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Matthew J. Gorzalski Southern Illinois University Carbondale, mgorzalski@lib.siu.edu

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Recommended Citation

Gorzalski, Matthew J. "Examining User-created Description in the Archival Profession." (Jan 2013).

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Examining User-created Description in the Archival Profession Matt Gorzalski

SOUTHERN ILLINOIS UNIVERSITY, CARBONDALE, ILLINOIS

Interest in user created metadata has increased in recent years. In 2009-2010 the RLG Partner Social Metadata Working Group examined the social metadata practices of libraries, archives, and museums worldwide. They found that more than half of studied institutions improve metadata with user created description. This article presents the results of a survey conducted in January-February 2013 on the social metadata practices of North American archival and special collections repositories. To what extent are archives allowing users to provide descriptive metadata using Web 2.0 technologies? Is user generated content integrated into finding aids, catalog records, or other authoritative metadata record? How do archives solicit such user engagement? Are archivists satisfied with the level of interaction their digitized content receives? This article reviews case studies on archival Web 2.0 initiatives, and compares the findings of the Working Group's reports with the 2013 survey regarding user created descriptive metadata.

Social metadata, Web 2.0, User-created description, Social media

INTRODUCTION

In 2004 Tim O'Reilly popularized the term "Web 2.0" to mark a new era in World Wide Web functionality. It describes the Web's transformation from a static information dump into a userdriven social environment. Web 2.0 is characterized by technologies that allow anyone to interact with online content using tools such as tagging, commenting, rankings, and reviews.

Address correspondence to Matt Gorzalski (Morris Library, 605 Agriculture Drive, Mail Code 6632, Carbondale, IL 62901, mgorzalski@lib.siu.edu)

Users can also create and share their own content with services such as blogs, wikis, mashups, Facebook, Twitter, Flickr, and YouTube.

Archivists embraced "Web 1.0" by developing standards such as Encoded Archival Description and experimenting with digitization to provide access to collections on a scale previously impossible. But early encoded finding aids and digitized collections were not interactive. The continuous growth and use of Web 2.0 technologies have prompted archivists to increasingly incorporate social media strategies into their online presence, entering environments where the public exchanges information rather than expecting users to come to them. Some created Flickr accounts to provide photographs to broader audiences and seek assistance with identifications. Others created sites like the Polar Bear Expedition Digital Collections or the September 11 Digital Archive¹ that encourage individuals to share their stories about a specific event. But such interaction blurs the divide between institutional metadata and user knowledge. Allowing users to describe content in their own terms can enhance access, but could result in unintended consequences such as misinformation and conflicting metadata. It can also be difficult to solicit meaningful user engagement.

Interest in user-created metadata has increased in recent years. In 2009–2010 the RLG Partner Social Metadata Working Group examined the social metadata practices of libraries, archives, and museums worldwide. They found that more than half of studied institutions improve metadata with user-created description.² This article presents the results of a survey conducted in January and February 2013 on the social metadata practices of North American archival and special collections repositories. To what extent are archives allowing users to provide descriptive metadata using Web 2.0 technologies? Is user generated content integrated into finding aids, catalog records, or other authoritative metadata record? How do archives solicit

such user engagement? Are archivists satisfied with the level of interaction their digitized content receives? This article reviews case studies on archival Web 2.0 initiatives, and compares the findings of the Working Group's reports with the 2013 survey regarding user-created descriptive metadata.

POSTMODERNISM, ARRANGEMENT AND DESCRIPTION, AND METANARRATIVES Postmodernism has profoundly affected all aspects of archival theory and practice, and is a catalyst for growing interest in user-created metadata. But unlike other disciplines, archivists were slow to analyze professional practice through a postmodern lens.³ Literature on the topic did not appear until the late twentieth and early twenty-first centuries. Critics noted that archival theory remained rooted in Enlightenment and nineteenth-century positivism, a philosophy which viewed archives as organic constructions, records as objective communications, and archivists as unobtrusive keepers. Archival postmodernists argued that these beliefs inadequately described provenances and context of creation, and rejected the image of archivist as neutral keeper. Each interaction with the record creates additional narratives and contexts to collections.⁴ Archivists influence the record through appraisal, arrangement, and description by selecting what is to be preserved and the subjects to highlight in archival catalog records. These actions shape society's collective memory and the way history is interpreted.

Universal truth and objectivity are long-held principles that have guided arrangement and description. Finding aids traditionally describe collections in neutral language and present an arrangement adhering to provenance and original order. The archivist's voice is authoritative and standardized, formulated by rules dictated in *Archives, Personal Papers, and Manuscripts* (1983) and later *Describing Archives: A Content Standard* (2004). Early manuals on

arrangement and description make no reference to incorporating outside knowledge in descriptive records.⁵ But postmodern archival theorist Terry Cook stated "…there is not one narrative in a series or collection of records, but many narratives, many stories, serving many purposes for many audiences, across time and space."⁶ Postmodernism influences archivists to consider these voices and recognize that description is not static but evolves over time. Both the 1989 Working Group on Standards for Archival Description and Mary Jo Pugh advocated for incorporating user knowledge gained through research into formal descriptive catalog records.⁷ User insight can enhance access to archival material by strengthening contextual understanding and topical information.

Archivists have since imagined methods for capturing user knowledge, and have argued for greater transparency about the archivist's impact on collections. Michelle Light and Tom Hyry advocated using colophons and annotations in online finding aids. Colophons allow archivists to reveal appraisal, arrangement, and descriptive decision making, and annotations allow users to share their knowledge about a collection.⁸ These ideas are noteworthy because they described an interactive environment prior to when "Web 2.0" became mainstream in society's lexicon.

Two recent concepts build upon early arguments capturing user description. They envision a paradigm shift where researchers, organizations, professionals, and archivists all contribute to the descriptive, contextual knowledge about collections. Max J. Evans's "commons-based peer-production" model relies heavily on volunteers creating description on projects of their choosing in a Web 2.0 environment.⁹ In Scott R. Anderson's and Robert B Allen's "archival commons," users contribute to finding aids through annotation, narration, linking to external and internal resources, virtual rearrangement, tagging, naming services, and recommendation to other collections resulting in improved "contextual positioning of materials within the traditional delineation of a collection but also within the global view of a universe of cultural artifacts and human knowledge."¹⁰

USER-CREATED METADATA IN WEB 2.0 INITIATIVES: GENERAL OBSERVATIONS

Although social technologies allow for soliciting user-created description, early surveys on archival Web 2.0 activities reveal that few are taking advantage of these features. Mary Samouelian investigated the extent to which social media had been integrated into digital collections. She found that 45% of reviewed collections implemented at least one Web 2.0 tool, but that only 29% of those interviewed cited user participation as the driving force behind these initiatives. User participation is not listed among the positives of Web 2.0 implementation.¹¹ Jackie Dooley's 2009–2010 survey of archives and special collections showed a clearer picture of archival social media use. She found that 7% did not have finding aids online, 49% maintained a blog, 40% used social networking like Facebook, 31% maintained a Flickr account, 17% operated a wiki, and 25% had content on YouTube. However, only 15% allowed user-created feedback using these tools.¹²

User-created metadata is often examined as a segment within a greater Web 2.0 initiative. The study of the Polar Bear Expedition Digital Collections is an early analysis of Web 2.0 technologies incorporated into a digital collection with discussion on managing user commentary. The interface is considered a "next generation" finding aid because it combines materials from multiple collections and is designed for user-contributions and community building. Incorporating user knowledge into the framework of a finding aid lends credibility to user commentary and encourages contribution. Comments are searchable and identified as such in search results. They offered corrections or new information, which were then used to update authoritative description after the information was validated. Although the authors were disappointment with the limited use of some of the features, they affirm that users enrich archival description with their knowledge.¹³

Other case studies discuss the challenges associated with capturing and incorporating user-created metadata into online collections. Kate Theimer's edited A Different Kind of Web contains several studies on successful projects in which users contributed additional contextual information, identifications, or corrections regarding people, places, events, and dates. In cases like the National Archives of Australia's Anzacs project¹⁴, media coverage contributed to public interest. But archivists struggle to sustain efforts that make user-contributions a part of descriptive workflow. Despite considerable interaction, resource constraints forced the Library of Congress to prioritize uploading new content over updating the master copies of their descriptive records.¹⁵ Guy Grannum notes that a challenge facing the National Archives' (United Kingdom) *Your Archives* has been educating users to know that the wiki is specifically purposed for their contributions and knowledge sharing. He also reports that at the wiki's launch there was no method for embedding user description into the catalog and making it searchable.¹⁶ The National Archives of Australia and the PhotosNormandie Project report similar challenges.¹⁷ In addition to insufficient resources, the public's lack of understanding that their knowledge is valuable hinders Web 2.0 initiatives. Few if any studies exist on active outreach methods aimed to raise awareness of archival social websites and solicit user contribution.

Collaborative archives of born-digital materials provide avenues for archivists to educate the public about the value of their records and capture user-created descriptions. Archives such as the September 11 Digital Archive and the Hub are largely generated by content created and uploaded by event eyewitnesses.¹⁸ Archivists Tom Scheinfeldt and Grace Lile affirmed that convincing the public that their records are worth saving is a major challenge, as well as persuading archivists that cell phone generated content is more than ephemera. Outreach for user contributions may be more effective if specific audiences are targeted, such as Lile reaching out to human rights activists. Both archives include metadata about submitters and content, and, in the case of the Hub, "contributors and users assign tags to video contributions, creating a 'folksonomy' of descriptive metadata..."¹⁹ Because born-digital records are often accessioned with nondescript file names and media labels, allowing users to create description during uploading will result in better accessibility, improve authenticity, and supports outreach via increased user participation.

User-created metadata can be affected by the culture and customs of those whose materials are the subject of a digital collection. Kimberly Christen's article on the Plateau People's Web Portal discusses these issues in light of the ethical responsibilities archivists have when providing access to American Indian materials. Tribes, scholars, and institutional affiliates contribute metadata to digitized materials. The interface displays native and scholars' metadata together, as well as institutional and tribal catalog records to allow researchers to compare perspectives. Unlike unrestricted tagging, browsing is standardized by a classification system created by the Portal team and tribal members. This created tension between tribal reluctance to use Western terminology and the need to make the material available to the broadest audience possible.²⁰ The Portal reinforces the need to carefully consider the intended audiences and uses of digitized material before proceeding with social metadata features.

Most archival Web 2.0 literature discusses experimentation and lessons learned. There are few studies dedicated to user-created metadata and related outreach efforts. In Tiah

Edmunson-Morton's analysis of commentary and tagging in Oregon State University's digital collections, she noted that future plans include "how to enable "meaningful" user contribution of descriptive content or background information for archival collections (and how to work that user input into our workflow)"²¹ Similar library literature is deeper and studies the quality and search effectiveness of social metadata. A 2009 survey reveals that 9% of academic libraries allow for user metadata in digital projects.²² Others have compared the accuracy and coverage of librarian-assigned subject terms with user tags, although with inconsistencies. Peter J. Rolla found a 75% indexing match rate between WorldCat subject terms and LibraryThing user tags, while Marija Petek found a 41.4% rate studying images in the Digital Library of Slovenia and Flickr. Besiki Stvilia et al. noted that user tagging more than doubled the subject coverage of studied Flickr photographs.²³ Other studies confirm that tagging improves search and retrieval. An examination of tagging on a Taiwanese science museum web site found that 70% of all full text searching or tag queries matched assigned social tags and 85% of individuals felt that social tags assisted them in searching for resources. A study on searching interfaces found that users experienced the highest recall with the tag ontology interface despite preference for free text searching.24

OCLC Social Metadata Study

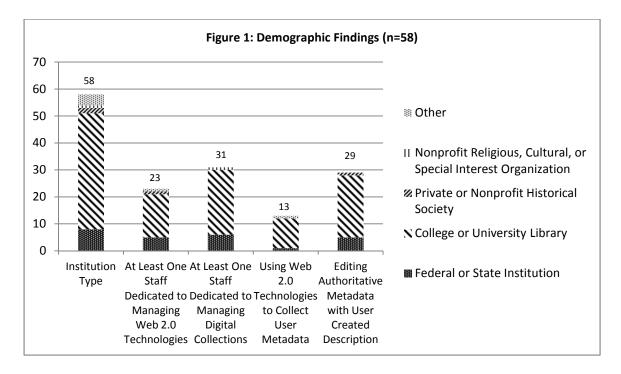
In 2009–2010 the RLG Partners Social Metadata Working Group conducted the first comprehensive study of user generated metadata activities of libraries, archives, and museums worldwide. The group produced three reports: a review of 76 websites that used Web 2.0 tools, a survey analysis of respective site managers and other professionals, and a series of recommendations. The "Site Reviews" found that comments and annotations (80%) and tagging (54%) were the most popular social metadata features. The top user contributions sought included improved description (62%), collection/content building (47%), and improved subject access (39%).²⁵ The "Survey Analysis" shows similar results. Sixty percent cited enhanced description as an objective for social media outreach, with comments (82%) and tagging (67%) being the most used features. However, 61% reported that social metadata is not incorporated into description workflow, and 63% have no formal metadata updating procedures that take advantage of social metadata.²⁶ The findings of the Working Group's reports are compared to this study in the Discussion section below.

METHODOLOGY

The author surveyed archival repositories to assess the degree to which archivists solicit usercreated description and incorporate it into institutional metadata. The author also examined outreach activities to encourage user description. The survey was open for six weeks between January and February 2013. Survey questions focused on the use of online finding aids, digital collections, blogs, wikis, Facebook, Flickr, and YouTube for these purposes. It asked primarily "yes" or "no" questions and included a few ratings and open responses. Some were logic questions which triggered subsequent questions based on a respondent's answer. Because of the diverse nature of archival institutions, the survey audience was the entirety of the profession. It was distributed via the Archives & Archivists listserv and advertised on the *Archives Next* blog. Appropriate archivists in Association of Research Libraries institutions were contacted directly to obtain sufficient data. This study differs from the Working Group's research. The focus on archival institutions is narrower than the OCLC research which included museums and discipline-based websites. The Working Group examined the use of all Web 2.0 technologies while this study focused on only those encouraging and capturing user metadata. Finally, the Working Group targeted institutions with an established social media presence whereas this study examined institutions without prior knowledge of their Web 2.0 activities.

FINDINGS: THE BIG PICTURE

The survey generated 58 total responses which included 43 college and university libraries (74%), eight federal or state libraries, archives, or historical societies (14%), two private or nonprofit historical societies (3%), one nonprofit religious, cultural, or special interest organization (2%), and four "others" (7%). Those selecting "other" were three local governments and one nonprofit research organization. Twenty-three (40%) respondents have at least one staff member dedicated to implementing Web 2.0 technologies for public outreach, and 31 (53%) reported at least one staff member dedicated to creating digital collections (see Figure 1).



Respondents were asked if, in general, they use Web 2.0 technologies to seek usercreated descriptive metadata. Thirteen (22%) confirmed this practice, a slight increase in percentage from the 15% of institutions seeking user-contributed feedback in Jackie Dooley's 2010 survey. However this number is deceptive. Some respondents who answered "yes" to this question did not confirm seeking user metadata using finding aid or digital collection interfaces, blogs, wikis, Facebook, YouTube, or Flickr as the survey progressed. Additionally, 14 respondents who answered "no" to this question later indicated that they *do* seek user metadata in one or more of these tools. Combining all respondents who answered "yes" to the general question and later indicated seeking user metadata via any of the stated tools brings the total to 27 or 47% of respondents, a much higher percentage than Dooley's. Her 15% is calculated from 162 respondents, meaning that 24 archives reported seeking user feedback, slightly less than 27. A clearer sense of archival uses of Web 2.0 tools is discussed below in each section. Related to this, 29 respondents (50%) indicated that they edit authoritative metadata records to include user supplied knowledge. This content is gathered through any combination of the social mechanisms discussed in the survey or through email, telephone, or face-to-face conversation.

Institutions with staff dedicated to implementing Web 2.0 tools are more likely to also be seeking user-created metadata. Of the 27 institutions seeking user metadata, 16 (59%) reported having at least one staff member dedicated to overseeing Web 2.0 activities. This is 69% of the total 23 reporting having dedicated Web 2.0 staff. Archives incorporating social media outreach into job responsibilities are more likely to realize the full potential of these interactive tools by obtaining user knowledge to supplement collection description (see Table 1).

Table 1: Relationship Between Having Dedicated Web 2.0 Staff and Actively Seeking User Metadata						
	Total Respondents With at Least One Dedicated Web 2.0 Staff	Total Respondents Seeking User Created Metadata	Institutions with both at Least One Dedicated Web 2.0 Staff and Seeking User Created Metadata			
Federal or State	5	4	3			
Institution						
College or University	16	22	12			
Library						
Private or Nonprofit	1	0	0			
Historical Society						
Other (nonprofit research						
organization	1	1	1			
Total	23	27	16			

Respondents were asked if they go beyond having a Web 2.0 presence and engage in active outreach efforts to solicit user metadata. Twenty-nine of the 58 total respondents (50%) indicated that they actively encourage or solicit user metadata. Most did not describe outreach strategies in open-ended response questions, but those who did are briefly discussed in the sections below. The 27 institutions seeking user-created metadata are more likely to engage in outreach activities for this purpose. Of this population, 21 are among the 29 actively encouraging users to contribute descriptive content (see Table 2)

Table 2: Relationship Between Institutions Seeking and Actively Soliciting User Created Metadata						
	Total RespondentsTotal Respondents SeekingActively Soliciting User MetadataUser Created Metadata		Institutions Both Seeking and Actively Soliciting User Metadata			
Federal or State Institution	4	4	4			
College or University Library	23	22	16			
Private or Nonprofit Historical Society	1	0	0			
Other (nonprofit research organization)	1	1	1			
Total	29	27	21			

Finding Aids

Archivists have not widely adopted Light and Hyry's call to include commenting and annotations into online finding aids. Only one respondent (2%) from a college or university library answered "yes" to this question. None indicated that tagging tools are integrated into online finding aid systems, revealing a discrepancy between archivists and librarians who have been more proactive in incorporating tagging into online catalogs. Despite the availability of open source software such as Archon and Archivists' Toolkit, or the ease of making PDFs available on a webpage, eight institutions (14%) do not provide online access to finding aids. These included two federal or state repositories, two college or university libraries, three local governments, and the sole nonprofit religious, cultural, or special interest organization. This percentage is double the 7% of institutions reporting no online finding aid access in the Dooley survey.

The data on archivists' use of user metadata presents challenges and reveals confusion among respondents. This section of the survey covered uses of finding aids and Web 2.0 tools. However some responses indicate that other services allowing comments, annotations, and tagging were considered when answering these questions. Only nine institutions (16%) update authoritative description based on user commentary, which included one federal or state institution and eight college or university libraries. Of the nine who answered "yes" to this question, three gather user contributions through mechanisms other than finding aids such as email, telephone, or in-person and update description accordingly. The other six do not specify how user metadata is gathered, or they refer to their digital collections interface instead of finding aids. One institution described a system in which user metadata and materials in other outreach systems contain links back to finding aids as well as online collections. When comments are posted, "the feedback is collected, verified, and frequently incorporated into the notes or descriptive entries in our finding aids and digital collections systems." Four institutions answering "no" when asked if description is updated stated in free text response that they do in fact edit finding aids to reflect comments received via email. Five college or university libraries indicated that comments or tags are searchable despite previously answering that these tools were not offered in online finding aids. The only institution allowing comments and annotations in finding aid systems, a college or university library, does not make them searchable.

Three institutions (5%) actively solicit user commentary, annotations, and tagging, but none described the nature of proactive outreach efforts. The college or university library that allows finding aid commentary stated that this feature has not been advertised, but that an outreach program is planned. Because so few allow commentary, tagging, or encourage user interaction, no relationship between those actively seeking user metadata and those soliciting user contributions can be identified. Answers varied when respondents were asked to explain satisfaction regarding user participation in the descriptive process. Out of ten free text responses (17% of total), none were directly enthusiastic about their users' engagement. Others expressed dissatisfaction with the quality of user contributions. One noted that most comments are "not particularly meaningful beyond the individual, are actually reference questions, are of dubious accuracy and from some theoretical intersubjective perspective, add little to what has been said, or are cheerleading." Another stated that "When we do receive thoughtful user comments, they are usually very helpful and worth using to augment our records. Most comments however are not useful, as a lot of times those who wish to comment are people with specific religious or political agendas..."

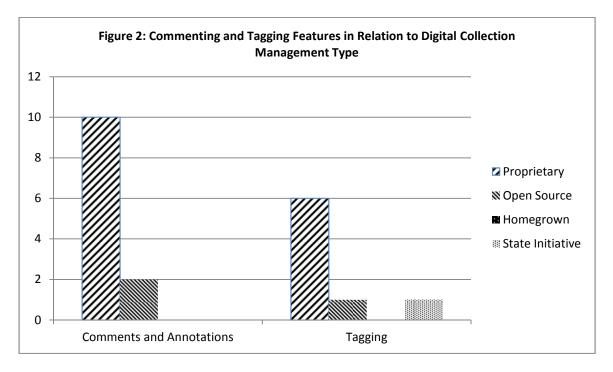
Digital Collections

Questions about digital collections referred to collections hosted by the institution or uploaded to statewide initiatives such as the Portal to Texas History. The questions were not intended to include materials uploaded to social sites such as Facebook, Flickr, and similar services. Of the 58 responses, 45 institutions (78%) host digital collections of this nature. This consisted of seven federal or state library, archives, or historical societies, 36 college or university libraries, one private or nonprofit historical society, and one "other" being the research nonprofit organization. Proprietary software is the most popular method for hosting digital collections. See Table 3.

Table 3: Software Used to Host Digital Collections						
Institution Type	Propriety	Open Source	Homegrown Tool	State Initiative		
Federal or state library,						
archives, or historical	4	2	1	0		
society						
College or university	20	9	4	3		
Private or nonprofit	1	0	0	0		
historical society						
Other	1	0	0	0		
Total	26	11	5	3		

The digital collections interfaces among respondents are largely non-interactive. Only 12 (27%) incorporate commenting and annotating tools and eight (18%) allow tagging. No interface

allows searchable commentary and only two (4%) index tag terms for searching. Institutions using proprietary software were more likely to provide commenting, annotating, or tagging features in their collections than open source or homegrown tools. This is in contrast with Samouelian's study which found that homegrown systems are more likely to include Web 2.0 technologies than proprietary software.²⁷ While the response rate for open source and homegrown systems was collectively smaller than those using proprietary software, it remained surprising that not one institution using homegrown toll reported using these features, as did few open source users (see Figure 2).



Seven institutions (16%) actively encourage or solicit user interaction with their digital collections. When asked if the user metadata provided is used to edit authoritative descriptive records, respondents again considered content captured via other methods. Thirteen (29%) institutions hosting digital collections answered "yes" to this question. However, five of the 13 previously answered that comments, annotations, and tagging are not offered. One respondent again mentioned using information received via email when editing authoritative metadata

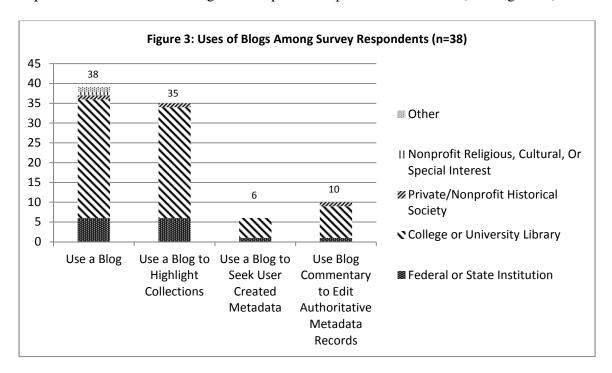
records. Another respondent described a related but more sophisticated scenario: "When we receive comments from users in person, via telephone or email, we have a field in the online record where we record their commentary. Field is called 'Patron Supplied' in one of our databases, 'Local Index Note' in another."

Institutions were asked to comment on their satisfaction with user interaction in digital collections. Because only 13 (29%) of respondents provide some combination of commentary and tagging features, the responses are limited. Some expressed frustration with the quantity of user comments. One person noted "So far we have only gotten one response to our attempt at crowdsourcing tags and comments. We are investigating how to better publicize what we're doing." Others remain optimistic, stating "The comments that we have gotten have proved pretty invaluable, even if they have been few in number," and "I want to do a lot more both within our finding aid delivery system and CONTENTdm to solicit and leverage user generated feedback and enhanced description."

Blogs

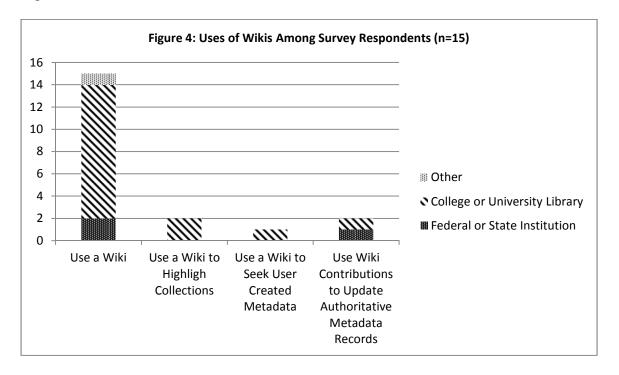
Blogs remain among the most popular Web 2.0 technologies used by archives. Thirty-eight (66%) institutions maintain a blog and 35 (92%) use them to highlight collections or portions of a collection. Dooley's survey found that 49% maintain a blog. Despite blog popularity only six (16%) report using them as a means of seeking user assistance in the descriptive process. Although this is rarely a blog's primary purpose, this type of interaction is a welcome byproduct. For instance, ten institutions (38%) update metadata records with information gathered from the comments, though five of these answered "no" when asked if the blog is used to seek user-created metadata.

Unsurprisingly, most institutions do not actively encourage user commentary. The nature of blogs and the public's familiarity with them makes interaction implicit. Twenty-five institutions (66%) answered no to this question. However of the 13 who answered "yes," two stated in open-ended response that they do not "actively" encourage interaction, raising the percentage of those who do not solicit commentary to a more accurate 71%. Archivists use the advantages of Web 2.0 tools and gear posts toward personal connections to promote and encourage blog interaction. Two institutions cite sharing posts through other social media outlets. One respondent stated "Our blog posts are also mentioned on our Twitter and Facebook pages along with questions for our users about the materials we're publicizing." Directing questions at readers with thought-provoking posts is another approach mentioned by respondents: "With institutional record collections we encourage the blog readers to share their own experiences/memories relating to the topic of the post or collection." (See Figure 3.)



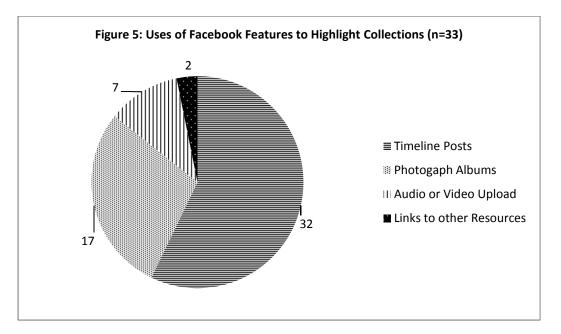
Wikis

Wikis continue to be one of the least used Web 2.0 technologies among archivists; 15 institutions (26%) responded that they use this resource. Dooley found that 17% of surveyed institutions maintain a wiki. Wikis require users to be knowledgeable of the editing syntax required to update the content, which may be a hindrance for their adoption. Only two of the 15 institutions (13%) reported using a wiki to highlight collections, and only one (7%) indicated that seeking user-created metadata was a motivation. User interaction is seldom the purpose. In open-ended questions, four explicitly stated that the wiki is "for internal use only" often used for reference. Others noted "we do post guidelines and workflows for use by external communities" and "our wiki is for developing processing plans and long term digital preservation plans." Only two institutions to update authoritative metadata records. Curiously, one of the respondents replying "yes" to the latter question later commented in an open-ended question that the wiki is for internal use (see Figure 4).

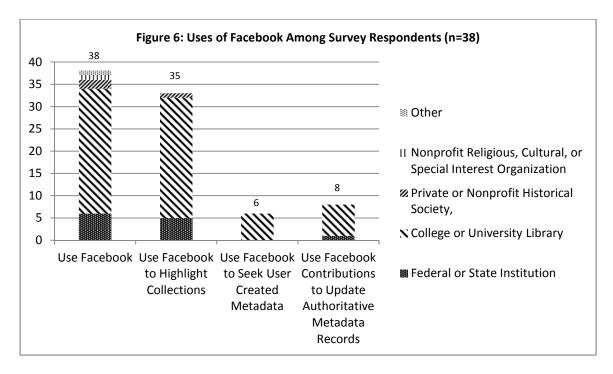


Facebook

Like blogs, Facebook is a popular way archivists reach broader audiences. Thirty-eight (66%) institutions reported using a Facebook page compared to 40% of repositories in the Dooley survey. The majority of respondents (87%) use the multiple interactive tools offered in the site to highlight their collections (see Figure 5).

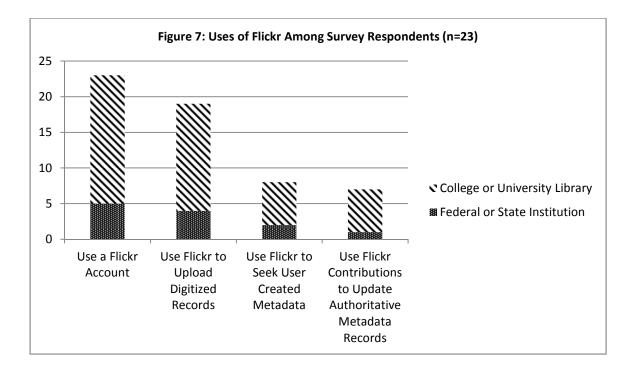


Despite the high number of archivists using Facebook to highlight collections, few seek user-created descriptive metadata. Only six institutions (16%) confirmed this practice, but eight respondents (21%) stated that they update authoritative metadata records with the user contributions gathered through Facebook. The six seeking user metadata are among the 21 (55%) repositories actively soliciting Facebook interaction. The most common ways archivists encourage user comments is by asking questions on the timeline or creating photograph albums of unidentified images. However, all noted that user comments often lacked substance or were simply "likes" on posted content (see Figure 6).



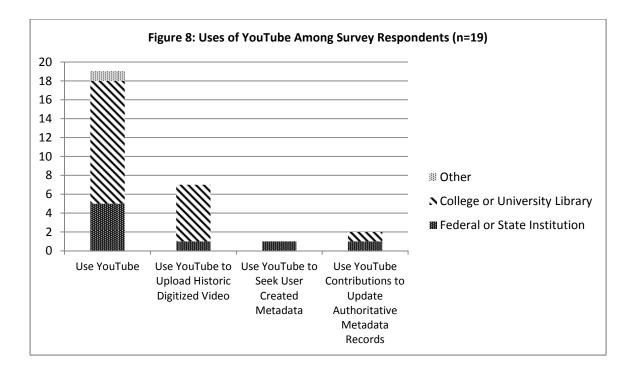
Flickr

Flickr is one of the most promising Web 2.0 tools to solicit user commentary and tagging. Twenty-three institutions (40%) maintain a Flickr account, a slight increase from the 31% found in the Dooley survey. Of the 23, 19 (83%) upload digitized records to the account; the other four advertise events or depict the behind the scenes archival work instead. Only eight (34%) respondents use Flickr to seek user-created metadata, and seven (30%) report updating authoritative metadata with the new information. Few institutions, seven or 30%, actively encourage users to supplement uploaded content with their knowledge. Six of the eight seeking user metadata are among the seven actively engaging users for this purpose. One archivist stated "Flickr has been our main tool where people from the public have been very helpful in identifying buildings and people or narrowing down dates of photographs. Once verified, descriptions are updated to reflect the information we receive." However, most open-ended responses attribute the lack of contributed user metadata to using Flickr for other purposes, the newness of the account, or previously unsuccessful projects (see Figure 7).



YouTube

YouTube continues to be less popular with archivists than other Web 2.0 sites. Nineteen respondents (33%) reported using a YouTube account, up slightly from the 25% found in Dooley's survey. Seven institutions (36%) using YouTube upload digitized historic video. Some who are not uploading historic video stated that the account is used for other purposes such as tutorials on browsing digital resources, outreach purposes, and general instructions. Only one repository (5%) reported seeking user-created metadata, and only two (11%) update authoritative metadata records with comments gathered from YouTube. Two respondents actively encourage user interaction with their YouTube accounts, neither of whom includes the archive seeking user metadata. No institution described their outreach method for soliciting user interaction. (see Figure 8).



DISCUSSION

Since Dooley's 2010 survey, archivists' use of blogs, wikis, Facebook, Flickr, and YouTube has increased. This trend will likely continue as research on Web 2.0 use grows and archivists become more familiar and innovative with these tools. The percentage of institutions seeking user-created metadata (22%) demonstrates a slight increase from Dooley's (15%) as well. However, after accounting for all instances where respondents reported using any combination of the social tools in question for this purpose, the percentage is a much higher 47%. The discrepancy raises questions about the validity of these numbers and the possibility that such a large increase could occur over only a three-year period. But Web 2.0 tools often see periods of rapid growth as public awareness increases, and using them for social metadata purposes may coincide with this trend.

Higher percentages are found in the more recent RLG Social Metadata Working Group's research. These numbers may reflect the fact that while the author's study questioned institutions

without prior knowledge of their Web 2.0 practices, the Working Group reviewed websites known to use these features and surveyed respective site managers. As noted earlier, the "Site Reviews" report found that 62% and 39% of institutions sought user contributions to improve description or subject access, respectively. Additionally, the "Survey Analysis" stated that enhancing description was an objective of 60% of respondents.²⁸ These numbers are closer to the 47% of institutions found in this survey. The variation in percentages reflects similar circumstances in the library literature for studies comparing librarian-applied subject headings versus user tags. Despite the differences, both studies indicate that welcoming the public's knowledge to improve descriptive metadata is becoming more common.

How institutions are using social metadata reveals an additional similarity between the two studies. The Working Group found that 57% of respondents make corrections to existing metadata as a result of user contributions.²⁹ This study finds that 29 institutions (50%) do likewise, using information gathered from any combination of finding aid or digital collection interfaces, blogs, wikis, Facebook, Flickr, and YouTube. Open-ended responses reveal that archivists also revise metadata records with information provided by users through email, telephone, or face-to-face conversation. A growing number of archivists use social media to its fullest information sharing potential, moving beyond early Web 2.0 implementations that involved establishing a social media presence and publicizing collections and the institution.

Responses about the type of software used to manage interactive sites reveal a major discrepancy between the studies. Of institutions in this study hosting digital collections, 58% use proprietary software, 24% use open source software, and 11% use a homegrown tool. The Working Group reports the opposite: 66% use internally developed software, 59% use open source, and 21% use commercial software.³⁰ The stark contrast is likely explained by the

approach of each study. This survey questioned the type of software used to host digital collections, a narrow segment when compared to the variety of sites reviewed by the Working Group and their respective social metadata goals. These websites were more innovative and robust than a "traditional" CONTENTdm hosted collection, and many had distinct goals or target audiences. The sites' functionality requires homegrown or open source tools that can be modified over time to meet audience expectations or changes in institutional goals. Additionally, this study mistakenly did not consider the fact that institutions can and probably do use more than one type of software to support their social medial presence. Given the information in the Working Group reports and the Samouelian article, it is clear that archivists favor homegrown or open source software that allows for control of functionality to suit institutional needs.

Questions regarding staff duties demonstrate another disagreement between the two studies. The Working Group "Survey Analysis" states that only 9% of institutions have a staff member whose primary responsibility is social media site management. Conversely, this study reports that 40% of surveyed institutions have at least one staff person dedicated to managing Web 2.0 technologies for public outreach. This number requires further consideration. While the survey assumed that "dedicated" indicated primary responsibility, it is possible that respondents defined "dedicated" to include "part of duties," as the survey made no attempt to distinguish between the two. The Working Group made the distinction and found that 57% of institutions had staff where management was "part of duties."³¹ Although the numbers vary, it is encouraging that many archivists are proactively managing their social media presence which is essential for successful, sustainable virtual outreach.

The Working Group describes the same methods found in this study of how archivists are marketing their social presence. Strategies include moving Web 2.0 resources to prominent

places on institutional websites, publicizing new content across multiple social media services, and notifications through RSS feeds.³² Respondents in this study also noted posing questions to encourage commentary, which gives users guidance on formulating their ideas. The Working Group's "Site Reviews" identifies this practice in some of the discipline-based sites such as the Science Museum of Minnesota's *Science Buzz*.³³ The "Survey Analysis" reveals that 49% of respondents implement outreach activities to nurture online communities, but building community does not necessarily involve social metadata.³⁴ No respondents in this study provided detailed accounts of how user metadata is solicited through outreach activities, although one college or university library noted that such a program was planned. Outreach efforts of this nature appear to be underdeveloped. The "Recommendations and Readings" report encourages archivists to invite interaction without worrying about spam. Key points from these sections include having a clear goal on the home page–where archivists can create eye-catching calls for commentary–and articulating why interaction is sought–where archivists can raise awareness of the value of user knowledge.³⁵

It is difficult to gauge the degree to which respondents of this survey consider their Web 2.0 presence a success. When asked to rate their satisfaction with user-created metadata, the data was too inconsistent and incomplete to draw any conclusions. Despite receiving occasional useful comments, many expressed displeasure with the level of interaction with their sites. One archivist summed up this sentiment: "We've found that the amount of effort needed to get users enthused about commenting, blogging and contributing their own content is often too great to sustain for long periods, at least at our current staff levels. We try to encourage user participation in periodic 'swarms'... during last year we did receive a few good comments that were used to augment collection records..." Comparatively, the Working Group found that 91% of surveyed

institutions consider their sites to be successful, with slightly over half (53%) identifying gathering new metadata as a measurement of success.³⁶ These high numbers reflect both studies' differentiating scopes. While the author's study focused solely on user-created description, the Working Group broadly defined social metadata to also include links to other resources, collection building (user-uploaded digital photos, audiovisual, etc.), bookmarking, ratings, user-compiled lists, and others. They also identified a wide range of objectives including building user communities and increasing traffic to the site, and several measures of success including engaging new, existing, and unexpected audiences.³⁷ Therefore when considering the several criteria for success beyond gathering user-created description, it is more likely that an institution surveyed by the Working Group would consider their site to be successful. Both studies conclude that quality and not quantity is a better measure of success when considering user-created metadata. As one respondent in this study noted, "We have gotten a few excellent comments, especially with regard our participatory archives content … even if they have been few in number."

CONCLUSION AND FURTHER RESEARCH

Many archival institutions are using Web 2.0 technologies to seek user-created metadata. The more successful examples are websites such as those reviewed by the RLG Partners Social Metadata Working Group, motivated by enhancing description with user knowledge and featuring an array of interactive features. Archives using individual social media tools such as Facebook and blogs are more likely to use them to promote collections, events, and the institution rather than to gather user-created description as a primary objective. However, gathering and integrating user contributions into the authoritative metadata records is becoming

more accepted, whether they are acquired through social media or traditional sources such as email, telephone, or conversation.

The survey data was insufficient to answer some of the author's initial questions. The results also raise additional questions and reveal areas needing further research. Further studies are needed to

- Investigate the nature of outreach strategies aimed at gathering user-created metadata
- Determine how archivists convey to the public the value of user knowledge for describing collections
- Explore the relationship between those actively soliciting user metadata and the number of contributions received
- Examine the degree to which archivists are satisfied with the quantity and quality of usercreated metadata
- Identify reasons why archivists do not seek user metadata or incorporate it into authoritative descriptive records

NOTES

2013); The September 11 Digital Archive, http://quod.lib.umich.edu/p/polaread/ (accessed November 3, 2013).

^{1.} Polar Bear Expedition Digital Collections, http://quod.lib.umich.edu/p/polaread/ (accessed November 3,

^{2.} Karen Smith-Yoshimura, *Social Metadata for Libraries, Archives, and Museums: Executive Summary* (Dublin, Ohio: OCLC Research, 2012), 5. Available at

http://eprints.rclis.org/16776/1/RLG%20Social%20Metadata%20Executive%20Summary%20March%202012.pdf.

3. Elisabeth Kaplan, "'Many Paths to Partial Truths': Archives, Anthropology, and the Power of Representation," *Archival Science* 2 (2002): 209–220. Kaplan states that archival profession's nature as an applied rather than academic field allowed it to avoid postmodern critique.

4. The ideas in this paragraph are discussed in detail in Eric Ketelaar, "Tacit Narratives: The Meanings of Archives," *Archival Science* 1 (2001): 131–141; Tom Nesmith, "Seeing Archives: Postmodernism and the Changing Intellectual Place of Archives," *American Archivist* 65 (Spring/Summer 2002): 24–41; Joseph Deodato, "Becoming Responsible Mediators: The Application of Postmodern Perspectives to Archival Arrangement and Description," *Progressive Librarian* 27 (2006): 52-63; and Kaplan, "Many Paths to Partial Truths," 209–220.

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28. Smith-Yoshimura, Godby, Koffler, Varnum, and Yakel, Part 2: Survey Analysis 14.

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30. Ibid., 27.

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