

University of Massachusetts Amherst

From the Selected Works of Meghan Banach Bergin

Fall 2013

Sabbatical Report: Summary of Survey Results on Digital Preservation Practices at 148 Institutions

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Available at: https://works.bepress.com/meghan_banach/7/

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Period: March 18th-August 30th 2013

Summary of Sabbatical Project

I was on sabbatical from March 18, 2013 through August 31, 2013. The purpose of my sabbatical project was to identify institutions with established digital preservation programs, and investigate how these programs were implemented. To accomplish this task, I conducted a web-based survey that looked into what systems were being used for digital preservation, what services were offered to the campus or user community, staffing and organizational models to support digital preservation programs, as well as the costs associated with these various digital preservation programs. I received a total of 148 responses to the survey. Of the 148 responses, 100 respondents finished the survey. To follow up from the survey, I conducted 12 phone interviews with librarians and archivists from various types of institutions. I also created an extensive list of digital preservation systems and tools, and attended the ALA Annual Conference in Chicago, the NDIIP/NDSA sponsored Digital Preservation 2013 Conference in Washington D. C., and the New England regional meeting of the National Digital Stewardship Alliance. In the following report I will summarize my investigations and conclusions and detail how I can apply this experience to my work at the University of Massachusetts Amherst Libraries. I plan to share my findings with the UMass Amherst Libraries Digital Creation and Preservation Working Group and with relevant Five College committees or task forces. I intend to publish my report on my Personal Researcher Page in the UMass ScholarWorks repository and perhaps use the information I gathered to publish an article in an academic library journal.

Digital Preservation Defined:

Digital preservation combines policies, strategies and actions to ensure access to reformatted and born digital content regardless of the challenges of media failure and technological change. The goal of digital preservation is the accurate rendering of authenticated content over time. -- Definition from the American Library Association's ALCTS (Association for Library Collections and Technical Services) division

Background

As the chair of the UMass Amherst Libraries' Digital Creation and Preservation Working Group, I have a strong interest helping the UMass Amherst Libraries implement a program for long term digital preservation. It is an essential part of the UMass Amherst Libraries' mission as a research library to preserve unique and valuable digital collections for use in future research. The UMass Amherst Libraries recognized the importance of digital preservation by forming the Digital Creation and Preservation Working Group and charging it with establishing a digital preservation program. To date the Working Group has established a strong foundation for establishing such a program by writing a digital preservation policy as well as separate guidelines for creating digital materials in such a way as to enable future preservation efforts. We have some essential infrastructure already in place to collect, store, describe, and provide access to our archival and special collections, image collections, and institutional repository content. This will help us immensely when we get to the point of implementing long-term digital preservation strategies.

However, digital preservation is still a relatively new field for libraries, and the UMass Amherst Libraries have yet to implement all of the necessary solutions such as a method of checking the integrity of a digital object's bit stream to verify it has not become corrupted, a way of identifying and validating formats, programs to batch migrate materials at risk of obsolescence to new formats, a system of replicating digital materials in various locations, or methods for collecting all of the technical and administrative metadata necessary for preservation. In order to ensure long-term preservation, we should look at implementing tools or systems to support these various digital preservation strategies. This is important for a couple of reasons. First, it is part of our mission as a library and archives to prevent the loss of cultural and historical material, important scientific and research data, and our institutional records. And second, we need to protect the significant investment of time and resources put into digitizing, creating, purchasing, or collecting the information in the first place. It is my hope that this report will help shed some light on ways we can move forward with implementing practical long-term digital preservation solutions.

Literature review

A survey of the literature on digital preservation reveals many challenges involved in preserving digital materials for the long term. These include issues of scale, technical obsolescence, rights issues, organizational issues, and cost. According to an article by William Dougherty in the Journal of Academic Librarianship “it has been estimated that in 2010 [digital information] will be equivalent to 18 million times the information contained in all the books ever written.” (Dougherty 599)

Furthermore an article in the Economist points out that, “the amount of digital information increases tenfold every five years.” (Economist 2) The Digital Preservation Coalition Handbook sums up the problem of scale saying:

Although computer storage is increasing in scale and its relative cost is decreasing constantly, the quantity of data and our ability to capture it with relative ease still matches or exceeds it in a number of areas. Some repositories still face significant challenges in developing and maintaining scaleable architectures and procedures to handle huge quantities of data generated from sources such as satellites or the web. The technical and managerial challenges in accessioning, managing and providing access to digital materials on this scale should not be underestimated. (Beagrie and Jones 37-38)

Technical issues are another major challenge in preserving digital information, and the DPC Handbook gives a good overview of the technical issues involved. The Handbook points out that “The challenges in maintaining access to digital resources over time are related to notable differences between digital and paper-based material,” (Beagrie and Jones 32) explaining that digital materials are machine dependent and cannot be read without specific hardware and software. What’s more, the hardware and software needed to read digital materials can become obsolete within short periods of time.

The speed of changes in technology means that the timeframe during which action must be taken is very much shorter than for paper. Timeframes during which action needs to be taken is measured in a few years, perhaps only 2-5, as opposed to decades or even centuries we associate with the preservation of traditional materials. Technology obsolescence is generally regarded as the greatest technical threat to ensuring continued access to digital material. (Beagrie and Jones 32-33)

All this means that preserving digital materials calls for a much more active approach than preserving print materials, because a digital resource which is not actively preserved from an early stage may become lost or unusable in the near future.

Another challenge for preserving digital materials is the issue of rights which includes copyrights, license agreements, digital rights management, and issues of ownership. Gail Hodge writes:

One of the most difficult access issues for digital archiving involves rights management. What rights does the archive have? What rights do various user groups have? What rights has the owner retained? Of specific importance for the development of system requirements are the questions: How will the access mechanism interact with the archive's metadata to ensure that these rights are managed properly and how will access rights be updated as the copyright status or security level of the material changes? (Hodge 51)

Managing rights and access are complex problems which need to be addressed from both a legal and systems perspective. Furthermore it is impossible to preserve valuable published information that is owned by publishers and other copyright holders without their cooperation.

Organizational issues are yet another challenge. How do institutions integrate the preservation of digital materials into their organizational structure and how do institutions collaborate with each other to address these issues? An interesting article by Emmanuelle Bermès and Louise Fauduet, of the Bibliothèque nationale de France (BnF), explains the challenges the BnF faced with organizing staff and departments within the Library to address digital preservation:

The Digital Library Department was created within the BnF in 1998, and more or less retained all activities related, in one way or another; to the digital world and the Web...the approach was to isolate and to preserve digital activities from the traditional workflows of entries, cataloguing, access and reference. Digital definitely meant "different". It took a decade to shift from this vision to the current situation, where digital activities are closely articulated with traditional library skills... It was first decided to do away with the Digital Library Department, and to disseminate associated expertise (and, supposedly, staff) within other existing departments. No digital library department was needed anymore, when the entire library had become digital. This was first envisioned in late 2007 and became officially effective...in April 2008...The Conservation and Preservation Department strengthened its forces dedicated to digital preservation, and fostered preservation expertise tasks. A "Preservation Charter" was issued, dedicated to formalizing good practices and gathering energies

around conservation activities, including digital preservation responsibilities. (Bermès 227-230)

Not only is internal organization within the institution a challenge, but organization and collaboration with other institutions on digital preservation efforts can be equally or perhaps even more difficult. According to the DPC handbook “Most organisations readily acknowledge the benefits of increased collaboration but also indicate the difficulties of, what one case study interviewee described as “differing agendas and timescales”, not to mention different funding mechanisms.” (Beagrie and Jones 39)

Finally, cost can be another challenging factor in preserving digital materials. Digital preservation is a new cost for libraries, and it requires resources in terms of staff, training, and technology. Diverting these resources away from other important library services or advocating for additional funding for a digital preservation program can be quite difficult. Compounding these issues, is the fact that it is very hard to estimate the costs involved in preserving digital materials. However there are several tools for estimating the costs of digital preservation such as the Cost Model for Digital Preservation developed by the Royal Danish Library and the Danish National Archives, and Keeping Research Data Safe: A Cost Model and Guidance for UK Universities. Collaborating with other institutions could also lead to cost savings.

Despite these challenges, practical steps can be taken now to ensure that our digital collections will remain accessible in the future. We should not wait until all of these challenges are overcome to take action. If we wait too long it will likely become even more costly and difficult to preserve our digital collections.

Several strategies exist to preserve digital materials for the long term including migration, emulation, and replication. Migration involves copying digital materials from an older format to a newer format as technology changes, whereas emulation involves recreating the behavior of old hardware and software with newer hardware and software. Replication simply involves creating multiple copies of the same digital materials in the same file formats. According to Maggie Jones and Neil Beagrie, “Migration is currently the preferred strategy for most digital archives.” (Beagrie and Jones 112) However, emulation may be the best strategy for certain materials. The National Library of the Netherlands argues that that for certain complex digital objects, such as websites, emulation may be the only long-term solution if the functionality of the digital resource needs to be maintained. (van der Hoeven 3)

Replication is a third option. However it does not address the issue of technical obsolescence since it only involves making multiple copies in the same file formats. However, David Rosenthal, the computer scientist who developed the LOCKSS replication

technology, does not believe that format obsolescence is a major issue in today's technology environment. He writes:

Much of the work in digital preservation has focused on the perceived threat of format obsolescence. The standard approach combines tools to validate formats and collect format metadata, registries preserving format specifications, and format obsolescence notification systems. The idea is that when a format becomes obsolete a notification will be issued; a converter created from the specification in the registry, documents in the format identified by means of the preserved format metadata, and converted using the converter into a not-yet-obsolete format. After a decade and a half of work based on this model it is time to ask these questions:

- Are current formats becoming obsolete?
- If a current format becomes obsolete, how likely is this approach to succeed in keeping documents readable?
- Are there alternative approaches that would cost less and be at least as likely to succeed? (Rosenthal 1)

He goes on to conclude that "format obsolescence is not a significant threat to the overwhelming majority of digital content we wish to preserve...The last fifteen years have shown that in today's world the diagnosis is wrong; format obsolescence is a rare problem that happens infrequently to a minority of unpopular formats." (Rosenthal 4)

He believes that most formats today are backward compatible or have open source renderers, and thinks that replication is the best strategy for preserving digital materials.

Digital preservation strategies are not a proven science yet. We don't know for certain what will work best in the long term, but all of these strategies have proven to be effective in providing access to electronic materials in over the last 10-15 years. As mentioned above, taking action now despite the challenges and uncertainties that exist is the best course of action if we wish to preserve digital materials for future use.

Survey Results

The digital preservation survey I conducted was sent out via several listservs, and I received responses from all types of institutions including national libraries, state libraries, academic libraries, public libraries, church and corporate archives, national parks archives, historical societies, research data centers, and presidential libraries. Roughly a third of the respondents were from large academic institutions with more than 20,000 students, another third were from smaller academic institutions with less than 20,000 students, and the remaining third were from non-academic institutions.

Only about 25% of the institutions surveyed had a written digital preservation policy, but over 90% have undertaken efforts to preserve digital materials. Survey respondents reported using numerous tools, systems, and software to preserve digital materials. Some of the more prevalent were Fedora, DSpace, ContentDM, Archivemata, LOCKSS, DuraCloud, Bepress, MetaArchive, Rosetta, and Archive-It. The most common digital preservation strategy being employed was replication followed by bit preservation, migration, normalization, and emulation - in that order. Seventy percent of respondents reported that they are collecting preservation metadata with technical information being the most popular type of preservation metadata collected. Various metadata schemas are being employed to collect preservation metadata such as PREMIS, MODS, METS, MIX, Dublin Core, VRA Core, MARC, and EAD among others, and systems or tools used to collect this metadata include DSpace, Archivemata, Bepress, Droid, JHOVE, ContentDM, Archivists Toolkit, FITS, Access databases, Omeka, Rosetta, Excel, BagIt, and Exiftool among others.

The majority of institutions are preserving digital materials locally, however many institutions are preserving digital materials through both local and collaborative efforts. Several institutions participate in state-wide or system-wide efforts like the Texas Digital Library or the University of California system's Merritt repository. Some institutions participate in private LOCKSS networks like COPPUL, and others participate in national level efforts such as the Digital Preservation Network (DPN), Academic Preservation Trust, Digital Preservation Coalition (DPC), Hathi Trust, Open Content Alliance, MetaArchive, PeDALS, and Chronopolis. Larger institutions usually participate in several collaborative digital preservation efforts and have memberships to support the development of these efforts.

Staffing for digital preservation efforts varied widely among the institutions that responded to the survey. The most common level of staffing for digital preservation was 1 FTE. Quite a few institutions had a little less or little more than that. In rare cases institutions reported having 10 or more FTE staff working on digital preservation efforts. The largest number of FTE staff reported was 17. As expected the total number of people involved in digital preservation efforts is generally higher than the total FTE. Often there are multiple staff involved in working on digital preservation efforts that have other job responsibilities and having staff solely dedicated to digital preservation is more of the rare case except in very large institutions. The way staff are organized also varied with 55% of digital preservation staff located in multiple departments and 45% located in one central department.

Digital preservation services offered to the campus or user community included research data curation, consulting on digital creation best practices, offering educational workshops on digital preservation, providing educational materials on digital preservation such as

websites or brochures, long-term preservation of digital materials created by faculty, staff, students, or others in the user community, and preservation of institutional records. The most widely offered services included providing long-term preservation of digital materials created by faculty, staff, students, and the user community (75%), consulting on digital creation best practices (71%), and preservation of institutional records (67%).

The costs involved with preserving digital materials and providing digital preservation services ranged quite dramatically from \$0 to \$1 million dollars. Several institutions reported that it would be impossible for them to estimate the costs involved.

Phone Interview Responses

To follow up from the online survey, I conducted 12 phone interviews with librarians and archivists from various types of institutions including: the National Center for Atmospheric Research, the University of Connecticut, the State Library of North Carolina, the Brooklyn Historical Society, the Wisconsin Historical Society, the University of Lethbridge, Rice University, Virginia Tech, the Rockefeller Archive Center, the University of Nevada Las Vegas, Illinois Wesleyan University, and the University of Alberta. The phone interviews provided more in depth information on issues such as challenges, funding, staffing, preservation metadata, digital preservation systems and tools, collaborative digital preservation efforts, and digital preservation services.

Challenges

When asked “What are your biggest challenges with preserving digital materials?” the interviewees discussed many different challenges such as gaining institutional buy in, lack of adequate funding, issues with storage costs and capacity, staffing challenges, the complexities of web archiving and video preservation, automating processes with the amount of IT time available, inadequate preservation infrastructure and technology needed for digital preservation, the wide variety of formats to preserve, and keeping up with standards, trends, and technology especially when there aren’t overall agreed upon best practices. One interviewee mentioned that “trying to establish a workflow when there are a lack of tools that people with an archival degree (not a computer science degree) can use” is a big challenge. Other interviewees stated that deciding which collections to preserve and the need for more staff training and expertise are their biggest challenges. Still another interviewee said that “Our biggest difficulty is the scope of the collections. We have a huge amount of digital content and figuring out how to deal with varied collections, such as research data, born digital content, and digitized content is a challenge.”

Funding

Most interviewees said that there was no direct funding for digital preservation and that they were trying to fund it through existing budgets such as IT budgets, collections budgets, archives budgets, or digital initiatives budgets. Some institutions have gotten grants to help fund digital preservation efforts. One institution had taken their Internet Archive scanning budget of \$50,000 and redirected it toward the cost of developing a digital preservation repository. A couple of more fortunate institutions were able to get additional funding to support digital preservation. One institution received an additional \$5,000 to support base level subscriptions to Archive-It and DuraCloud, and the other institution received \$50,000 from the state library to help support the development of a statewide digital preservation repository. The interviewees reported using both existing and additional funding to hire extra staff and to purchase, implement, or develop digital preservation software or systems.

Staffing

Most interviewees reported that money is very tight and that they are trying to manage digital preservation with existing staff that also have other primary job responsibilities aside from digital preservation. Almost all of the interviewees said that they thought they needed additional staff to work on digital preservation. A few mentioned that they were trying to get staff from technical services involved. However, one person said she thinks it will be a “big learning curve” for technical services staff. A couple of people said that their position is almost entirely devoted to digital preservation efforts. There were also three larger institutions who said they had recently hired additional staff for digital preservation. One had hired two students and a project manager. Another said they had hired three new librarians and two new programmers. The third, whose title was Digital Preservation Officer, said that his position was created last year. He also said that they “have several other new positions including a Digital Initiatives Application Librarian, a System Development and a Digitization Librarian, and a GIS Librarian. We also hired a curator on a contract basis and we have student internships.”

Interviewees were also asked what skills they thought staff needed and how their staff had obtained those skills. Numerous skills were mentioned including outreach and advocacy, communication skills, archival and appraisal skills, systems administration skills, metadata, XML, stylesheet transformations, curation, disk imaging, web development, programming, Droid, Javascript, batch processing skills, experience with implementing open source tools, policy development skills, research skills, and collaboration skills. Clearly it would be difficult to find one person that possessed all of these skills, and that is why collaboration is so important. As one interviewee mentioned “digital preservation is not something you can do by yourself.” Another interviewee said that it was “rare to see a librarian that has the

level of technical skills that a developer would have, and it's very hard to turn a librarian into a programmer." Still another interviewee said, "I think the work should be distributed among technical staff, the digital archivist, and others who are trained in the creation of descriptive metadata." I think this illustrates the fact that librarians and IT staff really need to be working together on digital preservation efforts. Most interviewees said that staff were learning the necessary skills through a combination of conferences, workshops, webinars, training camps, and hands on experience.

As for staffing challenges almost everyone interviewed said that they didn't have enough staff. Many people mentioned that they did not have any staff dedicated to working on digital preservation efforts and it was difficult to find the time for it. One interviewee said, "No one is dedicated to working on digital preservation. It is hard to fulfill my main job duties and still find time to devote to working on digital preservation efforts." Another stated that, "Digital preservation gets pushed back a lot, because our first concern is patron requests, getting collections in, and dealing with immediate needs."

Preservation Metadata

Some institutions had not yet begun to collect preservation metadata, but those that had reported doing so in a variety of different ways. Several different metadata standards were used for preservation metadata including METS, PREMIS, and Dublin Core. Some institutions are using custom metadata fields for preservation metadata. The metadata is stored in various systems and programs including Fedora, ContentDM, PeDALS, Archivematica, Digital Commons, Excel, and database systems. Several interviewees said that their technical metadata was generated automatically from imaging equipment and software or embedded in the files. Most interviewees reported that preservation metadata is created by a mix of manual and automated processes. A couple of institutions were using Archivematica which has built in functionality that outputs METS metadata with PREMIS metadata. It also captures both technical and self-created preservation metadata and identifies file formats.

Digital preservation systems and tools

Interviewees reported using a variety of systems and tools for digital preservation such as Archivematica, Fedora, LOCKSS, Islandora, Archive-It, Omeka, DuraCloud, Archivists Toolkit, PeDALS, MetaArchive, BagIt, and BitCurator. Most of those interviewed were not completely satisfied with the systems and tools they were using. One interviewee said, "No system is perfect right now. It's a matter of getting a good enough system." Interviewees mentioned various issues such as difficulties with interoperability between systems and tools, lack of functionality such as the ability to capture technical or preservation metadata or to migrate file formats, and struggles with implementation and use of the systems. Those who were using MetaArchive and DuraCloud reported a pretty high level of

satisfaction and ease of use with those technologies. Others reported liking certain features of certain systems like Islandora, because it has good web forms for metadata as well as a good administrative interface and presentation interface, or Archivematica because it creates a good Archival Information Package with PREMIS metadata. Many institutions were using multiple systems and tools in an effort to get all of the different functionality they were looking for. One interviewee described their methods as “piecemeal” and said that, “It would be good if we could make these different utilities more systematic. Right now every collection is its own case, and we need an overall solution.”

Collaborative Digital Preservation Efforts

Those interviewed reported involvement in a wide array of collaborative efforts including DuraCloud, DuraSpace, and MetaArchive. A couple of institutions are helping to support the development of Fedora, and one is helping to support the development of Archivematica. Other interesting collaborative projects interviewees reported being involved with include a Council of State Archivists (CoSA) training and education program for state archives on managing electronic records, a collaboration with Chronopolis experimenting with the use of BagIt, an IMLS grant funded project called the Digital POWRR (Preserving Objects With Restricted Resources) Project which is investigating scalable, sustainable digital preservation solutions for libraries with smaller amounts of data and/or fewer resources, and a new initiative to preserve government documents in western Canada. In general those interviewed are very satisfied with the collaborative efforts they are participating in.

Digital Preservation Services

Respondents reported offering various digital preservation services such consulting, education and outreach. However, most institutions are at the stage of trying to raise awareness about digital preservation, and they report that there has not been much demand for digital preservation services from their user communities. One respondent said “Faculty aren’t really concerned with digital preservation but rather giving their stuff over to us to preserve it. We don’t do a lot of advertising or outreach about digital preservation specifically. It’s more outreach to bring in new collections which we would then preserve. We are offering advice on data management plans and we also have a Digital Humanities Librarian who advocates for the use of good file formats for preservation with digital humanities faculty.” Another said “We haven’t had any demand, but we are anticipating some demand in regards to research data. We don’t think that people are even aware the library is working on digital preservation or that we can provide services in this area.”

Conclusion and next steps

In the Digital Creation and Preservation Working Group's 2011 *Vision Statement for Digital Preservation Services*, the Working Group estimated that it may take up to five years before the Libraries are able to implement a full scale digital preservation program. However, three years later the path forward still remains unclear. Should we focus on developing digital preservation solutions locally, collaboratively, or both? What digital preservation strategies will stand the test of time? How would a digital preservation program be staffed and organized? Would such a program exist at the institutional level, the Five College, level, or a state or national level? I think our solutions will likely involve both collaborative and local solutions. Despite the fact that we still have some unanswered questions, we have made great advances towards digital preservation in the last seven years. We have implemented an institutional repository to manage and provide access to the scholarly output of the University, created a digital image repository to replace the old slide library, and developed a Fedora based repository system to manage and preserve our digital special collections and archives. We have also written a digital preservation policy to guide us in our path forward. We are planning to join a LOCKSS PLN to preserve ScholarWorks content; we just joined the Hathi Trust which should provide digital preservation for the materials we have digitized through the Internet Archive; and we have developed preservation functionality in the Credo repository for our special collections and archives. Our next steps would be to look at the Five College Digital Preservation Planning Guide and follow the steps outlined to make sure we are fully prepared to implement solutions that would help us provide long term digital preservation for materials that have enduring value. We should work with the Five Colleges to test and possibly implement new digital preservation tools and technologies, and we should closely follow the development of national level collaborative digital preservation efforts such as the Digital Preservation Network and others. With this project, I hope that I can contribute to advancing the goal of establishing infrastructure to support long term digital preservation for the UMass Libraries' digital collections as well as support for preservation of campus sponsored digital projects.

Works Cited

ALCTS Preservation and Reformatting Section, Working Group on Defining Digital Preservation, "Definitions of Digital Preservation" *ALA Annual Conference*. Washington, D.C., June 24, 2007.

Beagrie, Neil, Julia Chruszcz, and Brian Lavoie. *Keeping Research Data Safe: A Cost Model and Guidance for UK Universities*. Charles Beagrie Limited, 2008.

<http://www.jisc.ac.uk/media/documents/publications/keepingresearchdatasafe0408.pdf>

Beagrie, Neil and Maggie Jones. *Preservation Management of Digital Materials: The Handbook*. York: Digital Preservation Coalition, 2001.

http://www.dpconline.org/component/docman/doc_download/299-digital-preservation-handbook

Bermè, Emmanuelle and Louise Fauduet. "The Human Face of Digital Preservation: Organizational and Staff Challenges, and Initiatives at the Bibliothèque nationale de France." *International Journal of Digital Curation* 6, no. 1 (2011): 226-237.

<http://www.ijdc.net/index.php/ijdc/article/view/175>

"Data, Data everywhere: A special report on managing information." *The Economist* 25 Feb. 2010.

<http://www.economist.com/node/15557443>

Dougherty, William C. "Preservation of Digital Assets: One Approach." *The Journal of Academic Librarianship* 35, no. 6 (2009): 599-602.

Hodge, Gail. "Preservation of and Permanent Access to Electronic Information Resources: A System Perspective" *Information Services and Use* 25, no. 1 (2005): 47-57.

Rosenthal, David S.H. "Format obsolescence: assessing the threat and the defenses." *Library Hi Tech* 28, no. 2, (2010) pre-print version.

<http://lockss.org/locksswiki/files/LibraryHighTech2010.pdf>

Thirifays , Alex, Anders Bo Nielsen, and Ulla Bøgvad Kejser. *Cost Model for Digital Preservation*. Royal Danish Library and the Danish National Archives, 2010.

<http://www.costmodelfordigitalpreservation.dk/>

van der Hoeven, Jeffrey and Hilde van Wijngaarden. "Modular emulation as a long-term preservation strategy for digital objects" *Proceedings of the 6th International Web Archiving Workshop*. Vienna, Austria, 2005.

<http://iwaw.europarchive.org/05/papers/iwaw05-hoeven.pdf>

Survey Responses

Digital Preservation Survey

Q1 What is your job title and the name of your institution?

Answered: 135 Skipped: 14

#	Responses	Date
1	Bibliographic Access and Metadata Coordinator, University of Massachusetts Amherst	9/6/2013 2:38 PM
2	Assistant Librarian. Digital Resources Library Librarian. Texas Tech University.	6/13/2013 3:22 PM
3	Manager of Scholarly Digital Initiatives, Sheridan Libraries, Johns Hopkins University	5/31/2013 10:59 AM
4	Digital Preservation Officer University of Alberta	5/28/2013 6:55 PM
5	Archivist National Park Service, Mary McLeod Bethune Council House NHS, National Archives for Black Women's History	5/24/2013 8:55 AM
6	Local History Librarian Evansville Vanderburgh Public Library	5/22/2013 5:25 PM
7	Curator, Archives and Corporate Heritage	5/19/2013 1:07 PM
8	Head, Library Applications & Publishing	5/17/2013 9:02 PM
9	Library and Archive Curator. Queensland Council of Social Service (QCOSS). Australia	5/16/2013 8:55 PM
10	Urban Sustainability Librarian, UNLV	5/16/2013 8:05 PM
11	Deputy Director, Library 7 University Collections	5/16/2013 1:44 AM
12	Archivist of the Lloyd Library	5/15/2013 3:04 PM
13	Archivist, Payap University Archives (ChiangMai, Thailand)	5/15/2013 11:37 AM
14	Digital Services Librarian, Louisiana State University	5/15/2013 11:25 AM
15	Digital Preservation Co-ordinator The University of Manchester	5/15/2013 7:39 AM
16	University of Barcelona	5/15/2013 6:54 AM
17	Digital preservation specialist, National library of Australia	5/14/2013 6:46 PM
18	Curator of Visual Collections and Assistant Professor University of Mississippi	5/14/2013 4:59 PM
19	Librarian / University of Lethbridge	5/14/2013 4:08 PM
20	Digital Collections and University Repository Librarian, University of Wisconsin-La Crosse	5/14/2013 11:47 AM
21	Collection Services Manages Los Angeles Public Library	5/14/2013 9:59 AM
22	Digital Infrastructure Lead	5/14/2013 8:53 AM
23	Director of Archives at the Robert C. Byrd Center for Legislative Studies	5/14/2013 8:47 AM
24	Archivist, Preservation and Cataloging Manager	5/14/2013 8:45 AM
25	Director of Library Services, The Library of The Jewish Theological Seminary	5/14/2013 8:45 AM
26	preservation manager (KIT - CODIGT)	5/14/2013 8:28 AM
27	University of St Andrews	5/14/2013 7:36 AM
28	Image Management Officer, National Museum Wales, Cardiff	5/14/2013 7:26 AM
29	Digital Curator, Wellcome Library	5/14/2013 6:21 AM
30	Digital Content Librarian, University of Sussex	5/14/2013 6:07 AM
31	Research Fellow and Project Manager	5/14/2013 5:50 AM
32	Associate Director, Library Resources & Technology University of Nebraska Medical Center	5/13/2013 9:35 PM
33	Technical Services Librarian and Archivist/McKendree University	5/13/2013 6:36 PM

Digital Preservation Survey

34	Coordinator of Digital Collection Services	5/13/2013 2:51 PM
35	Extension Specialist, Michigan State University Extension	5/13/2013 2:11 PM
36	Head, Curation and Preservation Services	5/13/2013 1:51 PM
37	Librarian for Digital Collection Development UCLA	5/13/2013 1:32 PM
38	Wisconsin Dept. of Public Instruction Librarian	5/13/2013 1:32 PM
39	Director of Library Technology Services University of South Carolina	5/13/2013 1:29 PM
40	Librarian for Instruction and Digital Media	5/13/2013 1:28 PM
41	Archives and Special Collections Librarian Plymouth State University	5/13/2013 1:28 PM
42	Project manager, OHSU Ontology Development Group, Oregon Health & Science University	5/13/2013 12:59 PM
43	Digital Asset Management Coordinator Cincinnati Children's Hospital Medical Center	5/13/2013 12:47 PM
44	Archivist - Assistant professor	5/13/2013 12:31 PM
45	Archives Assistant, SFMTA Photography Archives	5/13/2013 12:26 PM
46	Director, Library Services	5/13/2013 12:23 PM
47	Digital Content Manager, SCOLA	5/13/2013 12:23 PM
48	Associate Library Director and Head of Archives and Records Management Austin Presbyterian Theological Seminary	5/10/2013 3:07 PM
49	PHD student - UNB - Brasilia - Brazil	5/9/2013 5:00 PM
50	Electronic Records Archivist	5/9/2013 1:57 PM
51	Digital Media Librarian, Maryland Institute College of Art	5/9/2013 11:30 AM
52	Curator for Olympic National Park	5/7/2013 6:41 PM
53	Digital Archivist University of Montana	5/7/2013 4:52 PM
54	Collections Manager, Heritage Documentation Programs (HABS/HAER/HALS)	5/7/2013 1:12 PM
55	Regional Archivist - National Park Service	5/7/2013 12:10 PM
56	Curator, North Cascades National Park	5/7/2013 11:47 AM
57	Records Manager	5/7/2013 11:19 AM
58	library manager	5/6/2013 4:50 PM
59	Daniel Noonan Digital Resources Archivist University Archives The Ohio State University	5/6/2013 4:02 PM
60	Technical Analyst, German National Library of Science and Technology	5/6/2013 11:57 AM
61	Digital Information Services Program Manager, US National Park Service	5/6/2013 11:07 AM
62	Medical librarian/ Afe Babalola University Ado-Ekiti Nigeria	5/4/2013 1:33 PM
63	Archivist, Museum of Northern Arizona	5/3/2013 6:20 PM
64	Digital Scholarship & Data Management Library IUPUI	5/3/2013 2:01 PM
65	Electronic Records Archivist Wisconsin Historical Society	5/3/2013 1:21 PM
66	Job title: Digital Collections Manager State and University Library, Denmark	5/3/2013 8:08 AM
67	Digital Initiatives Librarian University of Northern British Columbia	5/2/2013 5:55 PM
68	Im a 'junior' academic librarian at the Central Library at the University of Brasilia	5/2/2013 5:53 PM
69	Director of Digitization Bibliotheque et Archives nationales du Quebec	5/2/2013 5:44 PM
70	Archives and Digital Collections Librarian National Center for Atmospheric Research	5/2/2013 5:10 PM
71	Asst. Director, Head of Digital Programs Rockefeller Archive Center	5/2/2013 4:31 PM
72	Digital Librarian Case Western Reserve University Cleveland, Ohio	5/2/2013 3:10 PM

Digital Preservation Survey

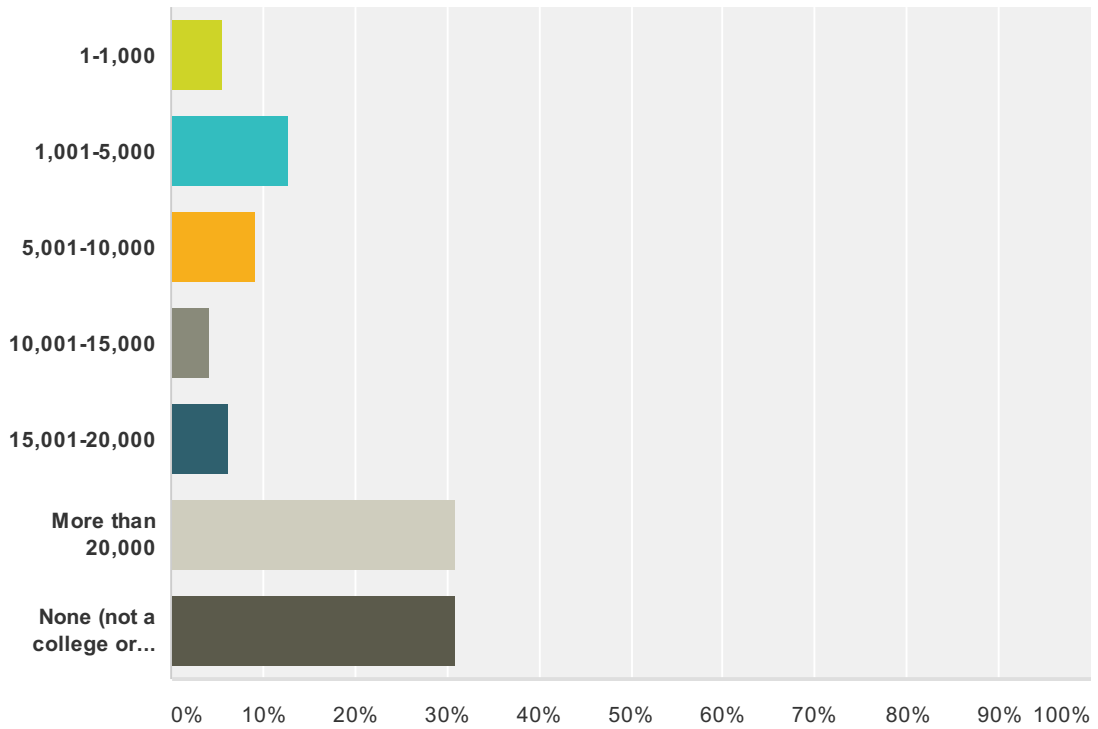
73	Head of Special Collections, Preservation and University Archives @ Binghamton University	5/2/2013 2:59 PM
74	Multimedia fine & performing arts librarian Eastern Michigan university	5/2/2013 2:27 PM
75	Student at the School of Information Resources and Library Science at the University of Arizona	5/2/2013 2:26 PM
76	Reference librarian	5/2/2013 1:10 PM
77	Digital Scholarship and Services Associate, College of Wooster	5/2/2013 12:33 PM
78	University Archivist at the University of Florida	5/2/2013 11:28 AM
79	Director, Open Scholarship	5/2/2013 10:20 AM
80	Digital Curation Coordinator, Rice University	5/2/2013 10:01 AM
81	Preservation Coordinator Kansas State University Libraries	5/2/2013 9:56 AM
82	Director of the South Texas Archives at Texas A&M University-Kingsville	5/2/2013 9:45 AM
83	Digital Initiatives Librarian Olivet Nazarene University Bourbonnais, IL 60914	5/2/2013 9:41 AM
84	Visual Resources Curator, Oberlin College	5/2/2013 9:01 AM
85	Head, Digital Initiatives Oklahoma State University	5/1/2013 6:05 PM
86	Director of Library Services, Baker University	5/1/2013 4:41 PM
87	Digital Librarian	5/1/2013 4:38 PM
88	Head, Preservation Dept., Virginia Commonwealth University	5/1/2013 3:06 PM
89	Cataloger Williamson County Public Library	5/1/2013 1:42 PM
90	Assitant Archivist,	5/1/2013 12:36 PM
91	David Lowe, Preservation and Data Management Services Librarian, University of Connecticut	5/1/2013 11:08 AM
92	Assistant Archivist Douglas County Libraries	5/1/2013 10:47 AM
93	Archivist, Wittliff Collections, Texas State University	5/1/2013 10:40 AM
94	Archivist, Hampshire College	5/1/2013 9:47 AM
95	Science Research Support Librarian, Cold Spring Harbor Laboratory	5/1/2013 9:43 AM
96	Digital Projects Library Manager	5/1/2013 9:43 AM
97	University of Maryland, Baltimore County (UMBC)	5/1/2013 9:17 AM
98	Digital Archivist, Presbyterian Historical Society	5/1/2013 8:38 AM
99	Director of Records Management Division	5/1/2013 8:30 AM
100	Southern New Hampshire University	5/1/2013 8:22 AM
101	Archivist, Our Lady of Victory Missionary Sisters	5/1/2013 8:02 AM
102	Manager, Digital Stewardship University of Maryland, College Park	4/30/2013 7:47 PM
103	Associate Director, Scholarly Content and Discovery Griffith University	4/30/2013 6:08 PM
104	Head of Cataloging, Graduate Theological Union	4/30/2013 6:05 PM
105	Digital Initiatives Coordinator, UBC Library	4/30/2013 5:10 PM
106	Digital Library Program Director, UC San Diego	4/30/2013 4:53 PM
107	Jay Gattuso Digital Preservation Analyst National Library of New Zealand	4/30/2013 4:50 PM
108	Science Librarian, Baylor University	4/30/2013 4:44 PM
109	Manager of Digital Preservation and Repository Services, Harvard Library	4/30/2013 4:23 PM
110	Assistant Archivist, Mount Sinai Medical Center	4/30/2013 4:22 PM
111	Lead, Digitization and Digital Preservation, Emory University Libraries	4/30/2013 3:49 PM
112	Sr. Tech. Svcs. Libn.	4/30/2013 3:46 PM

Digital Preservation Survey

113	Senior Staff Associate, Columbia University	4/30/2013 3:34 PM
114	Processing Archivist South Dakota State Archives	4/30/2013 3:03 PM
115	librarian Northwestern Michigan College - Osterlin Library	4/30/2013 2:46 PM
116	Archivist Sisters of Notre Dame de Namur	4/30/2013 2:40 PM
117	Genealogy & Local History Librarian	4/30/2013 2:35 PM
118	Director, Center for Digital Research and Scholarship Services at Virginia Tech	4/30/2013 2:35 PM
119	Digital Preservation Coordinator, University of Illinois Urbana-Champaign	4/30/2013 2:21 PM
120	LBJ Presidential Library	4/30/2013 2:17 PM
121	Digital Initiatives Librarian, University of Rhode Island	4/30/2013 2:05 PM
122	Institutional Repository Librarian, Boston University	4/30/2013 2:03 PM
123	Digital Initiatives Librarian, Princeton Theological Seminary	4/30/2013 2:02 PM
124	Archivist Universidad de San Andres	4/30/2013 2:02 PM
125	Special Projects Librarian	4/30/2013 1:58 PM
126	University Archivist & Special Collections Librarian, Illinois Wesleyan University	4/30/2013 1:53 PM
127	Archivist, City University of New York CUNY Television	4/30/2013 1:53 PM
128	Head, Information Technologies and Media National Film Board of Canada	4/30/2013 1:52 PM
129	Collections Services Archivist for Metadata, Systems, and Standards, Harvard University Archives	4/30/2013 1:52 PM
130	Digital Projects Coordinator, The University of North Carolina at Greensboro	4/30/2013 1:52 PM
131	Director, Library and Archives, Brooklyn Historical Society	4/30/2013 1:47 PM
132	Library Manager	4/30/2013 1:44 PM
133	Digitization Specialist, Missouri State University	4/30/2013 1:43 PM
134	Digital Collections Manager	4/30/2013 1:43 PM
135	xyz	4/29/2013 8:08 PM

Q2 What is the approximate number of students enrolled in your institution?

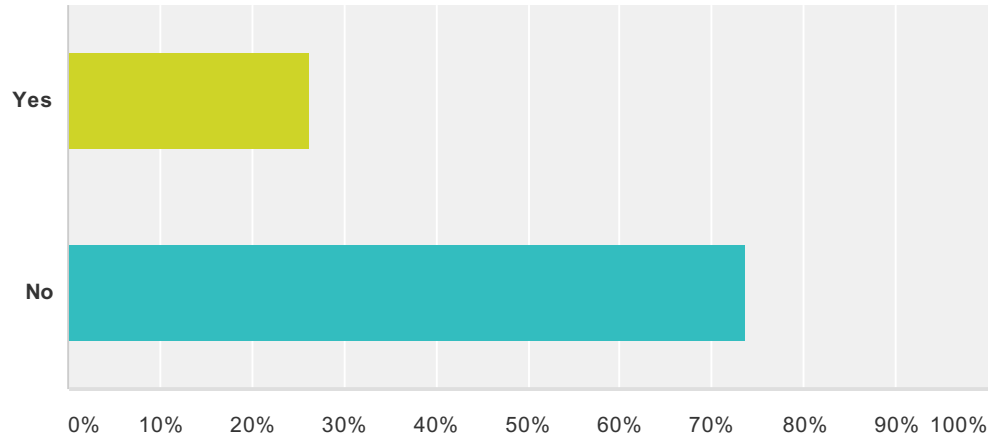
Answered: 142 Skipped: 7



Answer Choices	Responses	
1-1,000	5.63%	8
1,001-5,000	12.68%	18
5,001-10,000	9.15%	13
10,001-15,000	4.23%	6
15,001-20,000	6.34%	9
More than 20,000	30.99%	44
None (not a college or university)	30.99%	44
Total		142

Q3 Do you have a written digital preservation policy?

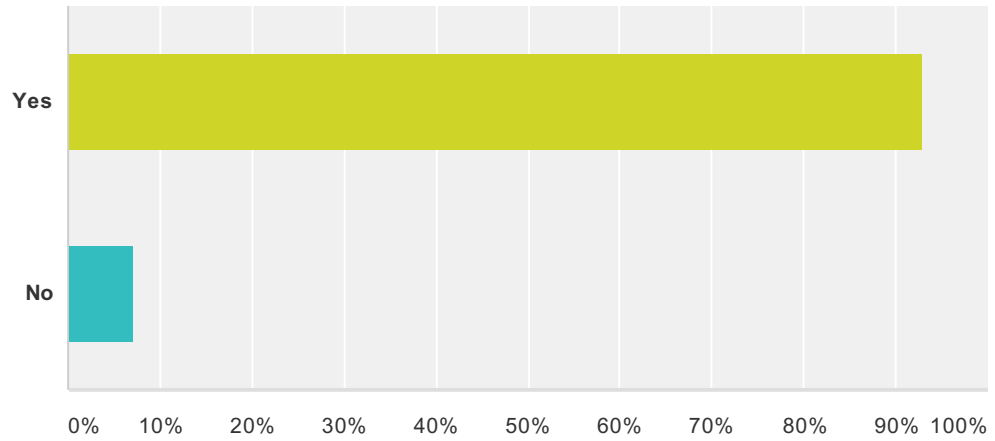
Answered: 141 Skipped: 8



Answer Choices	Responses
Yes	26.24% 37
No	73.76% 104
Total	141

Q4 Have you undertaken any efforts to preserve digital materials at your institution?

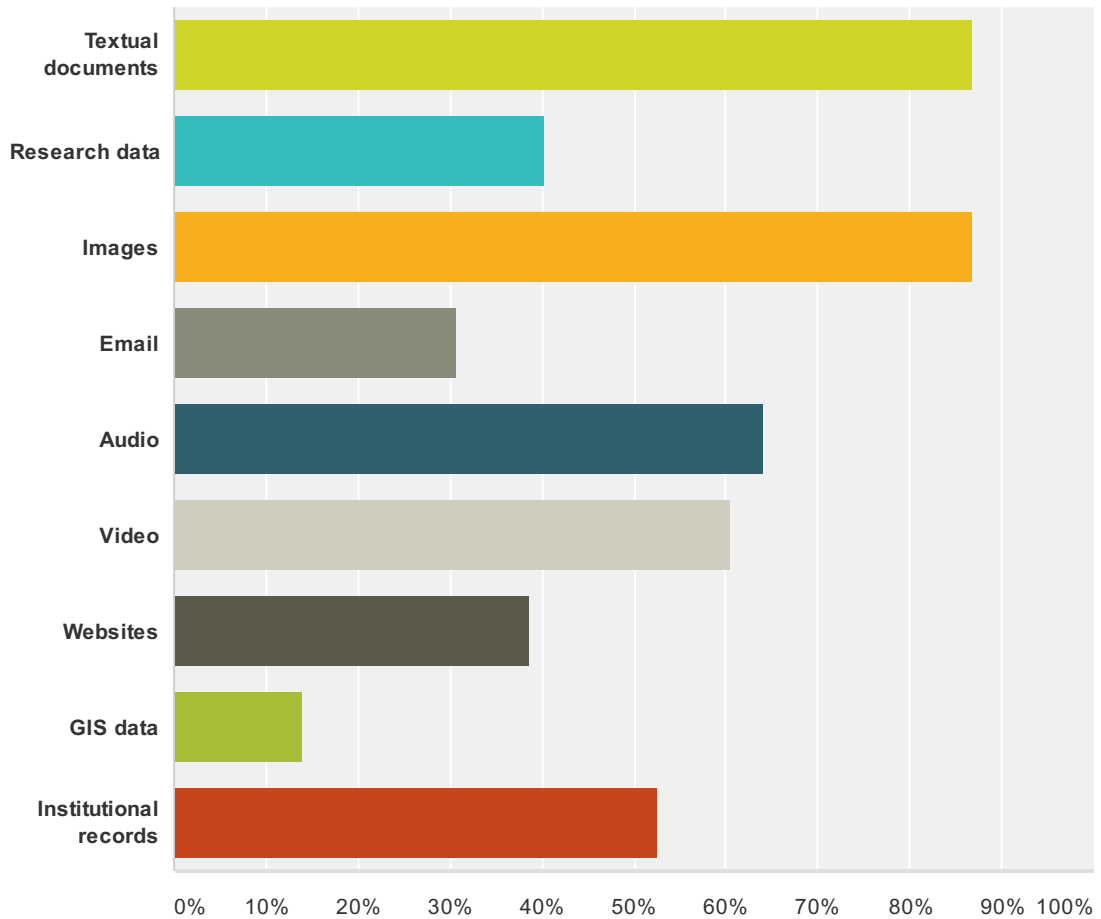
Answered: 140 Skipped: 9



Answer Choices	Responses
Yes	92.86% 130
No	7.14% 10
Total	140

Q5 What types of digital materials are you preserving? (Please check all that apply)

Answered: 114 Skipped: 35



Answer Choices	Responses	
Textual documents	86.84%	99
Research data	40.35%	46
Images	86.84%	99
Email	30.70%	35
Audio	64.04%	73
Video	60.53%	69
Websites	38.60%	44
GIS data	14.04%	16
Institutional records	52.63%	60
Total Respondents: 114		

Digital Preservation Survey

Q6 What software, systems, and tools are you using to preserve your digital materials?

Answered: 101 Skipped: 48

#	Responses	Date
1	Fedora, Digital Commons, LOCKSS	9/6/2013 2:39 PM
2	We are using a simple file structure with a checksum checker and software that copies archival information on different servers.	6/13/2013 3:23 PM
3	DSPACE repository, Bagger 2.1.3, Karen's Directory Printer, Symantec Endpoint Protection, FTK Imager, Microsoft Explorer, Archivist's Toolkit	5/31/2013 11:02 AM
4	Fedora Archivematica LOCKSS Internet Archive	5/28/2013 6:55 PM
5	Adobe CS4 Master Suite. TASCAM digital sound recorder. Analog audio and video machines of various formats. 7 TB RAID 6 array.	5/24/2013 8:58 AM
6	Online display is CONTENTdm We also use Amazon S3 Cloud Storage	5/22/2013 5:28 PM
7	CONTENTdm	5/19/2013 1:08 PM
8	California Digital Library Merritt system	5/17/2013 9:03 PM
9	In the process of installing ePrints. I am working on coding for our specialised subject headings. Our archive is currently text only on in a Filemaker database.	5/16/2013 8:55 PM
10	Bepress	5/16/2013 8:09 PM
11	PDF	5/15/2013 3:06 PM
12	Fedora based institutional repository	5/15/2013 7:42 AM
13	Prometheus, DCM, NCM, Pandas/HTTrac (all in-house development), SDB (currently acquired), Droid, JHOVE, Archivist Toolkit	5/14/2013 6:53 PM
14	EPSON scanning equipment and software, CONTENTdm as our content management system, servers and back-up servers for storage.	5/14/2013 5:02 PM
15	Very recently purchased a LOCKSS licence but yet to set up box. Considering involvement in a consortial deal to purchase Archive-IT.	5/14/2013 4:10 PM
16	Beginning to use ResCarta for both access and preservation.	5/14/2013 11:49 AM
17	We are using Fedora Commons as the repository software, and the data is stored on a NetApp NAS. Most of the additional pieces are homegrown.	5/14/2013 8:55 AM
18	We are setting up a forensic workstation with 5 1/4", 3 1/2", and zip disk drives, and a write blocker. We are exploring bag-it, karen's printer directory, and others.	5/14/2013 8:50 AM
19	Adobe Acrobat Suite, MYSQL database, TIFF format	5/14/2013 8:48 AM
20	We are planning to join a network of Rosetta users.	5/14/2013 8:47 AM
21	none	5/14/2013 8:30 AM
22	Built in-house DAM	5/14/2013 7:31 AM
23	The Library uses Tessella's software Safety Deposit Box (SDB) which is a digital object repository designed to support preservation activity. SDB automatically extracts & holds technical preservation metadata.	5/14/2013 6:23 AM
24	Scanning and storing on a server.	5/13/2013 9:36 PM
25	DigiTool	5/13/2013 2:58 PM

Digital Preservation Survey

26	System created via ColdFusion for our group, also work with the Main Library, and the MSU Archives they all use their usual materials	5/13/2013 2:13 PM
27	Largely open source, a growing combination, exploring Archivematica, using dSpace, add Fedora, etc.	5/13/2013 1:55 PM
28	I'm not fully sure. The responsibility of the digital library assets is relying on a home-grown digital asset management system (transitioning to a Fedora repository) to track metadata and filenames. And then master files are maintained on secure servers with full tape backup. This isn't preservation level standards, but we are trying not to lose anything!	5/13/2013 1:38 PM
29	local server, excel spreadsheets	5/13/2013 1:34 PM
30	OCLC Web Harvest and Content Digital Import available for use with Connexion Client and publically accessible through CONTENTdm.	5/13/2013 1:34 PM
31	CONTENTdm, Digital Commons, Fedora, Gluster	5/13/2013 1:30 PM
32	DSpace open source software	5/13/2013 1:13 PM
33	LOCKSS, Portico, redundancy (we have a remote server farm that duplicates everything we have, + we use Texas Digital Library as a tertiary repository	5/13/2013 1:06 PM
34	Telescope by North Plains	5/13/2013 12:48 PM
35	ContentDM; external drives, servers	5/13/2013 12:32 PM
36	Tessella's Preservica. ContentDM provides access to our digital collections.	5/13/2013 12:29 PM
37	dSpace; others may use systems and tools that I'm not aware of	5/13/2013 12:28 PM
38	We use a method of three different types of identical backups (dispersed server, local hard drives and burn to cd), with systematic fixity samples for files after transferring to backup media.	5/13/2013 12:28 PM
39	Lockss.	5/9/2013 5:03 PM
40	Archivematica Archivists Toolkit many tools including FTKImager, Teracopy, Renamer, Handbrake,	5/9/2013 2:01 PM
41	SirsiDynix Portfolio and other homegrown databases.	5/9/2013 11:31 AM
42	PastPerfect, scanners, audio and video data migration machines	5/7/2013 6:42 PM
43	Digital forensics tools, various media drives, Tableau write-blockers, FTK Imager, BitCurator, Archivematica	5/7/2013 4:53 PM
44	ION tape2Wave and software Audacity digitizes cassette oral history interviews into WAV files. ION VHS2Mpg digitizes video. I manage digital and born digital with MS Office 7, on laptops and portable hard drives over an NPS network. All diskettes were migrated to portable hard drives, CD and DVD. We cannot seem to keep a diskette reader due to NPS IT policy.	5/7/2013 11:51 AM
45	SyGED, OnBase	5/7/2013 11:22 AM
46	Currently, really only using file servers with bit checking and backup	5/6/2013 4:03 PM
47	Ex Libris Rosetta, Jhove, MedialInfo, DROID, NLNZ Metadata extractor	5/6/2013 11:58 AM
48	There are many being used. There is no central repository for 400+ parks and programs.	5/6/2013 11:16 AM
49	Right now it's just managing file directories and making sure our IT guy knows to backup those portions of the server daily, if we can upgrade our Argus database then we will utilize that unless I can find funding or a way of supporting a digital asset management system.	5/3/2013 6:22 PM
50	BizTalk, SQL, NZME, LOCKSS	5/3/2013 1:22 PM
51	The SB repository is developed internal based on a Fedora core	5/3/2013 8:10 AM
52	Besides the software that manage the data, we don't use any other system for that aim.	5/2/2013 5:53 PM
53	DVD and hard disk DSpace	5/2/2013 5:46 PM
54	DuraCloud, Archive-It	5/2/2013 5:10 PM
55	Archivematica, FTK, FTK Imager, Baggit, others	5/2/2013 4:36 PM
56	Fedora, Data tape for back-up, Looking into cloud options to move from tap	5/2/2013 3:11 PM

Digital Preservation Survey

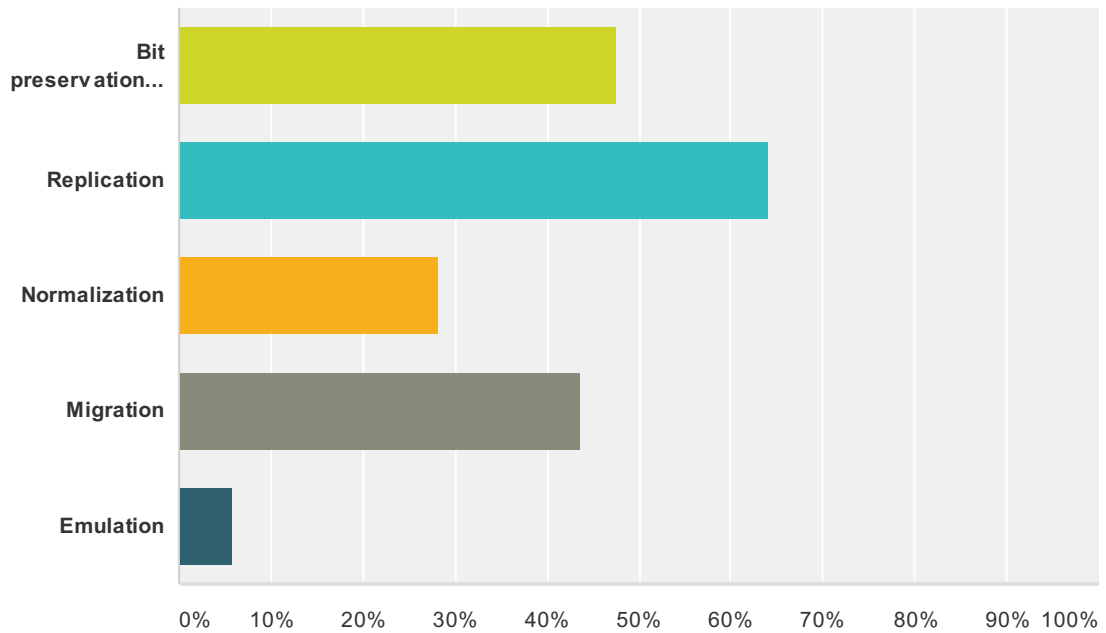
57	Rosetta	5/2/2013 3:01 PM
58	BPress, Luna, .PDF	5/2/2013 2:29 PM
59	Dspace for management and repose, drobo for external storage, and workflows that include regular audits	5/2/2013 12:34 PM
60	digital repository	5/2/2013 11:00 AM
61	All kinds including digitools, DSpace and others	5/2/2013 10:20 AM
62	ABBYY Finereader; Adobe Acrobat Pro; Viewscan Plustek OpticBook A300; Epson Expression 1000XL plus A3 Transparency Unit; BulletScan S400 Bepress' Digital Commons Zoom H2 Handy Portable Stereo Recorder	5/2/2013 10:04 AM
63	DSpace, Duracloud, MetaArchive, Archive-IT	5/2/2013 10:02 AM
64	item are scanned, then stored in a local 'dark archive'; use copies are cleaned and uploaded to a public platform (CONTENTdm or LUNA Insight); use copies are also archived	5/1/2013 6:08 PM
65	Content DM	5/1/2013 4:38 PM
66	LOCKSS and CLOCKSS	5/1/2013 3:09 PM
67	Fedora Commons	5/1/2013 11:08 AM
68	(digitization equipment), plus DSpace.	5/1/2013 10:40 AM
69	We are testing out Islandora as a possible digital repository. It uses a Fedora back-end with a Drupal interface. I use FFmpeg to transcode video, Audacity for audio (with LAME for MP3s), Photoshop for image manipulation/compression. I am exploring the Duke Data Accessioner tool for doing "archival" work on digital objects.	5/1/2013 9:53 AM
70	Blacklight, DAITSS	5/1/2013 9:44 AM
71	Checksum software, OCLC Digital Archive, external hard drives and on campus server	5/1/2013 9:19 AM
72	Bagger, DROID, Checksum Checker	5/1/2013 8:39 AM
73	None currently	5/1/2013 8:33 AM
74	DSpace, but also networked drives, divisions other than the library are using other products such as image silo, and Adobe Lightroom, and Microsoft Sharepoint university portal	5/1/2013 8:29 AM
75	DSpace, Fedora, File Systems, LTO tape archive	4/30/2013 7:49 PM
76	Audacity (software for audio). Other than that we are not using any special software for preservation.	4/30/2013 6:08 PM
77	Archivematica	4/30/2013 5:11 PM
78	We have a homegrown Digital Asset Management System (DAMS), backed up to co location storage at our super computer center and further backed up in the Chronopolis preservation service	4/30/2013 4:55 PM
79	Primarily Rosetta (by Ex Libris)	4/30/2013 4:51 PM
80	DSpace, Content DM	4/30/2013 4:44 PM
81	We manage electronic records in a DSpace repository. For textual objects, we normalize files to PDF/A-1b using Adobe Acrobat XI; for audio, we store master copies as broadcast WAV and access copies as MP3.	4/30/2013 4:25 PM
82	Fedora Commons (for ETDs, Institutional Repository resources, audio, digitized books)	4/30/2013 3:52 PM
83	Fedora	4/30/2013 3:35 PM
84	None currently (we keep copies on a shared drive that is backed up daily). We are currently investigating open source tools for analyzing files, extracting technical metadata, and creating preservation metadata (PREMIS, etc.)	4/30/2013 3:05 PM
85	Canon scanner, Adobe Professional, ABBYY Finereader scanning software and dspace	4/30/2013 2:49 PM
86	Irfanview, Adobe, Canon digital camera	4/30/2013 2:41 PM
87	In a consortium: ContentDM	4/30/2013 2:37 PM

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88	MetaArchive Cooperative	4/30/2013 2:36 PM
89	Developing in-house a digital preservation repository based on the Hydra, Fedora, Blacklight frameworks. Using digital forensics tools such as FTK Imager, file management and analysis tools such as TreeSize Pro, FITS, TRiD, QuickView Pro, and various legacy software suites.	4/30/2013 2:25 PM
90	ProTools, Sound Forge,	4/30/2013 2:19 PM
91	1. Keeping a copy of archival images on a network drive, which is backed up daily by the institution's IT department. 2. Copying archival images and texts to Amazon S3.	4/30/2013 2:15 PM
92	,	4/30/2013 2:08 PM
93	fscanx, cdparanoia, ffmpeg, ffbmc, ccextractor, imagemagick, lfs utilities, rsync, flac, md5deep, lots o' others	4/30/2013 2:07 PM
94	Dspace and a LOCKSS server, for now (serving two different sets of needs)	4/30/2013 2:04 PM
95	Our IR is the closest we come to a preservation system—the vendor we use has multiple server backups. The only backups I can do on my own with my campus's systems are on a networked server that I cannot store all of my desired, preservation-worthy digital objects on.	4/30/2013 2:01 PM
96	Dspace	4/30/2013 1:59 PM
97	Film Master in DPX files Manage by Atempo system	4/30/2013 1:56 PM
98	In-house created digital repository	4/30/2013 1:53 PM
99	Linux and Windows storage servers; metadata in standalone XLS and XML.	4/30/2013 1:49 PM
100	Still figuring this out; in the process of developing our program. We do use CONTENTdm for digitized materials and may mostly rely on this for born-digital also.	4/30/2013 1:45 PM
101	DuraCloud, XENA, DROID, BagIt, HashMyFiles, Archive-It	4/30/2013 1:44 PM

Q7 What digital preservation strategies are you employing? (Please check all that apply)

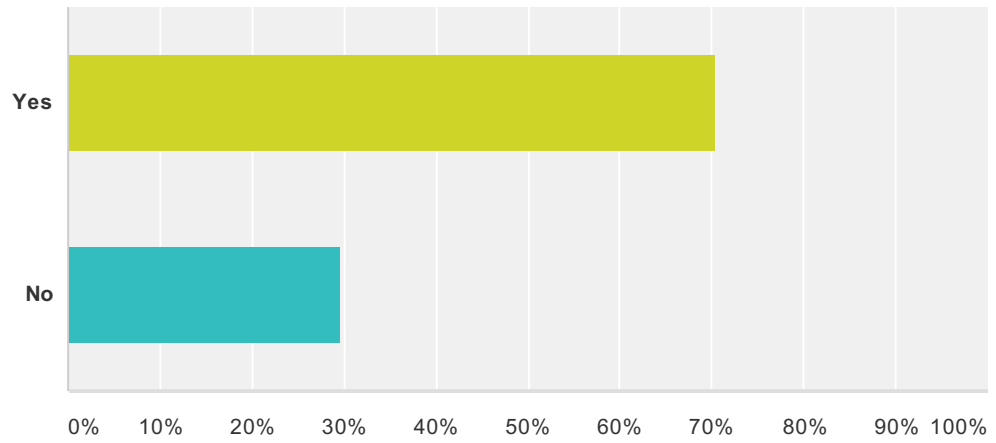
Answered: 103 Skipped: 46



Answer Choices	Responses
Bit preservation only	47.57% 49
Replication	64.08% 66
Normalization	28.16% 29
Migration	43.69% 45
Emulation	5.83% 6
Total Respondents: 103	

Q8 Are you collecting preservation metadata?

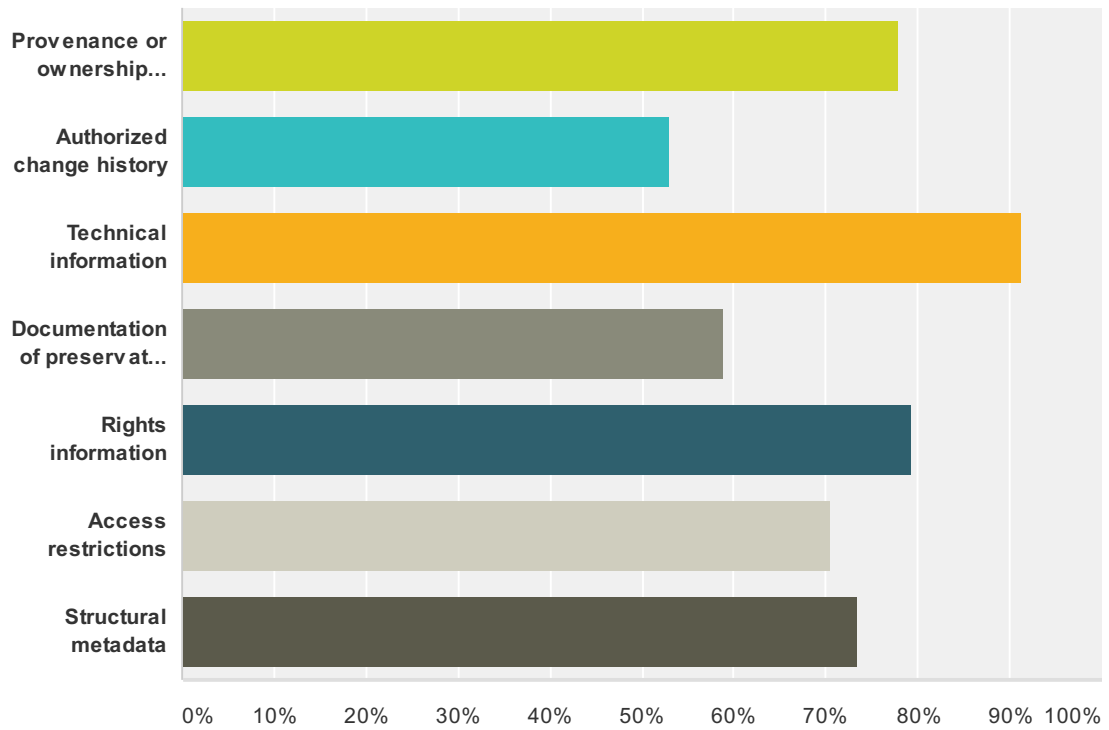
Answered: 111 Skipped: 38



Answer Choices	Responses	
Yes	70.27%	78
No	29.73%	33
Total		111

**Q9 If you collect preservation metadata what kind of information is recorded?
(Please check all that apply)**

Answered: 68 Skipped: 81



Answer Choices	Responses
Provenance or ownership history	77.94% 53
Authorized change history	52.94% 36
Technical information	91.18% 62
Documentation of preservation actions	58.82% 40
Rights information	79.41% 54
Access restrictions	70.59% 48
Structural metadata	73.53% 50
Total Respondents: 68	

Q10 What preservation metadata standards are you using?

Answered: 57 Skipped: 92

#	Responses	Date
1	Dublin Core Metadata Initiative, MODS, EAD, VRA Core, MARC	9/6/2013 2:41 PM
2	DSpace default	6/13/2013 3:28 PM
3	MIX wrapped in METS; Dublin Core provenance metadata in DSpace repository	5/31/2013 11:07 AM
4	PREMIS	5/28/2013 6:55 PM
5	METS, MODS, MIX	5/17/2013 9:04 PM
6	Has not yet been decided	5/15/2013 7:43 AM
7	METS, PREMIS, MIX	5/14/2013 6:58 PM
8	VRA Core; MARC, MODS, METS	5/14/2013 5:04 PM
9	N/A	5/14/2013 9:27 AM
10	We are using PREMIS in a limited capacity, the ad-hoc FITS schema for technical metadata, the Fedora audit schema as the change log, and the DC for everything else.	5/14/2013 8:57 AM
11	SDB is a repository based on the OAIS Reference Model.	5/14/2013 6:25 AM
12	CSU Data Dictionary	5/13/2013 2:58 PM
13	Dublin Core	5/13/2013 2:14 PM
14	doing a Premis review, identifying content-specific	5/13/2013 1:57 PM
15	Dublin Core/OCLC Digital Archive/OAIS	5/13/2013 1:37 PM
16	Dublin Core	5/13/2013 1:34 PM
17	Don't know	5/13/2013 1:06 PM
18	We have made up our own. To a certain extent we are limited by HIPAA, so that was the original driving force behind our standards. Photo may only be in use for 5 years. After that they are stored, though not with the intention of ever using them again. We store them for posterity's sake and nothing more. The photos we acquired before HIPAA are given metadata based on our best estimation of age and future usefulness.	5/13/2013 12:52 PM
19	Dublin Core or modifier; Dublin Core field: Dublin Core top-level field; Marc21; DACS	5/13/2013 12:37 PM
20	METS, PREMIS	5/9/2013 2:03 PM
21	None at present. Will be developing these in the near future.	5/9/2013 11:41 AM
22	PREMIS	5/7/2013 4:54 PM
23	Rules of Archival Description	5/7/2013 11:26 AM
24	PREMIS	5/6/2013 11:59 AM
25	NPS Digital Photo Metadata Standard, NPS Bibliographic Metadata Exchange Standard (draft). Both are Dublin Core based. GIS metadata captured using the Content Standard for Digital Geospatial Metadata. No one using PREMIS to my knowledge.	5/6/2013 11:23 AM
26	PREMIS	5/3/2013 1:23 PM
27	Depends on the collection	5/3/2013 8:11 AM
28	PREMIS	5/2/2013 4:38 PM
29	not sure	5/2/2013 3:01 PM

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30	Not sure	5/2/2013 2:30 PM
31	PREMIS	5/2/2013 12:35 PM
32	DublinCore	5/2/2013 10:21 AM
33	in process of implementing PREMIS	5/2/2013 10:03 AM
34	PREMIS	5/1/2013 11:08 AM
35	Dublin Core? Attempting PREMIS, but I need to learn more about this. For now, keeping the metadata noted in #9.	5/1/2013 10:42 AM
36	I'll use METS out of the Data Accessioner tool from Duke University.	5/1/2013 9:53 AM
37	PREMIS	5/1/2013 9:23 AM
38	Dublin Core	5/1/2013 8:29 AM
39	PREMIS	4/30/2013 5:11 PM
40	PREMIS	4/30/2013 4:55 PM
41	PREMIS, METS	4/30/2013 4:52 PM
42	None per se; we currently collect provenance and transformation history as structured free text within a Dublin Core dc.description.provenance field. We hope to eventually be able to export this information as PREMIS XML.	4/30/2013 4:25 PM
43	Premis	4/30/2013 4:24 PM
44	Bagit	4/30/2013 3:36 PM
45	we consult library of congress website to guide us as to what is essential and try to follow those instructions.	4/30/2013 2:51 PM
46	Dublin Core	4/30/2013 2:44 PM
47	extended dublin core	4/30/2013 2:37 PM
48	PREMIS, METS	4/30/2013 2:26 PM
49	IASA and our own	4/30/2013 2:19 PM
50	Dublin Core EAD	4/30/2013 2:09 PM
51	pbcore, premis, fprobe	4/30/2013 2:08 PM
52	Don't have the information at hand. A mix of multiple standards (SMPTE, etc) adapted to our needs.	4/30/2013 2:00 PM
53	Pronom	4/30/2013 2:00 PM
54	PREMIS	4/30/2013 1:53 PM
55	Our standard descriptive practices provide most of this information, stored in EAD (via Archivists Toolkit)	4/30/2013 1:50 PM
56	http://digital.ncdcr.gov/ui/custom/default/collection/default/resources/custompages/about/preservation_metadata_data_dictionary_rev5.pdf (Modified PREMIS), also Qualified Dublin Core	4/30/2013 1:47 PM
57	Again, not using them yet, but looking at PREMIS and METS.	4/30/2013 1:46 PM

Q11 What software, systems, and tools are you using to collect preservation metadata?

Answered: 59 Skipped: 90

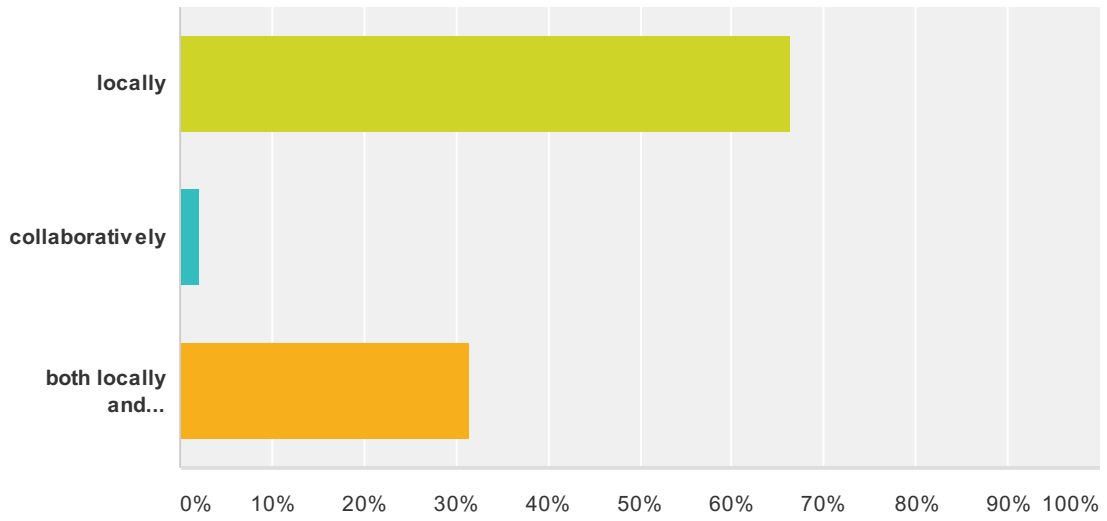
#	Responses	Date
1	Digital Commons, Fedora, Luna, Aleph	9/6/2013 2:41 PM
2	DSpace, we export the metadata to our filesystem in spreadsheets.	6/13/2013 3:28 PM
3	DSpace automatically generates the DC provenance metadata; not sure how we generated the MIX metadata—it was on an earlier project	5/31/2013 11:07 AM
4	Archivematica	5/28/2013 6:55 PM
5	In-house developed digital content management system	5/17/2013 9:04 PM
6	Bepress software	5/16/2013 8:10 PM
7	Has not yet been decided	5/15/2013 7:43 AM
8	PROMETHEUS, DCM, NCM, SDB, Droid, JHOVE, digitisation workflow, DocWorks	5/14/2013 6:58 PM
9	CONTENTdm, Archivist ToolKit	5/14/2013 5:04 PM
10	We are in the process of acquiring ContentDM. We currently scan items with different types of scanners and put them into an online collection	5/14/2013 10:03 AM
11	Adobe	5/14/2013 9:27 AM
12	FITS for technical metadata.	5/14/2013 8:57 AM
13	will be using Rosetta	5/14/2013 8:47 AM
14	SDB automatically extracts technical metadata from material as part of the ingest process.	5/14/2013 6:25 AM
15	excel, scanning software & hardware	5/13/2013 2:58 PM
16	Cold Fusion based product created for us	5/13/2013 2:14 PM
17	not that methodical - some manual, some resulting from running tools	5/13/2013 1:57 PM
18	OCLC Web Harvester/Content Digital Import tool	5/13/2013 1:37 PM
19	excel spreadsheets, Omeka	5/13/2013 1:34 PM
20	Don't know	5/13/2013 1:06 PM
21	Telescope by North Plains	5/13/2013 12:52 PM
22	ContentDM; Archivists Toolkit	5/13/2013 12:37 PM
23	Archivematica	5/9/2013 2:03 PM
24	Nothing beyond what is automatically kept by our scanner and photo editing software (Photoshop).	5/9/2013 11:41 AM
25	Archivematica	5/7/2013 4:54 PM
26	1. MS Access databases, 2. Dept. of the Interior database, Interior Collection Management System by Re:Discovery	5/7/2013 11:56 AM
27	SyGED, OnBase	5/7/2013 11:26 AM
28	jhove, mediainfo, DROID, NLNZ metadata extractor	5/6/2013 11:59 AM
29	Wide variety. Includes (not limited to) Extensis Portfolio, Voyager, GPS Photo Link, ArcGIS, Documentum, custom local databases in MS Access and SQL Server.	5/6/2013 11:23 AM
30	Home Grown web page which feeds into a SQL database	5/3/2013 1:23 PM

Digital Preservation Survey

31	Internal developed system	5/3/2013 8:11 AM
32	Archivematica	5/2/2013 4:38 PM
33	Rosetta	5/2/2013 3:01 PM
34	Looking at software now from what I understand.	5/2/2013 2:30 PM
35	dspace and human workflow (tracksheets)	5/2/2013 12:35 PM
36	exiftool, JHOVE, DROID	5/2/2013 10:03 AM
37	Adobe Bridge primarily	5/1/2013 11:08 AM
38	DSpace, hand-entered. Only managing digitized materials at the moment.	5/1/2013 10:42 AM
39	see 10	5/1/2013 9:53 AM
40	Excel, CONTENTdm, checksum software	5/1/2013 9:23 AM
41	Each tool we use leaves a trail. We consider that the preservation metadata	5/1/2013 8:40 AM
42	DSpace	5/1/2013 8:29 AM
43	Archivematica	4/30/2013 5:11 PM
44	integrated with our DAMS	4/30/2013 4:55 PM
45	Primarily Rosetta	4/30/2013 4:52 PM
46	See above.	4/30/2013 4:25 PM
47	FITS	4/30/2013 4:24 PM
48	Fedora	4/30/2013 3:53 PM
49	Bagit Library	4/30/2013 3:36 PM
50	Past Perfect 5 and Inventories	4/30/2013 2:44 PM
51	MetaArchive Cooperative	4/30/2013 2:37 PM
52	in-house developed metadata extracting and packaging tool, FITS, Duke Data Accessioner, and various other tools depending upon the file format type.	4/30/2013 2:26 PM
53	FITS, SCRIPT	4/30/2013 2:09 PM
54	ccextractor, ffprobe, mediainfo, lots of logging output of other processes	4/30/2013 2:08 PM
55	Legacy system developed internally and North Plains MAM.	4/30/2013 2:00 PM
56	Droid	4/30/2013 2:00 PM
57	Self-created ingester to digital repository service	4/30/2013 1:53 PM
58	CONTENTdm, ExifTool	4/30/2013 1:47 PM
59	None yet	4/30/2013 1:46 PM

Q12 Is your institution preserving digital materials:

Answered: 95 Skipped: 54



Answer Choices	Responses
locally	66.32% 63
collaboratively	2.11% 2
both locally and collaboratively	31.58% 30
Total	95

Digital Preservation Survey

Q13 What collaborative digital preservation efforts is your institution involved with?

Answered: 58 Skipped: 91

#	Responses	Date
1	LOCKSS, Hathi Trust	9/6/2013 2:44 PM
2	Digital Preservation Network (DPN) and the Texas Digital Library (TDL)	6/13/2013 3:29 PM
3	Academic Preservation Trust and Hathi Trust—we are members, but we have not started actively preserving items with them yet.	5/31/2013 11:09 AM
4	LOCKSS PLNs CPDN Web Archiving Research Projects (CWRC)	5/28/2013 6:55 PM
5	System-wide planning underway. Unknown if can be implemented.	5/24/2013 9:03 AM
6	n/a	5/19/2013 1:09 PM
7	CDL's Merritt system	5/17/2013 9:05 PM
8	none at present	5/16/2013 8:56 PM
9	Reference for patrons.	5/15/2013 3:09 PM
10	National and State Libraries Australasia (NSLA) Preservation Working Group, IIPC Preservation Working Group	5/14/2013 7:00 PM
11	Mississippi Digital Library; Civil War in the American South digital library	5/14/2013 5:08 PM
12	We are planning to join the COPPUL PLN (Private LOCKSS Network) though have not done so yet. This will involve local-collaborative preservation of digital materials.	5/14/2013 4:12 PM
13	None	5/14/2013 9:28 AM
14	Just getting involved in APTTrust.	5/14/2013 8:58 AM
15	we will be working with the National Library of Israel	5/14/2013 8:48 AM
16	The Library is an associate member of the Digital Preservation Coalition (DPC) & we participate in DPC activities.	5/14/2013 6:27 AM
17	we will be using DuraCloud	5/13/2013 2:58 PM
18	unknown	5/13/2013 2:15 PM
19	member of HathiTrust, monitoring DPM, OCA, DuraSpace - seems like 12 needs a local and distributed option, not necessarily collaboratively....	5/13/2013 2:01 PM
20	Wisconsin Digital Archives	5/13/2013 1:38 PM
21	Statewide (Digital Commonwealth) Religious organization (Church of the Nazarene)	5/13/2013 1:34 PM
22	TDL	5/13/2013 1:07 PM
23	None.	5/13/2013 12:29 PM
24	Cultural heritage collections with community organizations like the local public library, various museums, historical newspapers, and other organizations.	5/13/2013 12:28 PM
25	With Stanford University	5/9/2013 5:04 PM
26	None at this time	5/9/2013 2:03 PM
27	We have just begun to explore collaborative digitization efforts, so none at present. However, our library director and staff members are on local committees aimed at developing collaborative digitization projects, so this will change in the near future.	5/9/2013 11:45 AM
28	OhioLINK, Hathi Trust	5/6/2013 4:03 PM
29	Goportis consortia (consortia of the three German national subject libraries)	5/6/2013 12:00 PM

Digital Preservation Survey

30	Several projects in cooperation with the Library of Congress and National Archive Records Administration. GIS data rolled up to Geodata.gov/Data.gov.	5/6/2013 11:26 AM
31	Lyra mass digitization projects	5/3/2013 1:54 PM
32	PeDALS	5/3/2013 1:25 PM
33	Development of Bit preservation repository in cooperation with other national heritage institutions.	5/3/2013 8:14 AM
34	No collaborative moves yet, the institution is now writing the first white papers about its own internal policies and practices.	5/2/2013 5:56 PM
35	We are considering joining MetaArchive	5/2/2013 4:38 PM
36	We do occasionally work with neighboring institutions on digital projects, and will sometimes host their media	5/2/2013 3:13 PM
37	ETD documents that are born digital. Undergraduate research and graduate research documents. These are cataloged in shared library catalogs	5/2/2013 2:32 PM
38	N/A	5/2/2013 12:36 PM
39	The Wesleyan-Holiness Digital Library currently being developed	5/2/2013 10:10 AM
40	MetaArchive	5/2/2013 10:05 AM
41	Connecticut History Online partners, other CT State entities	5/1/2013 11:08 AM
42	Texas Digital Libraries (TDL)	5/1/2013 10:44 AM
43	I don't know if this is considered collaborative, but we use OCLC's Digital Archive	5/1/2013 9:26 AM
44	None yet	5/1/2013 8:34 AM
45	We are members of the Academic Preservation Trust, Hathi Trust, but the former is not yet in operation and we have not yet contributed to the latter. We have a subset of textual materials at the Internet Archive, and also are archiving websites via Archive-It.	4/30/2013 7:51 PM
46	Chronopolis	4/30/2013 4:55 PM
47	n/a	4/30/2013 4:25 PM
48	HathiTrust, DPN	4/30/2013 4:25 PM
49	Data preservation and stewardship groups Repository certification groups	4/30/2013 3:38 PM
50	none currently	4/30/2013 3:06 PM
51	don't know how to answer #12 -- we store to a hosted dspace repository	4/30/2013 2:53 PM
52	MetaArchive Cooperative	4/30/2013 2:38 PM
53	Portal to Texas History	4/30/2013 2:37 PM
54	Web Archiving Service (WAS) for archiving web-based materials; LOCKKS	4/30/2013 2:29 PM
55	NARA standards and FAgli	4/30/2013 2:20 PM
56	I am the only one at my institution involved in it, but we are part of an IMLS project that hopes to have some solid suggestions by Spring 2014--see http://digitalpowr.niu.edu	4/30/2013 2:03 PM
57	N/A	4/30/2013 1:54 PM
58	Archive-it (if you consider that a "preservation" effort). We also collaborate with a sister institution here in North Carolina.	4/30/2013 1:48 PM

Q14 What types of digital collections are you preserving locally and what types of digital collections are you preserving collaboratively?

Answered: 66 Skipped: 83

#	Responses	Date
1	Materials in the IR and archival collections are mostly being preserved locally. Materials we have had scanned by the Internet Archive will be preserved via Hathi Trust and we are planning to preserve our IR collection with a Digital Commons LOCKSS PLN	9/6/2013 2:44 PM
2	Restricted collections (restricted ETDs) are preserved locally as well as a copy of all our other collections. All our public collections are preserved with TDL.	6/13/2013 3:29 PM
3	Collaboratively: nothing right now. Locally: texts, maps, photographs, institutional records	5/31/2013 11:09 AM
4	Digitized and institutional born-digital digital resources are being preserved locally, whereas, OJS content and part of research data are being preserved collaboratively.	5/28/2013 6:55 PM
5	All locally: born-digital video, still image, audio, text, publishing, e-mail, database. Digitized material: telecined motion-picture film, still images from prints and negatives, archival manuscript material, operational records, audio and video.	5/24/2013 9:03 AM
6	Our Digital Archive (postcards, books, yearbooks, photographs, etc) The Local History Database (low quality scans of newspapers)	5/22/2013 5:29 PM
7	local collections include: company publications, internal and external web presentations, images of artifacts, people, places, old website designs, etc.	5/19/2013 1:09 PM
8	Goal is to preserve everything in Merritt, we aren't there but are working towards it.	5/17/2013 9:05 PM
9	History of QCOSS all publications, flyers, annual reports etc	5/16/2013 8:56 PM
10	Anything that is out of copyright that our patrons require. The list is too long for this format.	5/15/2013 3:09 PM
11	We will be preserving institutional records, archival born digital material (text, images, email, sound), digitised images	5/15/2013 7:44 AM
12	all locally	5/14/2013 7:00 PM
13	Collaboratively: Civil War and Civil Rights collections. Locally: all other	5/14/2013 5:08 PM
14	Planned collaborative: DSpace repository contents (most significant collection is ETDs); selected CONTENTdm collections; potentially one local OJS-hosted journal title.	5/14/2013 4:12 PM
15	Textual and photograph digitization, CSS data (local)	5/14/2013 9:28 AM
16	All our collections are stored locally at the moment.	5/14/2013 8:58 AM
17	we will be preserving our complete digital library - manuscript codices, rare documents, prints, sheet music, postcards, dissertations, archival documents, sound,	5/14/2013 8:48 AM
18	We are preserving both material that has been digitised - in house & by 3rd parties - as well as born digital material archival transferred to the Library.	5/14/2013 6:27 AM
19	Some artifacts, some documents. Not much at this point	5/13/2013 9:36 PM
20	same collections at this point	5/13/2013 2:58 PM
21	Locally: MSU Extension programming materials, bulletins, visuals, audio/video materials. Collaboratively: Institutional materials, records, etc.	5/13/2013 2:15 PM
22	some institutional content and some newer collections are local - working on a collection strategy	5/13/2013 2:01 PM
23	Right now we are managing stuff locally. There's been a real resistance to get into formal digital preservation. I think there is a fear of costs and commitments.	5/13/2013 1:39 PM

Digital Preservation Survey

24	We are focusing on digitally archiving electronic state documents as part of our responsibility to manage the statutorily mandated Wisconsin Document Depository Program.	5/13/2013 1:38 PM
25	The local/collaborative distinction is incorrect in our case. We preserve electronic documents in the cloud in our own accounts; these are replicated multiple times across several time zones. This is not "local" preservation, but neither is it collaborative. As far as content goes, we preserve business records and are a business history repository.	5/13/2013 12:29 PM
26	Only digital photo collections locally.	5/13/2013 12:29 PM
27	The collections are largely image and newspaper collections, some of which we manage in-house and some of which are managed by others.	5/13/2013 12:28 PM
28	Documents (memory) of the institution.	5/9/2013 5:04 PM
29	For now, all collections are being preserved locally. This may change in the near future.	5/9/2013 11:45 AM
30	archives, photos, reports, videos, oral histories	5/7/2013 6:43 PM
31	images, document scans, archival documents	5/7/2013 11:56 AM
32	we are hosting the consortially used system	5/6/2013 12:00 PM
33	Mostly photos and documents. Some digital audio and video. GIS data.	5/6/2013 11:26 AM
34	image collections; born-digital materials	5/3/2013 6:23 PM
35	University Images, University newspaper, Thesis and Reports, University catalog, etc.	5/3/2013 1:54 PM
36	Born digital records - State & Local government records, manuscripts, Images, audio/video	5/3/2013 1:25 PM
37	Web archive	5/3/2013 8:14 AM
38	All digital collections are preserved locally for the moment.	5/2/2013 5:58 PM
39	We mostly keep back up of the items present on the institutional repository, which means only the scientific production of the academia. Educational pieces and otehr kind of material are not contemplated.	5/2/2013 5:56 PM
40	Locally produced content, such as newsletters, technical reports, archival materials	5/2/2013 5:11 PM
41	Mainly text-based collections, with a small percentage of audio, video and image.	5/2/2013 3:13 PM
42	Same as above	5/2/2013 2:32 PM
43	Research projects, image, audio, and video collections.	5/2/2013 12:36 PM
44	Local: faculty scholarship; archival material; Wesleyan materials; university records and materials Collaboratively: Wesley publications	5/2/2013 10:10 AM
45	All collections are preserved locally in Institutional repository and DuraCloud and collaboratively through MetaArchive.	5/2/2013 10:05 AM
46	Obit database, local photograph database, birth announcement database	5/1/2013 1:43 PM
47	Local: general library collections, special collections, archives, maps, Collaboratively: photographs and maps from special collections and Connecticut museums, State documents	5/1/2013 11:08 AM
48	Not sure I understand. We are TDL members, so our DSpace materials are harvested by TDL. TDL plans to offer preservation support in the future in the form of a preservation network.	5/1/2013 10:44 AM
49	We preserve all of our digital materials locally, and some select materials at OCLC DA	5/1/2013 9:26 AM
50	everything is local & synced offsite at a partner institution	5/1/2013 8:40 AM
51	Our IT department is looking into this	5/1/2013 8:34 AM
52	Student Theses and dissertations, faculty papers, yearbooks, university photographs, student newspapers, other items from the University Archives	5/1/2013 8:29 AM
53	Locally: Digital images, manuscripts, institutional repository, audiovisual materials, books/textual Collaboratively: Some books/periodicals, websites	4/30/2013 7:51 PM
54	locally - pdf files and audio files.	4/30/2013 6:08 PM
55	all data is backed up in Chronopolis	4/30/2013 4:55 PM

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56	At present, all of our collections are preserved locally.	4/30/2013 4:25 PM
57	Data preserved locally	4/30/2013 3:38 PM
58	locally we are preserving scanned digital images, born digital manuscript materials, digitized oral historical, and born-digital and scanned government records	4/30/2013 3:06 PM
59	See the MetaArchive Conspectus: http://conspectus.metaarchive.org/archives	4/30/2013 2:38 PM
60	Newspapers, yearbooks, county records, society records	4/30/2013 2:37 PM
61	Web-based materials stored in WAS; journal information stored in LOCKKS, digitized rare book and manuscript materials, reformatted brittle book content, reformatted audiovisual materials, born-digital content migrated from physical media, and various other monographic and archival materials stored in our local repository.	4/30/2013 2:29 PM
62	Speeches and private diary	4/30/2013 2:20 PM
63	Digitized and born-digital (the later gets most attention from me these days) locally. Nothing collaboratively right now.	4/30/2013 2:03 PM
64	National Film Board films and stockshots collection	4/30/2013 2:01 PM
65	N/A	4/30/2013 1:54 PM
66	Images, documents, audio, video locally Websites collaboratively	4/30/2013 1:48 PM

Q15 How many (FTE) full-time equivalent staff do you have involved in digital preservation efforts?

Answered: 91 Skipped: 58

#	Responses	Date
1	1.5	9/6/2013 2:51 PM
2	2	6/13/2013 3:30 PM
3	1.5	5/31/2013 11:13 AM
4	1	5/28/2013 6:55 PM
5	1	5/24/2013 9:03 AM
6	2	5/22/2013 5:30 PM
7	1	5/19/2013 1:10 PM
8	Depends what this means	5/17/2013 9:07 PM
9	I work one day per week with 3.5 hours for archiving	5/16/2013 8:57 PM
10	Less than 1 overall	5/16/2013 1:46 AM
11	5	5/15/2013 3:10 PM
12	1	5/15/2013 7:48 AM
13	6.4 FTE in DigiPres plus IT support	5/14/2013 7:11 PM
14	5	5/14/2013 5:10 PM
15	Best estimate is 0.2 of a person's time across several people.	5/14/2013 4:14 PM
16	1 in the library	5/14/2013 11:52 AM
17	3	5/14/2013 10:05 AM
18	2	5/14/2013 9:29 AM
19	3	5/14/2013 9:00 AM
20	.5	5/14/2013 8:49 AM
21	Difficult to say. Between 1 & 5	5/14/2013 6:28 AM
22	0	5/13/2013 9:37 PM
23	1	5/13/2013 2:59 PM
24	1	5/13/2013 2:16 PM
25	3.5	5/13/2013 2:03 PM
26	.5	5/13/2013 1:41 PM
27	1	5/13/2013 1:40 PM
28	>1	5/13/2013 1:34 PM
29	2	5/13/2013 1:08 PM
30	1	5/13/2013 12:53 PM
31	13	5/13/2013 12:43 PM
32	2 are dedicated to digital collections; much of the staff in our three other collecting departments are active in the larger digital preservation effort.	5/13/2013 12:36 PM

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33	0.5 FTE staff	5/13/2013 12:30 PM
34	5	5/13/2013 12:28 PM
35	7	5/9/2013 5:08 PM
36	2	5/9/2013 2:04 PM
37	2 (but both have many other responsibilities not related to digital preservation)	5/9/2013 11:47 AM
38	0.25	5/7/2013 6:44 PM
39	1-2	5/7/2013 4:56 PM
40	0.1	5/7/2013 11:57 AM
41	3	5/7/2013 11:29 AM
42	n/a	5/6/2013 4:08 PM
43	2	5/6/2013 12:01 PM
44	Not sure.	5/6/2013 11:28 AM
45	0	5/3/2013 6:24 PM
46	1	5/3/2013 1:28 PM
47	10	5/3/2013 8:18 AM
48	17	5/2/2013 6:00 PM
49	2	5/2/2013 5:58 PM
50	3 (but not 100% of their time, a portion of their time)	5/2/2013 5:12 PM
51	1-2 (of numerous people)	5/2/2013 4:41 PM
52	What do you mean by involved?	5/2/2013 3:36 PM
53	1	5/2/2013 3:14 PM
54	7	5/2/2013 3:04 PM
55	3	5/2/2013 2:33 PM
56	1	5/2/2013 12:37 PM
57	2	5/2/2013 10:22 AM
58	1	5/2/2013 10:13 AM
59	1	5/1/2013 6:09 PM
60	0	5/1/2013 1:44 PM
61	2	5/1/2013 12:04 PM
62	5.6	5/1/2013 11:08 AM
63	.25	5/1/2013 10:47 AM
64	6	5/1/2013 9:55 AM
65	8	5/1/2013 9:47 AM
66	1	5/1/2013 8:41 AM
67	There be two or three	5/1/2013 8:36 AM
68	1.5	5/1/2013 8:30 AM
69	?	4/30/2013 7:55 PM
70	1.5	4/30/2013 6:09 PM
71	.5	4/30/2013 5:12 PM
72	2	4/30/2013 4:56 PM

Digital Preservation Survey

73	~12	4/30/2013 4:53 PM
74	1	4/30/2013 4:26 PM
75	2	4/30/2013 4:18 PM
76	2	4/30/2013 3:41 PM
77	4	4/30/2013 3:07 PM
78	.1	4/30/2013 2:54 PM
79	1	4/30/2013 2:45 PM
80	1	4/30/2013 2:42 PM
81	1	4/30/2013 2:37 PM
82	7	4/30/2013 2:31 PM
83	2	4/30/2013 2:21 PM
84	1	4/30/2013 2:17 PM
85	2	4/30/2013 2:13 PM
86	Hard to say. 1, spread out over disparate people?	4/30/2013 2:06 PM
87	5	4/30/2013 2:03 PM
88	1	4/30/2013 2:03 PM
89	1	4/30/2013 1:52 PM
90	1	4/30/2013 1:49 PM
91	1.5	4/30/2013 1:48 PM

Q16 What is the total number of individuals involved in digital preservation efforts at your institution?

Answered: 93 Skipped: 56

#	Responses	Date
1	8	9/6/2013 2:51 PM
2	7	6/13/2013 3:30 PM
3	5	5/31/2013 11:13 AM
4	8-10	5/28/2013 6:55 PM
5	2	5/24/2013 9:03 AM
6	2	5/22/2013 5:30 PM
7	1	5/19/2013 1:10 PM
8	Same as above	5/17/2013 9:07 PM
9	1	5/16/2013 8:57 PM
10	parts of 2-3	5/16/2013 8:13 PM
11	Hard to tell - perhaps 6 to 10	5/16/2013 1:46 AM
12	6	5/15/2013 3:10 PM
13	4	5/15/2013 7:48 AM
14	7 persons in DigiPres	5/14/2013 7:11 PM
15	4	5/14/2013 5:10 PM
16	Estimated to be 2-3 in the future.	5/14/2013 4:14 PM
17	Unsure, servers are located with IT department, not within the library.	5/14/2013 11:52 AM
18	8	5/14/2013 10:05 AM
19	4	5/14/2013 9:29 AM
20	6	5/14/2013 9:00 AM
21	.5	5/14/2013 8:49 AM
22	Difficult to say. Between 1 & 5	5/14/2013 6:28 AM
23	.2	5/13/2013 9:37 PM
24	unknown total for CSU	5/13/2013 2:59 PM
25	unknown	5/13/2013 2:16 PM
26	8	5/13/2013 2:03 PM
27	15	5/13/2013 1:41 PM
28	1	5/13/2013 1:40 PM
29	4	5/13/2013 1:34 PM
30	maybe 4	5/13/2013 1:08 PM
31	3	5/13/2013 12:53 PM
32	20+	5/13/2013 12:43 PM
33	9	5/13/2013 12:36 PM

Digital Preservation Survey

34	Three, but everyone devotes only a small amount of time (less than one FTE).	5/13/2013 12:30 PM
35	10	5/13/2013 12:28 PM
36	7	5/9/2013 5:08 PM
37	4	5/9/2013 2:04 PM
38	3	5/9/2013 11:47 AM
39	1	5/7/2013 6:44 PM
40	3-4	5/7/2013 4:56 PM
41	0.2	5/7/2013 11:57 AM
42	7	5/7/2013 11:29 AM
43	at least 5	5/6/2013 4:08 PM
44	6	5/6/2013 12:01 PM
45	Hundreds	5/6/2013 11:28 AM
46	3	5/3/2013 6:24 PM
47	6	5/3/2013 1:28 PM
48	20	5/3/2013 8:18 AM
49	7	5/2/2013 6:00 PM
50	8	5/2/2013 5:58 PM
51	4	5/2/2013 5:12 PM
52	2 - 4	5/2/2013 4:41 PM
53	What do you mean by involved?	5/2/2013 3:36 PM
54	1	5/2/2013 3:14 PM
55	11	5/2/2013 3:04 PM
56	Unknown, not many I'm afraid.	5/2/2013 2:33 PM
57	2	5/2/2013 12:37 PM
58	4	5/2/2013 10:22 AM
59	1	5/2/2013 10:13 AM
60	5	5/2/2013 10:07 AM
61	3	5/1/2013 6:09 PM
62	2	5/1/2013 1:44 PM
63	5	5/1/2013 12:04 PM
64	13	5/1/2013 11:08 AM
65	6	5/1/2013 9:55 AM
66	14	5/1/2013 9:47 AM
67	3	5/1/2013 9:29 AM
68	3	5/1/2013 8:41 AM
69	Two or three	5/1/2013 8:36 AM
70	2	5/1/2013 8:30 AM
71	5-10	4/30/2013 7:55 PM
72	1.5	4/30/2013 6:09 PM
73	10	4/30/2013 5:12 PM

Digital Preservation Survey

74	2	4/30/2013 4:56 PM
75	15	4/30/2013 4:53 PM
76	2	4/30/2013 4:26 PM
77	6	4/30/2013 4:18 PM
78	I do not know	4/30/2013 3:41 PM
79	4	4/30/2013 3:07 PM
80	1	4/30/2013 2:54 PM
81	1	4/30/2013 2:45 PM
82	6	4/30/2013 2:42 PM
83	1	4/30/2013 2:37 PM
84	7	4/30/2013 2:31 PM
85	4	4/30/2013 2:21 PM
86	3	4/30/2013 2:17 PM
87	6	4/30/2013 2:13 PM
88	Half a dozen?	4/30/2013 2:06 PM
89	~10	4/30/2013 2:03 PM
90	3	4/30/2013 2:03 PM
91	4	4/30/2013 1:52 PM
92	2	4/30/2013 1:49 PM
93	4	4/30/2013 1:48 PM

Digital Preservation Survey

Q17 Please list the job titles of those involved in digital preservation efforts.

Answered: 85 Skipped: 64

#	Responses	Date
1	University and Digital Archivist, Unix System Administrator & Programmer, Head, Systems and Web Management, Digital Strategies Coordinator, Head, Image Collection Library, Digital Project Manager, Digital Repository Resident Librarian, Bibliographic Access and Metadata Coordinator	9/6/2013 2:51 PM
2	Metadata librarian, Digital Resources Librarian, Digital Curation Librarian, Digital Lab Manager	6/13/2013 3:30 PM
3	Manager of Scholarly Digital Initiatives, Records Management Archivist, Repository Software Engineer, Senior Systems Administrator (2)	5/31/2013 11:13 AM
4	Digital Initiatives Coordinator Digital Preservation Officer Digital Initiatives Technology Librarian Digital Initiatives Application Librarian Data Library Coordinator Metadata Librarian Institutional Repository Manager System Developers / System Admins	5/28/2013 6:55 PM
5	Archivist, Archives Technician	5/24/2013 9:03 AM
6	Local History Librarian Head of IT	5/22/2013 5:30 PM
7	I'm the only person involved in this effort.	5/19/2013 1:10 PM
8	What does involved mean? We have a lot of people involved in digital projects and the last step of those projects is to preserve the content. We also have automated the actual submission.	5/17/2013 9:07 PM
9	Library and Archive Curator	5/16/2013 8:57 PM
10	Metadata Specialist IR admin Director of Special Coll	5/16/2013 8:13 PM
11	University archivists, software developers, project staff	5/16/2013 1:46 AM
12	We are a staff of 6. Everyone is involved in multiple tasks, including digitization when necessary.	5/15/2013 3:10 PM
13	Archivist Digital Preservation Co-ordinator Digitisation Infrastructure Manager eScholarship Manager	5/15/2013 7:48 AM
14	1 DigiPres manager 1 DigiPres analyst 1 Digital preservation policy specialist 2 Digital collecting support 1 DigiPres action technical specialist 1 DigiPres technical environment specialist	5/14/2013 7:11 PM
15	Blues Curator Digital Initiatives Librarian Curator of Visual Collections Modern Political Papers Archivist	5/14/2013 5:10 PM
16	-- Librarian -- Systems support specialist (Library IT staff)	5/14/2013 4:14 PM
17	Digital Collections & University Repository Librarian	5/14/2013 11:52 AM
18	Librarian III, Librarian II Library Assistant I, Clerk typists, Messenger Clerks Analyst	5/14/2013 10:05 AM
19	Assistant archivist, processor	5/14/2013 9:29 AM
20	Our digital preservation is still getting started. Most of the effort is on the technical aspects and management. I'm not sure of all the job titles.	5/14/2013 9:00 AM
21	Digital Library	5/14/2013 8:49 AM
22	Digital Curator, Archivist.	5/14/2013 6:28 AM
23	Librarian	5/13/2013 2:16 PM
24	Head, Curation and Preservation Services Digital Curation and Preservation Fellow Preservation Librarian Metadata Librarian Software Development Team Leader Program Analyst	5/13/2013 2:03 PM
25	I don't even know everyone's title, but I'm not going to type out 15 titles of people. I really like to help folks with their surveys, but I can't answer this question.	5/13/2013 1:41 PM
26	Librarian	5/13/2013 1:40 PM

Digital Preservation Survey

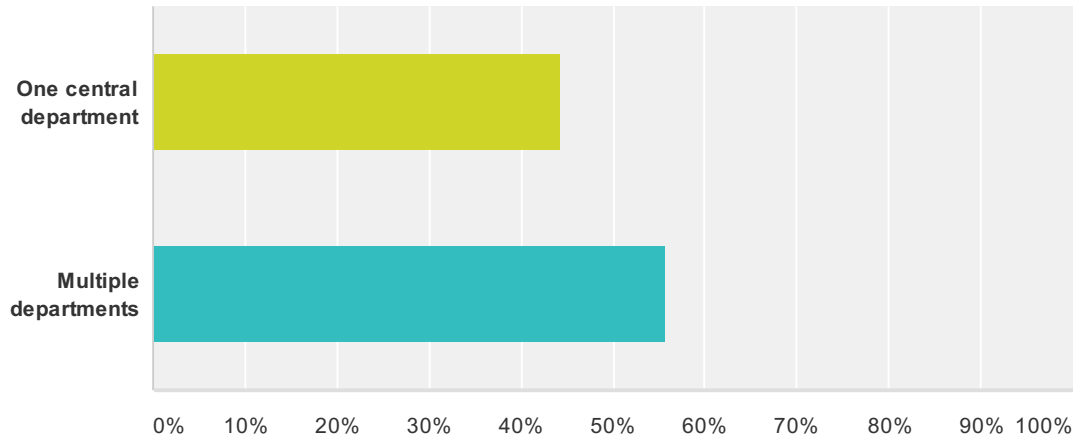
27	Archives Administrator (me) Webmaster CIO	5/13/2013 1:34 PM
28	Digital Asset Management Coordinator	5/13/2013 12:53 PM
29	Head of Special Collections and Archives; Archivist; Digital Preservation Librarian; Scholarly Communications Librarian; Head of Access Services; Library Director; Head of Cataloging and Systems; IT staff; Lib Techs; Students;	5/13/2013 12:43 PM
30	Curator, Digital Collections Assistant Curator, Digital Collections Curator, Pictorial Collections Assistant Curator, Pictorial Collections Chief Curator of Library Collections Reference Archivist Project Archivist (2) Curator, Imprints	5/13/2013 12:36 PM
31	Photographer and Archives Manager, Archives Assistants	5/13/2013 12:30 PM
32	Librarians Archivists staff on the Digital Scholarship Team	5/13/2013 12:28 PM
33	Digitalizer, manager of the project, librarians, computer analyst, architect, anthropologist.	5/9/2013 5:08 PM
34	Electronic Records Archivists Intems	5/9/2013 2:04 PM
35	Digital Media Librarian Media Coordinator Reference Librarian/Archivist	5/9/2013 11:47 AM
36	Curator	5/7/2013 6:44 PM
37	Digital Archivist Digital Initiatives Librarian Head, Technology and Systems Acquisitions and Electronic Resources Librarian Metadata Librarian	5/7/2013 4:56 PM
38	Biological Technician and Curator	5/7/2013 11:57 AM
39	Records Manager, Archivist, Technician	5/7/2013 11:29 AM
40	Questions 12 & 13 are difficult to answer as we do not have a full-fledge program yet. Further, the question is what does "involved" mean? Does it include the curators and the digital materials they are responsible for? Does it include the hardware and software infrastructure folks who maintain the machines and systems? Or is it just the strategists like myself?	5/6/2013 4:08 PM
41	system administrator (2), subject librarian (2), digital preservation manager, technical analyst	5/6/2013 12:01 PM
42	Too many to list. Mostly done as a collateral duty.	5/6/2013 11:28 AM
43	Archivist Archives Intern IT Administrator	5/3/2013 6:24 PM
44	We have a team that is involved at a high level in the development of a digital repository but aren't involved in the day-to-day workings which is only the Electronic Records Archivist	5/3/2013 1:28 PM
45	IT Developers IT Managers Collection Managers IT Service people	5/3/2013 8:18 AM
46	Computer analyst Computer technician Librarian	5/2/2013 6:00 PM
47	All librarians with BSc degrees and two masters of Information Science. Also too 'junior' librarians (part time job).	5/2/2013 5:58 PM
48	Metadata Librarian Systems Administrator Director of Strategic Initiatives	5/2/2013 5:12 PM
49	Head of Digital Programs Lead Archivist, Collection Services Asst. Digital Archivist Digital Archivist	5/2/2013 4:41 PM
50	Various IT staff, various archivists, various imaging services staff, various systems librarians	5/2/2013 3:36 PM
51	Digital Librarian	5/2/2013 3:14 PM
52	Director of Technical Services, Director of Library Technology, Metadata/Cataloging Librarians, Digitization Specialist, Head of Special Collections, student assistants	5/2/2013 3:04 PM
53	Don't know them, most likely on our web site.	5/2/2013 2:33 PM
54	Emerging Technologies Librarian and Digital Scholarship and Services Associate	5/2/2013 12:37 PM
55	Digital Initiatives Librarian (me) -- only official staff position Also 2 10hr/wk student assistants Plus some hours from the Library Director	5/2/2013 10:13 AM
56	Digital Curation Coordinator Systems Developer Application Programmer Assistant Head, Special Collections Director, Digital Media Commons	5/2/2013 10:07 AM
57	Digital Projects Manager; Library Coordinator; Head, Digital Initiatives	5/1/2013 6:09 PM
58	All are volunteers	5/1/2013 1:44 PM

Digital Preservation Survey

59	Catalog & Metadata Librarian, Pres & Data Mgmt Svcs Librarian, Director of Archives, Special Collections & Digital Curation, Applications Developers, Digital Production Librarian, Subject curators, Map & GIS Librarian, IT Director, Systems Administrator, IT Security Coordinator	5/1/2013 11:08 AM
60	Archivist, Wittliff Collections Administrative Librarian, Digital & Web Services Digital Collections Librarian, Digital & Web Services	5/1/2013 10:47 AM
61	Associate Dean of Library Technologies Associate Dean of Special Collections University Archivist/Director of Archives Director of Digital Library Services Information Architect Programmer (3) Imaging Specialists (2) Digital Projects Library Manager Photo archivist Director of Oral History Oral History assistant	5/1/2013 9:47 AM
62	Special Collections Librarian Special Collections Archivist Information Technology Librarian (Please note that we don't have one person dedicated to the task, we	5/1/2013 9:29 AM
63	Digital Archivist, Records Manager, Technical Services Director	5/1/2013 8:41 AM
64	Archivist III Archivist II Photographer II	5/1/2013 8:36 AM
65	Digital Initiatives Librarian and Archivist, student worker . There are an unknown number of individuals in other departments also working on digitization and storage	5/1/2013 8:30 AM
66	This is fairly difficult to define. We do not have one digital preservation-devoted staff person. The primary home for digital preservation is our Information Technology Division, with participants from several units: Digital Stewardship, Digital Conversion and Media Reformatting, Systems Administration, Systems Software Development and Research... Everyone plays a part. We do have a Preservation Department in our Technical Services Division and they provide input into digital preservation, but the home is Information Technology. Special Collections staff also play a role in selection of materials, as do our general subject librarians	4/30/2013 7:55 PM
67	Head of Cataloging. Serials Assistant.	4/30/2013 6:09 PM
68	varied	4/30/2013 4:56 PM
69	Assistant Archivist (primary staff member responsible) Archivist (sets policy in consultation with Asst. Archivist)	4/30/2013 4:26 PM
70	Archivist, Assistant Archivist, Media Librarian, Broadcast Technician, Broadcast Operator	4/30/2013 4:18 PM
71	I can only speak for our department. Other departments have efforts as well.	4/30/2013 3:41 PM
72	we are in the planning phase; our planning committee has 4 members currently	4/30/2013 3:07 PM
73	librarian	4/30/2013 2:54 PM
74	Archivist	4/30/2013 2:45 PM
75	Director, CDRS Services; Technical Director; Systems Administrator; Systems Engineer; Digital Technologies Development Librarian; Digital Repositories Librarian	4/30/2013 2:42 PM
76	Genealogy & Local History Librarian	4/30/2013 2:37 PM
77	Research Programmers, Digital Preservation Coordinator, Preservation Librarian, Archivist, Coordinator for Scholarly Communication	4/30/2013 2:31 PM
78	Audiovisual Archivist Audiovisual Specialist Digital Archivist	4/30/2013 2:21 PM
79	Library Director Digital Initiatives Librarian XML Database Administrator	4/30/2013 2:17 PM
80	2 Archivists 2 Assistants 1 IT 1 Consultant	4/30/2013 2:13 PM
81	Associate University Librarian, Head of Metadata Services, a few other folks whose titles I don't know.	4/30/2013 2:06 PM
82	University Archivist	4/30/2013 2:03 PM
83	Photo Archivist, Special Collections Librarian, Dir of Oral History, Director of Library	4/30/2013 1:52 PM
84	Digital Collections Manager, Digital Projects Manager	4/30/2013 1:49 PM
85	Head of Special Collections and Archives Archivist Digitization Specialist Head of Systems	4/30/2013 1:48 PM

Q18 Are these positions located in:

Answered: 97 Skipped: 52



Answer Choices	Responses
One central department	44.33% 43
Multiple departments	55.67% 54
Total	97

Digital Preservation Survey

Q19 Please list the names of the departments where digital preservation efforts take place.

Answered: 86 Skipped: 63

#	Responses	Date
1	Image Collection Library, Information Resources Management, Library Systems and Web Management, Scholarly Communication Office, Special Collections and University Archives	9/6/2013 2:51 PM
2	Digital Resources Library Unit, and the Library's IT department	6/13/2013 3:30 PM
3	Scholarly Resources and Special Collections; Library Systems; Digital Research and Curation Center	5/31/2013 11:13 AM
4	Digital Initiatives	5/28/2013 6:55 PM
5	Archives	5/24/2013 9:03 AM
6	Reference Services IT	5/22/2013 5:30 PM
7	Library	5/19/2013 1:10 PM
8	The preservation step is done in my department only, but the creating of metadata is done in other departments.	5/17/2013 9:07 PM
9	Organisational Services Team - Technology, Information & Quality	5/16/2013 8:57 PM
10	Library & University Collections	5/16/2013 1:46 AM
11	Total Library staff.	5/15/2013 3:10 PM
12	The Library	5/15/2013 7:48 AM
13	Web Archiving and Digital Preservation branch (Digital Preservation section including Digital Collecting Support)	5/14/2013 7:11 PM
14	Archives and Special Collections	5/14/2013 5:10 PM
15	University Library	5/14/2013 4:14 PM
16	IT department. Library department.	5/14/2013 11:52 AM
17	Digitization Dept.	5/14/2013 10:05 AM
18	All under the Byrd CLS (there's only 1 dept)	5/14/2013 9:29 AM
19	Library and I assume IT department	5/14/2013 8:49 AM
20	Digital Services, Archives & Manuscripts.	5/14/2013 6:28 AM
21	Special collections	5/13/2013 9:37 PM
22	Main library, MSU Archives, a number of departments	5/13/2013 2:16 PM
23	Curation and Preservation Services Software Development and Analysis Digital Operations and Systems Special Collections and Archives Special Content Services	5/13/2013 2:03 PM
24	There are people dabbling in this field from multiple departments: the UCLA Digital Library Program, the Library Preservation unit, Library Special Collections (which includes University Archives and the Center for Oral History Research). No formal coordination has really emerged	5/13/2013 1:41 PM
25	We coordinate digital preservation activities with other information agencies throughout state gov't that are stakeholders in the archiving of these materials. This includes Wisconsin Historical Society, Legislative Reference Bureau, Dept. of Transportation, WI State Law Library, UW Madison, and Madison Public Library.	5/13/2013 1:40 PM
26	Archives (undemeath Library Services) Information Technology Services Marketing and Communications	5/13/2013 1:34 PM

Digital Preservation Survey

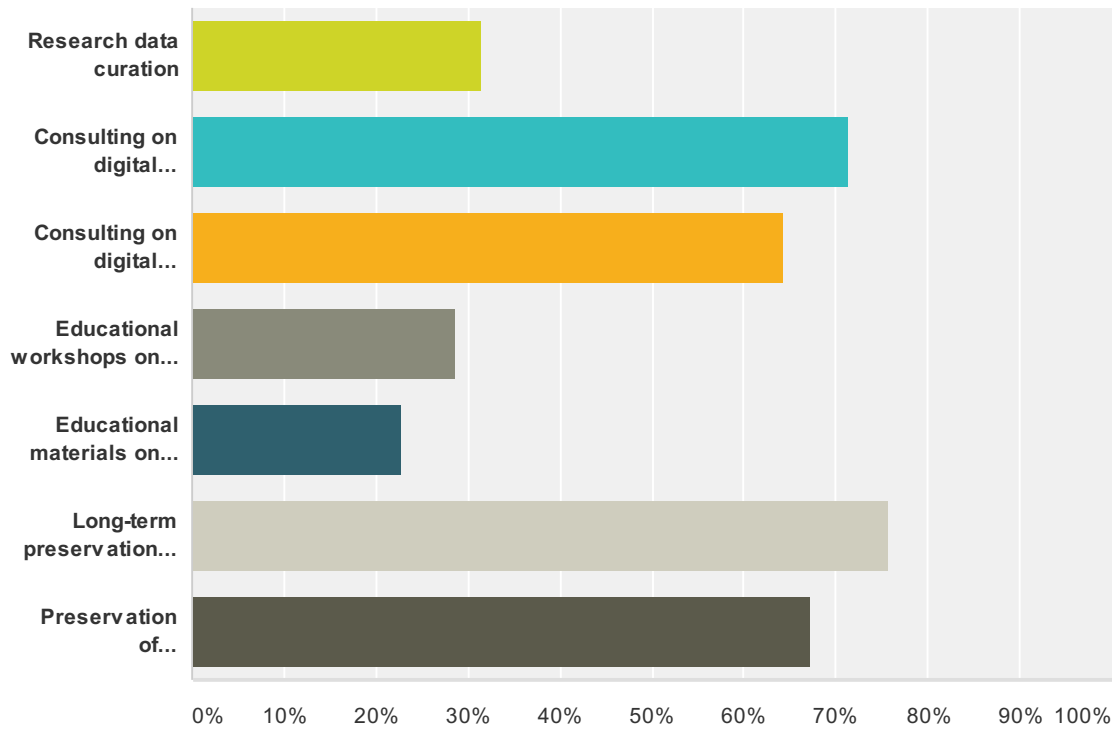
27	Special collections, digital resources, library technology management	5/13/2013 1:08 PM
28	Marketing and Communications	5/13/2013 12:53 PM
29	Access Services; Historical Collections and Archives; Cataloging and Systems;	5/13/2013 12:43 PM
30	Imprints, Digital Collections, Pictorial Collections, Manuscripts & Archives	5/13/2013 12:36 PM
31	Our archives is part of the Communications and Marketing Department.	5/13/2013 12:30 PM
32	Digital Scholarship Team Archives	5/13/2013 12:28 PM
33	Digital preservation section	5/9/2013 5:08 PM
34	University Archives	5/9/2013 2:04 PM
35	Our library is very small, so there aren't really departments.	5/9/2013 11:47 AM
36	Collections	5/7/2013 6:44 PM
37	Access and Collections Services Bibliographic Management Services Technology and Systems Services	5/7/2013 4:56 PM
38	Resource Management	5/7/2013 11:57 AM
39	Division de la gestion de documents et des archives	5/7/2013 11:29 AM
40	Essentially it could be all departments within the Library.	5/6/2013 4:08 PM
41	Too many to list. All "divisions" in the NPS have data that requires digital preservation and all are preserving data to some extent.	5/6/2013 11:28 AM
42	IT Archives	5/3/2013 6:24 PM
43	Metadata & Preservation Special Collections Scholarly Communications & Publishing IT Services	5/3/2013 1:56 PM
44	See question 17. The one person is the Electronic Records Archivist. The team is primarily from Library/Archives with some IT thrown in.....	5/3/2013 1:28 PM
45	National Library Division IT Services Digital Preservation Technology	5/3/2013 8:18 AM
46	Direction of Digitization	5/2/2013 6:00 PM
47	GID - BCE- UNB: Serviço de Gerenciamento da Informação Digital	5/2/2013 5:58 PM
48	Library and Archives	5/2/2013 5:12 PM
49	Digital Team Collection Services	5/2/2013 4:41 PM
50	various libraries, archives, and IT departments	5/2/2013 3:36 PM
51	Digital Learning & Scholarship	5/2/2013 3:14 PM
52	Special Collections, Digitization, Technical Services, Library Technology	5/2/2013 3:04 PM
53	Archives, acquisitions/cataloging, public services.	5/2/2013 2:33 PM
54	Digital Scholarship and Services	5/2/2013 12:37 PM
55	Department of Digital Initiatives	5/2/2013 10:13 AM
56	Digital Scholarship Services Digital Media Commons Woodson Research Center (university special collections and archives)	5/2/2013 10:07 AM
57	Digital Library Services Special Collections & University Archives Government Documents	5/1/2013 6:09 PM
58	Special Collections Library	5/1/2013 1:44 PM
59	Resource Access, IT, Digital Programs, Archives & Special Collecitons, Map, GIS, & State Data Center	5/1/2013 11:08 AM
60	Digital & Web Services, Wittliff Collections	5/1/2013 10:47 AM
61	The Archives, Media Services, IT	5/1/2013 9:55 AM
62	Special Collections Digital Library Services	5/1/2013 9:47 AM
63	Special Collections Library IT Library Media	5/1/2013 9:29 AM

Digital Preservation Survey

64	Technical Services	5/1/2013 8:41 AM
65	Archive Services Imaging Services	5/1/2013 8:36 AM
66	Library, Provost's Office, Marketing, ITS, Registrars Office, possibly others	5/1/2013 8:30 AM
67	See above. Everyone plays a role.	4/30/2013 7:55 PM
68	Technical Services	4/30/2013 6:09 PM
69	Institutional repository, Archives, Rare Books, Library Systems, Digitization	4/30/2013 5:12 PM
70	Digital Library Program Data Curation Program ITD	4/30/2013 4:56 PM
71	Preservation, Consultancy, Research	4/30/2013 4:53 PM
72	Archives & Records Management	4/30/2013 4:26 PM
73	Media Library, Control Room	4/30/2013 4:18 PM
74	I do not know because many departments are involved in digital preservation.	4/30/2013 3:41 PM
75	library	4/30/2013 2:54 PM
76	Archives	4/30/2013 2:45 PM
77	CDRS (Center for Digital Research and Scholarship), Information Technologies and Services	4/30/2013 2:42 PM
78	Genealogy & Local History	4/30/2013 2:37 PM
79	Preservation Unit, University Archives, Scholarly Communication, Research Programming	4/30/2013 2:31 PM
80	Special collections and Archives	4/30/2013 2:13 PM
81	Libraries, Information Services & Technology	4/30/2013 2:06 PM
82	Information Management, Technical Resources, R&D, Information Technologies	4/30/2013 2:03 PM
83	University Archives	4/30/2013 2:03 PM
84	Library, Oral History	4/30/2013 1:52 PM
85	Digital Information Management Program	4/30/2013 1:49 PM
86	Library (Systems, Special Collections and Archives)	4/30/2013 1:48 PM

Q20 What digital preservation services do you offer to your campus or to your user community? (Please check all that apply)

Answered: 70 Skipped: 79



Answer Choices	Responses
Research data curation	31.43% 22
Consulting on digital creation best practices	71.43% 50
Consulting on digital preservation best practices	64.29% 45
Educational workshops on digital preservation	28.57% 20
Educational materials on digital preservation such as websites, brochures, etc.	22.86% 16
Long-term preservation of digital materials created by faculty, staff, students, or others in your user community	75.71% 53
Preservation of institutional records	67.14% 47
Total Respondents: 70	

Q21 Please provide an estimate of the total cost of digital preservation efforts at your institution. (This should include staffing costs, equipment costs, and any other operational expenses.)

Answered: 64 Skipped: 85

#	Responses	Date
1	Impossible for me to estimate	9/6/2013 2:52 PM
2	\$50,000 a year	6/13/2013 3:32 PM
3	\$150,000 per year	5/31/2013 11:14 AM
4	unknown in short time period of this survey	5/24/2013 9:05 AM
5	I'm not the person in charge of the bills, but I would guess under \$200.00 annually	5/22/2013 5:33 PM
6	approx 75K	5/19/2013 1:11 PM
7	I work part of my day on the QCOSS Archiving. There is no extra funding available.	5/16/2013 8:57 PM
8	Unknown	5/16/2013 1:46 AM
9	\$5,000	5/15/2013 3:25 PM
10	1 FTE salary (approx £33,000)	5/15/2013 7:51 AM
11	???	5/14/2013 7:14 PM
12	Not sure. Although digital preservation is important to staff and faculty, it has not been formally added to budgets.	5/14/2013 5:17 PM
13	At present it would be only about \$10,000 / year though we are only beginning to be involved in digital preservation efforts. In the future, the costs would grow if efforts continue.	5/14/2013 4:29 PM
14	Unsure; approximately thousands of dollars.	5/14/2013 9:30 AM
15	I don't know	5/14/2013 9:01 AM
16	Sorry, this is impossible to estimate.	5/14/2013 6:30 AM
17	0	5/13/2013 9:38 PM
18	unknown	5/13/2013 3:00 PM
19	unknown	5/13/2013 2:16 PM
20	Per year?	5/13/2013 2:06 PM
21	I'm not in a position to provide this in much detail. I believe our preservation server cost \$10K and a second one at same cost for a dark archive. We have two electronic records archivists at a payroll of about \$100K plus benefits.	5/13/2013 1:59 PM
22	unknown; this question would only be able to be answered if an institution has a unified unit dedicated to digital preservation, and the unit head is answering that question.	5/13/2013 1:43 PM
23	\$1000/year	5/13/2013 1:34 PM
24	Probably \$300k+	5/13/2013 1:08 PM
25	Over \$200,000	5/13/2013 12:53 PM
26	No idea.	5/13/2013 12:44 PM
27	\$150,000	5/13/2013 12:38 PM
28	We don't have an estimate of this number available.	5/13/2013 12:32 PM

Digital Preservation Survey

29	5.000 dollars	5/9/2013 5:35 PM
30	Can't be parsed out from other budget items at this time.	5/9/2013 11:48 AM
31	\$5,000	5/7/2013 6:48 PM
32	\$73,000	5/7/2013 11:58 AM
33	unknown	5/6/2013 4:11 PM
34	I have no idea and there is no way to estimate for the entire NPS. This question is best asked at the park/program level.	5/6/2013 11:33 AM
35	I do not have access to the figures. IT gets second-hand servers for our use (private, non-profit). We don't have anything officially in place, just trying to put some stopgaps in place.	5/3/2013 6:29 PM
36	100k/year	5/3/2013 1:30 PM
37	?	5/3/2013 8:20 AM
38	I can't really measure that. There is no available info about preservation efforts spread on the University besides here at the library, and even the work made here is not purposefully oriented to digital data preservation.	5/2/2013 6:04 PM
39	1 million \$ CAD / Year	5/2/2013 6:03 PM
40	I do not know. We pay around \$4000 a year for DuraCloud and Archive-It.	5/2/2013 5:13 PM
41	We're not really at a stage where we can quantify this yet	5/2/2013 4:42 PM
42	Not sure	5/2/2013 3:15 PM
43	Unknown	5/2/2013 2:35 PM
44	~\$75,000	5/2/2013 12:38 PM
45	? My salary (I'm 5/6 time: 10 mo contract); 2 students; equipment; ongoing hosting and support of Digital Commons (Bepress is in Berkeley, CA)	5/2/2013 11:10 AM
46	Don't know	5/2/2013 10:22 AM
47	500 or less	5/1/2013 1:45 PM
48	~\$450,000/year, includes estimate of salaries	5/1/2013 11:08 AM
49	I'm not able to generate this information.	5/1/2013 9:56 AM
50	N/A	5/1/2013 8:37 AM
51	Unknown, at least \$100,000/year	5/1/2013 8:31 AM
52	I don't think I can estimate this at this time.	4/30/2013 7:59 PM
53	approx \$20K / year	4/30/2013 4:57 PM
54	\$50,000, primarily in the form of my salary	4/30/2013 4:28 PM
55	Unknown. The survey should be designed so that respondents only discuss the efforts in their own department if it is being administered to employees of large institutions.	4/30/2013 3:44 PM
56	Unsure at the moment	4/30/2013 2:46 PM
57	15k	4/30/2013 2:39 PM
58	Over \$500,000.	4/30/2013 2:33 PM
59	I can't easily do that right now.	4/30/2013 2:06 PM
60	700 K\$	4/30/2013 2:05 PM
61	Not really applicable	4/30/2013 2:05 PM
62	\$50-75000	4/30/2013 1:57 PM
63	Annually, about 200K. Very hard to guess - it depends on how far out you want to extend the definition of "preservation efforts"	4/30/2013 1:51 PM

Digital Preservation Survey

64

Very rough estimate -- \$50,000

4/30/2013 1:49 PM

Q22 Is there is any other information you would like to share about your digital preservation efforts? (This could include a link to a document or a website that details more information about digital preservation at your institution.)

Answered: 30 Skipped: 119

#	Responses	Date
1	We are currently developing documentation to make it public.	6/13/2013 3:32 PM
2	I will be saving our digital publications into the ePrints. Some time in the future I may have time to scan some of our older publications - until then there will be only the metadata available in the ePrints Archoive	5/16/2013 8:57 PM
3	http://rylibweb.man.ac.uk/intra/cm/preservation/	5/15/2013 7:51 AM
4	We're a relatively small university with no dedicated staff in this particular area. Our involvement with the COPPUL Digital Curation group has inspired us to focus more attention in this area.	5/14/2013 4:29 PM
5	http://www.byrdcenter.org/index.php/archive/byrds-eye-view-newsletters/	5/14/2013 9:30 AM
6	we are about to begin in Sept. 2013 and don't have all the answers yet.	5/14/2013 8:49 AM
7	Not at this stage thank you.	5/14/2013 6:30 AM
8	n/a	5/13/2013 3:00 PM
9	We have an internal wiki with depth and details and a public libguide with more general resources	5/13/2013 2:06 PM
10	http://spartanarchive.wordpress.com/	5/13/2013 1:59 PM
11	I think the UCLA Library should work on this area more diligently.	5/13/2013 1:43 PM
12	We are thinking about implementing Archivematica software, but haven't discussed it with our IT staff yet.	5/13/2013 12:32 PM
13	We are just getting started with plenty of old technology to migrate and maintenance of born digital materials. The collection is small and digital preservation is only one aspect of the job.	5/7/2013 6:48 PM
14	http://www.archiv.umontreal.ca/service/doc_numerique.html http://www.drh.umontreal.ca/formation/gestion_1244.html#archive	5/7/2013 11:33 AM
15	The NPS is a highly decentralized organization both geographically and budgetarily. There is no single central coordinating authority for digital preservation activities or policy. Individual parks and programs, and knowledgeable individuals take the initiative to preserve what they recognize as important.	5/6/2013 11:33 AM
16	No, we're hoping for a grant to come through so we can hire a staff person to start a preliminary assessment of our digital media so that we can draft a preservation policy.	5/3/2013 6:29 PM
17	We are planning a Certified Digital Repository (OAIS) in 2013-2014	5/2/2013 6:03 PM
18	Obviously I don't know a lot of details. I've been an advocate for these efforts but they are not my direct sponsorship, although we have an archival music collection that we would like to digitize for public sharing.	5/2/2013 2:35 PM
19	We are a private religious university that is a teaching institution rather than a research university, which means that scholarship takes up about 10 percent of your time rather than 50 percent. My little Digital Initiatives Department is 16 months old so we're just getting started. We're the first Nazarene school to have an IR (since 2009).	5/2/2013 11:10 AM
20	Digital Preservation Support documentation https://digitalriceprojects.pbworks.com/w/page/44763477/Digital%20Preservation%20Support	5/2/2013 10:09 AM

Digital Preservation Survey

21	I am currently enrolled in a Master's program and I am writing a digital preservation policy for my classwork	5/1/2013 1:45 PM
22	http://blog.ctdigitalarchive.org/	5/1/2013 11:08 AM
23	Please note that the institution as a whole is still focused on digital access. They have joined TDL and have a DSpace, again with access as the focus. I was hired in the Wittliff, a literary archive housed at the university, to develop a digital preservation plan—mostly for the digitized a/v collections. I have answered the questions only for my department, I am unsure about the rest of the library and the University Archives, except that it is known that preservation is an issue. *Please don't identify my institution in your report without checking with me! I have been forthcoming and would appreciate anonymity..thank you.	5/1/2013 10:51 AM
24	we developed a minimal processing style for our digital records to match the way we process physical records. We have too much coming in to do detailed description for everything. We convert everything possible to PDF/a - that way we have a standardized format to maintain, which is searchable & has authenticity.	5/1/2013 8:44 AM
25	N/A	5/1/2013 8:37 AM
26	We are very small. I have had a very hard time convincing others of the need for digital preservation :(and it has been impossible to get anyone besides myself and our serials assistant to buy into standards.	4/30/2013 6:11 PM
27	Our digital repository can be viewed at http://dspace.mssm.edu .	4/30/2013 4:28 PM
28	I am a lone arranger and wear many hats. Despite that, I feel I've made a good start in digital preservation. I'm the first archivist they've hired and have only been here a year.	4/30/2013 2:46 PM
29	My main goal for all collections is good arrangement, description, and processing, followed by safe storage. Same for digital and physical colls, just a different storage area.	4/30/2013 1:57 PM
30	This is our digital preservation education website, which we co-manage with the State Archives of North Carolina. http://digitalpreservation.ncdcr.gov/	4/30/2013 1:51 PM

Digital Preservation Tools List

Digital Preservation Tools List

ACE (Auditing Control Environment)

ACE (Auditing Control Environment) is a system that addresses the integrity of long term archives using cryptographic techniques. ACE continuously audits the contents of the various objects according to the policy set by the archive, and provides mechanisms for an independent third-party auditor to certify the integrity of any object. ACE consists of two components, the first an Audit Manager(AM) that checks files locally to ensure they have not been compromised. The second part, the Integrity Management Service (IMS), issues tokens that the AM can use to verify that its local store of file digests has not been tampered with.

<https://wiki.umiacs.umd.edu/adapt/index.php/Ace>

AONS II (Automatic Obsolescence Notification System, version 2)

The Automatic Obsolescence Notification System, version 2 (AONS II) is a system designed by the National Library of Australia and the Australian Partnership for Sustainable Repositories to automatically find and report indicators of obsolescence risks, to help repository managers decide if preservation action is needed.

<http://www.ijdc.net/index.php/ijdc/article/view/76>

Archivematica

Archivematica is a comprehensive digital preservation system. Archivematica uses a micro-services design pattern to provide an integrated suite of free and open-source tools that allows users to process digital objects from ingest to access in compliance with the ISO-OAIS functional model.

https://www.archivematica.org/wiki/Main_Page

Archive-It

Archive-It, a subscription service from the Internet Archive, allows institutions to build and preserve collections of born digital content. Through a web application, Archive-It partners can harvest, catalog, manage and browse their archived collections.

<http://www.archive-it.org/>

BagIt

Tools developed by the Library of Congress and their partners in the National Digital Information Infrastructure and Preservation Program (NDIIPP) for the purpose of validation and transfer of data from one system to another. BagIt is a hierarchical file packaging format designed to support disk-based storage and network transfer of digital content . Bags are ideal for digital content normally kept as a collection of files. They are also well-suited to the export, for archival purposes, of content normally kept in database structures that receiving parties are unlikely to support. Relying on cross-platform (Windows and Unix) filesystem naming conventions, a bag may include any number of directories and sub-directories (folders and sub-folders).

<http://en.wikipedia.org/wiki/BagIt>

BagIt Tutorial: <http://www.youtube.com/watch?v=14ZPtYltUYA>

BagIt Library (BIL)

BagIt Library is a Java software library that eases the creation, manipulation and validation of bags.

<http://sourceforge.net/projects/loc-xferutils/>

Bagger

The Bagger application was created for the U.S. Library of Congress as a tool to produce a package of data files according to the BagIt specification. For those less comfortable with command-line interface, the Bagger application provides a graphical user interface to the BagIt Library.

<http://sourceforge.net/projects/loc-xferutils/files/loc-bagger/2.1.2/>

BagIt Transfer Utilities

BagIt Transfer Utilities are a collection of tools developed for the purpose of validation and transfer of bags.

<http://sourceforge.net/projects/loc-xferutils/>

BitCurator

The BitCurator project is a joint effort led by the School of Information and Library Science at the University of North Carolina, Chapel Hill (SILS) and the Maryland Institute for Technology in the Humanities (MITH) to develop a system for collecting professionals that incorporates the functionality of many digital forensics tools. BitCurator is defining and testing support for a digital curation workflow that begins at the point of encountering holdings that reside on removable media—either new acquisitions or materials that are within a repositories existing holdings—and extends to the point of interaction with an end user. BitCurator will address both tools required at the point of initial data extraction and back-end tools for batch processing of disk images. The BitCurator project brings and techniques to collecting institutions preserving [born-digital](#) materials. BitCurator packages open source [digital forensics](#) tools in an environment where users can create forensically-packaged disk images, perform sophisticated triage tasks on born-digital materials, extract and transform metadata, and redact sensitive information. There are already a range Linux-based systems that bundle software tools to support digital forensics activities. However, they are not very approachable to library/archives professionals in terms of interface and documentation. There are two fundamental needs for collecting institutions that are not addressed by software designed for traditional forensic analysts: incorporation into the workflow of archives/library ingest and collection management environments, and provision of public access to the data. The BitCurator project is an effort to build, test, and analyze systems and software for incorporating digital forensics methods into the workflows of a variety of collecting institutions.

http://wiki.bitcurator.net/index.php?title=Main_Page

BWF MetaEdit

BWF MetaEdit permits embedding, validating, and exporting of metadata in Broadcast WAVE Format (BWF)

<http://sourceforge.net/projects/bwfmetaedit/>

Chronopolis

Originally funded by the Library of Congress, the Chronopolis digital preservation network has the capacity to preserve hundreds of terabytes of digital data—data of any type or size, with minimal requirements on the data provider. Chronopolis comprises several partner organizations that provide a wide range of services. The partners include: the San Diego Supercomputer Center (SDSC) at UC San Diego, the UC San Diego Libraries (UCSDL), the National Center for Atmospheric Research (NCAR), and the University of Maryland Institute for Advanced Computer Studies (UMIACS). The project leverages high-speed

networks, mass-scale storage capabilities, and the expertise of the partners in order to provide a geographically distributed, heterogeneous, and highly redundant archive system. Features of the project include: three geographically distributed copies of the data, curatorial audit reporting, and development of best practices for data packaging and sharing.

<http://chronopolis.sdsc.edu/>

Digital Information Archive System (DIAS)

The Digital Information Archive System (DIAS) is a commercially available system, developed by IBM, to handle the electronic deposit of electronic documents and multimedia files for the KoninklijkeBibliotheek (KB) (the National Library of the Netherlands). In the initial implementation of the DIAS system, IBM addressed the initial ingest, transformation, storage and metadata creation. In 2003 the KB started a joint project with IBM to develop a preservation subsystem of DIAS, called Preservation Manager which will be a dedicated application for the storage of technical metadata. The Preservation Manager will store all the information needed to render a certain file format.

<http://www.kb.nl/en/expertise/e-depot-and-digital-preservation/digital-preservation-research>

DAITSS (Dark Archive in the Sunshine State)

DAITSS is an open source digital preservation software application developed by the Florida Center for Library Automation (FCLA). DAITSS provides automated support for the functions of Submission, Ingest, Archival Storage, Access, Withdrawal, and Repository Management. It is architected as a set of RESTful Web Services and micro-services but enforces strict controls to ensure the integrity and authenticity of archived content. It implements active preservation strategies based on format-specific processing including, where necessary, normalization and forward migration. It is particularly well suited for materials in text, document, image, audio and video formats.

<http://daitss.fcla.edu/>

Digital Preservation Network (DPN)

The Digital Preservation Network (DPN) was formed to ensure that the complete scholarly record is preserved for future generations. DPN uses a federated approach to preservation. The higher education community has created many digital repositories to provide long-term preservation and access. By replicating multiple dark copies of these collections in diverse nodes, DPN protects against the risk of catastrophic loss due to technology, organizational or natural disasters. The technology, business plan, and preservation services that will be offered are all in development right now. Membership costs \$20,000 per year and goes to help support these development efforts. The business plan and expected rollout of services will be presented to DPN Members by the end of 2013. Initial use cases will begin this summer with the expectation of DPN becoming operational early in 2014 for Charter Members. Charter Members are all those institutions that have signed up before or during FY13 ending June 30th and commit to the support of DPN for three additional years.

<http://www.dpn.org/>

Digital Preservation Software Platform (DPSP)

The Digital Preservation Software Platform (DPSP) is free and open source software developed by the [National Archives of Australia](#). The DPSP is a collection of software applications which support the goal of digital preservation. The DPSP comprises Xena - Xena stands for XML Electronic Normalizing for Archives. Xena converts digital files to standards based, open formats. Digital Preservation Recorder (DPR) - DPR handles bulk preservation of digital files via an automated workflow. Checksum Checker - Checksum Checker is a piece of software that is used to monitor the contents of a digital archive for data loss or corruption. Manifest Maker - Manifest Maker produces a tab-separated list of digital files in a specified location. The manifest includes the checksum, path and filename of each digital file.

<http://dpsp.sourceforge.net/>

DROID (Digital Record Object Identification)

DROID (Digital Record Object Identification) is a software tool, developed by the National Archives of the UK, to perform automated batch identification of file formats. DROID is designed to meet the fundamental requirement of any digital repository to be able to identify the precise format of all stored digital objects, and to link that identification to

PRONOM, a central registry of technical information about format sand their dependencies.

<http://www.nationalarchives.gov.uk/information-management/projects-and-work/droid.htm>

Duke Data Accessioner

The Duke Data Accessioner was built out of the need for a simple GUI interface to allow technical services staff an easy way of migrating data off disks and onto a file server for basic preservation, further appraisal, arrangement, & description. It also provides a way to integrate common metadata tools at the time of migration rather than after the fact. With a simplified interface and being written in Java it is intended to be easily adopted by smaller institutions with little or no IT staff support.

<http://library.duke.edu/uarchives/about/tools/data-accessioner.html>

DuraCloud

DuraCloud is a hosted service and open technology developed by DuraSpace that makes it easy for organizations and end users to use cloud services. DuraCloud leverages existing cloud infrastructure to enable durability and access to digital content.

[http://www.duracloud.org/preservation and archiving](http://www.duracloud.org/preservation%20and%20archiving)

EMET (Embedded Metadata Extraction Tool)

EMET is a stand-alone tool developed by ArtStor to extract metadata embedded in JPEG and TIFF files. EMET is intended to facilitate the management and preservation of digital images and their incorporation into external databases and applications.

<http://www.artstor.org/global/g-html/download-emet-public.html>

Exiftool

Free, cross-platform tool to extract metadata from many different file formats.

<http://www.sno.phy.queensu.ca/~phil/exiftool/>

EZID

EZID (easy-eye-dee) makes it easy to create and manage unique, persistent identifiers. You can create identifiers for any kind of entity — physical, digital, abstract, etc. For identifiers of objects on the web, you can use EZID to maintain their current locations so that people who click on the identifiers are correctly forwarded. You can also store citation metadata with identifiers to aid in interpreting and maintaining them. Several citation formats are possible. EZID supports a number of persistent identifier technologies, including ARKs (Archival Resource Keys) and DOIs (Digital Object Identifiers).

<http://n2t.net/ezid>

Fedora

Fedora (or Flexible Extensible Digital Object Repository Architecture) is a digital asset management (DAM) architecture upon which institutional repositories, digital archives, and digital library systems might be built.

<http://www.fedora-commons.org/>

File Information Tool Set (FITS)

The File Information Tool Set (FITS) identifies, validates and extracts technical metadata for a wide range of file formats.

<https://code.google.com/p/fits/wiki/general>

Heritrix

Heritrix is the Internet Archive's open-source, extensible, web-scale, archival-quality web crawler project.

<https://webarchive.jira.com/wiki/display/Heritrix/Heritrix>

Hydra

Hydra was created in collaboration with Stanford University, The University of Hull, Fedora Commons, and the University of Virginia Library as a set of repository workflow tools to control management, indexing, discovery, retrieval, and preservation of digital materials at all phases of an object's lifecycle.

<http://www2.lib.virginia.edu/innovation/hydra/>

iRODS (integrated Rule Oriented Data Systems)

iRODS is a data grid, developed by the San Diego Supercomputer Center, that allows control over storage management policies and procedures through definition of business rules tailored to the characteristics of the files being managed. iRODS was developed to make data management easier for very large data sets.

https://www.irods.org/index.php/IRODS:Data_Grids,_Digital_Libraries,_Persistent_Archives,_and_Real-time_Data_Systems

JHOVE (Harvard Object Validation Environment)

JHOVE (pronounced "jove") is an extensible software framework for performing format identification, validation, and characterization of digital objects.

<http://en.wikipedia.org/wiki/JHOVE>

LOCKSS

LOCKSS is an open-source, library-led digital preservation system built on the principle that "lots of copies keep stuff safe." It collects content using a webcrawler, stores and compares multiple copies in multiple locations, and dynamically **migrates content** to new formats as needed for display.

<http://www.lockss.org/about/how-it-works/>

MD5 (Message-Digest algorithm 5)

MD5 is a cryptographic hash function that produces a 128-bit has value.

MD5 Checker

MD5 Checker ensures file integrity

Merritt Repository Service

Merritt is a repository service from the University of California Curation Center (UC3) that lets the UC community manage, archive, and share its valuable digital content. Merritt can be used to provide long-term preservation of digital assets, share research with others or meet the data sharing and preservation requirements of a grant-funded project.

<https://merritt.cdlib.org/>

MetaArchive

The MetaArchive Cooperative is an international digital preservation network based on the LOCKSS software. MetaArchive's services include data preparation, replication, geographical distribution, bit integrity checking, versioning, security, restricted viewing, and content restoration. When needed, the MetaArchive Cooperative will also perform format migrations for member content (to date, this service has not been required by the Cooperative's membership). The Cooperative's ingest procedure is compatible with any repository/content management system, including DSpace, CONTENTdm, ETDdb, and other systems.

<http://www.metaarchive.org/methodology>

Metadata Extraction Tool

The Metadata Extraction Tool was developed by the National Library of New Zealand to programmatically extract preservation metadata from a range of file formats like PDF documents, image files, sound files Microsoft office documents, and many others.

<http://meta-extractor.sourceforge.net/>

NARA File Analyzer

Gathers technical metadata.

<https://github.com/usnationalarchives/File-Analyzer>

OCLC Digital Archive

The OCLC Digital Archive stores master files and digital originals in a secure, managed and separate environment and includes tools to perform virus checks, fixity checks, and format verification.

<http://www.oclc.org/digital-archive.en.html>

PANDORA

PANDORA is the national [web archive](#) for the preservation of [Australia](#)'s online publications. The PANDORA Digital Archiving System, known as PANDAS, was developed by the National Library of Australia following an unsuccessful attempt to find an off-the-shelf system to provide an integrated, web-based, web archiving management system.

<http://pandora.nla.gov.au/pandas.html>

PAWN (Producer Archive Workflow Network)

PAWN is a flexible and scalable platform for creating and securely ingesting digital information into a remote archive which aids in assembling an object's content, metadata, context, and provenance. It is developed through a collaboration between the San Diego Supercomputer Center, the University of Maryland, and the National Archives and Records Administration.

<https://wiki.umiacs.umd.edu/adapt/index.php/PAWN:Main>

PREMIS in METS (PiM) Toolbox

The PREMIS in METS Toolbox is a set of open-source tools developed to support the implementation of PREMIS in the METS container format, validate PREMIS in METS document, convert between PREMIS & PREMIS in METS, and describe a file with PREMIS using the DAITSS system.

<http://pim.fcla.edu/>

Preservica

Preservica is a pay as you go cloud-based service that provides organizations with a secure, and affordable solution to safeguard their digital assets. Built on the Tessella Safety Deposit Box (SDB) platform and Amazon Web Services, it offers the ability to upload and access digital materials, as well as migration tools and migration pathways to create a manifestation of the file which is accessible to current technologies.

<http://www.digital-preservation.com/solution/preservica/preservica-frequently-asked-questions/>

RODA (Repository of Authentic Digital Objects)

RODA is a Fedora based digital repository, created in conjunction with the Portuguese National Archives, capable of ingesting, managing and providing continuous access to various types of digital objects produced by national public institutions. RODA automatically normalizes ingested data to preservation formats; implements a preservation event scheduling mechanism; includes various data viewers for all supported representations; offers advanced user management and control; and provides statistics. The repository is supported by open-source technologies (Fedora Commons, JBoss, Web services, etc.) and is based on existing standards such as OAIS, EAD, METS and PREMIS.

<http://roda-community.org/>

Rosetta

Rosetta is a digital preservation system developed by Ex Libris in partnership with the National Library of New Zealand. Ex Libris Rosetta is a digital-object preservation solution that conforms to the ISO-recognized Open Archival Information System (OAIS) and supports international industry standards such as the Metadata Coding and Transmission Standard (METS), Preservation Metadata: Implementation Strategies (PREMIS), Dublin Core, and the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH). The system is designed to support the acquisition, validation, ingest, storage, management, preservation, and dissemination of different types of digital objects and adheres to e-legal deposit requirements.

<http://www.exlibrisgroup.com/category/RosettaOverview>

Safety Deposit Box

Safety Deposit Box is a complete digital archiving system, developed by Tasella and used by several European national archives, including the UK National Archives, which employs both migration and emulation strategies to actively preserve digital content.

<http://www.digital-preservation.com/solution/safety-deposit-box/>

TubeKit

TubeKit is a toolkit for creating YouTube crawlers. It allows one to build a crawler that can crawl YouTube based on a set of seed queries and collect up to 16 different attributes. TubeKit assists in all the phases of this process starting database creation to finally giving access to the collected data with browsing and searching interfaces. In addition to creating crawlers, TubeKit also provides several tools to collect a variety of data from YouTube, including video details and user profiles.

<http://www.tubekit.org/index.php>

Web Archiving Service (WAS)

The Web Archiving Service, from the California Digital Library, enables librarians, archivists and researchers to capture, curate and preserve websites and web-published materials.

<http://www.cdlib.org/services/uc3/was.html>