

THE PARTICIPATORY FINDING AID AND THE ARCHIVIST: HOW USER ANNOTATIONS ARE CHANGING EVERYONE'S ROLE

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ABSTRACT: With increasing budgetary restraints and backlogs of collections receiving minimal processing, supplementing online finding aids with user annotations connects users to collections in a more personal way, brings to light valuable records not described in the finding aid, allows multiple interpretations of collection content, and creates a research trail for others. Using the digital finding aids at the Special Collections and University Archives at the University of Massachusetts Amherst and the Special Collections Department at the J. Y. Joyner Library at East Carolina University as case studies, this article argues that online participatory finding aids with user annotations are feasible for a repository of any size and budget, and will result in more complete resources for users and archivists. This article discusses issues in implementing user annotation and proposes three methods for increasing user annotation.

Introduction

The Special Collections Department at the J. Y. Joyner Library at East Carolina University provides digital “Collection Guides” to the records within the repository. Among these collections is the Elizabeth Utterback Papers chronicling Utterback’s literary and academic career. Born in 1904 in Louisville, Kentucky, Utterback went on to teach English at Alabama Women’s College, Brooklyn College, Associate Colleges of Upper New York, and finally at East Carolina University where she remained until her death in 1966. Besides her rich teaching career, Utterback also published many short stories, poems, articles, a novel, and a book. The collection guide to the Utterback Papers contains a biographical note and collection description as well as a container list described to the series level: “College Papers, Short Stories, Monograph *A Regional Approach to the Teaching of Literature: A Study of the Regional Elements in Eleven Plays of the South*, Novel *The End of Summer*, and Plays, Programs, Poems.” Together, these elements provide an adequate picture of what is included in the

collection.¹ However, what makes this finding aid different and special is the annotation in the notes section left by a user:

Mon May 3 04:54 PM

From a poem in Box 5, folder b, entitled “Unfaithfulness”:

“A more devoted wife than I it would be hard to find

I mend and cook and keep the house, to flirt I’m not inclined;

But at the movie matinee

When I thrill to Charles Boyer,

I’m afraid that maybe I’m unfaithful in my mind!”

Any wagers on which of Mr. Boyer’s movies inspired this comedic confession?²

With this user annotation, patrons reading the collection guide or visiting the collection gain a sense of a community engaged with the records. Because repositories are unable to process and describe collections to the item level, this annotation adds to the description of the collection, providing the location of the poem as box 5, folder b. Furthermore, this annotation is evidence of a connection the user developed with the records by taking the time to transcribe an amusing poem for others to enjoy and to leave his or her thoughts on Utterback’s writing.

Archival repositories are beginning to experiment with online finding aids that contain user-generated comments. If done correctly, this process of supplementing finding aids dynamically connects users to collections in a more personal way, bringing to light valuable records not listed on finding aids, allowing for multiple interpretations of collections’ contents, and creating research trails for others. Using the digital finding aids at the Special Collections and University Archives at the University of Massachusetts Amherst (UMarmot) and the Special Collections Department at the J. Y. Joyner Library at East Carolina University (Joyner Library)—both of which employ user annotations—as case studies, this article argues that online participatory finding aids with user annotations are feasible for a repository of any size and budget and will result in more complete resources for users and archivists.³ It also proposes three methods for increasing the practice of annotation: advertising of user-generated capabilities by repositories, gaining inspiration and momentum from successful user-focused campaigns within the archival world, and encouraging archival professionals to be involved with annotation of online finding aids.

Repositories use finding aids to communicate the contents of their collections to users in a succinct and informative way. With the evolution of EAD, archivists have the ability to transform the finding aid from a paper document available only at a repository to an electronic resource accessible to users worldwide.⁴ Regardless of this advance in accessibility, simply making a finding aid available on a repository’s website is not enough. Archivists need to rethink the nature of the finding aid, as research on archival users is revealing that they are not adept at successfully manipulating finding aids.⁵ The most common method of connecting users to records through finding aids is to provide a container list processed to the folder level and to enter detailed metadata to increase access. With growing resource restraints and processing backlogs, highly detailed finding aids are no longer an option for many repositories.⁶ Instead, repositories must

adapt new methods to make their collections visible to users. An alternative to detailed finding aids is creating MARC records and EAD finding aids with enough description that collections can be found and then partnering with users through annotations to make collections more accessible.⁷ The unique relationship between historical records and the public draws many archivists to the profession, and moving conversations with users from the singular exchange to a more communal setting provides a new platform for interaction between patrons and archives.

Literature Review

In 2002, Michelle Light and Tom Hyry called for the creation of online finding aids with capabilities for colophons and annotations.⁸ One of the first repositories to implement this methodology was the Bentley Historical Library at the University of Michigan with the creation of its digital collection of the Polar Bear Expedition.⁹ Among other features, this site allowed registered users to post comments to the finding aid and the digital records for the purpose of providing a greater scope of information to the collection. The archivists involved with the project noted that the most frequent type of annotations were those to correct errors in description, cross references to other resources, and general comments, all of which were searchable.¹⁰ *Annotation* has a number of meanings depending on context. In its most broad meaning, *annotation* can be defined as “link making, as path building, as commentary, as marking in or around existing text, as a decentering of authority, as a record of reading and interpretation, or as community memory.”¹¹ In the context of archival collections, Scott Anderson and Robert Allen define *annotation* as “providing a mechanism for users to contribute what they have discovered or know (either personally or elsewhere) about particular archival materials.”¹² For the purpose of this article, *annotations* will be defined as comments, transcriptions, questions, or any other remarks made by an archivist or user after the completion of the finding aid by the processor.¹³

When users are allowed to participate in the creation and revision of finding aids, archivists may fear a loss of control and experience a feeling of vulnerability. This can be addressed by adopting a postmodern view of the archivist’s position, one that, as Terry Cook argues, “requires a new openness, a new visibility, a willingness to question and be questioned, to count for something and be held accountable.”¹⁴ This viewpoint challenges archivists to see their collections not as closely guarded property of the repository, but instead as records belonging to a society of users.¹⁵ To be successful in reaching users, archivists must open themselves to new collaborations with diverse communities beyond the academic world, relinquishing the role of record gatekeepers and inviting in open communication with users.¹⁶ The Polar Bear Expedition collection used one practical solution to establish a power hierarchy by simply asserting “maintained by the Archivist” on each description. While reiterating control, this statement also makes the archivist visible instead of seeming like an unnamed entity to the user. The Polar Bear Expedition study found that comments to the archivist were the most prevalent annotations. This has the dual effects of reinforcing archival expertise about

the collection and making the archivist a participant in the conversation sparked by the annotations instead of a passive guardian.¹⁷

Implementing an online finding aid with the capabilities for user-generated annotation is, as Heather MacNeil argues in her article on reinvigorating archival descriptive practices, a further opportunity

for transcending the artificial limits imposed by current descriptive practices and for exploiting an expanded vision of archival description; one that unseats the privileged status currently accorded to the standards based finding aid and repositions it as part of a complex network of hyperlinked and interactive documentation relating to the history, appraisal, preservation, use and interpretation of a body of records over time.¹⁸

Making annotations introduces the user to a richer resource for discovering records with multiple pathways, perspectives, and interpretations available.¹⁹ Adopting a post-modernist viewpoint as argued by Cook and applying it to finding aids, archivists must reject what has been the traditional way of interpreting archival collections; that is to “shift away from looking at records as the passive products of human or administrative activity and toward considering records as active and ever-evolving agents themselves in the formation of human and organizational memory.”²⁰ The participatory finding aid deconstructs what has been the accepted norm of archival description and repurposes the finding aid into a resource an entire community of professionals and users has a hand in creating and sustaining.

Archivists must acknowledge that backlogs in collection processing have changed the level of detail available in a finding aid and that, even if all collections were processed and described to the item level, the processor’s unique experiences and biases will create a finding aid individual from any other processor’s work. Katie Shilton and Ramesh Srinivasan, in their article on participatory appraisal and arrangement, argue that a full ability to “describe all knowledge in a collection, and represent all truths and experiences” is impossible for any repository.²¹ Therefore, let the archivist and user view the finding aid as a reflection of archival attitudes and methodologies at the time of its creation and utilize technologies that will allow the archivist and user to create a more compressive, fluid, and accessible descriptive tool.²² Furthermore, it is advantageous for repositories to welcome annotated finding aids simply because this process creates metadata, making records easier to find on the repository website and through Internet searches. Catherine Styles argues that if archivists cannot make their records easily found, users will pass by collections and repositories altogether and that archivists must begin to embrace the idea that user experience with the collections is vitally important to satisfaction.²³

Case Studies

Although UMarmot at the University of Massachusetts Amherst and the Joyner Library at East Carolina University both employ participatory online finding aids with user annotation capabilities, the two sites are of different aesthetic and intellectual structures, and both are successful in encouraging annotation. The contents of the user annotations will be discussed in detail later in this article. UMarmot, named for the University of Massachusetts Amherst's mascot, the marmot, is "an online interactive catablog containing information on all manuscript and archival collections held by the Department of Special Collections and University Archives, W. E. B. Du Bois Library, UMass Amherst."²⁴ Created in 2007, this site was shaped by two needs: "first, to find a low cost means of maximizing the public availability of our collection; and second, to find a solution that could be shared with colleagues in less technologically-intense institutions."²⁵ UMarmot coined the term "catablog" to describe the combination of traditional cataloging features with a blogging platform. WordPress blogging software was selected for its ease of use and sustainability, flexibility in formatting, and overall power to reach the public. The UMarmot "Special Collections and University Archives" page contains a description of what is included on the site and what is not, and what the user can expect from each record. This page also explains how the collections are indexed by subject and how to search these subjects, and that UMarmot's fully encoded finding aids are cross-posted to five collaborating college sites. At the bottom of this page, the archivist's presence is made known with the option to contact an archivist for help utilizing the site or to ask a reference question.²⁶ Currently, the UMarmot catablog has 16 records that have been annotated by users with an additional 15 comments, primarily reference questions, that are not visible to the public.²⁷

The UMarmot catablog format has two strengths: the ease with which users can leave annotations for collections and the suggested links to related collections. At the end of every collection description is the option for users to leave comments. The comment field is large, and if users take the time to scroll to the bottom of the collection, the comment field is obvious. The comment fields are familiar, requiring a name and e-mail address, and containing a comment box. UMarmot also includes a space for a "website." Above the comment fields is the statement, "You can leave a response or trackback from your own site." This statement is simple and encouraging. In particular, the ability to link collections from UMarmot to other resources is smart because users are not only encouraged to grow the web of resources around a particular subject or collection, but are also inadvertently creating new links in the online world where UMarmot's collection can be accessed. Although users are always free to include websites in their comments, adding a specific field in the comments form for a website really drives home the desire of UMarmot to be connected to other resources in a new way.²⁸ The other strength of the UMarmot site is suggesting related collections. Much like Amazon.com, the UMarmot site offers its users related collections that may be of interest to them based on the collection they are currently viewing. An example is that users viewing the papers of Jules Chametzky, an emeritus professor of English at the University of Massachusetts Amherst, are given the suggestion of viewing the collections "Judaica, Literature and Language, UMass faculty."²⁹ These suggestions

link a network of related collections and research that users may not necessarily find on their own.

The Joyner Library has a total of 25 finding aids with user annotations.³⁰ One of the immediately obvious differences between the UMarmot catablog and the Joyner Library site is the formal tone of the latter. The UMarmot site has a much more casual, almost conversational quality to it, while the Joyner Library site feels like a traditional repository site. The primary reason for the difference is UMarmot's use of a blog format, which is often written in less formal language.³¹ The Joyner Library site, on the other hand, is a more traditional style of academic website utilizing formal language.³² Both approaches work well and perhaps cater to different users. Another difference is that the records on the Joyner Library site are EAD finding aids, including a description of the collection, administrative information, and biographical notes, while the records on the UMarmot site are only summaries combining collection and biographical descriptions. The Joyner Library site was specifically designed for the repository's EAD finding aids, and the nearly 1,800 collections contain "correspondence, diaries, business records, organizational records, church records, maps, genealogy notes, and photographs, plus some 210 original oral history memoirs."³³ The "About" section of the Joyner Library site is a literal "how to build your own online finding aid" providing a step-by-step inventory of the resources the library used to create its finding aids, including links to resources employed in the creation of the site.³⁴ While this is a useful tool for other archival professionals, the "About" section is not particularly helpful to average users accessing the site. The main deficiency is that, unlike the UMarmot site, no section of the Joyner Library site adequately explains how to search the collections. Nor is the archivist mentioned on the site unless the user selects "Contact Us" at the bottom of the page or selects a finding aid to view.

Those criticisms aside, the finding aids on the Joyner Library site are thoughtfully constructed resources. The strength of the Joyner Library finding aids is the aesthetic layout of the pages. All finding aids have a tabbed content selection bar across the top of the page, easily allowing users to move between the actual finding aid, adding or viewing notes on the collection and digitized objects, and requesting materials. This organization is intuitive and reduces the overall length of the page. Another accommodating feature of the finding aid pages is the "Table of Contents" bar on the right side of the page that follows as the user scrolls down the main finding aid page. This bar contains hypertext to sections of the finding aid, as well as a search box and quick links to other features of the site. The "View/Add Notes" tab takes the user to a page that contains comments that have been left by previous users with a comment field at the bottom. There, a simple statement encourages the user to leave a comment: "Share what you know. Ask questions. Add to the collections." Like UMarmot's, this statement is a reassurance that the repository genuinely wants the user's perspective. As on the UMarmot site, the comment field for the Joyner Library is easy to access and does not require registration. This comment field is much simpler than UMarmot's, however, consisting only of a box. The user is not required to leave a name or e-mail, nor is the user encouraged to connect the Joyner Library collections with any other resources.³⁵

Implementing and sustaining participatory online finding aids are not without legitimate concerns that should be addressed, including determining the staff resources

needed to monitor annotations, identifying the person responsible for this monitoring, understanding copyright issues, and maintaining archival control of the finding aid. The questions of staff resources needed to monitor annotations and the person responsible for this can be addressed in multiple ways.³⁶ There is no right or wrong way to deal with these concerns, and the answers will vary depending on a repository's size and resources. As when decision making is necessary in other functions of archival practice, a repository policy outlining appropriate actions is the best way to ensure that all staff handles monitoring of user-generated content uniformly.³⁷

The initial creation of finding aids with user annotation capabilities will require an investment of staff time to assess the best platform for annotations and whether this feature can be added to an existing site or needs to be created from scratch. If finding aids are not already available through the repository website, they will need to be posted online. Many archival repositories are turning to ready-made website or blog content management systems (CMS) that allow them to upload content such as finding aids and customize using themes, plugins, and applications. Some systems are available for free download to an administrator computer. A basic CMS with community help forums, readily available tutorials, and easily customizable features is Wordpress. Others, like Drupal and Omeka, are good candidates as well, although it is helpful to have some coding knowledge when choosing these systems, and a domain name and web host subscription must be purchased to use these products. Finally, before annotation capabilities go live on the repository website, beta testing must be completed and adjustments to the annotation process made based on the results.

The steps of creating a new web page or adding to an existing site can be challenging but are not impossible. A key step in planning is meeting with all staff members involved with the annotation project to discuss work and time expectations. Naming a staff member project manager and allocating work time to the project are avenues for implementing annotations on any repository's time allotments. Unless a repository decides to commission outside help in redesigning or creating a new web page, the cost of implementing annotations could be as minimal as staff time. If the repository has access to students, an annotation project could be assigned to an intern or student worker overseen by a permanent staff member, thus building the skill set of the student and benefiting the repository through saved staff costs.

UMarmot and the Joyner Library monitor annotations in similar ways, each addressing them as they are received. UMarmot uses a Wordpress blog platform requiring that all comments be approved by a blog administrator before they are visible to the public.³⁸ This is a simple method of monitoring user-generated content that takes little staff time. The archivist quickly addresses each annotation and decides the next course of action: whether to allow the annotation to be posted, to delete the post, or to respond to the post if it is a reference question. The Joyner Library has a slightly more complicated hierarchy for dealing with annotations. When a user submits an annotation, the technical staff receives a copy via e-mail. From there, the technical staff decides whether to post, delete, or send the annotation to the Manuscript Department for reference services. General comments about the site or collection are deleted, and questions and corrections about finding aids are sent to the Manuscript Department.³⁹ This method of monitoring user annotations again relies on an administrator to make

decisions and allows for quickly addressing annotations. Most interesting about the Joyner Library approach is the outsourcing of annotation monitoring to a technical department rather than to the archivist, freeing the archivist to address only annotations that require further attention. Both UMarmot and Joyner acknowledge that the annotation rate is low, which makes comment approval easy.⁴⁰ However, the archivists at UMarmot note that even with the use of Akismet, a spam filter used with Wordpress, and ReCAPTCHA, a spam filter that requires human intervention, spam annotation rates are high. Still, for UMarmot, the flexibility of Wordpress as a blogging format outweighs the downside of filtering spam for legitimate annotations.⁴¹

Institutions must attend to the legal issues raised by participatory finding aids, especially user comments and copyright. It is generally accepted that when visitors to a blog—or in this instance a finding aid—leave comments on the site, they give up their rights to those comments. Users give permission to the owner of the blog to use their comments in the context of that blog posting for noncommercial uses.⁴² One way to safeguard your repository against copyright issues is to compose an “Assumptions” document for annotations. This document should include three sections:

1. Assumptions as to the types of annotations users might leave with descriptions of those annotation types and justifications for allowing those annotations to remain on the repository site;
2. Authorities of copyright decisions listing scholarly and legal sources used to craft copyright assumptions; and⁴³
3. Plan of action in the event a user claims copyright infringement. This plan of action would rely on the compiled sources on copyright to back up the repository claim to publish user annotations, or to remove them.

This document should be widely circulated internally before annotations begin and revised periodically to ensure staff are up to date on copyright practices for the repository.

Copyright generalizations and an “Assumptions” document may still leave some repositories feeling uneasy about the legal gray area so often induced by copyright, so for those repositories looking for clear copyright boundaries, a Creative Commons license could offer additional protection. Creative Commons is a nonprofit organization that provides free legal tools that allow creators to retain the copyright of their work while allowing others to “copy, distribute, and make some uses of their work” in a commercial or noncommercial setting.⁴⁴ There are six Creative Commons licenses, each offering slight variations on the rights of creators and users.⁴⁵

Both UMarmot and the Joyner Library use privacy conditions for user comments provided by Google’s Terms of Service, which state:

When you upload or otherwise submit content to our Services, you give Google (and those we work with) a worldwide license to use, host, store, reproduce, modify, create derivative works (such as those resulting from translations, adaptations or other changes we make so that your content works better with our Services), communicate, publish, publicly perform, publicly display and distribute such content.⁴⁶

Whatever route a repository chooses when making decisions about copyright, it is most important that the policy be documented and that staff involved with monitoring annotations are comfortable and educated in the policy. Many blogs, books, and journal articles are available to archivists on copyright, including a copyright resources page compiled by SAA.⁴⁷

Assessment of the impact of participatory finding aids can be done using common website analytical tools. Such assessment will provide feedback on the benefits of allowing user comments on finding aids and help to allocate personnel resources efficiently. Many content management systems provide built-in tools for analyzing traffic to websites. For example, Wordpress allows repositories to track search terms and outside links used to find their sites and some limited demographics such as country location of the user.⁴⁸ Drupal and Omeka also allow tracking of user statistics by adding plugins and applications to the site. A common plugin used with Wordpress, Drupal, and Omeka is Google Analytics, a free service offered through Google. With Google Analytics, a repository can choose what data it wants to track, pinpoint strong features of the website, determine how users interact with social media and the content, tally how frequently mobile technology is used with the website, and formulate the demographics of who is visiting the website.⁴⁹ Commercial web analytics tools are available, such as Coremetrics, Omniture, and WebTrends, as well as open source web analytics like the popular Piwik and Open Web Analytics. These tools are capable of pulling an overwhelming amount of data; for novices to web analytics, focusing on a few metrics of user traffic and adding data metrics over time are recommended.⁵⁰ Implementing user annotations is an investment of resources, and web analytics paired with assessment are necessary to make adjustments to the project and gauge user responsiveness.

Discussion

The majority of annotations left by users on UMarmot and the Joyner Library site are either general comments or corrections to finding aids. Anderson and Allen propose an “archival commons” of users where “peer-based contribution, discourse, and structuration allow post-appraisal context and meaning to be socially formed, and then systematically captured.” A key way to grow this commons is through user thoughts and reactions to collections.⁵¹ Krause and Yakel cite the benefit of user corrections to the finding aid as benefiting not only the archivist but the future researcher as well. The Polar Bear Expedition project decided to let correction annotations remain even when insufficient evidence existed to support the archivist changing the finding aid, to allow users to decide for themselves the interpretation of the record. Furthermore, Krause and Yakel argue that annotations to the finding aid foster “a sense of ownership and a vested interest in the site’s continuation and improvement” for the user, but for the archivists too in that they are connected to a living, changing document.⁵²

Several examples of user annotations from UMarmot and the Joyner Library enrich the record through observation, personal story, or correction to the finding aid. Only a few will be discussed here. UMarmot’s record for the Ray Ethan Torrey Papers describes the collection of correspondence, lecture materials, drawings, educational records,

and photographs of the plant morphologist and botany professor from Massachusetts Agriculture College. The description outlines Torrey's career and philosophical outlook on science. An annotation left at the bottom of Torrey's record affectionately recounts informal talks on the subjects of philosophy, science, and religion lasting for several hours and attended by upwards of 60 people that Torrey held on Friday evenings at the botany building.⁵³ This annotation is an intriguing detail of Torrey's life that may very well not be documented in his collection, and the evident personal admiration the commentator felt for Torrey adds a further dimension to the character of Torrey and his work.⁵⁴ The Joyner Library's Mamie E. Jenkins Papers is a rich collection of correspondence, notes, and other materials compiled by Jenkins during her time as English faculty member of East Carolina Teachers Training School.⁵⁵ A brief user annotation for this collection communicates a great deal: "This is a good collection for Education majors to check out."⁵⁶ Although the finding aid for the Jenkins Papers indicates Jenkins was an educator and involved with many issues of education, a peer suggestion reiterates for others the value of Jenkins's collection to a specific user group.

Two finding aids from the Joyner Library contain correction annotations. The first is from the S. B. Taylor Papers, where a user annotation provides Taylor's full name as Simon Bolivar Taylor.⁵⁷ For any genealogical researcher, this annotation would be particularly valuable as the finding aid does not provide Taylor's full name.⁵⁸ As with previously discussed collections, it is entirely possible Taylor's full name never appears in any of the records contained within his collection. The Richard C. Wooten Collection also contains an annotation suggesting the creator's surname is misspelled and should appear as "Wooton." The user does not offer any evidence to prove the name is misspelled, but the annotation allows future users to decide which version of the surname they will use.⁵⁹ The Joyner Library has not yet made changes to either the S. B. Taylor Papers or the Richard C. Wooten Collection based on these annotations.

Light and Hyry identify several benefits of employing online finding aids, among them the ability of annotations to highlight specific records within a collection that may be overlooked because they are not described on the finding aid, the use of hypertexts to link users to "other items, collections, or pieces of scholarship, . . . also [to] map contextual relationships among individuals, families and organizations that are relevant to an understanding of the records," and the ability to create scholarly research trails for future users.⁶⁰ Both UMarmot and the Joyner Library can point to examples of user annotations highlighting specific records in collections, all in the form of transcriptions. A user's choice to transcribe a record in an annotation is particularly interesting because of the time this involves, as many of these documents can be presumed to be handwritten. The opening of this article highlights one transcription from the Utterback Papers at the Joyner Library. The Joyner Library has two collections with transcription annotations, the Olaf M. Hustvedt Oral History Interview and the Lightfoot Paper. One user of the Hustvedt Oral History collection transcribed a letter written to Vice Admiral Hustvedt by the historian who conducted the oral history. The transcribed letter shows the historian's appreciation of Vice Admiral Hustvedt's use of language during the interview, an element of the men's relationship that would otherwise be lost to history.⁶¹ The Lightfoot Paper is a collection consisting of one photocopied letter six pages in length. The letter was written by a pro-Union woman identified as "Mitt"

living in Gainesville, Georgia, at the end of the Civil War to a sister in the North.⁶² Although this letter can be viewed on the finding aid, it is rather difficult to read. The full transcription one user made of the letter is indispensable as it saves other users the trouble of transcribing the letter for themselves.⁶³

Use of hypertexts in finding aid annotations is an excellent way for archivists and users to link collections with other resources both in and out of the repository, create connections between collections, as well as draw traffic to a collection that may be underused. Anderson and Allen propose that the use of linking will create a type of connectivity that allows for the organization and interpretation of knowledge, and that allowing the user to link materials “facilitates the possibility of determining how archival materials fit into broad research networks and where they assume their relative position in the information universe [to be] at any given point in time.”⁶⁴ Even if links were to break in the future, Anderson and Allen suggest that the trace would still be valuable in signifying that a relationship existed between a record and another object.⁶⁵ Wendy Duff and Catherine Johnson state that the concept of building context around collections and placing them in a social time is a vital part of understanding records for researchers and is easily achieved by using hypertext to connect other collections and outside resources.⁶⁶ The Preliminary Inventory of the U.S. Coast Guard Auxiliary Records, 1939–1997, at the Joyner Library provides an excellent example of the benefit of hypertext. This collection consists of various records from the “national and divisional offices of the U.S Coast Guard auxiliary” that are not yet processed, although a detailed list of accessions is provided.⁶⁷ In the annotation, a statement explains that a full description of the collection is not yet available, and a link directs users to a database of Coast Guard records located elsewhere on the Joyner Library site.⁶⁸ Linking the user to the Coast Guard database permits further research.

Traditionally, scholarly researchers have relied on tracing footnotes in colleagues’ articles and books to aid in their own research.⁶⁹ Duff and Johnson’s study of scholars’ use of archival collections demonstrates that researchers regard citations from colleagues “as the best method of finding their way to relevant sources in archives” and that finding aids are regarded as difficult to navigate in most situations.⁷⁰ Without preexisting knowledge of collections, researchers find using archival collections to be overwhelming and even panic-inducing when they first approach a new repository or finding aid.⁷¹ The language used on a finding aid can be confusing, and deciphering the information to find useful records can take time.⁷² Allowing users to make annotations they can understand and bring forward records they find important fosters a common ground where users share the role of creating the language used, closing the gap between archival language and users’ ability to find records.⁷³

Unfortunately, neither UMarmot nor the Joyner Library site contains examples of scholarly research trails of the sort that Anderson and Allen or Light and Hyry imagine, but there are annotations leading to further research. Two examples from the Joyner Library are the Preliminary Inventory of the Wilmington Iron Works Records and the Pearle McCain Oral History. Like the Coast Guard preliminary inventory, the Wilmington Iron Works Records are not fully processed, although they do include container lists processed to the series level with indications of which portions are yet unprocessed.⁷⁴ An annotation for this collection provides the name and location of an

individual with an inventory of patterns created by the Wilmington Iron Works and contact information for a vendor of the parts, opening a new research avenue for the user.⁷⁵ Likewise, the Pearle McCain Oral History contains an annotation that enables further research on McCain. This oral history is a discussion of McCain's time as an educator in China and Japan intermittently from 1929 to 1971.⁷⁶ In the annotation, a user has provided the location of a small supplementary collection consisting of a biography written by Anne M. C. Queen, McCain's niece; a photograph of McCain in Chinese dress from the 1930s; and an English-Chinese New Testament with McCain's own annotations, located in Arkansas United Methodist Museum in Little Rock, Arkansas.⁷⁷

The case study of repositories illustrates how users are interacting with participatory finding aids, but these projects also highlight the unfortunate reality that not many users are utilizing annotation features. Considering the vast number of records accessible on both sites and the low number of annotations created, it is clear that annotation is just catching on with users. Furthermore, only a few records contain more than one annotation, signifying that, for the most part, researchers are not using this feature to create the community archivists are hoping for. This conclusion should not be interpreted as a rejection of participatory finding aids, but as an assessment of where work is needed to attract users to such interaction. In an article advocating participatory archives, Isto Huvila reassures archivists that given the very specific nature of archival records, users do not need to be continually contributing annotations to make others want to contribute as well. Huvila argues that if the repository's records are socially important enough, users will continually be drawn to interact with them. The real issue at hand, Huvila states, is how well a repository's information infrastructure draws in users. Once this piece is in place, a repository's site contents may remain vital despite user fluctuations.⁷⁸

Archivists can advocate for the use of participatory finding aids in three ways: advertising the user-generated capabilities of their repositories, gaining inspiration from successful user-focused campaigns within the archival profession, and encouraging archivists to be involved with the annotation of online finding aids. Most repositories use social media as well as their websites to reach users. Cox cites research conducted by Helen Tibbo that discovered that users are not aware of online finding aids or how to use them, and repositories must become responsible for educating users.⁷⁹ Repositories could easily make the participatory features of their finding aids more prevalent on their websites as well as advertising those features through their social media, perhaps even highlighting examples of annotations. Additionally, repositories should publish short video tutorials to their websites using free software such as Jing to educate researchers on using finding aids.⁸⁰

Archivists should take inspiration from programs like "I Found It in the Archives!," which encourages users to share personal stories of record discovery in their local repositories.⁸¹ The 2012 "I Found It in the Archives!" had a total of eight participants—one video and seven essays. Although this is a small number of participants, the reach of the competition is substantial. The primary goal of this competition is to connect users and archivists through social media, and on that point this competition has been a success. User excitement over record discovery and social media interaction can be adapted to encourage users to utilize participatory finding aids. The spirit of "I

Found It in the Archives!” should be encouraged every day. Annotation is a powerful platform for sharing, as the nature of the online record allows users not only to write annotations, but also to post audiovisual materials.

Finally, archivists must lead by example, creating their own annotations in online finding aids. Reference archivists have long made informal annotations to paper resources to help build knowledge of collections, so why not make such notes available to the public as well?⁸² Archivists should be encouraged to be just as excited about record discovery as users. When an archivist discovers a record of interest while answering reference requests or during the course of regular business, he or she too should be encouraged to add this information to the finding aid for others to enjoy. Archivists’ annotations could demonstrate to users exactly how annotations can be used.

Conclusion

Allowing the user a participatory role in online finding aids through annotations connects the user to records and repositories in a more personal way. By inviting the user to share his or her experiences with collections, records not described in the finding aid are brought to light, multiple interpretations of collections are created, research trails for future users are formed, and archivists are held accountable for their work on finding aids. These elements of online participatory finding aids result in more complete resources for users and archivists. UMass and the Joyner Library sites serve as two examples of participatory finding aids that engage users. These sites are aesthetically different, but both are effective in connecting users with records and encouraging participation with the collections and records through annotations.

Concerns regarding staff resources necessary to monitor user annotations and who should do so can be addressed through a clear repository policy outlining procedures for acceptance, removal, and further reference. There is no standard for how a repository should monitor annotations, and each repository should adopt a policy appropriate to its unique resources. An initial investment of staff time will be necessary to get finding aids with annotation capabilities up and running, and a project manager should be assigned to oversee the process. Content management systems are available on any budget and make creating interactive finding aids simple. Issues of protecting repositories from copyright infringement should be taken seriously, and, although it is commonly accepted that users give up their copyrights after submitting their comments, a “Document of Assumptions” or a Creative Commons license is a good way to further safeguard the repository. Regular assessment of the annotations process should take place using web analytics to track visitor statistics and interactions with the site. Analysis of the data should inform adjustments in staff and resources for monitoring finding aid annotations.

Archivists must not dwell on losing control of finding aids; rather, they should adopt a postmodern view of the finding aid that promotes openness and accountability. The postmodern finding aid invites collaboration from many users’ perspectives and includes the archivist as a participant in the conversation with users. Repositories can no longer process and describe collections in great depth; therefore, the concept of

the finding aid must shift. Archivists must begin to view it as a fluid resource that can be made more complete and useful through user annotation. Furthermore, allowing the user to add annotations to the finding aid helps create collections and records that have more searchable terms and are ultimately more easily found on the repository website as well as on the Internet.

The conclusion that participatory finding aids are not widely utilized is not discouraging; rather, it is a professional challenge to archivists to adapt technology to their advantage. Archivists must not stand by waiting for users to find the participatory features of finding aids. Instead, repositories must use advertising techniques readily available to them, such as their websites and social media, to publicize participatory finding aids. Repositories should follow the example of successful programs such as “I Found It in the Archives!” to encourage users to always be excited and vocal about record discovery within their local repositories. Finally, archivists must lead by example if they expect users to access participatory features.

The transcription annotation included with the Elizabeth Utterback Papers brings playfulness—a term that is not often used to describe an archives—to the collection. The user annotation of Utterback’s lighthearted poem highlights a document that is not in the collection’s finding aid and instantly gives the records themselves a human touch, intriguing researchers to explore further. Most important, this simple annotation illustrates the connection developed between a user and Utterback’s papers. It suggests the future of the finding aid as a space for building community and conversation between repository, archivist, and user. By adopting a postmodernist view of the archivist’s relationships to records, spreading the word on online finding aids’ capabilities, encouraging a participatory role every day for users, and setting examples within the profession, archivists can make the transition to participatory communities a rewarding experience for everyone involved.

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Appendix I: UMarmot Collections with User Annotations

Bela Burnett Account Book, 1801–1842. 1 vol. (0.25 linear feet) www.library.umass.edu/spcoll/umarmot/?p=469#comments

Jules Chametzky Papers, 1947–2006. 15 boxes (22.5 linear feet) www.library.umass.edu/spcoll/umarmot/?p=628

Howard Lebow Collection, 1947–1983 (Bulk: 1960–1970). (32.5 linear feet) www.library.umass.edu/spcoll/umarmot/?p=737#respond

Ray Ethan Torrey Papers, 1832–1983. 13 boxes (5.5 linear feet) www.library.umass.edu/spcoll/umarmot/?p=103

Appendix II: J. Y. Joyner Library Finding Aids with User Annotations

Lightfoot Paper, 1865 (Manuscript Collection #12) digital.lib.ecu.edu/special/ead/view.aspx?id=0012&show=notes

Mamie E. Jenkins Papers, 1898–1947 (Manuscript Collection #31) digital.lib.ecu.edu/special/ead/view.aspx?id=0031&show=notes

Elizabeth Utterback Papers, 1923–1966 (Manuscript Collection #75) digital.lib.ecu.edu/special/ead/view.aspx?id=0075&show=notes

S. B. Taylor Papers, 1870–1923 (Manuscript Collection #178) digital.lib.ecu.edu/special/ead/view.aspx?id=0178&show=notes

Ira Thomas Wyche Papers, 1941–1962 (Manuscript Collection #210) digital.lib.ecu.edu/special/ead/view.aspx?id=0210&show=notes

Sutton Family Papers, 1741–1879 (Manuscript Collection #315) digital.lib.ecu.edu/special/ead/view.aspx?id=0315&show=notes

Eugene E. Barnett Memoir, 1888–1936 (Manuscript Collection #379) digital.lib.ecu.edu/special/ead/view.aspx?id=0379&show=notes

Waldron M. McLellon Papers, 1880–2001 (Manuscript Collection #491) digital.lib.ecu.edu/special/ead/view.aspx?id=0491&show=notes

Preliminary Inventory of the U.S. Coast Guard Auxiliary Records, 1939–1997 (Manuscript Collection #559) digital.lib.ecu.edu/special/ead/view.aspx?id=0559&show=notes

Preliminary Inventory of the U.S. Naval Academy Class of 1909 Records, 1907–1980 (Manuscript Collection #583) digital.lib.ecu.edu/special/ead/view.aspx?id=0583&show=notes

William H. and Araminta Guilford Tripp Papers, 1849–1911 (Manuscript Collection #614) digital.lib.ecu.edu/special/ead/view.aspx?id=0614&show=notes

Paul V. Randolph Papers, 1819–1820, 1887–1907, 1950 (Manuscript Collection #680) digital.lib.ecu.edu/special/ead/view.aspx?id=0680&show=notes

Richard C. Wooten Collection (Manuscript Collection #693) digital.lib.ecu.edu/special/ead/view.aspx?id=0693&show=notes

Ross S. Wilson Papers, 1860–1975 (Manuscript Collection #772) digital.lib.ecu.edu/special/ead/view.aspx?id=0772&show=notes

Preliminary Inventory of the Wilmington Iron Works Records, 1865, 1892–1999 (Manuscript Collection #794) digital.lib.ecu.edu/special/ead/view.aspx?id=0794&show=notes

Preliminary Inventory of the Arthur-Burgess Family Papers, 1893–1915 (Manuscript Collection #861) digital.lib.ecu.edu/special/ead/view.aspx?id=0861&show=notes

S.S. *ZamZam* Collection, 1941–1942 (Manuscript Collection #906) digital.lib.ecu.edu/special/ead/view.aspx?id=0906&show=notes

Preliminary Inventory of the J. Wallace Hamilton Collection, ca. 1963–1977 (Manuscript Collection #970) digital.lib.ecu.edu/special/ead/view.aspx?id=0970&show=notes

Alice Morgan Person Collection, 1881–1943, 2007, undated (Manuscript Collection #1116) digital.lib.ecu.edu/special/ead/view.aspx?id=1116&show=notes

Thomas W. Rivers Collection (Map Collection #MC0005) digital.lib.ecu.edu/special/ead/view.aspx?id=MC0005&show=notes

A Map of the Middle Part of America, 1725 (Map Collection #MC0021.001) digital.lib.ecu.edu/special/ead/view.aspx?id=MC0021-001&show=notes

Pearle McCain Oral History Interview, February 6, 1981 (Oral History #OH0068) digital.lib.ecu.edu/special/ead/view.aspx?id=OH0068&show=notes

Olaf M. Hustvedt Oral History Interview, December 31, 1975 (Oral History #OH0083) digital.lib.ecu.edu/special/ead/view.aspx?id=OH0083&show=notes

NOTES

1. Elizabeth Utterback Papers (#75), Special Collections Department, J. Y. Joyner Library, East Carolina University, Greenville, NC.
2. East Carolina University Joyner Library Collection Guides, "Guide to the Elizabeth Utterback Papers, 1923–1966 (Manuscript Collection #75)," accessed April 29, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=0075&show=notes.
3. UMarmot was recommended by Tom Hyry, and the Joyner Library was located through Internet searches for finding aids with participatory features. Both repositories are part of academic libraries. UMarmot has a special collections and archival staff of 12; Joyner Library has an archival staff of 4.
4. Michelle Light and Tom Hyry, "Colophons and Annotations: New Directions for the Finding Aid," *American Archivist* 65, no. 2 (2002): 216.
5. Richard J. Cox, "Revisiting the Archival Finding Aid," *Journal of Archival Organization* 5, no. 4 (2008): 11.
6. Mark A. Greene and Dennis Meissner, "More Product, Less Process: Revamping Traditional Archival Processing," *American Archivist* 68, no. 2 (2005): 208–36.
7. Max J. Evans, "Archives of the People, by the People, for the People," *American Archivist* 70, no. 2 (2007): 388–89.
8. Light and Hyry, "Colophons and Annotations," 216–13.
9. With great displeasure the author notes that due to the high turnover rate of graduate student staff and other resource issues, the Polar Bear Expedition site is no longer functioning as originally intended. Users no longer have the ability to annotate records, although the site and contents are still accessible at Bentley Historical Library, University of Michigan, "Polar Bear Digital Expedition Collections," accessed April 29, 2012, <http://quod.lib.umich.edu/p/polaread/>. Professor Elizabeth Yakel, conversation with the author, April 19, 2012, at the Midwest Archives Conference in Grand Rapids, Michigan. It is difficult to find many repository sites implementing participatory finding aids, but including participatory features in archival sites overall has steadily increased.
10. Magia Ghetu Krause and Elizabeth Yakel, "Interaction in Virtual Archives: The Polar Bear Expedition Digital Collections Next Generation Finding Aid," *American Archivist* 70, no. 2 (2007): 285.
11. Catherine C. Marshall, "Toward an Ecology of Hypertext Annotation" (paper presented at the ACM Conference on Hypertext and Hypermedia, Pittsburgh, June 20–24, 1998), 40.
12. Scott R. Anderson and Robert B. Allen, "Envisioning the Archival Commons," *American Archivist* 72, no. 2 (2009): 395.
13. Annotations are regarded as completely separate from colophons. Michelle Light and Tom Hyry's paper "Colophons and Annotations: New Directions for the Finding Aid" argues that besides user-generated annotations, the finding aid should contain colophons with information about the processor's biases and unique perspectives on the collection. Given the scope of this article, colophons will not be addressed although they are a valid and useful addition to finding aids.
14. Terry Cook, "Fashionable Nonsense of Professional Rebirth: Postmodernism and the Practice of Archives," *Archivaria* 51 (2001): 28.
15. Evans, "Archives of the People, by the People, for the People," 394.
16. Catherine Styles, "Push for Pull: The Circuit of Findability" (paper presented at the annual meeting of the Australian Society of Archivists, Perth, August 6–9, 2008), 11.
17. Krause and Yakel, "Interaction in Virtual Archives," 308–11.
18. Heather MacNeil, "Picking Our Text: Archival Description, Authenticity, and the Archivist as Editor," *American Archivist* 68, no. 2 (2005): 276.
19. *Ibid.*
20. Cook, "Fashionable Nonsense of Professional Rebirth," 24–29.
21. Katie Shilton and Ramesh Srinivasan, "Participatory Appraisal and Arrangement for Multicultural Archival Collections," *Archivaria* 63 (2007): 88.
22. Cox, "Revisiting the Archival Finding Aid," 9.
23. Styles, "Push for Pull," 3.
24. University of Massachusetts Amherst Libraries, Special Collections and University Archives, accessed May 4, 2012, www.library.umass.edu/spcoll/umarmot/?page_id=561.
25. *Ibid.*

26. Ibid.
27. Kristin Kay, e-mail communication with author, "Catablog Research," January 9, 2013. See Appendix 1 for a list of four examples of UMarmot annotated collections.
28. University of Massachusetts Amherst Libraries, Special Collections and University Archives, "Bela Burnett Account Book," accessed May 4, 2012, www.library.umass.edu/spcoll/umarmot/?p=469#comments.
29. Ibid., "Jules Chametzky Papers," accessed May 4, 2012, www.library.umass.edu/spcoll/umarmot/?p=628.
30. See Appendix 2 for a list of Joyner Library annotated finding aids.
31. University of Massachusetts Amherst Libraries, Special Collections and University Archives.
32. East Carolina University Joyner Library Collection Guides, "Home," accessed May 4, 2012, digital.lib.ecu.edu/special/ead/.
33. Ibid.
34. East Carolina University Joyner Library Collection Guides, "About," accessed May 4, 2012, digital.lib.ecu.edu/special/ead/about.aspx.
35. East Carolina University Joyner Library Collection Guides, "Guide to the Lightfoot Paper, 1865 (Manuscript Collection #12)," accessed May 4, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=0012&show=notes.
36. It is not the intention of this paper to overlook the fact that a participatory approach to online finding aids can be time consuming and a drain of resources, but each repository must decide how many resources it is able to allot to the project and adjust its scope from there. Shilton and Srinivasan, "Participatory Appraisal and Arrangement for Multicultural Archival Collections," 100.
37. One example of a policy on user comment responsibilities comes from the Kentucky Department for Libraries and Archives. This repository created a social networking policy (updated in 2012) on expectations of the use of staff and procedures for monitoring user comments. Section 4.2 Filtering Posts and Comments states, "Divisional social networking administrators will review potential content before it is posted on all business-related social networking sites and will decide whether it is appropriate. Communication should include no overtly political or religious commentary; no form of profanity or obscenity; no copyright violations; and no confidential information." This policy clearly defines unacceptable comments, eliminating staff responsibility for deciding what is appropriate to keep. Additionally, the Kentucky Department for Libraries and Archives adopted a rotating schedule for staff responsibility for attending social media. Kentucky Department for Libraries and Archives, "Social Networking: A Policy and Procedural Guide." Valerie Edgeworth, "Archivist 2.0: Using Social Media to Connect Collections with Users" (panelist, Midwest Archives Conference, Grand Rapids, MI, April 20, 2012).
38. Kay, e-mail communication with author, April 12, 2012.
39. Michael Reece, e-mail communication with author, "User Annotated Finding Aids," April 11, 2012.
40. Kay to author. Reece to author.
41. Kay to author, "Catablog Research," January 9, 2013.
42. Electronic Frontier Foundation, "Legal Guide for Bloggers," accessed August 21, 2013, www.eff.org/issues/bloggers/legal/liability/IP.
43. Michael Edmonds, e-mail communication with author, "Freedom Summer copyright assumptions," June 25, 2013.
44. Creative Commons, "About the Licenses," accessed August 21, 2013, creativecommons.org/licenses/.
45. Ibid.
46. Google, "Google Terms of Service," accessed August 24, 2013, www.google.com/intl/en/policies/terms/.
47. Society of American Archivists, "Selected Copyright Resources," accessed August 25, 2013, www2.archivists.org/groups/intellectual-property-working-group/selected-copyright-resources.
48. Wordpress, "The Features You'll Love," accessed August 24, 2013, en.wordpress.com/features/.
49. Google Analytics, "Gain Insights that Matter," accessed August 24, 2013, www.google.com/analytics/features/index.html.
50. Kate Marek, "Using Web Analytics Well," *American Libraries* (September–October 2011), accessed August 24, 2013, <http://www.americanlibrariesmagazine.org/issue/septemberoctober-2011>.
51. Anderson and Allen, "Envisioning the Archival Commons," 383–86.
52. Krause and Yakel, "Interaction in Virtual Archives," 299.

53. University of Massachusetts Amherst Libraries, Special Collections and University Archives, "Ray Ethan Torrey Papers," accessed May 5, 2012, www.library.umass.edu/spcoll/umarmot/?p=103.
54. Torrey's Friday evening gatherings may very well be documented in his papers. There is no response to the annotation from UMarmot as to the inclusion of these activities in Torrey's papers.
55. Mamie E. Jenkins Papers (#31), Special Collections Department, J. Y. Joyner Library, East Carolina University, Greenville, NC.
56. East Carolina University Joyner Library Collection Guides, "Guide to the Mamie E. Jenkins Papers, 1898–1947 (Manuscript Collection #31)," accessed May 5, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=0031&show=notes.
57. East Carolina University Joyner Library Collection Guides, "Guide to the S. B. Taylor Papers, 1870–1923 (Manuscript Collection #178)," accessed May 5, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=0178&show=notes.
58. S. B. Taylor Papers (#178), Special Collections Department, J. Y. Joyner Library, East Carolina University, Greenville, NC.
59. East Carolina University Joyner Library Collection Guides, "Richard C. Wooten Collection (Manuscript Collection #693)," accessed May 5, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=0693&show=notes.
60. Light and Hyry, "Colophons and Annotations," 228.
61. East Carolina University Joyner Library Collection Guides, "Guide to the Olaf M. Hustvedt Oral History Interview, December 31, 1975 (Oral History #OH0083)," accessed May 5, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=OH0083&show=notes.
62. Lightfoot Paper (#12), Special Collections Department, J. Y. Joyner Library, East Carolina University, Greenville, NC.
63. East Carolina University Joyner Library Collection Guides, "Guide to the Lightfoot Paper, 1865 (Manuscript Collection #12)," accessed May 5, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=0012&show=notes.
64. Anderson and Allen, "Envisioning the Archival Commons," 389.
65. *Ibid.*
66. Wendy M. Duff and Catherine A. Johnson, "Accidentally Found on Purpose: Information-Seeking Behavior of Historians in Archives," *Library Quarterly* 72, no. 4 (2002): 487, 490.
67. U.S. Coast Guard Auxiliary Records (#559), Special Collections Department, J. Y. Joyner Library, East Carolina University, Greenville, NC.
68. East Carolina University Joyner Library Collection Guides, "Preliminary Inventory of the U.S. Coast Guard Auxiliary Records, 1939–1997 (Manuscript Collection #559)," accessed May 5, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=0559&show=notes.
69. Duff and Johnson's article only addresses scholarly use of archival collections, although many of their findings are applicable to any archives user. In particular, their discussion of feelings of anxiety when approaching a new archives or collection is one that many users at various archival skill levels feel.
70. Duff and Johnson, "Accidentally Found on Purpose," 475–76.
71. *Ibid.*, 478–81.
72. Cox, "Revisiting the Archival Finding Aid," 8.
73. Krause and Yakel, "Interaction in Virtual Archives," 293.
74. Wilmington Iron Works Records (#794), Special Collections Department, J. Y. Joyner Library, East Carolina University, Greenville, NC.
75. East Carolina University Joyner Library Collection Guides, "Preliminary Inventory of the Wilmington Iron Works Records, 1865, 1892–1999 (Manuscript Collection #794)," accessed May 5, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=0794&show=notes.
76. Pearle McCain Oral History Interview (#OH0068), Special Collections Department, J. Y. Joyner Library, East Carolina University, Greenville, NC.
77. East Carolina University Joyner Library Collection Guides, "Guide to the Pearle McCain Oral History Interview, February 6, 1981 (Oral History #OH0068)," accessed May 5, 2012, digital.lib.ecu.edu/special/ead/view.aspx?id=OH0068&show=notes.
78. Isto Huvila, "Participatory Archive: Towards Decentralized Curation, Radical User Orientation and Broader Contextualization of Record Management," *Archival Science* 8, no. 1 (2008): 30–31.
79. Cox, "Revisiting the Archival Finding Aid," 9.

80. For a list of open source software, visit [alternativeTo](#), accessed May 5, 2012, [alternativeto.net/software/jing/?license=opensource](#). For more information on Jing software visit TechSmith, "Jing," [www.techsmith.com/jing.html?gclid=COCOpfis6q8CFeUEQAodYHEU3A](#).
81. Society of American Archivists, "I Found It in the Archives! 2012 National Competition," accessed May 5, 2012, [http://www2.archivists.org/initiatives/i-found-it-in-the-archives/i-found-it-in-the-archives-2012-national-competition](#).
82. Krause and Yakel, "Interaction in Virtual Archives," 288.