

Assignment 1

Recommendation for Digital Preservation Policy

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Section I: Cover Letter

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Chancellor Morris,

I wish to congratulate you on your recent appointment as Chancellor of Rockwell University.

I understand that you wish to raise the profile of the university by highlighting the collections of the Library/Archive. Specifically, you wish to know whether the Library/Archive has possible “hidden collections” that can be digitized and made available to researchers. As you may know, the Library houses a few well known special collections of historic regional postcards and rare illuminated Greek manuscripts. It is entirely possible that there are additional items that would qualify as “hidden collections”. Unfortunately, the University Archive lacks the necessary physical space, full-time professional staff, as well as adequate funding (25% of which is allocated to the preservation of the Greek manuscripts). We are also lagging in an ongoing and half-completed project to digitize and make accessible all issues of the student newspaper. Because of these on-going projects and the possibility of searching for new “hidden collections”, I would like to propose that you consider adopting a digital preservation policy for the Library/Archive to streamline current and future projects.

I have been the Chief Archivist and Digital Curator at Rockwell for the past two years, since graduating from the School of Library and Information Sciences at the University of Pittsburgh (an ALA accredited institution) with a Master’s degree in Archives and Information Science. I have attended several conferences and webinars on digital preservation and curation, so I feel confident that I can craft a digital preservation policy that will meet the needs of the University.

The purpose of this report is to produce a comparative survey of two institutions of higher education, the University of Massachusetts Amherst and Boston University, to understand and adapt their digital preservation policies/procedures. This comparison will serve to meet the current demands of balancing the budget and developing the digital collections in the university archives, and laying a foundation for the long-term preservation and maintenance of our digital collections.

I look forward to working with you to raise the profile of Rockwell University in the academic community.

Best Regards,

R. Alexander Ward

Section II: Competitive Analysis of Amherst University and Boston University Digital Preservation Policies

Introduction

As part of the development process for creating a Digital Preservation Policy for Rockwell University, I began by searching for academic institutions similar in size and focus that have implemented digital archives programs. After reviewing a number of policies from various academic institutions, I decided to examine the Digital Preservation Policies of two fellow Massachusetts based academic institutions, Amherst University and Boston University. By comparing the digital preservation plans for these two institutions, I hope to derive a digital preservation plan for Rockwell University that will utilize the best aspects of both plans while allowing me the opportunity to remedy any deficits by creating my own set of criteria that will be flexible enough to allow for ease of implementation and alteration by future staff of the Rockwell library and archives. It is my intention at the conclusion of this comparative survey to construct a successful digital preservation plan for Rockwell University that will highlight the “hidden collections” of the university and attract the attention of academic researchers and funding sources.

Summary

The policy of Amherst University encompasses the concurrent needs of the university, the library, and the archive as well as the role that all three play in the creation and curation of data/information created within the institution. The policy delineates the current and possible future needs of the Amherst University archives. The policy outlines the detailed objectives of the institution to develop a robust digital archive by committing to objectives that provide guidance for maintaining a digital archive looking at the scope of future activities and addressing challenges that face the archive in a rapidly evolving environment.

The Boston University policy concisely details the technical aspects of digital preservation by listing the most commonly used proprietary and Open Source file formats for documents, photos, videos, audio, as well as best practice suggestions to maintain and extend the lifetime of a file. Recommendations are listed for converting proprietary formats such as Real Audio and Microsoft Word into formats that are more durable and universally accessible¹.

Similarities

Both Amherst University and Boston University incorporate in their respective digital preservation policies a commitment to uphold the best standards and practices of the archival profession with particular regard to making necessary updates to procedural and technical

¹ (“BU Libraries Digital Preservation Policy” 2011)

aspects of their digital archive systems as needed to create a self-sustaining, durable digital archive network.

Amherst and Boston are equally committed to curating information that is relevant to their institutional focus as centers for academic research. In particular, this entails making every effort to provide accurate, authenticated/unaltered representations of digitized analog and digital native items in their collections, as well as providing up-to-date and detailed item level metadata for each object in their digital repositories.

As part of this commitment to maintaining authentic reliable data/information, both are partner institutions in the Portico and LOCKSS resource and information sharing associations² which allow for the sharing of information between member institutions, the deferment of high costs associated with storage of digital data, and access to subscription database/tools. Most importantly, Portico and LOCKSS allow member institutions to maintain redundant copies of their digital data/information off site, which insures that if any data/information is corrupted or destroyed that there will always be unaltered copies that, can be accessed by users.

Relative to the preservation of digital items, both institutions show an investment in the creation/acquisition of data/information by insuring that all incoming documents and files go through a rigorous life cycle management process before deposit into their digital repositories. This entails the assurance that incoming items meet certain criteria pertaining to the relevance/uniqueness of material to the host institution; assurance that items do not violate/infringe on existing copyright laws; collaboration with creators of original material to insure that they follow the best standards and practices that will insure the long-term viability of their creation; having procedures in place for the migration of file formats to formats that will continue to be accessible in perpetuity. The overall purpose of the life cycle management process is to inform and educate individuals on the resources available in academic libraries and archives, and to raise awareness of the challenges involved in curating digital materials for long-term access.

Vital to the continued evolution of their digital archives, Amherst and Boston Universities stipulate in their digital preservation plans to undergo periodic evaluations of their practices and procedures, technology, and staff as part of the commitment to maintain their status and reputation as reliable academic repositories. This entails internal and external evaluations by associations and peer institutions. Upon receipt of the evaluations, they will use the results as a guide to improve the capabilities and services of the archives for the benefit of the academic community, content creators, and users of the archives.

A necessary component of the shared goal of these institutions in insuring long-term access to information and the viability of their archival services, Amherst and Boston are committed to keeping up to date on technological and procedural changes in the archival field, which includes

² (“LOCKSS” 2015; “Portico: United States - Participating Libraries” 2015)

periodically updating their hardware and software, while also maintaining access to obsolete technologies/platforms that are capable of accessing data information that is otherwise unreadable with the latest technology³. This also requires updating archival administrative systems to allow authorized access to the archivist and other individuals responsible for the maintenance of the archive; finding ways to maximize and improve the storage of digital items; utilizing the most relevant metadata schema to insure continued accessibility to the users.

Differences

Boston University's digital preservation plan deals primarily with the technical aspects of digital preservation. The majority of the document is comprised of a table that lists common proprietary and Open Source file formats, as well as suggestions for converting/migrating them into more stable formats for long-term storage/access.

Boston goes into more detail on file formats and methods for migrating data to new formats and platforms that are encoded to access more widely used formats, as well as discussions on file migration. In their focus to insure that obsolescence does not negatively impact their digital archives, this plan shows a higher vigilance toward changes in technology and archival practices.

Unfortunately, Boston's digital preservation policy fails to provide a detailed account of institutional responsibilities and objectives such as what constitutes relevant institutional information that needs to be deposited into the institutional repository and the role of the archive in compliance with copyright law.

Conversely, Amherst's digital preservation policy goes into far greater detail on institutional objectives, responsibilities, and the role they play in educating individuals on the best practices and standards of digital archival preservation, as well as placing greater focus on collaboration with universities that have similar digital archives and libraries.

Unexpected Discoveries

My initial reaction to Boston University's digital preservation plan was that it provided user-friendly technical information in the form of the cross reference format table. Although upon further investigation, I found the plan to be sparse in the practical execution of best standards and practices for such considerations as the creation of metadata, future expansion of the archives collection and methods to be followed by present and future staff.

Unanswered Questions

In both sets of digital preservation plans, neither Amherst nor Boston specifies tools/programs that can be used to catalogue digital items, create/assign metadata, migrate/convert one file format to another, storage medium, and etc. It seems curious that while there is a great deal of

³ (Banach et al. 2011)

discussion on maintaining accessibility and fixity as current and future users, neither institution actually discusses which methods and tools will be used to accomplish this ongoing task. However, considering the fast pace at which technology and methods advance, it is plausible that by omitting specific tools and methods from the digital preservation plan is a means to avoid incurring massive periodic revisions. Seemingly, though, crafting the digital preservation plans with specific goals influenced by the best practices of the archival profession provides future archivists flexibility in updating the digital preservation plans. In that regard, it would appear to be advantageous to identify available resources for consultation regarding Open Source programs/tools that have proven to be reliable and can be utilized for long-term use in a library/archive environment.

Section III: Digital Preservation Plan

Rockwell University Digital Preservation Plan

Purpose

The primary goal of creating a digital archive for Rockwell University is to highlight its unique collections, thus attracting academic researchers while generating public interest that will result in an increase in alumni donor contributions. Additionally, the creation of a digital archive and accompanying digital preservation plan will facilitate the completion of ongoing digitization projects including the digitization of the Rockwell University student newspaper.

Objectives

In order to lay the foundation for a permanent digital archive, the University Library and Archive will follow a long-term preservation plan that includes:

- Developing a system of data preservation and maintenance that follows the best standards and practices of the archival profession
- Adhering to and actively practice utilizing a lifecycle maintenance plan that will evaluate all incoming digital objects to ensure that they meet established quality and provenance criteria before deposit into the collection. This will include analog items that have been digitized and native-digital items created by members of the University and/or acquired by the Library/Archive.

Collaboration

In order to connect with and share information with fellow academic institutions in Massachusetts, the Library/Archive will petition for membership in collaborative information and resource sharing associations such as Portico and LOCKSS.

The Library/Archive will also utilize the services of these associations to store multiple copies of the contents of the digital archive in off-site repositories in the event of a natural/manmade disaster, technological failure, and etc.

Challenges

- The ongoing digitization of all back issues of the student newspaper. At this time, the project is half complete, over 40 years' worth of issues have been scanned and digitized, but the text of the newspapers still needs to be converted to an accessible document with OCR software. This portion of the collection is still unavailable to the public through the University Library/Archive as digital documents.
- Additionally, since 1996 all issues of the student newspaper have been published online and are currently accessible for public viewing. Going forward, additional challenges will arise as these digital issues of the student newspaper are migrated/converted to stable formats; depositing them into the University's digital archive; making them accessible in a format that will be readable on most current and future devices; creating a schedule to maintain accessibility and format compatibility of files.
- At this time, 25% of the annual operating budget for the Library/Archive is devoted toward the preservation of a rare set of illuminated Greek manuscripts that were deposited into the Library/Archive collection by a former professor of Classical Studies. Because of the stature of the professor's reputation in the field, the manuscripts attract the attention of a small group of Classical specialists.

Objectives

- Find alternatives to accommodate the costs of the ongoing newspaper digitization project.

- Begin processing the contents of the Library and Archive to find “hidden collections” that can be digitized and made available to researchers and other interested parties.
- Reduction of funds for certain projects and collections should be considered.
 - For instance, the current 25% allocation of budgetary funds toward the preservation of the illuminated Greek manuscripts can be reduced by limiting access to the manuscripts. If possible, the texts should be scanned, digitized, and catalogued in the digital archive for viewing by researchers and other users. This should help decrease unnecessary wear and tear to the manuscripts, while freeing up the budget for current and future projects.
- The archive will endeavor to create stable and permanent metadata records for each item in the digital collection to insure that users, especially researchers, will be able to know all pertinent details about the items in the collection.
 - Any changes that are made to items in the collection, e.g., format conversion, error correction, and etc., will be noted and logged in a public list to identify changes made to each item.
- Reduce overall operating expenses and insure long-term viability and to create a surplus for the budget by adopting free Open Source software programs and systems versus paying for proprietary technology and software via access to services such as Archivematica⁴, which offers the same level of service and reliability as paid services such as Dspace (developed and funded by an alliance of academic, governmental, and private institutions including Yale University Library , UNESCO, and the Rockefeller Archive Center to name a few⁵.)

Resources

Use durable, Open Source software that can accommodate a variety of operating platforms and file formats. The Digital Preservation Software Platform (DPSP)⁶, developed by the National Archives of Australia, is an excellent choice and includes:

⁴ “Archivematica.”

⁵ Fisher, “DIGITAL PRESERVATION FOR THE MASSES.”

⁶ “Digital Preservation Software Platform.”

- Xena (XML Electronic Normalising for Archives) - converts files to archival standard, universal accessibility.
- Digital Preservation Recorder (DPR) - Deals with mass conversion of digital files.
- Checksum Checker - Monitors files for data loss and corruption.
- Manifest Maker - Creates a tabbed list of digital file locations including the checksum, path, and filename.

Roles and Responsibilities

The University Library and Archives will strive to keep to the standard best practices of the archival community, stay up to date on technological changes, and undergo periodic internal and external evaluations to improve services and resources.

The Head Archivist and potential full-time Archivists will also strive to impart necessary skills and a proper work ethic to the revolving team of MLIS Archival Graduate school interns.

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