



Nevada Statewide Digital Planning Survey Summary Report

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Executive Summary

The Nevada State Library and Archives, in collaboration with BCR's Digital & Preservation Services, conducted a Statewide Digitization Planning Survey in October-November 2008. The project was developed to determine the current activities and plans and future needs of Nevada's cultural heritage institutions in the creation, delivery and preservation of digitized resources.

The sample for this study was 110 libraries, archives, museums, historical societies and other cultural heritage institutions. A total of 61 completed surveys were received for a response rate of 55%, which is considered an excellent level of return by market research experts. The largest number of respondents came from public libraries, museums and academic libraries. Of the 24 identified archives in the state, many are housed with libraries or museums. Twenty of those institutions responded to the survey. The primary role of the majority of the respondents (35, or 58%) was administrator or librarian (10, or 60%).

Key findings of the survey:

- At the time of the survey, the great majority of institutions reported that they had neither written policy documents nor procedures addressing digital holdings in the areas of: mission and goals; digital collection development; emergency preparedness; exhibitions and presentation; strategic planning for digital projects; public services issues for digital items; or rights and licensing. The areas where most policies and procedures had been, or were being developed, were digital collection development, rights and licensing and emergency preparedness.
- A majority of institutions (40, or 61%) reported not having an IT Department. Information technology needs were met through each department handling their own needs, outsourcing to an internal institution other than the library/archive/museum or a combination of these activities. Institutions supported a number of applications for digital collections management, including digital imaging (e.g., scanning direct digital capture and digital photography), collection management and design. However, digital asset management systems, digital or institutional repositories and publicly searchable collections databases were not supported at the majority of institutions surveyed.
- As defined in the survey, the term "digital collection initiative" refers to a broad range of programs and projects undertaken in cultural heritage institutions to build a collection of materials with a unifying characteristic. For this survey, the unifying element is the fact that the collections are digital in format. When asked if they had a digital initiatives program, 33, or 64%, of respondents said no, and 19, or 36%, said yes. Part of this low response rate may be because institutions feel they have developed digital projects, but have not yet mounted a continuing program of digital activity.
- Fifteen potential training course topics in digitization were listed in the survey. The highest-interest topics were copyright/rights management, funding of digitization projects, digital preservation, understanding digital standards and procedures and understanding technology and options for digital images, although relatively high interest was expressed about all of the topics.

- To gain an idea of the scope of resources to be made available to Nevada residents, the survey gathered information about the subject areas and formats held by Nevada's cultural heritage institutions. The greatest numbers of respondents had collections in the areas of Nevada history and local history, including photographs, maps, manuscripts, audio or video materials, books and textual materials. For example, 80% of respondents held photographic material on Nevada history, and 76% held books related to the topic. Photos, maps and books on mining history and books on Western History were also widely held. Gaming, politics, geology, and ghost towns also had high concentrations of book holdings, and there were numerous photographic collections on ghost towns.
- Most respondents do not currently collaborate with other cultural heritage institutions in their digital initiatives, although 13 institutions do. Most collaborative relationships listed were with other state institutions or were multitype collaborations. Only three institutions reported having formal agreements or contracts to establish collaborative relationships. This finding points toward collaboration as a way to cooperatively grow individual and statewide digital offerings.
- Seventy-seven percent of the respondents do not have a digital preservation plan, even though these institutions expect to retain their collections long-term (more than 10 years). The leading digital preservation strategy implemented in Nevada institutions is data backup, at over 96% of the respondents. Throughout the digital preservation field, it has been established that "backup is not enough," and a variety of approaches, policy, documentation and human resource power is needed for digital preservation. Additionally, backup files are mostly stored in-house, in systems managed by the institution. Following widespread regional damage caused by Hurricane Katrina, many institutions across the U.S. are considering storing backup copies at a distance.

Introduction

The Nevada State Library and Archives conducted a Statewide Digitization Planning survey in October-November 2008. The project was focused on establishing an initial measurement of digital activity in Nevada's libraries, archives, museums and historical societies.

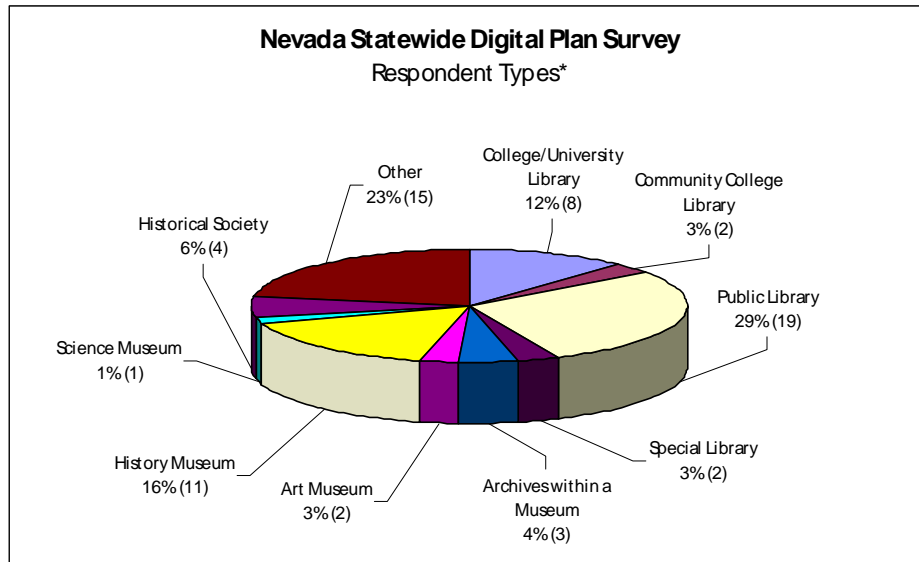
BCR's Digital & Preservation Services, in collaboration with the Nevada State Library and Archives and the Nevada Statewide Digitization Project Leadership Committee, developed the online survey to determine the needs, activities and plans for digitization among Nevada's cultural heritage institutions. Among the key areas of focus of the survey:

- Information Technology Policies and Procedures
- Digital Collection Management and Administration
- Selection and Acquisition of Digital Collections
- Training
- Digital Collections in Nevada
- Digital Collections Rights Policies and Practices
- Access to Digital Collections
- Partnerships and Collaborations
- Digital Preservation
- Digital Collection Usage and Evaluation

The sample for this study was 110 libraries, archives, museums, historical societies and other cultural heritage institutions identified by the project management staff at the Nevada State Library and

Archives. Respondents were invited via email to answer the web-based survey by November 21, 2008. The original invitation and several reminders gathered 61 completed surveys for a response rate of 55%.

The largest number of respondents was from public libraries (19, or 28% of respondents), and museums (art, historical, science and children's) and academic libraries were also well represented. There are 24 identified archives in the state, many of which are housed with libraries or museums. Twenty of those institutions responded to the survey. The primary role of the majority of the respondents (36, or 55%) was administrator or librarian (9, or 13%).



The range of Full-Time Equivalent (FTE) staff employed at the responding institutions ranged from zero to one FTE at more than 10 institutions to the highest level of more than 520 employees. The vast majority of institutions reported between 1-14 FTE. Annual operating budgets for the institutions ranged from \$25,000 to nearly \$58 million, with the majority reporting budgets ranging between \$1-2 million.

Thirty-two institutions reported that they create digital content. Responding institutions began creating digital resources as early as 1989, with many starting between 1994-96 or 1999-2001. Respondents were also asked when they began collecting digital resources; although the earliest date reported was 1988, most institutions reported that their digital collecting began between 1999 and 2001.

At the time of the survey, the great majority of institutions reported they had neither written policy documents nor procedures addressing digital holdings in the areas of:

- Mission and goals
- Collection development
- Emergency preparedness
- Exhibitions
- Presentation
- Strategic planning
- Public services
- Rights and licensing

The areas where most policies and procedures had been, or were being developed, were digital collection development, rights and licensing and digital emergency preparedness.

Information Technology Infrastructure

A majority of institutions (40, or 61%) reported **not** having an IT Department. Information technology needs were met through each department handling their own needs, outsourcing to an internal institution other than the library/archive/museum, or a combination of these activities. Regardless of how technology services were acquired, a vast majority of the institutions surveyed had IT services in the areas of:

- Workstation support
- Network support
- File management and storage
- Backup and disaster recovery
- Centralized hardware and software acquisition and maintenance
- Security and protocols (authentication, authorization, etc.)

Institutions supported numerous applications for digital collections management, including digital imaging (e.g., scanning direct digital capture and digital photography), collection management and design. However, digital asset management systems, digital or institutional repositories and publicly searchable collections databases were not supported at the majority of institutions surveyed.

While as many as 117 FTE staff in one institution were identified as responsible for IT activities, 19 institutions (31%) reported no FTEs responsible and 17 (27%) reported less than one or only one FTE responsible.

IT departments in responding institutions supported up to 3,000 workstations, but many institutions reported supporting none or one. At 31 (49%) of the institutions, 100% of the workstations were networked and another 17 institutions (28%) said 76-99% were networked.

By far, most institutions had broadband Internet access via cable or DSL (37, or 58%) or had T1 lines (22, or 34%).

An incredibly wide array of hardware and software is being used to create digital content in Nevada's cultural heritage institutions. Past Perfect software, Adobe Photoshop or Creative Suite, and HP and Canon equipment were the most often used items.

Digital Collections: Administration and Management

As defined in the survey, the term "digital collection initiative" refers to a broad range of programs and projects undertaken in cultural heritage institutions to build a collection of materials with some unifying characteristic. For this survey, the unifying element is the fact that the collections are digital in format.

When asked if they had a digital initiatives program, 33, or 64%, of respondents said no and 19, or 36%, said yes. Part of this low response rate may be because institutions feel they have developed digital projects, but not yet mounted a continuing program of digital activity. Where digital initiatives existed, the staff members most often responsible were registrars, directors, or digital project librarians. The majority of institutions had no staff in digital collections departments or other departments and no volunteers working on digital collections initiatives. Those that did have FTE staff or volunteers (only 14% of respondents reported having volunteers, a much lower percentage than found in previous statewide studies) doing these activities generally reported one-to-five staff or volunteers on this task.

Operating budgets for the digital collection initiative, including staffing, technology and other costs, ranged from no budget, to no separate budget line item assigned. A few respondents did note dedicated budgets of \$60,000 to \$100,000 and one reached a level of \$300,000. The most important sources of

funding were the organization's operating budget (18 respondents) and grants (eight respondents). Sales of products associated with digital collections, fees from activities and fundraising were all ranked low in importance.

The most important criteria in selecting materials for digitization included:

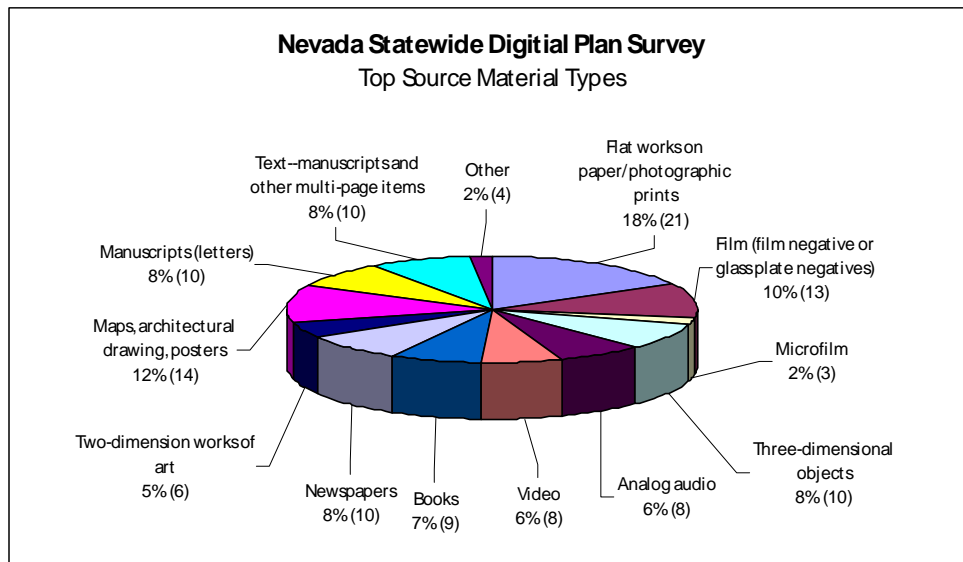
- Materials are of high value and digitizing will increase access (18 respondents)
- Strong local interest in the collection (16)
- Fragile or deteriorating materials (14)
- Heavily used materials (12)

Eighteen institutions reported creating digital resources from physical source materials. A variety of standards/best practices are being used for digitization – the most-often mentioned standards were the Western States/BCR-CDP Digital Standards, Version 2.0.

In-house creation of digital collections was used at 20 institutions and 9 used outsourced vendor services, but no specific vendor was mentioned by more than one institution.

Top source material types included:

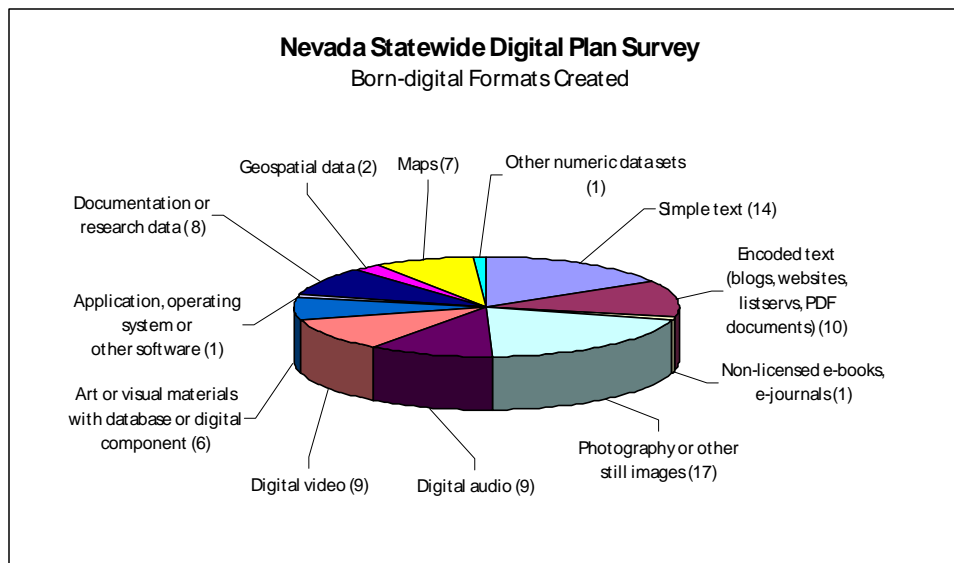
- Flat works on paper/photographic prints (21 respondents)
- Maps, architectural drawings and posters (14)
- Film materials (negatives or glass plate negatives) (13)



Twenty institutions reported creating or acquiring born-digital resources; the formats most often created were:

- Photography or other still images
- Simple text
- Encoded text (including blogs, websites, listservs and PDF documents)
- Digital audio

These same formats, plus digital video, were among the most often acquired.



The leading reasons for creating or acquiring digital resources included increasing access to the collection, study and use by local and remote users and to preserve the original by reducing handling.

Top metadata standards adopted for digital work included Dublin Core, XML, MARC and VRA Core. The leading digital imaging file formats used were TIFF, JPEG and PDF.

Most institutions did not know the types of “persistent identifiers” or permanent links their digital content had; URLs were the most-cited identifiers.

Training

Fifteen potential training course topics in digitization were listed in the survey. The highest-interest topics were copyright/rights management, funding of digitization projects, digital preservation, understanding digital standards and procedures and understanding technology and options for digital images, although relatively high interest was expressed about all of the topics.

Online training and reference information were the additional types of assistance most often requested. Very few of the respondents had previously taken continuing education courses on digitization; the most-often cited provider was the American Association for State and Local History (AASLH) with its digitization workshop series.

Nevada Statewide Digital Plan Survey Training Topics
Understanding digital standards and procedures
Understanding technology and options for digital images
Developing digitization project plans (introduction, management)
Determining cost of digitization projects
Funding of digitization projects
Digital project infrastructure
Introduction to digital imaging
Digitization of video
Digitization of audio
Preserving digital materials
Copyright/rights management
Software-specific digitization workshops (CONTENTdm, Greenstone)
Metadata for digital projects
Text digitization and encoding
Introduction to Encoded Archival Description

Nevada Collections

To gain an idea of the scope of resources to be made available to Nevada residents, the survey gathered information about the subject areas and formats held by Nevada's cultural heritage institutions.

The greatest numbers of respondents had collections in the areas of Nevada history and local history, including photographs, maps, manuscripts, audio or video materials, books and textual materials. For example, 80% of respondents held photographic material on Nevada history and 76% held books related to the topic. Photos, maps and books on mining history and books on Western history were also widely held.

Gaming, Politics, Geology and Ghost Towns also had high concentrations of book holdings, and there were numerous photographic collections on ghost towns as well. However, photographic holdings in some other topics, such as climate (28%) and technology (44%) were much lower and illustrated the possible need to expand or combine topics in order to bring together a sizeable enough corpus of materials or body of institutions to adequately cover the topic. Survey respondents felt image materials (69%) and text materials (54%) would be most valuable to Nevada residents, based on their experience working with the public and knowing the types of resources requested.

Answer Options	Photos	Maps	Manuscripts	Audio	Video	Books	Text	Other
Nevada History	37	32	25	19	24	35	26	13
Energy Resources	8	11	9	5	5	18	6	1
Water Resources	15	17	9	4	5	21	11	3
Western History	25	19	16	12	11	28	14	7
Tourism	18	11	9	8	9	17	7	6
Mining	27	23	16	7	9	22	15	8
Land Use	15	15	13	6	7	18	11	3
Entertainment Industry	13	3	6	6	9	16	8	5
Ranching	20	9	14	11	11	22	14	8
Art and Architecture	18	5	8	7	12	21	8	9
Music	7	1	9	13	11	15	6	5
Literature	5	1	7	6	9	18	7	0
Climate	5	5	5	2	6	15	6	3
Business	14	7	8	8	7	18	10	6
Local History	32	26	25	19	22	30	26	11
Religion	9	4	7	7	7	14	5	4
Gaming	11	5	11	8	10	19	10	7
Ethnicity	14	5	11	13	13	19	7	6
Politics	14	7	10	13	11	21	9	10
Transportation	17	13	10	11	13	19	11	9
Technology	8	3	7	3	5	14	4	4
Anthropology	15	7	9	6	10	17	6	7
Ghost Towns	18	15	10	5	11	19	9	4
Geology	14	13	8	4	9	20	9	6
Nuclear Testing	12	9	7	6	8	18	9	6
Marriage and Divorce	7	2	7	4	6	17	7	3
Brothels	8	4	6	3	4	17	7	3
Extraterrestrials	3	2	3	3	5	13	3	1

Digital Collections: Rights

Institutions strongly consider copyright and intellectual property concerns in their management of digital materials. Copyright and licensing issues are not deterring the institutions from creating and preserving digital collections. Institutions felt very to somewhat confident in making copyright, licensing and digital copyright decisions about their digital collections.

A majority of responding institutions (13) attempt to acquire digital preservation rights to born-digital materials they collect or materials they plan to digitize; however, 11 institutions did not know if they should attempt to acquire these rights. Another concern in the rights management area is that a vast majority of respondents have not updated their deed of gift agreement to include digital content.

Digital Collections: Access

Staffs, on-site faculty/researchers/visitors, students and the general public are the groups which may access digital collections at a majority of the respondents' institutions. These audience groups gain access most often through a website associated with the institution or through a content management system. While a few institutions reported that 75-100% of their digital resources are available online, the great majority noted that none of their collections, or 5-10%, were available.

Descriptive metadata (e.g., title and subject information) is created by 24 responding institutions to help provide information for discovery, access, management and preservation of their digital resources. Administrative metadata (including access privileges, rights and ownership information) is created by 14 respondents and technical metadata (information describing the production process or digital attributes of the work) is available from 11 institutions. Five institutions do not create any type of metadata. Tools used in preparing metadata include Library of Congress Subject Headings, the Art and Architecture Thesaurus, Cataloging Cultural Objects (CCO) and AACR2.

The survey asked which digital asset management systems the responding institutions used. The systems could be used to manage the full life cycle of digital objects, including data creation, metadata and image repository activities, registry of preservation metadata and as a means of providing access to users. Past Perfect Software, in use at 12 institutions and OCLC's CONTENTdm, used at nine, were far and away the most-utilized systems. Most respondents did not know if their systems were Open Archives Initiative (OAI)-harvestable.

Digital Collections: Partnership

Most respondents do not collaborate with other cultural heritage institutions in their digital initiatives, although 12 institutions do. Most collaborative relationships listed were with other state institutions or were multi-type collaborations. Only three institutions reported having formal agreements or contracts to establish collaborative relationships; four others said they did this type of formality "sometimes."

The most important goals of these collaborative digitization projects were:

- To increase visibility and expand the audience for institutions' collections and organizations
- To participate in a grant that supports collaborative initiatives
- To identify and share standards and best practices for the digitization of different types of media, improving access to collections

Digital Collections: Preservation

Institutional staffs with responsibility for preservation were involved in the digital preservation programs in 58% of the responding institutions. These staff members were part of the responding institution. A slight majority of IT staff were involved in the institution's digital preservation program, as well. Other institutions noted that a combination of several staff were involved.

Seventy-seven percent of the respondents do not have a digital preservation plan, even though these institutions expect to retain their collections long-term (more than 10 years).

Funding, or planned funding for digital preservation, is expected to come from the institutions' operating budgets, through grants or through the IT budget.

The leading digital preservation strategy implemented in Nevada institutions is data backup, at over 96% of the respondents. Throughout the digital preservation field it has been established that "backup is not enough," and a variety of approaches, policy, documentation and human resource power is needed for digital preservation. It should be noted that almost 35% of the respondents to this question are employing some type of migration for digital preservation.

A variety of media is used for storage, with most institutions using tape, optical media (CD or DVD) and online magnetic media such as networked hard drives. Backup files are mostly stored in-house, in systems managed by the institution. Following widespread regional damage caused by Hurricane Katrina, many institutions nationwide are considering storing backup copies at a distance (for example, according to one institution's plan, "three states away.") Backups are performed daily at a majority of institutions reporting.

Digital Collection Usage and Evaluation

A great majority of institutions have not done visitor or user evaluation for their digital program. Those that do are counting website hits, number of pages retrieved, new users to the site and average length of time spent, or "stickiness." Some institutions were reporting more than 10 million page views annually, although most do not keep this type of data yet.

Conclusions

The Nevada Statewide Digital Planning Survey project served two purposes: to develop an initial measurement of digital activities in Nevada's cultural institutions and, as a result of institutional participation in the survey, to raise awareness of the needs for standards and best practices in digital projects.

The survey response rate of 55% is excellent, as many market research practitioners are pleased with response rates of even 20%. The mix of respondent types, between public and academic libraries, archives and a variety of museum types, also provided for rich results. This vast array of institutions was reflected in the wide-ranging types of equipment, standards and metadata schemas used in digital projects in the state.

The range of institutional staff size — from one FTE to over 500 and annual operating budgets from \$25,000 to \$58 million, showed the range in sizes of institutions within the state. These same trends were evident in the presence, size, budget and scope of activities of IT departments within the cultural heritage institutions. The number of institutions with no IT staff was quite surprising to the consultants and presents a concern about the infrastructure at those institutions for mounting and managing digital collections.

Institutions generally lacked policies and procedures in many areas of digital practice which followed national trends. Development of these important documents should be a strong focus at the local level, which

can be supported through future programming within the state. Bringing this type of stability to institutional digitization initiatives can help them move from having a variety of disparate digitization projects to a coordinated digital program.

A lack of dedicated staff or departments for digital activities and a lack of separate budget line items for digitization also illustrated the need for further digital program development. In the area of budgeting, the most important source of funding for digital activity was the organization's operating budget, by a 2-to-1 margin, over the use of grants. This may show that organizations are serious about establishing digitization as a core activity. It may also indicate that at other organizations they are allocating funds from their general operating accounts to fund digitization activities, rather than establishing separate budget lines for digitization program.

In-house creation of digital collections was favored by more than 2-to-1 over outsourcing. The most implemented standards for digital creation, by whatever method was done, were the Western States/BCR-CDP Digital Standards.

A variety of source materials, ranging from flat works on paper and photographic prints, to maps, to film materials, have been digitized. Born-digital materials, including photographs, text and audio have been acquired by numerous institutions.

The leading reason for selecting, creating, or acquiring digital resources in Nevada was to increase access to the collection; preservation of the original by reducing handling was also rated high.

Key training topics in digitization for Nevada cultural heritage institutions include copyright, digital preservation, digital standards and digitization technology, although all 15 potential continuing education courses listed in the survey attracted a good level of interest. This interest may be due in part to a lack of previous workshop offerings in digital practice within the state.



Potential collection topics ripe for digitization included Nevada history, local history, Western history, mining, ranching, gaming, politics, geology and ghost towns. In these subject areas, collaboration can bring together enough institutions and collections to develop a broad statewide representation of materials; for other topics, topics may have to be combined or expanded to bring a large enough corpus of material together.

The institutions that have been digitizing were keenly aware of copyright and intellectual property issues. One area where almost all of the respondents needed to improve was in updating their deed of gift agreements to include provisions for digital content.

Staff, on-site users and the general public gain access to Nevada's digital collections through websites or content management systems. One of the most important goals of future digital activity should be to increase the percentage of institutions' digital content that is available online, as many institutions said only 5-10% of their collections were available and some said none was accessible.

Institutions are creating descriptive, administrative and technical metadata; few were creating structural metadata which can provide information about the relationships between parts of the digital object.

As with the types of equipment used to create digital collections, the type of digital asset management systems used to control the collection materials ranged widely, with PastPerfect and CONTENTdm leading the way.

The time is now for digital partnerships and collaboration, as very few respondents were currently involved in formal or informal cooperative projects. Expanding collection visibility, participating in grants and utilizing standards and best practices were seen as key benefits of working with collaboratives.

A vast majority of responding institutions do not have a digital preservation plan. However, institutions have traditional preservation and IT staff involved in digital preservation at some locations, which is important because of the policy development and technical expertise these staff contribute.

Digital resource backup to tape, optical media and online magnetic media (CD, DVD, etc.) is used as a digital preservation practice by many institutions in Nevada, although this activity alone cannot be considered digital preservation and must be supplemented by additional policies, practices and systems. Exploring migration and other emerging practices for digital preservation will be important at an institutional and statewide level.

Finally, in a trend noted in other studies nationwide, very few institutions were doing visitor or user evaluation of their digital program. This activity is an important area for keeping digital collections useful and relevant and must be considered as an important future goal for Nevada cultural institutions.