

Social Metadata for Libraries, Archives, and Museums:

Executive Summary

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A publication of OCLC Research

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March 2012

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Dublin, Ohio 43017 USA
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ISBN: 1-55653-442-6 (13-digit) 978-1-55653-442-3
OCLC (WorldCat): 778805285

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Suggested citation:
Smith-Yoshimura, Karen. 2011. *Social Metadata for Libraries, Archives, and Museums: Executive Summary*. Dublin, Ohio: OCLC Research. <http://www.oclc.org/research/publications/library/2012/2012-02.pdf>.

Acknowledgements

This report was created in collaboration with the following members of the RLG Partners Social Metadata Working Group (for short biographies, see “Who Are We?” at www.oclc.org/research/activities/aggregating/group.htm).

Drew Bourn, Stanford University

Douglas Campbell, National Library of New Zealand

Kevin Clair, Pennsylvania State University

Christopher Cronin, University of Chicago

Christine DeZelar-Tiedman, University of Minnesota

Mary Elings, University of California, Berkeley

Steven Galbraith, Folger Shakespeare Library

Carol Jean Godby, OCLC

Cheryl Gowing, University of Miami

Rose Holley, National Library of Australia

Rebekah Irwin, Yale University

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Marja Musson, International Institute of Social History (Amsterdam)

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Executive Summary

Metadata helps users locate resources that meet their specific needs. But metadata also helps us both to understand the data we find and to evaluate what we should spend our time on. Traditionally, staff at libraries, archives, and museums (LAMs) create metadata for the content they manage. However, social metadata—content contributed by users—is evolving as a way to both augment and recontextualize the content and metadata created by LAMs. Enriching LAM metadata improves the quality and relevancy of users’ search results and helps people to understand and to evaluate the content better.

The cultural heritage organizations in the RLG Partnership were eager to expand their reach into user communities and to take advantage of users’ expertise to enrich their descriptive metadata. In 2009-2010, a 21-member RLG Partner Social Metadata Working Group from five countries reviewed 76 sites relevant to libraries, archives, and museums that supported such social media features as tagging, comments, reviews, images, videos, recommendations, ratings, lists, links to related articles, etc. The working group analyzed the results of a survey sent to site managers and discussed the factors that contribute to successful—and not so successful—use of social metadata. The working group considered issues related to assessment, content, policies, technology, and vocabularies.

The working group produced three reports on “Social Metadata for Libraries, Archives, and Museums,” from which excerpts have been compiled here as an executive summary:

Part 1: Site Reviews. An environmental scan of sites and third-party hosted social media sites relevant to libraries, archives, and museums (Smith-Yoshimura and Shein 2011b).

Part 2: Survey Analysis. Analysis of the results from a survey of site managers conducted in October–November 2009. The survey focused on the motivations for creating a site, moderation policies, staffing and site management, technologies used, and criteria for assessing success (Smith-Yoshimura et al. 2011).

Part 3: Recommendations and Readings. Recommendations on social metadata features most relevant to libraries, archives, and museums and an annotated reading list of resources referenced during our research (Smith-Yoshimura and Holley 2012).

Site Reviews: Trends and Themes

Size: Single-organization sites (and there are many of them) tend to serve a specific niche audience. They may not attract much traffic, but what they do attract may suffice for the site's purposes. However, niche sites are also vulnerable to staff leaving and the burdens of maintaining the site. The more vibrant sites (with lots of user-contributed content) tend to be national or multi-institutional based, or serve a specific discipline. A critical mass and sense of community—whether existing or created—generates more user contributions and more outreach to new communities. Sites that have a community or national “brand” attract contribution and traffic.

Moderation: Some sites are heavily moderated, and others not at all. The moderated sites tend to have fewer contributions than those that are not. Strict credentialing can be a barrier to more broad-based participation.

Social Media Features: The most popular user contributions across all sites reviewed were comments or annotations, followed by tags. Adding links to other sources, ratings, creating lists or marking items as favorites, adding recommendations, and reviews are all less common, occurring in a quarter or less of all sites reviewed. More than a third of the sites also support users uploading images, videos, or audio and adding articles. Only five LAM sites supported reviews.

Tagging, although popular, does not seem to attract as much user attention as commentary, at least for text-based resources. Few even realize that such a popular site as [Amazon](#) also supports tagging—it attracts far more reviews. Tagging is most useful when there is no pre-existing metadata (for example, photos, videos and audio). Tagging has more value when aggregated across collections.

User-interaction features—knowing who else is online, sharing user profiles, sharing content via other social media sites, and creating groups or user forums—are far less common, supported by less than a third of all sites studied. Sharing content on other social media sites is the most common of these features, available on 30% of all sites.

User-contributed Content: Of the user-contributed content that would most enrich the metadata created by libraries, archives, and museums, more than half improve description. Almost half contribute content to the resources already offered by the site. Improving subject access through the use of tags is supported by 39% of the sites reviewed—but by 60% of the LAM sites. An equal percentage of sites promote activities outside the site. This feature is common to all discipline-based sites, but less so in LAM sites. Facilitating research through leads to other activities or resources are supported by a third of all sites; this feature is also prevalent in all discipline-based sites, but less common among the LAM sites (19%).

Community building by enabling users to determine the expertise of contributors is the least common feature, present in 12% of the sites represented and only two LAM sites.

Third-party Sites: Although many LAMs are building interactive features into their institutional websites, online catalogs, and electronic finding aids, they are also increasingly recognizing the value of third-party wikis, social media sites, social networking sites, and blogs where users are already active to reach existing audiences, expose content to new audiences, encourage user interaction, and foster a sense of community. Nearly every LAM includes a web presence in its strategic plan. A thoughtful look at available resources, the interests and habits of the target audience and the purpose of the communication can help an institution decide whether to use the social media features offered by third-party sites.

Survey Analysis: Trends and Themes

- Most sites have been offering social media features for a short time—more than 70% had been offering social media features for two years or less. The respondents represent active and current sites; 83% of respondents add new content at least monthly.
- Building user communities and increasing traffic to expose the site’s content are key objectives.
- Most respondents manage their own sites rather than use hosted services, perhaps reflecting that more respondents come from larger organizations than smaller ones that would more likely use hosted services.
- Sites are increasingly multi-media; although still images and text predominate among the responding sites, more than a third also offer moving images and audio. Archives are a predominant source of content.
- The general public is the target audience for almost all responding sites. Academics are a key audience, especially for library and archive sites.
- Usability testing tends to be done later in a site’s life cycle rather than as part of the development stage.
- Comments, tagging, and RSS are the most common social media features offered. Only half of the sites using reviews also used ratings.
- More than half of the survey respondents use a controlled vocabulary on their sites.

- Only half of respondents indicated that they show users tags already in the system. A third combine user-contributed tags with their own controlled terms.
- A minority of survey respondents are concerned about the way the site's content is used or repurposed outside the site.
- Most respondents index user-supplied metadata; most user-supplied content is searchable. More than half correct existing metadata as the result of user contributions. However, a minority incorporates metadata into their own description workflows and incorporates user-contributed content into their own sites.
- More than half of the sites use a combination of open-source software and software developed internally.
- A majority of sites moderate user-contributions, and half edit user contributions before they are posted. Spam and abusive user behavior are sporadic and easily managed.
- The majority of staff responsible for site management seem to be drawn from the information technology departments and as a part-time responsibility of professional staff (archivist, curator, or librarian.) Mature sites spend more time on adding new content and moderation than newer sites.
- A number of respondents are integrating their sites into institution's production services rather than being dependent on external or temporary funding sources.
- The majority of sites have policies concerned with appropriate behavior, rights to edit or remove content and safeguarding privacy. Policies vary greatly in both depth and scope, but reflect the shared concerns of LAMS that are opening their content to social interaction. LAMs are making efforts to maintain a safe environment for users, with particular attention to under-aged users, and upholding professional ethics and laws to provide equal access and protect intellectual property rights.
- The vast majority of respondents consider their sites to be successful, regardless of the type of institution (library, archive, museum), whether the site is managed locally or uses a hosted service, or the amount of interaction on the site.
- Engaging new or existing audiences is used as success criteria more frequently than adding new content or gathering metadata about existing content.
- The survey results indicate that engagement is best measured by quality, not quantity.

Recommendations

The Social Metadata Working Group synthesized our site reviews, our analysis of survey responses from 42 site managers, highlights from our extensive readings (185 items), interviews, and discussions to derive these recommendations for LAMs considering or implementing social media features to attract user-generated content.

Social media tools are needed to generate user-contributed content, which includes “social metadata”—information from users that helps people find, understand, or evaluate a site’s content. Social media and social metadata overlap; you cannot have social metadata without the social media functions that create it. Your objectives will determine which of the following recommendations apply. What’s needed to support a Facebook presence differs from what you’ll need to integrate social metadata and other user-generated content into your own site.

We believe it is riskier to do *nothing* and become irrelevant to your user communities than to start using social media features. Given the wide variety of cultural heritage organizations, and the range of objectives and resources available, there is no one recommendation that would fit all types of institutions. Factors that everyone should consider:

- What are your objectives?
- Are there existing sites that you could contribute content to that would meet those objectives?
- What social media features should you add to your own site to meet these objectives?
- What metrics do you need to gather to determine whether you are meeting those objectives?
- What policies do you need to develop?
- What training is needed for your staff to use the social media features you’ll be using?
- How much time and resources can you commit to this effort?

If you are adding social media features to an existing site rather than using third-party hosted sites, make sure you add them where they are useful and can help your users or community accomplish something. We are approaching the end of the “wild west” of Web 2.0 when LAMs simply experimented with new features—throwing a lot of tools and services at the virtual wall to see what might stick. Now that we have some experience and data, we are

collectively making data-driven decisions about launching, expanding, or ending our social media experiments. We are learning where users can effectively contribute content that LAMs want to receive.

Social engagement has always been part of the activities of libraries, archives, and museums. Social media provides a means to expand on our usual methods of engagement with—and well beyond—our traditional core communities.

To move beyond the project and experimental stage, LAM staff need to know how to incorporate the user-generated content generated by social media within their daily workflows. Our recommendations for doing that follow below. We hope that our recommendations will enable cultural heritage institutions to leverage users' enthusiasm while enhancing their own resource descriptions and extending their reach to new communities.

1. Establish clear objectives for using social media.

There is often a tension between the organization's desire to have "one voice" in the media, with social media as an important marketing tool, and information specialists' drive to communicate—in both directions with multiple voices—in various channels. Organizations will want to distinguish between using social media to create community around the organization (the province of public relations offices) and using social media to create community around the collections. Your objectives will determine both which social media features you use and how you use them. Publicity and participation are at different ends of the spectrum. Although it is important to develop the patron base for the institution through good use of social media publicity tools, it is equally important to give those patrons a voice—and therefore a sense of ownership—in the materials and content curated by the institution.

2. Motivate your users and leverage their enthusiasm to contribute!

We encountered a number of well-designed sites with engaging topics and goals that did not have many user contributions. Include plans for how to attract and facilitate user contributions in your site design. The literature and our interviews with site managers have common themes on why people contribute to sites supporting social media features:

- They're enthusiasts, driven by a passion to share with other enthusiasts.
- They find the activity is interesting and fun.
- They feel they are contributing to a cultural heritage site is a worthy cause; they are contributing to the "greater good."

- They want to help achieve a challenging goal. Just ask for their help.
- They feel part of a community.
- They have a selfish reason that is satisfied by the site.

Rose Holley offers tips for successful crowdsourcing in the March/April 2010 issue of *D-Lib Magazine* that are applicable to attracting social metadata as well:

- Have a clear goal on your home page. If you have a temporary goal, include the start and end dates.
- Make the overall environment easy to use, intuitive, quick, and reliable.
- Make the activity easy and fun.
- Take advantage of topical events if applicable.
- Let contributors identify themselves if they want acknowledgement.
- If applicable, acknowledge high-volume contributors with ranking tables.
- Provide a communication environment to build and nurture a community.

Recruit a “community manager” to set the tone of the site and to actively encourage and support users, especially during startup.

3. Look at other sites to get ideas before starting.

Our first report provides an overview of 76 sites, with more detailed reviews of 24 of them. Use the “At a Glance: Sites that Support Social Metadata” spreadsheet (Smith-Yoshimura and Shein 2011a) to identify the type of organizations most like your own and the features and contributions their sites support that you are considering. Take advantage of the work done by others, either emulating what seems to be working well or by avoiding what doesn’t work well.

4. Go ahead! Invite user contributions without worrying about spam or abuse.

Don’t let the fear of inappropriate user contributions paralyze you. Social metadata site managers report that they have experienced little or no spam or abuse. Spam can be reduced by implementing a CAPTCHA (CMU 2010) before users can add content or comments. The risk of liability that could lead to legal problems such as exposure to libel suits, privacy invasion, or copyright infractions is small, but be prepared:

- Articulate why you are asking for user contributions, the type of contributions sought, and what you intend to do with the user-contributed content.
- Provide guidelines for what types of content are, and are not, considered appropriate.
- Require users to register a user name that's displayed before they can add content. Making users and their activity visible is a deterrent to bad behavior. Users also like to be recognized for their contributions.
- Include an easily-accessible link to your take-down policy on your site that warns users that any content deemed inappropriate will be removed, without notice.
- Count on your core user base or community managers to help identify spam or other problematic content.
- Monitor user contributions.

If you have multiple administrators, consider preparing an "Abuse Grid" with three columns: Inappropriate behavior; description of the inappropriate behavior; action to take (warnings, take-down, blocking user if first or second attempt, etc.) (advice taken from Johnston 2009). With these precautions in place, there will be less need for moderation. Decide how often to review contributed content and cut back later on if less is deemed sufficient.

5. Adapt existing policies or create new ones for social metadata.

In our second report analyzing the results of our social metadata survey, we included examples of policies from social metadata site managers, either those that extend existing institutional policies, new ones, or a combination, with links. When creating original policies, align them with those of your parent institution and consult your institution's legal counsel if appropriate. Examine the policies of institutions most like your own to determine what types you'll want to adapt. Common themes include:

- Acceptable community behavior and content.
- Guidelines on repurposing and modifying user content, including the right to edit or remove user content or incorporate it into one's own site.
- Protecting personal information and privacy.
- Ownership of user-contributed content.

- Wording to indemnify your institution if content is used inappropriately or conflicts with copyright.
- Willingness of institutions to take down content if the community points out that it infringes on another's copyright (for example, a user demonstrates ownership of a work previously thought to be orphaned).

Wherever possible, make your content and users' contributions available under a Creative Commons License.

6. Prepare your staff.

Identify the staff who will be engaging with the community using social media, either on your site and/or on third-party hosted sites. Explain the context for your use of social media features and how you hope to incorporate them into your services. Address any gaps in your aspirations and staff skills. Staff need to want to participate, and may be more eager to participate if they have had some training with both the tools and policies. Confident and trained staff will bring better results. Two sites the working group referred to:

- Betha Gutsche's "Competencies for Social Networking in Libraries," (2009) a list of skills, knowledge, and attitudes that will help library staff achieve competency in social networking.
- "The 23 Things" you can do with Web 2.0 tools. There are numerous versions of these "23 Things" that include learning about using blogs, wikis, Flickr, YouTube, Facebook or MySpace, Twitter, etc. The idea originated from Helen Blowers, Public Services Technology Director for the Public Library of Charlotte & Mecklenburg County, who developed a 23-Things list to encourage staff to experiment with and learn about the new and emerging technologies on the Internet. She also compiled [a list of those who are promoting "Learning 2.0"](#) (PLCMC 2006). Some lists are specifically adapted [for museums](#) (Klaver and de Lusenet 2009) and others adapted [for archives](#) (SAA 2011). The "23 Things" is published under Creative Commons. You can do the course on your own or in small groups of colleagues, where you can share your experiences and help each other.

Establish guidelines for staff participation—whether they are interacting on a third-party hosted site such as Flickr or Facebook or your own site—regarding when it is appropriate to post as a representative of your organization, as a professional, or as an individual. There are several cultural heritage organizations that have published their policies on staff usage in

Chris Boudreaux's [2009-2011] [Social Media Governance Policy Database](#). If you establish your own guidelines, consider sharing them with others in this database.

7. Decide on what metrics you need to measure success.

Measures are needed to justify what you're doing and the resources invested. They also are a means to demonstrate the value of the investment and to help you fine tune the site.

Creating measures for social engagement is challenging. Analytic tools are readily available to measure "quantity" (number of visitors, pages viewed, downloads, etc.) but quality is subjective. Your measures will depend on your objectives and the target audience. Most of the site managers we surveyed thought their sites were successful, even if user contributions were few. A number of sites have very broad outreach, such as those hosted by national libraries. Sites dedicated to a local community will have a smaller audience and thus fewer contributions, and may be satisfied with just a few high-quality contributions. Success can be attributed to a well-planned strategy, garnering sufficient user interest, playing well in a third-party culture, and having institutional buy-in. (See table 1 for sample goals and metrics.)

Know what it is you need to measure from the beginning of your site design, then build or acquire the tools to get the metrics that would demonstrate that it's working the way you want. Be aware that it will take time to build a new community.

Table 1. Sample goals and metrics

Goal	Quantitative Measure	Subjective Measure
Enthusiasts correct errors in existing metadata.	Number of corrections made; number of people correcting; number of corrections adopted out of total number submitted.	Corrections validated as correct and incorporated, improving quality of the metadata.
Expose collections to wider audience.	Number of items viewed; number of unique visitors; geographic distribution; number of comments; number of links coming in through other social networking sites.	Visitors are from new geographic areas, implying broader exposure. More citations in the relevant literature; increase in tweets and blogs linking to items on your site; feedback from new users.
Get missing attributions, information in existing metadata.	Number of items for which missing information was supplied.	More complete metadata descriptions providing better understanding and context of the resource.
Engage existing or new communities.	Number of unique visitors; geographic distribution; number of new contributions.	Does the site have broader appeal within new communities? How has "word of mouth" use expanded? Are more blogs or tweets linking to your site?

8. Consider the benefits and trade-offs in using third-party hosted social media sites.

Small organizations with limited resources can easily leverage third party-hosted sites such as Flickr, Facebook, Twitter, and blogs to both engage their communities and expose their collections and services to a greater audience (see Cyndi Shein's "Use of Third-Party Sites and Blogs by Libraries, Archives, and Museums" in Smith-Yoshimura and Shein 2011b, 37-68). Large organizations can take advantage of the increased visibility third-party sites offer even if they are hosting their own sites, as social media sites are often environments where their own user communities already interact with each other. For example, the National Library of New Zealand has just 500 images on the Flickr Commons, but in two years they received 500,000 views, averaging 1,000 views per day. This is the same number of views all 100,000 digital images on the Library's own site received. As many cultural heritage organizations are already using third-party hosted social media sites, look at how organizations similar to your own are using them to see what works and what does not.

There are benefits and trade-offs to consider when using third-party hosted social media sites. Third-party sites provide obvious value but at a cost in terms of set functionality and long-

term reliability. Business models change and acquisitions, mergers, and bankruptcies occur over time. (See table 2 for a summary.)

Table 2. Trade-offs in using third-party hosted social media sites

Pros	Cons
<ul style="list-style-type: none"> • Increase visibility of your collections on sites where your communities are already active. • Aggregate your content with content of other organizations. Provides economies of scale. • Take advantage of social media features already offered. • Users are already familiar with third-party software. • Implement quickly. • Incur little to no programming or software development costs. 	<ul style="list-style-type: none"> • Relying on a third-party for long-term access to user-generated content can be risky. • Cannot control how your resources are presented. • Host site's functionality and policies may change without notice. If you stopped using it, will you still have access to the user-contributed content? • Need to determine how to transfer user-generated content to your own institution's website or catalog. • Be careful about copyright and privacy concerns regarding the content you expose.

Since the virtual habits of individuals in your user community vary, consider employing more than one social media tool to reach your audiences. For example, if you post a new collection of digital images to Flickr, announce it through your institution's blog, Twitter, and/or Facebook accounts, providing links to the collection on Flickr. Use a URL shortening service such as [Bitly](#) (2012), or [Google Analytics](#) (Google n.d.) to track which announcements brought the most traffic to your social media content so that you can better target your future messages.

9. Consider using and recontributing open-source software.

All site managers responding to our survey thought they had made the right choice in selecting open-source software and most would recommend their choices to others. Content management and social media features were the prime uses of open-source software.

Once you have built your site using open-source software, contribute your version back to the community. Do not let your own suite of customizations deter you. Even if they are not

perfect for someone else, they provide a starting point for another organization with similar, if not identical, needs. As one respondent noted, “we want to share stuff it cost us a lot to do to help others who don’t have such good funding/developers.”

10. Conduct usability testing early and often, *before* as well as after launch.

Most sites in our survey conducted usability testing after launch. We recommend instead that you understand how your targeted audiences will be encouraged or discouraged from contributing content during your development stage. It’s hard enough to motivate users to contribute, and any perceived barriers reduce the likelihood that they will. Usability testing before launch is worth the investment. Such testing need not be extensive; you can learn a lot from informally watching a few people use the site. Consider remote usability testing tools to get early feedback from your target audience rather than just “pull in people from the street.” Representatives of your target audience can help you define your requirements from the very beginning as well as identify enhancements to add after launch.

11. Add new content frequently.

Adding new content frequently shows users that the site and the community are active, and helps keep the community involved. Show what content has been added and when. Support RSS feeds to let your community know what that new content is. Prefer more frequent updates over adding an impressive number of items at one time. If new content is frequently added by your community, then there will be less need for you to add new content to demonstrate that the site is active. Attract attention by highlighting the most popular content and the most recent user-contributions or comments. Include thumbnail images with text where possible.

12. Display and index user-generated content.

We were surprised that half of the site managers who responded to our survey did not display the tags that users contributed, and more than a third did not index the content provided by their users. If you are going to support any type of social metadata—tags, comments, reviews, captions accompanying images, audio or videos—then display *and* index all of it. Note that you can index user-contributed text without having to integrate it into your own content. You can provide an option to search just user-generated content, just the LAM content, or all content.

13. Consider how to integrate user-generated content back into your catalogs or descriptive metadata.

We have seen only a few examples of cultural heritage organizations incorporating user-generated content within their own descriptive metadata. A separate “layer” for user-

generated content that sits on top (or alongside) of LAM content can present an integrated view even if the user contributions are kept separate from your own descriptions. The Powerhouse Museum is an example of a site that incorporates user tags into its own catalog. The Library of Congress has used the comments on its Flickr Commons photostream to augment or correct its catalog records, citing the Flickr Commons project as the source of information that was changed or added (Springer et al. 2008). The University of Michigan received a CLIR-sponsored, Mellon-funded “Cataloging Hidden Special Collections and Archives” grant (UM 2009a) to expose its collection of digitized Islamic manuscripts that have had only the most minimal cataloging—often just a title or first words of the manuscript and an attribution. (For more information about the project, see University of Michigan.) The digitized manuscripts with the minimal metadata are added to a CommentPress website, Islamic Manuscripts at Michigan (UM 2009b), where scholars around the world can comment and discuss them. A trained cataloger reviews the comments to augment the existing metadata.

14. Consider using social networking features to build a community.

Social networking features such as seeing who else is online, contacting other users, looking at user profiles, and writing or reading recommendations from other users are not common on LAM sites. You can create user communities within Flickr or Facebook to foster connections rather than attempting to build your own within your local system infrastructure. We see user-to-user interactions derived from user-generated content as a means to strengthen a sense of community. We infer that these features are under-utilized on sites where there are not many frequent visitors. The benefits of adopting user-interaction features depend on the objectives of your site. They could become more useful as content and usage grow.

15. Have a persistent URL for your site and items and make them visible.

Be sure that your site can always be found! Give both your site and individual items persistent URLs, and provide automatic redirects if the site moves. Users contribute content under the implicit guarantee that their content will continue to be visible to others, so plan to support that continuity. Persistent URLs for items make it easy for users to share or embed the ones that they have commented on or tweeted about. These persistent URLs represent each item’s unique identifier on the web; offer advice on how to cite objects or at least make all URLs visible. Social networks form around “social objects.”

16. Have a content migration plan.

Expect that you will need to migrate both your content and user-contributed content to a new platform or content management system sometime in the future. Test that you can easily export the content you have in your system, or in a third-party hosted site. Determine

how you will deal with digital items that you want to weed from your online collection but which users may have linked to, or made comments on.

17. Get your content indexed by Google.

The 2005 OCLC report to the OCLC membership, *Perceptions of Libraries and Information Resources*, compiled from 3,300 responses from information consumers in six countries, noted that 89% of college students in all regions began their search for information on a particular topic with a search engine (De Rosa 2005, 1-17). Google was the search engine most frequently used. Three-fourths of all traffic to the National Library of Australia's Trove site comes from Google. To expose both your content and user-generated content to the widest audience possible, create site maps that can be indexed by Google (Google [provides](#) a rich set of free resources to help managers improve their website's visibility in Google search results; see Google 2012).

18. Respond quickly to feedback.

Open channels of communication with your users. If your site is successful in engaging your user community, you will likely also receive feedback on the site itself. Monitor that feedback and respond in a timely way to meet user expectations. If you cannot make modifications to the site soon after they are requested, you risk losing continued engagement with your community. For major changes, announce them at least six weeks in advance and offer an opt-out feature if possible.

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