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Article

Strategic Planning for Sustaining User-Generated Content in Digital Collections

Cory Lampert University of Nevada, Las Vegas

Su Kim Chung University of Nevada, Las Vegas

Abstract

Experimentation and exploration are hallmarks of innovative libraries, but as experiments become on-going projects and investigations become long-term commitments, it is important to gain perspective on how the roles of librarians, archivists, and information professionals are changing. As social computing becomes routine for computer users, libraries of all types are responding to these new expectations by building interactive communication features into their online collections. Social features and user-generated content raise several compelling issues as organizations strive to balance agile adaptation to the ever-evolving user environment with the realities of limited staff resources and greater administrative expectations. This paper examines the challenges inherent in efficiently managing social media and user-generated content and discusses the various stakeholders involved in managing the increased day-to-day work these initiatives create. Several strategies are suggested to help develop a flexible and supportive organizational framework that can effectively sustain and deliver on the promise of social computing.

As libraries seek to reach their users beyond the physical boundaries of their buildings, content publishing on the Web is becoming well-integrated into the core functions of li-

brary organizations. There are many roles that staff members play in the creation and maintenance of Web content, and most of these staff positions have been specialized and well-defined over time. But as online culture evolves and changes, website users have also begun to play a role in Web content creation and publishing, specifically via interactions with sites created, maintained, and managed by libraries. While there isn't a standard definition of user-generated content (UGC), the term is in wide use and is used in various disciplines from economics to computer science. Typically, the term encompasses the voluntary creation and contribution of content through interaction with websites by non-professional consumers of information. The user-generated content can be created in text, audio, or video. Examples of UGC include: uploading video files to Youtube, using Web forms to comment on or rate an item on a shopping website, or editing article content on an online encyclopedia site like Wikipedia. Lanchester (2006) describes the movement towards creative contribution in this way, "What all these new kind of sites share is an approach to creating things: 'user-created content' in the jargon. The Internet is no longer about corporations telling you what to do, think or buy; it's about things people create" (para. 9). This trend to augment the professional opinion with the personal contribution is not limited to commercial websites. In fact, libraries that have enabled features that encourage this type of interaction are often faced with a completely new type of published Web content; one that does not come with handling instructions or guidelines for staff responsibilities. This content can be extremely compelling as a new source of knowledge, but it can also challenge long-held assumptions about what is expected in the traditional role of the library worker. The heart-wrenching paragraph below was not directed at a medical facility or governmental institution, but rather was submitted (in raw, un-edited text form) as a comment to the Nevada Test Site Oral History Project website, a digital collection created jointly by the University Libraries and History Department at the University of Nevada, Las Vegas.

I grew up in Vegas. My Father worked at Mercury (Nevada Test Site) for 22 years, he drilled holes on a government rig to drop bombs into. As a baby, he held me after work, he wore a radiation badge. and he was lit up several times per week, I have witnesses who can testify. I am 45 I have Multiple Sclerosis in my spine and brain. walking, thinking, coordination is near impossible. My family is Smith/Jones Oklahoma people, no one in my entire family has anything like me and my sisters, one had cancer in her ankles, the other had her arm muscle fall off, mother has bad thyroids. All of us grew up in Vegas and Henderson my home phone is (405)720-xxxx. if you need more information, plus my social begins with 530 which tells you where I'm from. I did a search on Google and it pulled you guys up. [sic] (Name withheld, personal communication, June 14, 2009)

Beyond the emotional impact of this statement, it begs the question: who is responsible for determining who and how the libraries will respond to this comment? As comments and feedback directed toward digital projects become increasingly more common with the advent of Web 2.0 functionalities, this question will find its way into the working life of all information professionals tasked to develop such digital projects. While most queries and comments may be far less emotionally-charged than this one, they will still re-

quire the prompt attention of a librarian or archivist if a site is to remain viable, dynamic and responsive to its users. To do so efficiently and strategically is the challenge for an information organization if it is to be successful in its Web 2.0 efforts. The first step is in recognizing and addressing how the management of social content affects the traditional work roles of information professionals.

Background

Libraries have always encompassed more than the collections they own and the facilities they inhabit. They also symbolize the primary destination for research assistance, reliable information sources, and a physical space where members of the community meet and interact for research and social purposes. Library users have certainly noticed ways in which technology has enabled the virtual realization of these goals, and these expectations continue to drive library managers to keep up with what users have grown to expect in the commercial Web world. Without doubt, the trend is towards content, but not only the traditional content that libraries and cultural institutions are skilled at providing. Content is now more broadly defined beyond the material that the website owner controls. It has grown to include new channels of user-contributed information in several categories: evaluative content such as ratings data, social content such as comments, and uploaded multimedia such as images and video. As Miller (2007) writes, "Not long ago, content flowed one way. You posted content to your website and just how much you posted and when was entirely up to you. That model is changing quickly, however, as Web 2.0 concepts flow into the enterprise..." (p. 32). According to Miller, libraries are increasingly realizing that, "These days, content is a two-way street" (p. 32).

Commercial enterprises have succeeded in building tools to draw customers in and point them to content that result in a purchase. Whether it is rating a product when shopping online or sharing a trip report on a travel website, businesses are pushing content out and receiving it back from their customers as part of their business model. Libraries have taken note of this trend and have begun implementing similar content models for their services, including building user interactivity into some of their most unique, signature content: their digitized collections.

Ventures to combine traditional information provider roles with new technology tools have resulted in several successful research and development projects by cultural institutions. Kalfatovic, et al. (2008) suggest that the Library of Congress' successful experiments in the Flickr Commons helped convince their core team at the Smithsonian to participate in undertaking Web 2.0 experiments of their own. This willingness of high profile libraries to lead often serves as an impetus for other research libraries to follow suit. Many have developed Web 2.0 initiatives in several directions: enabling user-generated contributions to their own websites, sharing content on other social networking sites, and building new social tools into library-created digital collections such as social annotation. Gazan (2008) writes about integrating uncontrolled user-generated content into digital collections and the value of such annotations. Bullen (2008) puts forth his firm belief that, "the next step for object repositories lies in a melding of wiki

and digital repository concepts" (p. 35). Digital curation tools like Omeka claim to bring "Web 2.0 technologies and approaches to academic and cultural websites to foster user interaction and participation" (Center for History and New Media, 2010, para. 3) and take the concept to the next level allowing users not only to respond to the collection, but to utilize open source tools to curate their own collections from content they research on the Web. The literature reflects a strong interest in large-scale research projects and case studies, such as Krause and Yakel's (2007) article describing their experience with the Finding Aids Next Generation Research Group developing Web 2.0 functionality for the Polar Bear Expeditions Collections. It also focuses on describing the means by which archives and libraries large and small are shifting their content strategies to address these important new methods of connecting with users.

Finding such resounding enthusiasm in the field, many information professionals are easily convinced that even if there isn't local evidence of demand for interactivity that at least it is worth investigation and exploration. Many curious librarians have attempted to take the amorphous and often frenzied body of work on Web 2.0 trends and distill it into a project that has real impact on users. But, is any old project better than nothing?

It is not always clear whether the value of these experimentations outweighs the potential cost. Often there are implications of designing digital collections that seek to emulate commercial Web trends. Contrary to business models that rely on the bottom line to show success, cultural heritage institutions have additional responsibilities beyond creating an entertaining, enjoyable, or interactive Web browsing experience. Staffs at these organizations are bound to respect and retain the traditions and historic missions they are charged to uphold: the provision of high quality research assistance, access to authoritatively described and well-cataloged collections, and on-going support of their local community, both geographically and online. Implementing a new experimental project may move an organization into the world of Web 2.0, while also raising a whole new set of questions and challenges. Often the staff members charged with spearheading an innovative project find themselves quickly caught in an uncomfortable gap between competing goals of optimal user experience, expectations of library administration, and commitment to professional mission.

Challenges of Evolving Library Staff Roles

With Phase Two of the World Wide Web, we usher in a new era of online experience; the age of the amateur. Today's Web is no longer the sole province of the tech-savvy, Web 2.0 has embraced the ordinary user with easy-to use online tools that have enabled everyone to participate (Kroski, 2007, p. 91).

Even the most cursory exploration into the tools of Web 2.0 reveals a clear theme. Over and over when discussing the beauty of Web 2.0, authors proclaim that the tools are extremely easy to use and intuitive, making it possible for anyone with basic computer skills to share content. "Anyone can do it," seems to be the message of Web 2.0 advocates. Libraries and archives that are working with these interactive tools are facing new, more difficult, questions: Yes, anyone can do it. But who *is* doing it? Who, exactly, within the organization is managing the social networking initiatives and usergenerated content?

Because so many of these tools are easy to use and ubiquitous, many information professionals may already be using them outside of the workplace. This casual familiarity often motivates a creative staff member to think about ways that the tool could be used in the library, and because the tools are so often free or low cost, there are few obstacles to experimentation. The combination of ubiquity, high interest, and low risk often result in a "trial period" or pilot project that ends up forming the foundation of a larger initiative. When the project begins to grow beyond the interest of one person, one of the first challenges of Web 2.0 management emerges: decision-making. If the initiator of the project is not also the decision-maker for policy or project prioritization, problems can arise. It may be necessary to confine the project's scope to maintain a manageable scale. Or, the project may raise concerns from other staff that require discussion and decisions that cannot easily be made independently.

Key decisions that may arise can include a wide range of issues touching nearly every functional unit in the organization.

Table 1.

Administration	Should there be an overarching philosophy for user-generated content in the organiza- tion?
	Who in the management or leadership de- termines this philosophy or guides the or- ganization to come up with a shared vi- sion?
Systems/Technical Expertise	What technical considerations are there for these projects?
	Is there staff that needs to be consulted for software choices and technical customiza- tion?
Middle Management	Is there a point person for the project? Does this person have the authority and appropriate expertise to moderate content and respond to users' contributions?
Communications	Should there be appropriate guidelines for communicating an institution's brand or message in these new venues?
	What opportunities do the medium present for marketing/promotion?

Sample Functional Areas Affected by Web 2.0 Initiatives

Assessment	What data is collected?
	How is success measured?

These questions are rarely considered at the beginning of a project and can almost never be resolved by a single staff member championing a selected tool. Rather, the breadth and depth of decision-making calls for an organization-wide collaborative approach to managing social networking and user-generated content for Web 2.0 initiatives. Each functional area may need to consider specific issues related to staff roles in order to facilitate organization-wide decisions.

Role of Systems/Technical Staff: Development and Design

Great work. Is the source code available through Subversion yet for beta testing? The link for more info <u>http://digital.library.unlv.edu/software/dmbridge/beta-</u> testing doesn't seem to be working. (Name withheld, personal communication, October 12, 2009)

When adding user-generated content to digital collections, there are various technical questions to consider. A review of the institution's digital asset management systems in use will determine what functionalities are available to connect with other free Web applications. Examining purchased systems in detail and comparing them to freely available new applications spawned by the Web 2.0 movement often results in discussion about the adequacy of library vendor-provided products and their agility in meeting new content strategies. Staff must ask, "Are our library industry products keeping pace with current user expectations? If not, do they provide tools and open standards to allow customization by programmers?" The ability to build upon software, modify it, enhance it, and share code with a developer community is the foundation of both the open source movement and a core value in the Web 2.0 culture. But, many times, commercial systems have not been designed with these goals in mind. If library vendor products are not sufficient in some way, technical staff may need to seek out other available products in the marketplace or take on application development projects in-house to build their own solutions. These development projects can range from relatively simple to extremely complex. Depending on the systems in use and the availability of staff time and expertise, IT staff may need to seriously assess the feature set of current systems and make informed decisions to seek out appropriate solutions.

Once a set of software options has been selected, the role of the technical staff is to evaluate the technical implications of the applications and products. Areas for discussion include:

- evaluating server security issues allowing submission of data;
- estimating required server space and storage requirements for multimedia files and user-contributed data;

- recommending file formats and technical specifications for digital collections (video file formats and delivery methods, upload file sizes, user's ability to download images for reuse, etc.);
- recommending methods for preventing spam or use of these tools for commercial purposes (companies posting links to their products in digital collection comments);
- either automatically allowing responses in the system, moderating as needed through an administration module/control panel, or monitoring every response received;
- evaluating tools available to help enhance and automate workflow (i.e., is there an Application Programming Interface (API) that can be used to help manage routine tasks, such as batching importing metadata into the application?); and
- reporting data and how to track usage.

Once information technology staff has a clear idea of prioritized features and the technical implications of various options, an informed choice can be made as to whether to implement an available tool or develop and design a product in-house. Application development skills may not be available in all libraries. Even if staff (or contractors) can be dedicated to a project of this type, it is important to clearly define the scope and goals of the project. Clear phases of the project and expectations of outcomes can help keep the project on deadline and ensure that both developer and client remain happy. If a currently available product is chosen over developing something from scratch, the consultation of technical staff in the selection process provides valuable input at the optimum time and protects against systems-related surprises down the road once a project has begun.

Role of Content Provider: Research Assistance and Arbitration

Is this definitely Delamar? The mill, tailings, and the mountains behind leave some question as to Delamar being the correct location. (University of Nevada, Las Vegas Libraries, 2009, October 13)

I have some Hughes Aircraft materials from my 12 years as a test engineer at EDD in Torrance. I wonder if you are interested in company and site phone directories, organization charts and a book published by Hughes Space and Communications about how to implement statistical process control? I also have a picture of myself using an automated test station in 1982 and also a picture of the same type of test station as it had been updated 10 years later. I also have reference books that came from the Hughes Torrance technical library. (Name withheld, personal communication, March 3, 2009)

The content provider has typically played a central role in the development of any digital project. They routinely work as part of a larger team to develop the subject matter and theme for a project and their rich and in-depth knowledge of collections allow them to select the best individual materials to showcase. They also can help provide the con-

textualized narrative needed to tie the digitized content together into a cohesive project. But in a Web 2.0 world, their work no longer ends with the selection of materials. The addition of these applications to digital projects has greatly expanded the content provider's role. From answering reference queries about digital objects in the collection or the related narrative, to correcting possible mistakes in the metadata of images pointed out by virtual viewers, they will be the main point of contact when users have questions about the collection materials. They may also be asked to respond to donation requests from users who find materials online and want to add their personal items to complement a digitized collection. The content provider is asked to take on a potentially significant amount of additional reference and collection work as a result of Web 2.0 applications that harness the collective intelligence of our users/patrons.

As Daines & Nimer (2009) have noted "Web 2.0 technologies are designed to enable and encourage participation, allowing users to add, modify, and improve content" (Daines & Nimer, 2009, para. 5). This participation can certainly enrich a digital collection and most studies that discuss Web 2.0 functionalities added to archival finding aids or digital projects (see Krause & Yakel 2007, Cullen 2008, and Evans 2007) focus on the benefits related to description and access that our repositories will reap from encouraging user participation. Yet this participation – as exciting as it is, is costly in terms of staff time.

Although she worked with a very small sample of archivists, Samouelian's (2009) survey on the use of Web 2.0 applications on library websites showed that there was a very real concern with the time-consuming nature of maintaining such applications. Mooney's (2009) case study of the Coca-Cola Company's archives blog noted in its "lessons learned" section that answering gueries posed in the comments section of the blog became time-consuming and frustrating. The practice was discontinued after a year. Similarly, Leonard's (2009) case study about the Northwestern University Archives blog plainly stated that blogging as an institutional activity took time and effort. Krause and Yakel (2007) admit in their report of the user interaction with the experimental Polar Bear Digital Expedition Collection that the interactions between site users and the archivist (with the later responding to questions, suggestions and comments) were a significant step in improving the accessibility of archival materials but that they ultimately made "the Archivist the key participant on the site and the focus of all guestions" (p. 311). Left unsaid here is the amount of work involved for an archivist who has become the "focus of all questions" for one digital collection let alone the archivist's numerous other duties.

Becoming aware of the challenges involved in dealing with Web 2.0 content should not deter an institution from utilizing these technologies, but rather should make them aware of the need to plan accordingly when embedding Web 2.0 features within a digital collection. Some key questions to consider are:

1. Who in the organization will be tasked with monitoring the site daily for comments and queries?

- 2. Who makes the determination that a comment or query is potentially offensive and should be removed?
- 3. Should a policy be created that will determine who addresses which queries or will they all be funneled to one individual the content provider for a particular project who then determines their disposition?
- 4. Will there be a time limit both for responses to queries and for the content provider's time used in researching the answer to a query?
- 5. What about metadata? If a virtual patron points out errors in our metadata for a digital image or object, we have an obligation to correct the metadata but only after we have checked its veracity should this then be added to the list of responsibilities for the metadata specialist or cataloger?
- 6. When an enthusiastic virtual viewer wishes to donate materials to your repository, who is tasked with determining whether the offer is a truly valuable collection worthy of inclusion?
- 7. Should student assistants (now mostly Millennials comfortable with Web 2.0 applications) be tasked with the work of monitoring the comments and trained to delegate them as appropriate?

These are the types of questions that must be dealt with strategically and on a timely basis if a digital project is to remain viable and dynamic. To adequately address these questions the librarian does not necessarily have to be a techie, but does have to be willing to commit to the increased amount of work and develop a strategic plan to deal with said content. Supervisors at all levels, who are often the ones most enthusiastic about creating digital projects, should be cognizant of the increased workload that may result from managing Web 2.0 content and adjust position descriptions accordingly from pilot project to long-term maintenance.

Digital projects have an impact on reference work; there is a concern about the nature of a digital project which places material online that has traditionally been held in a reading room in archival boxes. It makes materials more accessible and allows us to encourage user contributions, but it changes the interaction with the librarian or archivist that has typically characterized such research. The idea of the information professional giving up some of his or her authority to the user will take some adjustment. Edmunson-Morton (2009) reflects in her case study on using CONTENTdm and Flickr in the Oregon State University Archives on how the balance of power shifts when an image is placed online. She remarks on the institution's experience with Flickr that "users are weaving their own research paths through commercial and 'educational' sites, freely categorizing our images, questioning our rules and asserting their own, and commenting on what they see—all in a *very* public space" (para. 45).

As Edmunson-Morton points out however, her institution has not let these anxieties stop them from utilizing Web 2.0 applications (2009). They have embraced them by becoming, in their case, active members of the user community within Flickr by making contacts, accepting contacts and joining and creating groups. One of the ways in which an institution can maintain that sense of traditional interaction with users is to have a solid plan in place to respond to and manage this newly created content. This demonstrates an active and engaged relationship with virtual users.

Role of Digital Collection Manager: Project Management and Maintenance

Do not know where this is but certainly does not resemble anything in or near Pioche. (University of Nevada, Las Vegas Libraries, 2009, October 13)

Thank you for your comment! Library staff often use information provided with collections for initial descriptive records. Often, this information is not readily verified. We will investigate this item and edit the record if verification is possible. Thanks for helping to make the collection more accurate! (University of Nevada, Las Vegas Libraries, 2009, October 13)

General project management role.

The traditional role of the digital collections manager is to coordinate between staff, departments, and organizations, and to facilitate a logical progression of tasks and work assignments that results in a high-quality online collection. The key to managing this complex process is a solid and methodical planning process that involves several groups in various phases of decision-making. On both a digitization program level and on a project planning level, it makes sense to consider what place Web 2.0 tools will occupy in the myriad of other priorities that make up the digitization life cycle. Some important questions to address:

- 1. Are these interactive features going to be applied to all collections or to specific collections going forward?
- 2. Are there collections that contain material of a sensitive nature that might necessitate caution?
- 3. If features are added to newly developed collections, what about revising and updating older legacy collections?

All these questions should be considered on a program planning level with additional specific decisions made when individual digital collections are initiated. Often the nature of the content dictates answers. For instance, a restricted collection of copyright-protected teaching images might not be an optimal collection to experiment with because of access limitations. It might be more practical to choose a highly popular collection of digitized materials with no copyright restrictions and proven user interest as a place to begin exploring user-generated content. As collection features are integrated, digital collections project managers may experience fundamental shifts in workflow. No longer is a collection deemed finished at launch, but rather becomes a dynamic online product that requires ongoing attention.

Specific collection and item level choice.

In addition to overall project management decisions, digital collections managers are responsible for selecting technical imaging specifications for use during the digitization process. But, even in this area where much is known about best practices, it can be important to question whether currently accepted standards are suitable in the context of project goals. Any information that can be acquired about end-user usage patterns can help refine the specifications. While archival scans are typically made for all digital images, the resolution of the file provided online depends on choices made by the collection manager. A low resolution image may be useful to point the casual browser to a sample of collection highlights, but may not serve the purposes of a researcher seeking minute details, or a faculty member seeking to curate their own subset of digital images for teaching. Interactivity may also be encouraged or discouraged by the formats and resolution of materials presented online. For instance, genealogists may be much more likely to find and comment on materials in a digital newspaper collection if the images have been through the process of optical character recognition (OCR) to enable full text searching. Image specifications, decisions about how images are organized online and the choice of providing full-text searching are all important decisions to be made when considering future user interactions with the collections.

Managing interface design and development.

After collection-level plans are made and item-level specifications are determined, the end-user experience is considered. Users are drawn to beautiful and dynamic Web interfaces designed with principles of usability. Digital collections are evolving away from simple catalogs of digitized items into value-added, library-created, digital publishing venues. The need to manage content in an agile fashion has caused many libraries to move towards the use of Web content management systems (CMS) that allow staff without a high degree of technical training to maintain, update, and edit Web content. These CMS systems often also include modules that allow Web designers to add components like blogging or commenting that require a back-end database component.

Collaboration and partnerships in digitization can necessitate the creation of digital collection interfaces designed for specific audiences. For instance, there is a strong desire for digital collections to support K-12 students and teachers in local communities. These digital collections can benefit from interfaces that not only provide browsing access to primary materials for education, but also allow teachers to contribute lesson plans or teaching activities to the site and share with their peer community. This is yet another example of user-generated content driving digital collection design. Therefore, it is important that the digital collection manager understand the benefits and possibilities of interface design.

Metadata management role.

One of the most essential roles in the management of a digital collection is the decisionmaking associated with metadata creation and metadata quality control. A great deal of time is often spent during the descriptive metadata creation phase of a digital project. Selection of access points, controlled vocabulary, and subject terms takes intellectual work and a solid understanding of how users may want to search the collection. Typically, digital collections managers are continually in need of resources for metadata creation. Though it is unlikely that users will ever contribute the necessary quality and quantity required for complete digital collections metadata, experiments in user tagging and folksonomies have shown that this is a very compelling area for exploration.

Digitization of processed, well-described, or previously cataloged collections certainly aids in the metadata creation process. But these ideal collections are not the norm. Often, collections are proposed for digitization because access is limited or poor, and thus, the materials have very little descriptive information. At minimum, it is the role of metadata specialists to craft an appropriate title for the object and to capture what little is known about the item to enable retrieval. From that point, digital collections managers must let go of the record control and submit to the serendipity found in the wisdom of the masses. While it can be difficult to renounce this control, the shared knowledge of the local community and the long tail can greatly enhance metadata records.

Comments, tags, and conversation between users can be both entertaining and informative. Users may identify local landmarks, community leaders, family stories, and little known regional history. How is this esoteric, anecdotal, sometimes chaotic, flow of information managed, and by whom? By better clarifying how metadata specialists, content experts, and digital collection managers can leverage this user-generated content to improve metadata records, the description process becomes a dialogue with the community and user, and the digital collection grows in value and impact.

Role of External Relations: Marketing and Message

Very interesting and fun to read! Not very much information on the Gilbert Mine, from what I have found, so this "article" was especially helpful. Great writing thank you. (University of Nevada, Las Vegas Libraries, 2009, October 13)

Excellent! It is wonderful to have so many images available online. and especially to be able to read the newspapers. I am researching family history; one family member worked for the Salt Lake line, so to have so much available online helps tremendously. Hope you will continue scanning and digitizing. Thank You! (University of Nevada, Las Vegas Libraries, 2009, October 13)

Promoting digital collections.

The old adage "if you build it they will come," is no longer sufficient when it comes to digital collections. Where once an announcement on a listserv or the front page of a library's website was sufficient to advertise a digital project, it is now only a small piece of the pie when it comes to the promotion of these complex creations. The vast amount of planning, materials, technological resources and staff time involved in the develop-

ment of a digital project means that their promotion cannot be left to chance. From the creation of press releases and print collateral to the placement of both print and online publicity, the successful promotion and marketing of a digital project requires the assistance of library personnel focused on the library's external relations.

Thus, the role of external relations (or whatever entity within a library that is responsible for publicity and marketing of an institution's activities) is a significant one within the life cycle of a digital project. It should not be considered haphazardly at the end of the project, but rather should be integrated into the initial planning stages. Indeed, library personnel responsible for marketing and publicity should work closely with the digital projects librarian throughout the project's development. Involvement in these early stages can ensure that all marketing and publicity surrounding the digital project remains on target and delivers the same message about the project's mission and goals. There are many methods commercial enterprises use to be wherever their users are, whether this is on their company website or on social networking sites. Marfleet (2008) states, "there is no shortage of business applications for social software. It does however require somebody to own the responsibility for initiating them and to manage the process around gathering feedback and honing the ongoing business proposition" (p. 154). In addition to ensuring that text about the project's message remains consistent, involving external relations in the project's development can ensure the creation of a representative set of graphics and visuals that can be utilized in the marketing of the project at its completion. Ultimately, as an institution gains experience with each successive digital project, the role of external relations should become more embedded and automatic within that planning process and there will be no need to re-invent the wheel with regard to the marketing and promotion of new digital projects.

Leveraging user feedback from digital collections.

Significantly, the addition of Web 2.0 applications to a digital collection provides another layer beyond the work of promoting and marketing a project. Publicizing the addition of such applications to a project is only one aspect of this layer. Another more important aspect involves finding a way to harness the goodwill of the participants who are now actively commenting on your digital collections through blogs, wikis, and tagging. Addressing this role, Marfleet (2008) found, "There is an on-going role for the information intermediary in maintaining the currency of the information and also in proactively working within their company to understand the changes taking place and to facilitate the communication of these changes to a wider audience" (p. 156). Some of the questions to consider are:

- 1. While content providers and/or metadata specialists are deemed responsible for answering comments that involve reference queries and adding new or corrected information to an image, who is responsible for replying or considering those remarks that simply comment favorably and enthusiastically about a digital project?
- 2. How does one deal with what is ostensibly fan mail for a digital project? Can these comments be mined as a way to assess the success of the project and used as a way for an institution to promote the collection even further?

These are questions that those responsible for the marketing and publicity of a digital project must think about strategically as a means to manage their portion of Web-generated content.

Policy and legal concerns.

Yet another consideration is how communications may become a potential area of concern for those representing the public face of a digital project. Without policies in place, there can be questions about legal issues that may arise from engaging with users contributing social content. For instance, should external relations think about adding the contact information of persons adding favorable commentary on digital projects to their list of library supporters? Is this permissible? Additionally, what are the ramifications in taking down postings that are viewed as questionable or offensive or blocking repeat offenders?

Even if those responsible for publicity and marketing may not face these particular scenarios, they should be aware that these are concerns that have become a reality as Web 2.0 applications begin to permeate digital projects. As with content providers, addressing such issues most efficiently can happen if there are larger organizational principles in place that guide an institution's overall response and management of Webgenerated content.

Reflections on the UNLV Experience.

UNLV began experimenting with Web 2.0 features library-wide in 2006 and began testing and implementing interactive features in digital collections in late 2008. The rollout occurred in phases starting with a basic digital collection feedback form linked from collection Web pages. From this first step, a comprehensive interface re-design for digital collections took place and several Web 2.0 functions were considered in the development process, including commenting on an item, user tagging, rating an item, tag cloud creation, and integrated blogging modules. With each subsequent collection launched between 2008 and the present, new features have been launched to the public. Currently, the majority of digital collections have Web 2.0 features enabled. The entire site architecture has been migrated to the Drupal content management system.

Reflections: What Worked.

A diverse group of staff are currently involved with the Web 2.0 projects at UNLV. The libraries current strategic plan highlights a strong focus on user self-sufficiency and staff innovation, including specific directions:

- Investigate and promote tools and venues for libraries staff to engage in expanding user awareness.
- Work towards an interface and system architecture that incorporates our resources, internal and external, and allows the user to access from their preferred starting point.

• Encourage staff to experiment with, explore, and share innovative and creative applications of technology.

Table 2.

Example of a Strategic Goal, Direction, and Action Item

Goal: Make Library resources available in digital formats Strategic Direction: Informed by best practices, transform the library's unique digital collections into rich, accessible, digital objects.

Action Item: Develop a pilot collection for potential inclusion in Flickr and monitor results.

Because UNLV's strategic plan was developed in a highly participatory fashion, with input from all levels of the organization, it provides a solid foundation for the development of Web 2.0 features across the organization, supporting experimentation and innovation library-wide, regardless of where in the organization a staff member may be located.

Some of the most successful staff engagement has occurred with technical staff that has provided consultation, IT support, creativity in development, and a commitment to on-going revision and enhancement. Because the Digital Collections Department is or-ganizationally located underneath Library Technologies leadership, the technical piece of Web 2.0 projects has raised questions, but seldom been a stumbling block in implementation.

The Head of Digital Collections has experienced significant success in conceptualizing innovations for digital collections interfaces and design by creating effective workflows with staff engaged in imaging, metadata, and interface design to support the addition of Web 2.0 features. There are challenges when workflow involves project team members that are not directly supervised by the Head of Digital Collections, and as in all large organizations, communication is an area that requires on-going attention. Overall, initial explorations and pilot projects are worth the additional management responsibilities and are expected to be continued into the future.

Content providers at UNLV have been extremely supportive of digital collections innovations. Although these innovations have resulted in additional reference queries and requests for copies of materials, the staff have welcomed it as a part of a changing reference environment, and as a logical outgrowth of making materials available online. The most recent digital project, *Menus: The Art of Dining,* has proved to be a particularly successful example of incorporating Web 2.0 features into a traditional digital collection with its blog, commenting, rating and favorites functions, as well as a special section called "Tell Your Story" which allowed us to gather the personal stories of users who had visited some of the restaurants represented by menus in the collection. The first month following the launch of the collection resulted in numerous requests for images via the site and email, and many comments on the individual menus. It has led us to think of the possibility of automating the request process for reproductions as one way of providing a more strategic response to frequent queries.

Communications/External Relations staff has been enlisted to help provide support for digital collections publicity and promotion. Increasingly, print publications and website announcements are becoming one part of a multi-channel marketing effort that includes social networking and Web 2.0 features. UNLV staff agrees this is an area rich in opportunity, but requires coordination with library promotion, campus branding and messaging. There is strong staff interest in investigating this potential and aligning it with other external relations efforts.

Reflections: Workflow.

The process for new digital collection development begins with either a grant application or a proposal that goes through a committee vetting process for discussion and priority rating. Approved and prioritized projects then are routed to a digital collections project team led by the project manager. This interdepartmental team maps out a timeline and tasks based on the unique goals of the project. Initially Web 2.0 experimentations were key outcomes of several projects. As these features have been tested and adopted, they are increasingly becoming default features of new collections. For new features or revisions to current project functionality, technical staff work on specific application development, design projects, or feature evaluations, and test these in a sandbox environment before they are piloted in a collection. Technical staff is always in high demand and some challenges have arisen when digital collections projects have required long term commitment, including job responsibilities that have needed modification to accommodate newly developed application support.

Content providers and the digital collection manager are often the most affected by the on-going work of maintaining metadata and user-generated content associated with these projects. For the most recently launched collection, responses from users fell into three main categories: image reproduction requests, personal experience comments, and reference questions. Comments are routed to designated staff to handle. These comments at times have presented issues in effectively and efficiently determining who should handle the follow up: content provider, metadata creator, digital collections manager, or another staff member.

Communications staff has been a key part in promoting the launch of a new collection and are often helpful in providing access to social media channels. For a recent collection launch, staff coordinated the creation of a professionally filmed video to promote the collection via the UNLV YouTube channel. This video proved quite popular and increased Web traffic to the collection. The participation of communications staff was beneficial, but cannot be relied upon for every project, because the work is not directly part of a single job or campaign.

Reflections: Lessons Learned.

Despite the success of the investigations and implementation of several Web 2.0 features in UNLV's digital collections, the authors are acutely aware that on-going questions about organizational commitment, policy, and workflow have not yet been fully answered. Projects tend to raise questions; questions require decision-making. In tough economic times, the increased workload needed for special projects is not a popular topic. It can be hard to generate interest and momentum to enact real change. There are very few published policies for Web 2.0. There are even fewer examples of how these tools have permanently impacted the culture of the organization and the job descriptions of staff. As the next round of strategic planning at UNLV commences, it is hoped that some overarching principles can be adopted at an organization level to help continue to build consensus and buy-in among staff.

The Importance of Organizational Decision Making

Often, decision making and policy discussion is an afterthought, or is only considered when one of the aforementioned questions comes up or a serious problem comes to light. Most managers would rather consider the variables in a proactive way, rather than being forced to respond, but to do this effectively, key staff expertise needs to be tapped at every phase of project development. Digital project managers consider phases such as planning, development, implementation, evaluation, and maintenance in mapping out roles and responsibilities in the digitization process; Web 2.0 projects require the same consideration. While this type of careful analysis is known to slow down the timeline for launching a new Web-based tool, it can pay dividends in defining the scope of the project and staff responsibilities. This leads to a more sustainable and successful venture in the long term.

Users will be willing to contribute to a site if they receive responses quickly and they see other users are contributing content as well. They expect that the site will attract a vibrant community with its dynamic content. Assuming the digital collections meet these goals for users, a successful project can quickly turn from an interesting experiment into hours of work and piles of unresolved questions. Staff are already stretched to the limit with responsibilities and tight resources. If there are too many other job-based priorities that take precedent over the Web 2.0 commitment, a clear assessment of the project's success may be impossible to gauge.

Ideally, during the planning process for any new project that encompasses Web 2.0, key decision points would be clearly defined and a process would be created to document the decision and rationale. Any changes in staff roles as a result of these decisions would be clarified and communicated, and the new workload would be integrated into permanent job responsibilities. This ideal scenario can only realistically be attained through the process of determining the value of user interactivity to the organization and then explicitly carrying that statement of value through to every member of the staff.

Policy and Planning: Developing Organizational Guiding Principles

Because the management of user-generated content in digital collections touches so many throughout the organization, it can be helpful to define a set of organizational guiding principles for this type of content. By asking how comfortable an organization is in agreeing with these statements, it is possible to gauge to what degree the organization has evolved staff roles to handle new forms of content. The five statements below can serve as jumping off points for discussion with administration.

- 1. Encompass new users expectations in organizational philosophy. The organization acknowledges the benefits of experimentation with new technology tools, and seeks to identify best ways to serve user needs, even if the identified methods result in significant change to the ways we are accustomed to providing service.
- 2. **Reflect commitment in the strategic plan.** The organization is committed to engaging with users and encouraging interactivity in Web-based services. This commitment is reflected in organization guiding documents such as the strategic plan and departmental goals.
- Acknowledge that Web 2.0 tools may affect a wide range of staff. Several functional areas within the organization may provide input regarding the methods and processes of managing user-generated content. The evolving role of information professionals must be considered to efficiently manage the methods and processes.
- 4. **Integrate new role into workloads.** Management of Web 2.0 tools, usergenerated content, and interactive Web-based services is a skill set that will be sought, developed, and evaluated in various staff positions and will be incorporated into job descriptions as appropriate.
- 5. Evaluate and assess Web 2.0 projects. Experimentation carries the responsibility of assessment and evaluation; projects will be regularly reviewed for indicators of success.

Conclusion

Experimentation and exploration are hallmarks of innovative libraries, but as experiments become on-going projects and investigations become long-term commitments, it is important to gain perspective on the changing roles of librarians, archivists, and information professionals. Technology tools provide new opportunities, new challenges, and new responsibilities for our organizations to interact with users. By seeking not only to act and implement in this new world, but also to understand the implications of change, experimentation can more reliably lead to success.

References

- Bullen, A. (2008). The 'Long Tale': Using Web 2.0 concepts to enhance digital collections. Computers in Libraries, 28(9), 31-35.
- Center for History and New Media. (2010). *Omeka Project*. Retrieved from <u>http://omeka.org/about/</u>
- Daines, J. G. & C. L. Nimer. (2009). Web 2.0 and Archives. *The Interactive Archivist: Case Studies in Utilizing Web 2.0 to Improve the Archival Experience*. Retrieved from <u>http://lib.byu.edu/sites/interactivearchivist/</u>
- Edmunson-Morton, T. (2009). Talking and tagging: Using CONTENTdm and Flickr in the Oregon State University Archives. *The Interactive Archivist: Case Studies in Utilizing Web 2.0 to Improve the Archival Experience*. Retrieved from http://lib.byu.edu/sites/interactivearchivist/case-studies/flickr-at-osu/
- Evans, M. J. (2007). Archives of the people, by the people, for the people. *The American Archivist, 70*(2), 387-400.
- Gazan, R. (2008). Social annotations in digital library collections. *D-Lib Magazine*, *14*(11/12). Retrieved from: <u>http://www.dlib.org/dlib/november08/gazan/11gazan.html</u>
- Kalfatovic, M., Kapsalis, E., Spiess, K., Van Camp, A., & Edson, M. (2008). Smithsonian Team Flickr: A library, archives, and museums collaboration in web 2.0 space. *Archival Science*, *8*(4), 267-277.
- Krause, M. G. & Yakel, E. (2007). Interaction in virtual archives: The Polar Bear Expedition Digital Collections next generation finding aid. *The American Archivist*, 70(2), 282-314.
- Kroski, E. (2007). Folksonomies and user-based tagging. In N. Courtney (Ed.), *Library 2.0 and beyond.* (pp. 91-103). Westport, CT: Libraries Unlimited.
- Lanchester, J. (2006, November 4). A bigger bang. *The Guardian.* Retrieved from http://www.guardian.co.uk/technology/2006/nov/04/news.weekendmagazine1
- Leonard, K. B. (2009). Blogs and blog marketing: Bringing new users to the Northwestern University Archives. *The Interactive Archivist: Case Studies in Utilizing Web* 2.0 to Improve the Archival Experience. Retrieved from <u>http://lib.byu.edu/sites/interactivearchivist/case-studies/blogs-at-nu/</u>
- Marfleet, J. (2008). Enterprise 2.0 What's your game plan? *Business Information Review*, 25(3), 152-157.

Miller, R. (2007). Today content delivery is a two-way street. *EContent*, 30(4), 32-36.

- Mooney, P. (2009). The Blog as an archival tool: Coca-Cola conversations. *The Interactive archivist: Case studies in utilizing Web 2.0 to improve the archival experience.* Retrieved from <u>http://lib.byu.edu/sites/interactivearchivist/case-</u> <u>studies/blog-at-coca-cola/</u>.
- Samouelian, M. (2009). Embracing Web 2.0: Archives and the newest generation of web applications. *The American Archivist, 72*(1), 42-71.
- University of Nevada, Las Vegas Libraries. (2008, December 10). *Welcome Home, Howard!* Retrieved from <u>http://digital.library.unlv.edu/hughes/</u>
- University of Nevada, Las Vegas Libraries. (2009, October 13). *Southern Nevada: The Boomtown Years.* Retrieved from <u>http://digital.library.unlv.edu/boomtown</u>
- University of Nevada, Las Vegas Libraries. (2010). *Menus: The Art of Dining*. Retrieved from <u>http://digital.library.unlv.edu/collections/menus</u>

Cory Lampert is the Head of Digital Collections at the University of Nevada, Las Vegas. University Libraries, 4505 Maryland Parkway, Box 457033, Las Vegas, Nevada, 89154-7033, (702) 895-2209 <u>cory.lampert@unlv.edu</u>. She holds an MLIS from University of Wisconsin-Milwaukee and a BA from Sarah Lawrence College.

Su Kim Chung is the Manuscripts Librarian at the University of Nevada, Las Vegas University Libraries, 4505 Maryland Parkway, Box 457033, Las Vegas, Nevada, 89154-7033, (702) 895-2241, <u>sukim.chung@unlv.edu</u>. She holds an MLIS from University of California, Los Angeles and an MA from California State University, Fresno and is currently working on a PhD in Information Studies at UCLA.

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