Keep off the Moors: The Road to Data Archival Storage

» The William S. Richardson School of Law Library at the University of Hawaii embarks on a journey to develop their archival collections.

BY ELLEN-RAE CACHOLA AND BRIAN HUFFMAN

The William S. Richardson School of Law Library has embarked on a journey to develop their archival collections. This article outlines the steps to assess the archival and recordkeeping context of an institution in order to plan the installation and development of repositories and technology to support the access and curation to digital collections and electronic records.

1. Take inventory of records.
2. Create retention schedules and policies for each department.
3. Select the best document management system that can connect legacy to proprietary system, such as the ability to save different files, destroy records or send copies.
4. Begin scanning even before the software is purchased so that when it is set up, the files can be migrated and searched.

Although this process refers to a medical environment, it outlines steps applicable for any library’s needs. An inventory of records helps to understand the quantity and content of the records that will be migrated during this transition. Retention schedules and policies for each department can clarify how long the record should be kept, and how it circulates within the organization’s workflow. These first two steps help deter-
mine the activities that drive the record creating and recordkeeping processes, valuable information in determining the organization's priorities when planning a software purchase.

It is important to note that there are different subtypes in Information Management:
• Digital Asset Management - refers to cataloging digital items such as photos or videos.
• Content Management - refers to the creation and publication of web content
• Knowledge Management - capturing of an enterprise's records and human resource experience to support its development and innovation
• Records Management - pertains to the systematic administration of active business records within their life cycle.
• Document Management - refers to the storing and management of documents that are being actively modified and used by multiple users.²

Our project falls into Digital Asset Management and Document Management needs. Cintas Document Management Best Practices are similar to our strategy: 1) Taking Stock: Identifying our Assets, 2) Assessing Existing Infrastructure, 3) Envisioning Our Goals, and 4) Testing Software. We have scanned some archival records for our digital archives, and have born-digital business records, but this process is not covered in the scope of this essay. Let us explore the details of our four steps:

**TAKING STOCK: IDENTIFYING OUR ASSETS**

In “The Business Case for DAM,” Theresa Regli writes that the first step in planning the implementation of a Digital Asset Management system is to understand what do we have and how do we want to use them? Some guiding questions are: “What digital media do we own? Where are they located and how can we find them? Do we know what format they are in? Do we have the right to use or share them? If we do have the right, how can we deliver them? Will the DAM help us publish in multiple forms in different channels (such as web or print)?”³ These questions help to reflect on the scope of our electronic recordkeeping needs.

When we know what we have and how they are being used within the organization, we can then begin to write down procedures of their use and function within policies and records retention schedules. In our case, we identified two general categories of records:

A. Business Records: We keep procedure manuals for various departments, departmental operational files, and staff files on a shared server called “Manu.” It is currently accessible by all faculty and staff for various departmental and administrative functions.
   a. The Public Services staff create and keep documents that refer to procedures, shelf management, statistics, archives, course reserves, room reserves, and other functions that relate to the library's relationship to the students and patrons.
   b. The Tech Services Department keeps documents regarding cataloging and acquisition policies.
   c. Librarians keep documents regarding reference services, events, research databases.
   d. The Library Director keeps documents regarding administration, hiring and personnel documents.
   e. Electronic Services and Acquisition keeps documents regarding statistics and vendor/contract information

B. Research Collections. The second category of records in our collection include research collections. We have a library website that hosts policy information about our library, provides access to catalogs, research databases and law journal subscriptions, Research Guides (aka LibGuides), and our future digital archive. It serves as a public relations tool to inform prospective and current students, alumni, faculty, as well as the...
broader public, about our legal research resources. According to Regli, creating a policy and workflow for the presentation of our research collections can help brand our library according to a research specialty. The electronic services librarian maintains access to legal databases and updates content. The librarians and archives manager create Research Guides to assist patrons in navigating and finding resources in our library. One development we are working on is developing a Digital Asset Management system to curate our digitized archival collections featuring historical papers and items significant to the legal history of Hawaii and the broader Pacific. Our collections include Law School History, Faculty Publications, Samuel P. King Collection, as well as smaller collections such as the H-3 Litigation Archive and Pacific Islands Committee Collection.

ASSESSING EXISTING INFRASTRUCTURE

One of the pitfalls that libraries may fall into during this rapidly changing technological era is reactive purchasing of technologies and software without understanding the broader strategic plan of the library. It is important to know your library’s existing technological and software infrastructures, such as pre-existing information management systems and technologies, to help identify what new technologies are necessary, or if you can work with current ones.

Eastwood mentioned creating a map of information creation and usage, and basing it on the organizational structure of the library to help understand the recordkeeping activity in context. This is a diagram of the different departments in our library and the relationships between them. (See Figure 1)

The map includes examples of policies and procedures for different domains.

Existing servers: We have shared server called “Manu,” based on a Microsoft XP system. The IT department installs on each departmental computer a short cut folder on the desktop for respective staff to access files directly in Manu. Currently, the folders are labeled and have names that relate to various departments, functions and personnel.

This causes the folder naming conventions on Manu to be unwieldy hierarchically and taxonomically. The folders should be organized according to the organizational structure of the library, such as according to the major departments and sub-departments, to address the redundant folders issue, folder naming conventions, and prevent accidental erasure of documents. In addition, there is no search function to find specific documents quickly. Lastly, we would like a server space that is VPN accessible for staff members who would like to work from home.

Institutional Repositories. Our library has access to institutional repositories located at other libraries on campus, and a local one located at the law library.

• eVols: The University offers repository space for institutional records. It is based on the DSpace platform, ready for use, and guarantees long-term digital preservation by the University. Currently we archive the School of Law’s catalogs. We send our digitized files and relevant metadata to the Desktop Network Services department at Hamilton Library. Given that it is managed outside of the Law School Library, use of that repository is governed according to a specific policy that is not under our control.

• Scholar Space: Like eVols this is another DSpace platform. Currently we archive Faculty Publications in this repository.

• Library Server: Our IT Team has set up a Microsoft Server that could be a local repository space with guaranteed long-term preservation. We can use it to house digital archival collections that are not within the scope of the eVols and ScholarSpace policies. Keeping this server means that we have to take more responsibility for the maintenance of the server and organization of the files. This requires the librarians and archive manager of this digital repository to collaborate and learn more with our IT team who have the expertise.

LibGuides is another proprietary platform purchased by our library to post Research and Subject Guides. It has been used for now to post our online finding aids and inventories. We would like to curate our digital collections in a more dynamic way. The development of a digital archive site will require us to develop a second, locally controlled site that will be managed by the archives manager and electronic services librarian directly.

ENVISIONING OUR GOALS

We identified two needs: 1) Document Management System to help us find business records for rapid knowledge exchange and human resource development among staff members. 2) Digital Asset Management system to curate digitized archival records that enable patrons to search, have direct access to digitized items, and promote the research specialization of our library.

• We want a Document Management System that allows us to organize our documents according to departments, and allows items to be found and accessed through keyword, record type, or departmental search. It would maintain security and appropriate access of confidential records, sensitive information based on rights and privileges determined in our organizational chart. It would follow the destruction of records according to a Records Management schedule. We want to have some of our business records, such as works in progress, to be made accessible via VPN, if we choose to work from home.

• We want a Digital Asset Management system that will curate our Pacific and Hawaii Law digital archival collections to feature unique materials consistent with the branding of our library specialty.
example, alongside the links to the legal research databases and research guides, we could present gallery of images featuring items from the digital archive.

Testing Software: During this stage, we consulted with the IT administrative department and library director to ensure the software can fit within the specifications of our IT system settings, and if the price would be within the library budget should we purchase a proprietary license.

We worked with our IT administrator to set up server sandbox where we can install and test Open Source software. Through this process, we get an understanding of the usability of software, and to help us build our knowledge and experience on the process of moving forward.

To begin shopping around for Digital Asset Management systems, we consulted e-resources to help to compare various software and their features.

- Open Education Database: http://oedb.org/librarian/5-free-and-open-source-tools-for-creating-digital-exhibitions/

For Document Management Systems, we perused:
- G2 Crowd https://www.g2crowd.com/

Through researching peer networks, we have identified other platforms such as Black Light, Omeka, and iBase.

After testing the capabilities of some of the candidates, we identified desired software functions.

- Digital Asset Management Systems
  We experimented with Omeka in our sandbox because it is Open Source. Despite its basic usability, we learned that we would like more granular levels of searching at the item level, not just at the metadata level. We learned the need to download plug-ins to allow item level searching and must collaborate with our IT administrators to install other plug-ins as necessary.

  We also tried to download Black Light in our sandbox because of the item level searching that is already built in to the software, as well as other zoom in features that allows closer look at documents. However, we came across some limits of our IT system to support its technical specifications.

- Business Records
  We learned from our IT administrator that they can set up a server to provide VPN access to records because it is free through the University. The librarians would need to develop a policy on which folders should be made accessible off campus via VPN, ensuring that we stay within the bounds of FERPA, and other federal privacy and copyright laws.

  We would like a Document Management System for the business records in our Mano server. They will need to be organized into a filing system that reflects our IG policy and departmental functions, then further classified and tagged within the system. Two examples of Document Management Systems we have identified is Microsoft SharePoint8 and eFileCabinet. Sharepoint is the most likely candidate because of its professional quality grade.

CONCLUSION
We are still in the process of finalizing the software that will be used for our digital archive and electronic business records needs. But through identifying our assets, assessing existing infrastructure, envisioning our goals, and testing software we have narrowed down the function and purpose of our information systems and identified what software could meet our new operational goals. We clarified that we would like a digital asset management system to digitally archive our featured research collections for public patron access and this system should be searchable at the item level. We would like a document management system for internal electronic business recordkeeping, with ease of searching, and VPN access to various types of business records. Through understanding our current infrastructural landscape and support, we can clarify our priorities and move forward.

ABOUT THE AUTHORS: Ellen-Rae Cachola and Brian Huffman work at the William S. Richardson School of Law Library at the University of Hawai‘i at Mānoa. Ellen-Rae is the Evening Supervisor/Archives Manager and Brian is the Electronic Services Librarian.

FOOTNOTES
4 See Regli 2010
7 See National Archives 2015.
8 See Smallwood 2013.
How Public Libraries Support Regional Economic Development

Over the past few years, Colorado’s Hickenlooper Administration has engaged more than 5,000 representatives of the state’s 64 counties in developing a comprehensive and collaborative approach to economic development: Colorado Blueprint 2.0. A state team composed of representatives of a dozen state agencies and statewide organizations traveled more than six thousand miles to gather input from every corner, valley and plain that makes up Colorado.

Every county put together a summary expressing the needs, priorities, vision, strengths and weaknesses of its local economy. These county summaries were rolled up into fourteen regional statements, which formed the basis for the six core objectives identified below:

1. Build a Business-Friendly Environment
2. Retain, Grow & Recruit Companies
3. Increase Access to Capital
4. Create & Market a Stronger Colorado Brand
5. Educate & Train the Workforce of the Future
6. Cultivate Innovation & Technology

Given limited resources—across both the public and private sectors—Colorado Blueprint 2.0 acknowledges that business, government, nonprofits and academia need to seek new opportunities for collaboration. Nationwide, savvy development groups are seeking ways to make better use of the resources already at their disposal to help develop and attract new employers, and public libraries are a valuable and often overlooked weapon in the economic development arsenal.

In their effort to attract new jobs, economic development experts must pay close attention to three business constituencies: established employers considering relocation or expansion, locally based entrepreneurs who are launching and expanding small businesses, and commercial developers considering new or redevelopment projects. At the same time, reinforcing current members of the community in their efforts to earn more will also have a positive effect on economic development. Each group has its own unique set of needs and interests, and libraries have the potential to support them all.

Businesses list labor/workforce issues and quality of life considerations among the leading reasons they consider moving or opening new offices, along with a desire to
reach new markets, upgrade facilities and increase cash flow. In a world of global connectivity, smart machines and new media, businesses rely on employees with 21st century skills. The Institute for the Future advises in a report for the University of Phoenix Research Institute that critical thinking and new-media literacy are essential qualities of a competent workforce. Consequently, a community’s perceived quality of life is strongly tied to the quality of its K-12 education, public libraries and other cultural institutions.

Entrepreneurs need access to information as they develop their business plans. Before approaching investors, the small business owner must develop a carefully researched plan with comprehensive market data. Without this data, these potential employers will not have access to the capital they need to accomplish their business goals. But the critical information often resides in publications and reports produced and sold by research firms. The cost of these documents may be a standard business expense for well-heeled, established organizations, but is often prohibitively expensive for a small entrepreneur, placing him or her at an early competitive disadvantage. Libraries can level the playing field for these small business owners.

Commercial developers considering new projects look for stable, family-friendly enterprises to anchor lively public spaces and draw visitors to neighboring retail establishments and businesses. At the same time, declining commercial centers need catalysts for revitalization. Libraries can serve as anchor tenants in these developments to draw traffic into the area.

Job Seekers. Job seekers need access to employment information, career planning information, business databases, and online and other educational resources. In addition, job seekers must often apply for jobs online, so having access to the Internet is more important than ever. Libraries play a critical role in this as well.

PUBLIC LIBRARIES: RESOURCES FOR ECONOMIC DEVELOPMENT
In a formal survey of county residents conducted for the Jefferson County Public Library (JCPL), 71 percent of respondents agreed that libraries “contribute to economic development by offering assistance with employment searches and applications, job skills training, career support and research/planning resources for business owners.” Although the local library is a hub of community activity, its essential role is frequently misunderstood and tied to outdated perceptions.

The stereotypical image of a public library—a silent reading room presided over by a dour woman with hair in a bun—is outmoded by decades. Today’s library is a lively community center with patrons of all ages and stations in life actively engaged with a wide variety of print and electronic media, with library staff and with each other. A study commissioned by the Urban Libraries Council notes that the role of public libraries has shifted “from passive, recreational reading and research institutions to active economic development agents.” Libraries are “a dynamic part of the community’s learning infrastructure which supports economic development.”

Libraries support the economic development of their communities by supporting early literacy and education, contributing to a technologically literate workforce, providing critical resources for job seekers, supporting local businesses and startups, anchoring commercial developments and redevelopments, and contributing to a community’s quality of life.

PUBLIC LIBRARIES: SUPPORTING LITERACY AND EDUCATION
Literacy sets the stage for community development. It provides a solid foundation for future success in school, business and community life while delivering a significant return on investment.

According to the National League of Cities Institute for Youth, Education and Families, “Quality early learning experiences for children from birth to age five pay long-term dividends, including school and employment success, stronger families and reduced crime.” The Urban Libraries Council reports that “every dollar invested in increasing early childhood education yields $7 in long-term social and economic benefits.” A recent study completed by the Minneapolis Federal Reserve Bank suggests that investments in early education yield a financial return that far exceeds the return on most state-funded economic development projects.

JCPL is well-known for its unwavering commitment to early childhood literacy; in fact, the library is often one of the first places children from birth to age five (and their caregivers) engage in early literacy experiences. At JCPL, we continue to expand early literacy services and create new literacy outreach opportunities. Our early literacy storytimes are based on Every Child Ready to Read, a national curriculum designed to strengthen pre-reading skills in children from birth to age five.

Libraries also provide critical support for education. Schools often rely on public libraries to supplement in-school resources, and students benefit from after-school and summer programs. Middle-school and high-school students perfect research skills that will be required as they pursue higher education and employment.

JCPL offers homework help and reference materials after school hours, and hundreds of kids and teens access the Library’s HelpNow! service, which offers live, online tutoring in subjects from basic reading to differential calculus. In addition, the library has developed a number of community partnerships to further impact community outcomes in the areas of literacy and education.

LIBRARIES CONTRIBUTE TO A TECHNOLOGICALLY LITERATE WORKFORCE
New economy jobs call for digital literacy, enhanced skills in communication, collaboration, critical thinking and creativity, and a willingness to pursue ongoing training to stay competitive. Libraries play a critical role in promoting new workforce technology skills and competencies via public access technology, online resources, research assistance, targeted technology training and support for lifelong learning.

Digital literacy is now a basic requirement for full participation in the global economy, and many Americans depend on public libraries to access and utilize digital technologies. According to the U.S. Census, in 2013, nearly 25 percent of American households did not have access to the Internet. A national Impact Study reports: “Public libraries are extensions of the nation’s education system ... More than 32 million visitors reported using library computers for a variety of educational activities: doing their homework, searching for and applying to GED and graduate programs, completing online courses and tests, and even applying for financial aid.”

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In addition, more than 7 million people nationwide receive job-related training through library computers.
and access to the Internet (including wireless access) at all of its libraries. In 2014, Library patrons logged nearly 280,000 hours of computer use, nearly 440,000 Internet sessions; and more than 235,000 wireless connections.

The library also offers a variety of training programs to teach job skills demanded by local employers. Community residents attend free classes to learn computer basics as well as more advanced word processing and spreadsheet software. They learn how to use the Internet and social media – skills that are increasingly essential to employers, to prepare personal finances, and to prepare taxes.

**LIBRARIES PROVIDE CRITICAL RESOURCES FOR JOB SEEKERS**

Nationwide, it’s estimated that 20 percent of Americans have been affected by a negative change in their employment status due to the recent recession. And Americans who reported a negative job impact are more likely to use the library more frequently than those not affected and find greater value with both the library and the assistance from the librarian.

For those entering the job market for the first time or in transition between jobs, the public library can serve as a true lifeline. A vast majority of public libraries help patrons complete online job applications (72 percent), provide access to job databases and other online resources (91 percent) and civil service exam materials (77 percent), and offer software or other resources (74 percent) to help patrons create resumes and other employment materials. In 2010, an estimated 30 million people used library computers and Internet access for employment career purposes – 76 percent specifically to find jobs.

**LIBRARIES SUPPORT LOCAL BUSINESSES AND STARTUPS**

The U.S. Small Business Administration reports that small businesses represent 97.5 percent of the total number of firms, employ about 50 percent of all private sector workers, account for more than half of U.S. nonfarm real domestic product and have generated 60 percent to 80 percent of the net new jobs in the United States over the past decade. Small business support strategies are key components for local economic development strategies that seek to stimulate new job creation and diversify the local economic base. Increasingly, cities and counties looking to support small businesses find a strong ally in the public library.

The Online Computer Library Center reports that every month, business owners and employees use resources at public libraries to support their small businesses 2.8 million times! Research shows that businesses conduct research for product development and operational or technical purposes and gather general economic and demographic information at the library.

Libraries level the playing field for local entrepreneurs. Subscribing to online business databases and information tools is prohibitively expensive for small business owners. Fortunately, these resources are available at no cost at the public library, along with ZIP code directories used for marketing, copyright and patent information, and a wealth of material on industry trends and forecasts.

Entrepreneurs preparing to start new businesses also benefit from library-hosted business planning workshops and resources. At minimal cost, they learn to research and prepare the comprehensive plans they will need to secure funding for their enterprises and manage them profitably.

JCPL offers a number of programs designed to support small business development, including classes to help business owners to complete online research. We also partner with the Jefferson County Business Resource Center to provide classes on starting, marketing and funding new businesses. In 2014, we launched a new Book-A-Librarian service, offering one-on-one research support to local business owners and entrepreneurs. Last year, we held more than 216 Book-A-Librarian sessions, offering help on everything from downloading items from the library and/or internet, to researching patents and trademarks to evaluating business opportunities. In addition, JCPL maintains subscriptions to more than 60 online databases on subjects ranging from small business resources to regional demographic and marketing intelligence, real-time news access and more. In 2014, patrons accessed our online databases hundreds of times a day.

**LIBRARIES ANCHOR COMMERCIAL DEVELOPMENT AND REDEVELOPMENT**

Successful commercial developments are built around attractive anchor tenants that draw visitors and potential customers to neighboring establishments. As a hub of family and community activity, a public library is an ideal centerpiece for a wide variety of developments: downtown, residential, mixed-use and commercial. Open six to seven days a week, the library is a safe, friendly community presence that attracts parents, children, young adults and retirees who are predisposed to browse. It will never compete for commercial sales, and its patrons are likely to visit nearby shops and restaurants. In addition, the long-term stability of a public library reduces some of the financial risk assumed by builders of mixed-use developments.

Research from numerous studies shows that up to 75 percent of library visits are combined with shopping and patronizing other business in the neighboring area, and visitors tend to spend an average of $23 to $25 in surrounding business establishments.

Across the nation, developers of mixed-use projects have begun to incorporate public libraries alongside retail and residential spaces, adding significant value to commercial, office and residential corridors.

**THE LIBRARY IS AN ESSENTIAL INGREDIENT OF COMMUNITY QUALITY OF LIFE**

A community’s quality of life is difficult to measure, but is generally considered to be a combination of economic opportunity, educational, recreational and cultural opportunities, and basic factors such as health, safety and employment. Some quality of life indexes such as Best Places to Live, Best Places to Raise Your Children and Best Places to Retire include “books per capita” as a relevant statistic in their community profiles, clearly linking libraries to quality of life. Public libraries contribute significantly to local quality of life as sources of support for education, economic development and community connection.

In addition, libraries have been shown to have a positive impact on property values. The Fels Institute of Government at the University of Pennsylvania conducted an analysis of the impact of libraries on their neighborhoods based on data from 54 library branches and more than 178,000 home sales. Researchers found that living within a quarter mile of a library branch adds about $9,630 to the value of a home. They also estimate that libraries are responsible for $698 million in home values in Philadelphia, and the additional home values generate $18.5 million in property taxes to the city and school district every year.

FOOTNOTES
6 http://www.nlc.org/find-city-solutions/jyef/early-childhood
8 Making Cities Stronger: Public Library Contributions to Local Economic Development. p.7
11 Ibid. p.59
14 Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries. 2010. p.6
16 OCLC, 2010, primary research.
18 21st Century Libraries: Leland Consulting Group, Lake Oswego North End Downtown Revitalization. p.4
19 Making Cities Stronger: Public Library Contributions to Local Economic Development. p.23
21 Ibid. p.6
Stories of Service-Learning: Guidelines for Increasing Student Engagement with Digital Storytelling

University of Nevada, Reno Libraries provide support for an Intercultural Communication class in the creation of digital stories.*

BY SARAH JANE BLITHE, WINTER CARRERA, AND ANN MEDAILLE

Visual and media literacy skills are becoming increasingly important for successful communication. To support the acquisition of these skills, the University of Nevada, Reno Libraries collaborated with the Department of Communication Studies to provide support for two sections of an Intercultural Communication class in the creation of digital stories. As part of their course requirements, students completed service hours in the community and then incorporated narrative, images, video, and music into digital stories that could be shared with their community partners. Working through the library’s Dynamic Media Lab, a librarian and a media specialist taught students about image creation and use, ethical use of materials, and video editing. Through this project, a number of guidelines were developed for the successful implementation of digital media projects. These guidelines focused on using content ethically, teaching students with different skill levels, managing a significant time commitment, controlling for project quality, and collaborating with campus entities. Through collaboration with teaching faculty and other campus and community partners, libraries can use digital stories to increase student engagement in the learning process and to teach a variety of digital media skills.

DIGITAL STORYTELLING

While a digital story can refer to any story told using digital technologies, it is often associated with a video narrative that is created using a combination of different media, such as photos, recorded narration, video clips, music, and Web publishing.1 The promotion of digital storytelling has occurred largely through the work of the Center for Digital Storytelling (CDS) in Berkeley, California, which has provided more than 1,000 workshops on this topic since its founding in 1994 and has used digital stories as a way of both strengthening community and drawing attention to issues related to social inequities.2,3

Through the work of the CDS, the term digital story has come to be associated with a very distinct format: A typical digital story provides a short (usually under 5 minutes) first-person account of a lived experience that is enhanced through music and illustrated through still photographs (although some projects include video clips as well).4 The CDS described the following seven elements of digital storytelling:

1. Point of view: the unique perspective that the storyteller brings to the story.
2. A dramatic question: the problem that...
drives the story and reaches resolution in the end.
3. Emotional content: the storyteller’s emotional connection to the story’s content.
4. The gift of voice: the storyteller’s use of his or her recorded vocal narration to personalize the story.
5. The power of the soundtrack: the use of music to enhance the emotional content of the story.
6. Economy: the ability to tell the story concisely and with well-chosen images for maximum impact.
7. Pacing: the use of rhythm to maintain interest in the story.5, 6

Because media technologies are now affordable, available, and easy to use, one need not be a media professional to create a digital story. In addition, the accessibility of new technologies has made digital stories increasingly common in educational settings.7 In the classroom, the use of digital storytelling has expanded to encompass not only personal narratives but also other kinds of stories that inform, instruct, and retell historical events.8 Educators note that digital stories are excellent tools for teaching oral and written communication skills as well as digital, visual, and media literacy skills.9, 10 Digital stories allow students to use creativity and reflective thinking to produce content in a context familiar to them, and educators find digital stories to be extremely useful in motivating and engaging students.11, 12 In higher education, a number of institutions use digital storytelling, including the University of Wisconsin-Madison, Ohio State University, Purdue University, and the University of Maryland, Baltimore County. At these institutions and others, digital storytelling is a medium to share student and faculty experiences, to teach new media skills, to enhance the learning of course content, and to reflect upon service-learning experiences.13, 14, 15, 16

STORYTELLING, MULTIPLE LITERACIES, AND LIBRARIES

Libraries have a long history of involvement with the act of storytelling, so it is a natural step for them to embrace storytelling in a digital environment. Libraries’ extensive experience as the center of knowledge collection puts them in an excellent position to connect storytellers across the community with the tools to create beautiful projects. At California’s Monterey Park Bruggermeyer Library, for example, librarians worked with members of the community to create digital stories that served to document and archive local history.17 Inspired by the work of Lambert and the CDS, librarians at Ohio State University (OSU) collaborated with other units on their campus to create the OSU Digital Storytelling Program that provides multi-day digital storytelling workshops and access to storytelling resources.18, 19 Drawing upon their work at OSU, Fields and Diaz (2008)20 showed how academic libraries can use digital stories to enhance interdisciplinary collaboration, to build the campus community, and to advocate for the library.

In addition to fostering a sense of community, librarians are using digital stories to support skills related to technology, critical thinking, creativity, digital citizenship, collaboration, and information fluency.21 Czarnecki (2009)22 documented several successful digital story programs in libraries, such as Chicago’s Wilmette Public Library which has offered digital story workshops for teenagers to help foster their creativity, develop their communication and media skills, and enable them to take charge of their own learning. Green (2013)23 showed how middle school librarians can use digital story creation with English language learners to enhance motivation and ownership of learning, develop cultural identity, and provide a linguistic context for language learning. At another middle school library, the creation and viewing of digital stories allowed students to practice self-assessment skills related to metacognition, reflection, and critical thinking.24

Despite the increasing popularity of digital stories, academic libraries have had only limited involvement with this media format. However, the learning outcomes achieved through digital storytelling assignments are consistent with the recent focus that academic libraries have placed on supporting multiple literacy skills. The Association of College and Research Libraries’ (ACRL) *Visual Literacy Competency Standards for Higher Education* (2011)25 demonstrate numerous opportunities for librarians to support students’ acquisition of skills related to finding, interpreting, evaluating, creating, and ethically using visual materials in higher education settings.26, 27 Academic libraries are also well-positioned to support media literacy, which encompasses a range of skills that are needed to access, analyze, and evaluate the persuasive techniques of media, and to use and create media in a variety of contexts.28, 29, 30 Mackey and Jacobson (2011)31 emphasized that because information is a “dynamic entity that is produced and shared collaboratively” in new media environments, it is essential for libraries to reconceptualize information literacy as a metaliteracy that is intertwined with visual, media, and other literacies (p. 62). Indeed, several of the concepts in ACRL’s *Framework for Information Literacy for Higher Education* (2015)32 support metaliteracy objectives, such as “Information Has Value,” which asks students to recognize sources as intellectual property that have financial, political, social, and ethical value.33 The digital storytelling project conducted at UNR provided an exciting new opportunity for the library to collaborate with campus and community partners to support these multiple literacies.

THE DIGITAL STORYTELLING PROJECT

The University of Nevada, Reno is Nevada’s land grant university and serves a population of approximately 18,000 students. UNR’s main library, the Mathewson-IGT Knowledge Center, is a five-floor, 295,000-square-foot facility. The library’s strategic plan includes the goal of providing spaces, technologies, and staff members who can support the integration of 21st century literacies—information, media, digital, visual—into the educational process. A section of the first floor, called “@One,” is designed to support the technology needs of students through the provision of over 100 computers, scanning and poster printing, a multimedia center, media equipment checkout, and specialized computer labs. One of the these labs, the Sierra Pacific Dynamic Media Lab (DML), is comprised of 18 Mac Pro workstations and provides specialized software to complete media projects comprised of the editing of high-definition (HD) video, audio, digital still photography, animation, graphics, website creation, and Internet distribution. The lab also features an audio recording room and professional audio microphones and software. Media production specialists and student worker assistants provide professional media project assistance to DML users. Located next to the DML is the @One’s Dynamic Media Checkout (DMC). UNR students, faculty, and staff can check out the DMC’s various media production equipment, including HD video cameras, digital single-lens reflex cameras, tripods, microphones, and lighting.

Intercultural Communication is the senior level capstone (global reach, encompassing) course for Communication Studies. However,
because it counts for diversity credit, capstone credit, and is an upper division Communication course, it draws students from across the university. Generally, the course is designed to help students learn how to communicate with people who are different from them. The course leads students through an examination of their own cultural identities and interactions with others.

As part of this course, students are required to participate in a service-learning project. Service-learning is a specially designed model of experiential learning which combines service at a community organization with intentional learning outcomes achieved through critical, reflective thinking. The model follows a cycle of knowledge, action, and reflection. Students are required to complete a minimum of 24 hours of service with one of ten community organizations (community partners) that offer intercultural communication experiences. For example, students partnered with local Native American tribes, an assisted living facility, and organizations serving at-risk and homeless youth. Student learning objectives include the following:

- Recognize your own cultural communication processes.
- Describe the ways that communication functions in intercultural settings.
- Understand how culture affects the communication process.
- Compare the role of historical, political, and religious factors in creating cultural stereotypes, perceptions, fears, desires, and misunderstandings.
- Develop skills for effective intercultural communication.
- Enhance your understanding of a culture different from your own through service.
- Collaborate in a group to maximize group problem-solving abilities.

The authors—a librarian, a media specialist, and the course instructor—planned the digital story project from start to finish. Together, we designed the digital storytelling project to serve as a platform or process for deep reflection about student service experiences. We asked students to share their service-learning reflections by creating a three-to-four minute video, which could include video footage, photos, or both, and their recorded voices. Students collected artifacts, photos, and reflections throughout the semester and selected the best for their final projects. As part of the project, students learned how to use new technologies, how to take quality photos, how to cite digital content, and how to do basic image editing. The librarian was able to instruct students not only in finding, using, and citing images, but because she had a background in visual literacy instruction and had supported other media projects, she was also able to teach students about digital stories, design, and storyboarding.

To make the digital storytelling project manageable for a class with varied media skill levels, we devoted five class periods to the project and guided all 58 students through the conception and creation of their final projects. Meetings occurred in the classroom and in the DML, with most of the instruction delivered by the librarian and digital media specialist. We began with an overview of digital storytelling and necessary technologies and worked through the semester step-by-step. Important steps included finding and citing images, using library subscription tools that offered access to software tutorials (lynda.com) and royalty-free music (Killer Tracks), getting permission and taking good photos, checking out equipment from the library, storyboarding, writing strong narratives, creating audio recordings, editing photos and videos, and exporting and sharing digital files. Outside of this class time, the course instructor worked with students to capture their personal reflections of service-learning through written narratives, photographs, and videos, so the students would have materials to use during their time in the library and DML. In addition, the media specialist spent approximately 24 additional hours providing one-on-one assistance for students who needed additional support outside of class time. For the final project presentation, we invited all of the community partners and interested campus members to join us. Students grouped together on the basis of their service assignment and took turns sharing their videos. YouTube links to samples of three digital stories are listed in Table 1.

<table>
<thead>
<tr>
<th>Digital Story Title</th>
<th>YouTube Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girl Scouts of the Sierra Nevada</td>
<td><a href="http://youtu.be/hUlR0nqIwBM">http://youtu.be/hUlR0nqIwBM</a></td>
</tr>
<tr>
<td>Beyond the Harbor!</td>
<td><a href="http://youtu.be/RibGiXBGkAE">http://youtu.be/RibGiXBGkAE</a></td>
</tr>
</tbody>
</table>

Ultimately, the students’ digital storytelling projects are eloquent testimonies of service and intercultural communication. Some of the projects are already in use by the partner organizations and are featured as exemplary work from the Communication Studies Department, the Office of Service Learning and Civic Engagement, the School of Social Research and Justice Studies, and the Mathewson-IGT Knowledge Center.

**PROJECT OUTCOMES**

After assessing the digital storytelling projects, the instructor determined that the students achieved all of the learning objectives. The purpose of the project was for students to dig into their personal reflections about their intercultural service experiences. The students achieved this goal through the project. By recording their actual voices and revising their written narratives, the students’ digital story reflections demonstrated greater levels of self-discovery and self-awareness than the written assignments delivered in class. The visual and audio components added depth, deeper reflection, and more consideration of how they connected to their community partners. This kind of deep critical thinking is important for a senior level capstone course. The digital storytelling projects are reflections of intercultural communication, and served as an enhanced format for students to express their learning.

The original student learning outcomes for the course did not include the development of digital media skills. However, student development of these skills turned out to be one of the greatest takeaways from the course. Student evaluations suggested that learning how to make digital storytelling projects was one of the best benefits of the course. One student commented, “[I learned] skills I can use in the workforce aside from intercultural communication, such as promoting video production for our service learning projects, which I had no prior knowledge of before this course.” Another explained, that the digital “Service-learning project was really wonderful.” Communication Studies classes often include visual communication as a component of the class but frequently use outdated technologies. This project forced students to learn cutting-edge technologies, equipment, applications, and strategies. These combined digital media skills are invaluable for students exiting the
The digital story projects were graded with a rubric that assessed writing, reflection, cultural awareness, and use of media elements. At the end of the semester, students also completed a project evaluation form that asked them to self-report on their acquisition of the skills specified in the learning objectives of the project. The large majority of students felt that they were able to find good images (79%), effectively use the necessary technologies (81%), and cite images and music successfully (85%). Most felt that the project allowed them to be creative in reflecting upon their service experiences (83%), and several shared their stories with their community partners (62%). In addition, most felt that they were learning useful digital skills that would help them in future courses or employment (83%), and most recommended that the assignment be a part of the course in the future (68%).

Students were also queried about the types of technologies they used to complete the project. Most students reported that they used their own computers or laptops (74%) and mobile phones (72%) to some extent. But many students also used some of the digital resources available through the library. Sixty-two percent of students used the Killer Tracks royalty-free music library and 19% used the Lynda.com online video tutorials, both of which are made available through library subscriptions. In addition, 32% of students checked out A/V equipment from the library and 17% used the sound recording booth available in the DML.

The written comments received on the evaluation revealed several major areas that need to be addressed in future iterations of the project. First, students possessed a wide range of skill levels with digital technologies. Although some students thought that iMovie was easy to use, others found it challenging. One student commented, “I am not good with technology at all, so what might have seemed easy to most was very difficult for me.” Several students were unfamiliar with Mac computers, which were necessary to use iMovie, and this provided another challenge for them. Second, several issues emerged with the use of photos. Students had to become aware of ethical issues concerning photo usage, including privacy concerns with taking photos at their community sites and the need to cite photos that they did not take themselves. These concepts were initially unfamiliar to many of them; one commented, “Limited experience dealing with citing images, entirely new concept.” In addition, some students had problems with low resolution of some of their digital images. One student wrote, “Some of the images that I took I could not fix the resolution and I did not have any choice but to use that.” The final theme that emerged from the written comments concerned the amount of time that the project took. Even students who enjoyed the project mentioned that it was time-consuming. One student summed it up best: “It just takes a lot of time.”

A number of positive outcomes occurred through the digital storytelling assignment, for both the students and the partner organizations. This class and project were featured in our local newspaper for the innovative partnership between the Office of Service Learning and Civic Engagement, Communication Studies, and the DML. Students benefited from their exposure to the community partners and community involvement. For example, one student posted a photo she took for her project onto her Facebook page. Through repostings, an advocacy group found her photo and used it on its website. In addition, three students were offered full-time jobs with their volunteer organizations specifically to help with digital media and marketing because of the photos and videos they collected for the digital storytelling projects. In a final example, many students submitted their digital storytelling videos to UNR’s Engagement Showcase.

The partner organizations also benefited from the digital storytelling projects. In one example, students digitally scanned precious historical photos for a Native American museum. In another example, two students completed video projects for a nonprofit learning garden. The organization plans to use the films for promotional purposes, sending them to potential donors and posting them on their website. This service saved the organizations a significant amount of time and money in marketing and promotional costs.

GUIDELINES FOR DIGITAL MEDIA PROJECTS

This was the first time that this project was conducted at our university, and a number of different strategies emerged for managing this project in the future. Listed below are five guidelines that libraries and their collaborators can use when successfully conducting digital media projects.

1. Emphasize ethics early and up front.
   In a time when students are constantly posting photos of themselves and others on the Web, many are unaware of the ethical concerns that come with taking and using photos of others. This is especially critical in a service-learning context, where clients at community sites represent vulnerable populations. In addition, many students are unaware of the need to follow the licensing restrictions of images that they find on the Internet, and many do not know how to cite images and other media appropriately. Students should learn to follow ethical procedures from the very beginning of the project, and these procedures should be reiterated throughout the course.

2. Address the skills gap.
   Students’ abilities with digital technologies cover an extremely wide range. For this project, some students were proficient with video creation while others struggled with basic photo techniques. Unless a course or project comes with certain prerequisites to ensure that all students have some level of facility, a digital project will inevitably need to address the skills gap. Course content must move at a moderate pace, if too much time is spent covering basic skills, many students may lose interest. However, to help students who are struggling with or are anxious about using technologies, a sufficient amount of one-on-one assistance outside of class time is necessary throughout the project.

3. Address the time commitment required.
   Digital projects can be very time-consuming to produce. Even “small” digital projects can require a considerable time commitment—both in and out of class. Students need to be given enough time outside of class to complete digital projects in a quality manner. In addition, enough class time needs to be devoted to ensure that all students know how to complete the different elements of the project and use the appropriate technologies.

4. Monitor the quality of student work throughout the project.
   During a semester-long digital project that involves multiple elements, it is important for students to receive feedback and assistance at several stages to ensure that the final product is a success. For this project, we provided ongoing feedback to students as they developed their narratives. However, some students unknowingly used low-resolution photographs, and we needed to provide extra assistance at the
last minute to help them fix their final projects. Establishing several check-in dates throughout the semester in which students provide evidence of their work can help to ensure they are on the right track to producing a final product of sufficient quality.

5. Collaborate with other entities on campus and in the community to maximize student engagement.

Libraries and their campus partners can do exciting and innovative projects that maximize student learning and engagement—projects that would be almost impossible to execute by one person working alone. This digital storytelling project could not have been successful without input from the Department of Communication Studies, the Office of Student Learning and Civic Engagement, and the University Libraries. Within the Libraries, both a librarian and a media specialist provided different kinds of expertise to assist students on the project. Finally, the involvement of community partners was essential to creating meaningful, community-based learning experiences for students, which provided the core content for the digital stories. Collaboration within the university and surrounding community were critical to bringing this project to fruition.

CONCLUSION

Digital storytelling provides an excellent vehicle for students to be creative and reflective about their own learning experiences. While projects of this nature can require much time and planning to incorporate into courses, digital storytelling assignments can provide an excellent method for increasing student engagement in learning the course content. In addition, these types of projects are excellent for helping students to learn visual and media literacy skills that can assist them in future courses and employment.

Academic libraries have an important role to play in supporting these types of assignments through the variety of expertise and resources that they provide. While media specialists have much to contribute to the success of these projects, librarians can also support these efforts by adapting existing information literacy instruction to a new media environment and by incorporating issues concerning the finding, ethical use, and creation of images into their instruction. However, for a digital storytelling project to be successful, library staff must be prepared to collaborate with campus and community partners, to provide both in-class and out-of-class technology assistance for students and professors, and to establish a consistent project structure that is supported from start to finish.

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FOOTNOTES:

4. Ibid.
8. Ibid.
9. Ibid.
22. Ibid.
26. Ibid.

ABOUT THE AUTHORS: Dr. Sarah Jane Blithe is an assistant professor of communication studies at the University of Nevada, Reno. Winter Carrera is a media specialist at the University of Nevada, Reno. Ann Medaille is the assessment librarian at the University of Nevada, Reno.
Growing ORCIDs at Texas A&M University Libraries

» Registry helps reduce name confusion by aiding researchers and students.

BY CATHERINE PEPPER, HEATHER K. MOBERLY, AND GAIL P. CLEMENT

ORCID (Open Researcher and Contributor ID) is an open, free registry of unique researcher identifiers that attaches persistent links between individual authors and their works. This enables researchers to corral their research outputs in one site so that they can be distinguished from other researchers with similar names. ORCID’s open source platform allows seamless, transparent exchange of information among other research systems, such as those of journal publishers and grant funding sources. Additional benefits include increased visibility of researchers’ work and ease of identifying potential collaborators. Launched in October 2012, the program has gained increasingly rapid traction in the academic and scholarly publishing communities.

TEXAS A&M UNIVERSITY LIBRARIES’ ORCID INITIATIVE

Since February 2014, the Texas A&M University Libraries has minted nearly 17,000 ORCID IDs. Texas A&M is one of nine institutions funded by the Alfred P. Sloan Foundation’s ORCID Adoption and Integration Program. A cross-unit team in the University Libraries implemented ORCID and promotes the program to Texas A&M’s diverse and geographically dispersed user communities. This article shares the progress of and plans for the ORCID initiative at Texas A&M.

Author name confusion has been a growing source of search and retrieval imprecision and workflow inefficiencies at research institutions worldwide. With a combined enrollment of 62,392, Texas A&M University, including its Health Science Center component, is one of the country’s five largest universities, with a highly international character (a third of the 14,000 graduate and professional students are from outside the United States) and extensive research output. Many of our researchers have non-unique names. For example, the name “Ying Zhang” is associated with 13 different records in the campus directory. Use of ORCID iDs at research-intensive institutions like Texas A&M could greatly aid in alleviating this author confusion.

Interest in ORCID originated in the University Libraries’ Office of Scholarly Communication and Digital Services, and was catalyzed in mid-2013 by the call for proposals from the Sloan-funded program. Scholarly Communication Librarian Gail Clement initiated the ORCID program with a team from the University Libraries and enthusiastic support from the Texas A&M Office of Graduate and Professional Studies and the Texas Digital Library. Their proposed initiative to integrate ORCID iDs into the thesis and dissertation workflows of graduate students, and to develop and launch a robust outreach and education program to encourage engagement with ORCID iDs, was among the nine applications selected nationwide for funding.

The ORCID @ Texas A&M Team (the Team) aimed to demonstrate the full benefits of unambiguous scholarly identity and trusted linkages between authors and their earliest works. It hoped that a successful prototype, based on integration of ORCID iDs into the Vireo Electronic Thesis and Dissertation (ETD) submission and management system, would attract the interest of not only graduate students, but also faculty advisors and campus administrators interested in scholarly reputation, institutional effectiveness, and operational improvements in the institution’s research information systems. In essence, the ORCID-ETD integration project was envisioned as the first component of a larger initiative for establishing and managing researcher identities on behalf of faculty, fellows, researchers, and students alike. The University Libraries recognizes that ORCID is an essential element underlying a useful and trusted Web of online knowledge, and has fully committed to supporting and enabling this critical standard identifier on behalf of the campus community.

OUTREACH AND EDUCATION

Throughout the initial ORCID implementation period, Texas A&M University Libraries minted more than 10,000 Texas A&M graduate student ORCID iDs, which had a 20 percent claim rate within the first nine days. Twenty-six personnel from the University Libraries and the Office of Graduate and Professional Studies provided instruction sessions or point-of-use instruction. They presented to graduate advisors, discipline specific graduate student associations, and non-discipline specific graduate student groups.

<table>
<thead>
<tr>
<th>Instruction sessions</th>
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</tr>
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<tbody>
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<td>Attendance</td>
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<tr>
<td>Information Guide downloads</td>
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<tr>
<td>Information Guides distributed</td>
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</tr>
</tbody>
</table>

Additional detailed information about the project is freely available in a report accessible from the Texas A&M University Institutional Repository.
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USER POPULATIONS
The Texas A&M campus community encompasses a wide variety of academic programs, subject disciplines, and status levels. The Team’s initial target was graduate students within three main divisions, starting with 1 and 2:
1. Texas A&M graduate programs of the academic colleges (based primarily in College Station)
2. College of Veterinary Medicine and Biomedical Sciences (CVMBS), which includes both the professional Doctor of Veterinary Medicine (DVM) program and research master’s and doctoral programs
3. Health Science Center (HSC), which administers five professional or graduate units: College of Medicine, College of Nursing, Baylor College of Dentistry, College of Pharmacy, and the School of Public Health (based primarily at other campus locations)

HSC graduate and professional programs will be incorporated next. Adding CVMBS interns and residents and HSC students and residents who publish but are not currently within the graduate college (so do not submit theses or dissertations there) is an on-demand process.

PROGRAM ADOPTION AND ADAPTATION IN MEDICAL DISCIPLINES
At Texas A&M, CVMBS is the leader in college-level graduate student ORCID integration. Its graduate faculty advisors were aware of and interested in the ORCID program from the earliest publicity. The graduate advisors group requested presentations and recommended presentations to two student organizations that focus on research: CVMBS Graduate Student Association and CVMBS Postdoctoral Association. Additionally, CVMBS Senior Academic Advisor M. David Kessler recognized the value of ORCID iDs and identified opportunities to integrate them into the student workflow before thesis or dissertation submission (if applicable), because certain programs require article publication before thesis or dissertation publication. An outgrowth of these efforts is a pilot project by Clement, Kessler and Heather Moberly to track CVMBS student ORCID uptake and participation across time.

ORCID implementation for CVMBS and HSC poses a set of issues that differ from the Texas A&M graduate programs. First, since most CVMBS and HSC programs (with the exception of the School of Public Health) do not require a thesis or dissertation, the Vireo ETD integration will not apply for the majority of these divisions. Second, although some faculty and students are based in College Station, many are located at campuses or clinical sites in other areas of Texas. Third, a separate office administers email accounts and websites for the HSC, which will require additional cooperation and coordination of workflows. Finally, research outlets for each of these user populations are primarily in the health and medical sciences, and their faculty and students are served by the Medical Sciences Library. An example of a health sciences-oriented system is SciENcv, which cooperated with the National Library of Medicine so users can create SciENcv profiles from data stored in their ORCID records. The addition of these user communities will make the subject domains covered by the Texas A&M ORCID community more robust, and could lead to new collaborations among all three user groups.

CONCLUSION
As of April 2015, Texas A&M University Libraries has minted ORCID iDs for 16,917 graduate students and several hundred faculty and staff. Approximately a quarter of those ORCID owners have claimed their identifiers and have:
• enriched their profiles with biographical, educational and employment information
• supplied additional versions of their names in English and other languages
• imported publications, grant awards, and other research outputs

The movement to establish and manage scholarly and professional identity using ORCID is growing very quickly in Aggieland.

ABOUT THE AUTHORS: Catherine Pepper is an assistant professor/library field services coordinator at Medical Sciences Library, Texas A&M University. She can be reached at cpepper@library.tamu.edu. Heather K. Moberly is a professor/coordinator of veterinary services at Medical Sciences Library, Texas A&M University and can be reached at hmoberly@library.tamu.edu. Gail P. Clement is an associate professor / special projects librarian at Texas A&M University Libraries. She can be reached at gclement@library.caltech.edu.
Best Practices for Implementing a Successful Digital Law Library

BY SCOTT MEISER

An increasing number of law libraries are embracing eBooks and moving to digital library platforms. Primary factors driving this change are cost pressures associated with maintaining a physical library, and the growing adoption of mobile devices and eBooks by lawyers in their personal and professional lives.

Data gathered by Bess Reynolds, the former electronic resources manager at Debevoise & Plimpton, provides some insight into the prevalence of this trend: According to her findings gathered over the past three years, more than half of all law firms surveyed purchased eBooks within the previous year. Specifically, 72% of firms employing 500-900 attorneys purchased eBooks, and 67% of firms with more than 1,000 attorneys went digital.

As firms and legal departments steadily migrate to digital solutions, what are the best ways to implement legal eBooks and a digital law library? Below are a set of guiding principles and tips to help law libraries meet their business and user expectations.

TAKE A STRATEGIC APPROACH

The transition to a digital library can play an important part in helping law firms and legal departments address budget challenges, space constraints, and demand for mobile options – all while improving their overall return on investment (ROI). A succinct strategy is the first step towards a successful migration:

Each law library’s situation is different. As such, approaches vary, but often fall into one of two typical scenarios:

• Incremental approach: an ongoing preference for printed volumes while offering eBooks for a select portion of titles.
• Accelerated approach: an emphasis on mobility or concerns about the administrative overhead of a physical library drive the replacement of a large percentage of print volumes with eBooks.

The adoption of a digital library solution should be considered as part of an organization’s broader investment in technology. Alignment and integration with existing systems and platforms will help maximize the benefits. For example, a firm or department that has invested in a legal information service such as Lexis Advance for its research needs may want to consider adopting LexisNexis eBooks and Digital Library technology to get the most out of these interconnected resources, and skip the costly process of integrating separate systems to fit legacy infrastructure.

Regardless which scenario you are planning for, know that not all providers of eBooks and digital library technology for law libraries are the same. For example, some offer a technology agnostic approach. This will allow law libraries to buy, store, lend and track use of electronic publications on one platform regardless of the publisher or eBook format, while simultaneously enabling lawyers to read eBook volumes no matter what mobile device they are using. Others are more restrictive with proprietary eBook or digital library platforms that limit...
use to titles from certain publishers, and with support limited to certain devices or specific formats. Choose what works best for the firm or group needs.

BUILD A FOUNDATION FOR SUCCESS
After devising the strategy, the next step is listening to what each stakeholder wants to accomplish. Taking inventory of stakeholders’ objectives and expectations will tailor the implementation more directly to the organization’s needs, and allow you to address concerns and share ideas.

Instill close communication between digital library provider, law librarians, IT and technology experts, and firm or legal group leadership.

Ideally, identify a champion who is engaged and has a vision of what needs to be accomplished, and encourage that individual to promote the program’s success by:
- Identifying what motivates stakeholders in their organization.
- Making sure that communication conveys what each stakeholder group needs.

Additionally, the institution of a centralized contact such as a program manager will connect the provider and customer contacts on a day-to-day basis for an optimal implementation.

PLAN YOUR TIMELINE
A standard library implementation requires four to six weeks; implementations involving integration of multiple systems may require 12 to 14 weeks. Plan implementation around these five key phases:

1. Roll-out to Stakeholders: Introduce the transition team, communicate the timeline and site requirements, and determine what connections to other technologies are needed.
2. Technical Requirements: Integrate library management systems, review support procedures, project sign off.
3. Site Development: Initiate building of the library site, design and implement authentication, load eBook content.
4. Administrator Training: Train the program manager and set up authentication method.
5. Launch: Announce the new library and conduct awareness activities.

TRAIN, PROMOTE, COMMUNICATE
A successful implementation includes manager and user onboarding activities. Experience shows that organizations that implement proactive awareness and training programs see increased usage more quickly during the first two years.

Importantly, all staff who will manage the library technology and eBook collection should be trained in time. When using a technology-agnostic or single-technology solution, this can include how to manage the library efficiently via one central electronic platform, purchase titles centrally, arrange for lending and sharing of titles for multiple users at the same time, and add titles from any publisher or format to the collection.

Use activities such as a launch event, a broad email message, and articles on intranet or employee portals to announce the new library solution. Communicate the benefits and where to learn more, but also give users a reason to check out the new library. For example, offer popular eBook titles such as John Grisham novels or business titles to give users a personal reason to go to the new library.

Train users on how to access, check out, read, share and return titles. Typical tactics include in-person sessions, posters, best practices emails, or online instructions on the firm or company internal portal. To drive steady adoption over time, enact an ongoing communication program delivered through multiple channels, which could include announcing new titles, repeating core benefits for using the library, or announcing new features. Additionally, put links to the digital library in obvious and multiple locations such as department portals and websites.

SET, MEASURE, REPORT RESULTS
To demonstrate value and track usage, it’s important to set measurable objectives. Organizations seeking to phase out portions of a physical library will find tracking and improving adoption rates is especially important.

Set adoption targets for the number of users over time, but don’t feel you need to be too specific about how you expect attorneys to use eBooks. Allowing attorneys to guide adoption minimizes resistance and promotes stronger adoption. If your initial plan is not generating the desired results, gather feedback and explore ways to adjust your approach.

Another way to demonstrate value to the organization is to report ROI. The factors in the ROI vary by organization based on unique characteristics. However, here is a basic way to do it:
- Calculate expected annual savings. Determine the total annual cost for the status quo library minus total annual cost for new digital library. Factors in determining annual costs can include expenses for print volumes and eBooks, the total lifecycle costs of traditional vs. digital materials, as well as costs for space, shipping and subscriptions. Costs can include salaries and wages, materials expenditures and operating expenses.
  • Calculate percentage savings. To provide a clearer metric, divide the expected annual savings you’ve determined will occur with the digital library divided by the total annual cost for maintaining the traditional status quo library.

By taking a strategic approach, building a foundation for success, planning time in phases, diligently training users and promoting the implementation, and keeping an eye on key metrics for success, firms and organizations can ensure a smooth and effective implementation of new digital options – or even completely replace their physical collections with eBooks and a digital library platform.

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ABOUT THE AUTHOR: Scott Meiser is senior director, digital solutions at LexisNexis North American Research Solutions at LexisNexis. He manages strategic development and implementation of the market-leading, technology agnostic LexisNexis Digital Library solution at law libraries globally, and works with third parties to enhance the largest collection of authoritative eBooks and mobile content for lawyers and legal professionals offered by LexisNexis.
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