http://www.archives.msu.edu/about/spartan_archive.php) throughout the course of the project.

Conclusion

The records management program that UAHC developed and operated under from the 1970s through the 1990s served the organization and MSU well in the managing of analog business records. With the current preponderance of born-digital records and new media formats, however, UAHC knew that new work processes and solutions must be considered. The university-wide enterprise business systems project that began in 2006 provided UAHC with an opening to strengthen MSU's records management program and further the transition from paper-based administrative workflows to paper-sparse processes. Now with the NHPRC-funded Spartan Archive project grant, UAHC will build a prototype electronic records archives for MSU's born-digital records of enduring value—an archives that UAHC plans to scale for use with other

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Theresa Fitzgerald views an image of Douglas MacArthur on the PEP vault Web site.

For teachers and students, social media will provide instant access to many of NARA's historical documents critical to understanding the foundation of our democracy, and background on their significance. For example, a visitor to the Facebook page featuring the U.S. Constitution can interactively discover details about the 1787 convention in Philadelphia's Independence Hall where the founding fathers convened to revise the Articles of the Confederation.

Video also is being used in unique ways to further serve the user. In summer 2010, NARA unveiled a series of special YouTube interviews featuring staff archivists discussing memorable and iconic moments in history. The

series, a pilot project for now, is called *Inside the Vaults* (http://www.youtube.com/watch?v=MEG9z_0OLyo). From the Nuremberg Laws to the Presidential Libraries, *Inside the Vaults* will feature a host of historic topics related to documents in NARA's holdings. The NPRC was featured in a recent episode (http://www.youtube.com/watch?v=_p5HMLR5tEg). The three-minute video, *America's Veterans and the National Archives*, takes viewers behind the scenes of NPRC and provides a glimpse into the many steps taken to process some five thousand daily requests for military records from NPRC's holdings.

Like any new project, social media Web sites require time for site maintenance and monitoring. NPRC's social media site administrators will be responsible for ensuring that its information is consistent with what is on NARA's main Web site (<http://www.archives.gov>). But for any work it may entail, the benefits will be striking. Compared to traditional methods of communicating with the public such as tours, publications, and public presentations, the Internet has the potential to reach a larger audience using fewer resources.

Notes

1. Two items about NARA's use of social media can be found at http://www.nara-at-work.gov/nara_news/declarations/blog/?p=187 and <http://www.archives.gov/social-media/>.

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historical records and make available as a model for other institutions.

Notes

1. Consultative Committee for Space Data Systems, *Reference Model for an Open Archival Information System (OAIS)*, 2002, <<http://public.ccsds.org/publications/archive/650x0b1.pdf>> (2 November 2010).
2. Data Intensive Cyber Environments (DICE) research group, *iRODS: Data Grids, Digital Libraries, Persistent Archives, and Real-time Data Systems*, 8 October 2010, <https://www.irods.org/index.php/IRODS:Data_Grids,_Digital_Libraries,_Persistent_Archives,_and_Real-time_Data_Systems> (2 November 2010).
3. The Center for Research Libraries (CRL) and Online Computer Library Center Inc. (OCLC), *Trustworthy Repositories Audit & Certification: Criteria and Checklist Version 1.0*, 2007, <http://www.crl.edu/sites/default/files/attachments/pages/trac_0.pdf> (2 November 2010).
4. Archivists' Toolkit, 19 October 2010, <<http://www.archiviststoolkit.org/>> (2 November 2010).