Katherine-Rose Repp. Special Collections and Social Media: A Study of Two North Carolina Collections. A Master's Paper for the M.S. in I.S. degree. April, 2010. 60 pages. Advisor: Jane Greenberg

Special collections staff are duty-bound to promote their collections and ensure continued access. The challenge of the digital age is that many would-be patrons now assume that "everything is on the Internet," and they do not pursue non-digital resources. Special collections staff can meet this challenge through the use of social media tools. This paper examines what tasks these tools can accomplish, and how they are used successfully by two specific collections. These collections' usage of social media was evaluated through semi-structured interviews with staff, informed by analysis of their websites and use of commercial social media sites. This research finds that each collection used tools differently, and was most successful in promoting and providing access to their collections when they kept their audience's needs in mind. From this study, other special collections staff will learn how to successfully approach the use of these tools for their own collections.

Headings:

Libraries – Information Technology.

Special Collections – Marketing.

Marketing – Social Media Marketing.

Web 2.0 – Library Applications

Photograph Collections

SPECIAL COLLECTIONS AND SOCIAL MEDIA:
A STUDY OF TWO NORTH CAROLINA COLLECTIONS

by
Katherine-Rose Repp

A Master's paper submitted to the faculty
of the School of Information and Library Science
of the University of North Carolina at Chapel Hill
in partial fulfillment of the requirements
for the degree of Master of Science in
Information Science.

Chapel Hill, North Carolina

April 2010

Approved by

_____

Jane Greenberg

"Traditional media offer monologues. New social media prompt dialogue. Successfully engaging in this dialogue across the great Internet divide becomes the new challenge."

(Patrick Hanlon and Josh Hawkins) [i]

1 Introduction

Special collections must embrace social media and Web 2.0 technologies in order to promote their collections and continue to fulfill their promise of offering public access. Two special collections that are meeting these obligations with their use of social media are the Hugh Morton Collection at the University of North Carolina's Photographic Archive and the Duke Digital Collections at the Duke University Libraries. In gathering information about the ways in which these two collections make savvy use of social media, I have interviewed staff at both collections, studied their websites in light of their usability, and how examined how they use social media tools. The conclusions to be drawn from these studies are both quantitative *(how much response are they getting?)* and qualitative *(how have users responded to their work?).*

To be clear, the purpose of this study is not to advocate for the indiscriminate use of any and all "new and cool" social software. Different kinds of collections will be better served by the selection of appropriately different kinds of social media. It is the responsibility of the staff of a particular special collection to make the right selections from the cornucopia of technologies available to them, for the best presentation of their collections and for the needs of their audience. Fortunately, as the Library of Congress found, in its experiments with Flickr, the costs of experimenting with these technologies are generally nominal, particularly when compared to the possible gains. [ii]

Providing access to materials is one of the cornerstones of the archival and library professions and is prominently mentioned in their Codes of Ethics. In the words of the Society of American Archivists,

> Archivists strive to promote **open and equitable access** to their services and the records in their care without discrimination or preferential treatment, and in accordance with legal requirements, cultural sensitivities, and institutional policies. **Archivists recognize their responsibility to promote the use of records as a fundamental purpose of the keeping of archives.** Archivists may place restrictions on access for the protection of privacy or confidentiality of information in the records.[iii] (emphasis mine)

The Special Libraries Association's "Vision, Mission and Core Value Statements" document articulates values that similarly advocate for experimentation with social media, focusing on usability for patrons and "embracing innovative solutions for the enhancement of services."[iv] Per these professional goals, it is useful to study the integration of Web 2.0 technologies in special collections so we can understand what works. The research reported on in this paper takes this step through a detailed study of the Duke Digital Collections and UNC's Hugh Morton Collection of Photographs and Films, as noted above. The rest of this paper is organized as follows: section 2 provides background information drawing from literature in the relevant fields; section 3 outlines the objectives of the research described in this paper; section 4 describes the methods by which this topic was investigated; section 5 delineates the limitations of the research and on its applicability; section 6 analyzes the collected data and provides a discussion of that data; and section 7 concludes the study-proper. Appendix A provides resources for professionals interested in applying the results of the study to their own collections and Appendix B provides a short list of related digital collections making creative use of social media tools.

2   Literature Review

The literature review of this paper is divided into five high-line topic areas that address the question of the results special collections should be hoping for, in taking a "Web 2.0" approach to providing access to their collections.

2.1   Greater User Interaction with Institutions

In February 2008, the Association of Research Libraries (ARL) surveyed member libraries in order to gain an understanding of their use of Web 2.0 technologies. Of sixty-four libraries responding (representing 52% of the 123 member libraries queried), fifty-two reported that the library in question had at least one blog; those reporting multiple blogs indicated that they were being used for individual departments and user groups. The purpose of the blogs typically was to share library announcements with interested users.[v] Both the Hugh Morton Collection at UNC and the Duke Digital Collections make use of blogs in a sophisticated manner, with the goal of creating a dialogue with users. The Morton Collection is specifically cited in Ricky Erway's article, "Supply and Demand: Special Collections and Digitisation," for this usage:

> The staff on the Morton project wanted to keep people informed about their progress (and offer glimpses into the collection's wealth). So they developed a blog to meet those needs. They are moving towards methods that emphasise access over [digital] preservation…[vi]

The use of blogs is important not just for public announcement, but also because they typically allow users to respond to blog posts in a comments section. The Morton Collection's blog, "A View to Hugh," does this, and periodically, explicitly notes the quantity of comments that have been made.

Chad and Miller would cite such efforts as examples of "Library 2.0," the concept of libraries making use of Web 2.0 technologies, and they encourage those efforts. Their piece on the phenomenon, "Do Libraries Matter?" notes that "With Library 2.0, a library will continue to develop and deploy the rich descriptive standards of the domain, whilst embracing more participative approaches that encourage interaction with and the

formation of communities of interest."[vii] Fernandez, in his analysis of whether social media were worth testing out in libraries, also points to the community angle:

> The use of social media in libraries is one form of relationship marketing that has the potential to pay great dividends in the form of user loyalty; they create an atmosphere in which library users are connected with librarians. Libraries are not just about tangible objects; they are about people. As such, cultivating user loyalty is just as important as building library collections.[viii]

Curran, et al, take a similar tack, emphasizing the idea that Library 2.0 is a layering-on of additional "value" to what users get from "Library 1.0," and adding that "[Library 2.0] is a read-write library, that gives library users the power to decide the service that they want."[ix] The writers and editors of *Library Technology Reports* would agree with these assessments, and would likewise emphasize the concept of a library as a community over it being a source of intellectual authority. A 2006 special issue of the journal concludes its examination of Web 2.0 in libraries with this exhortation: "If our users are experiencing a new, living Web, shouldn't they find us waiting there for them? Shouldn't we be ready to assist or point the way? Or be ready to collaborate on some cool new thing?" They tell their audience of information professionals that they can start examining Web 2.0 in their libraries at whatever level they're comfortable with, but they must *start.*[x]

2.2   Greater visibility in extra-institutional settings

When members of the Duke Digital Collections staff addressed a SILS Digital Libraries class in the Spring of 2009, one of the most amazing statistics they shared was that only a tiny percentage of the page-visits individual items received stemmed from searches beginning on the Duke Libraries homepage (1.4%) or that of the Digital Collections (2.25%): during 2008, the collections received 888,693 external referrals, from around 10,000 different external domains. Of the social bookmarking sites that the team credits with driving traffic to the site, fully 15% of the traffic came from a single site, StumbleUpon.[xi] This kind of data is important in supporting Ricky Erway's statement that: "Special collections need to digitise with an eye to access, so that our materials, so important and necessary for scholarship, will be visible. We must increase the discoverability of more of our collections in the online environment."[xii]

Likewise, as a marketing tool to reach new audiences, taking a Web 2.0 approach allows collections to recognize and respond to dictum 17 of Levine, et al's *The Cluetrain Manifesto*, a classic of marketing literature: "Companies that assume online markets are the same markets that used to watch their ads on television are kidding themselves."[xiii] The same can be said for libraries that assume that they are reaching all the possible patrons they can, in using older methods of self-promotion: different eyes are on different media and the young people who might twenty years ago have gone to the physical library for information now often start with a Google search. Levine and company, in other theses, note how important it is to establish relationships of trust and also that "Companies that don't realize their markets are now networked person-to-person, getting smarter as a result and deeply joined in conversation are missing their best opportunity." (#18)

This assertion is echoed by Tuten, who posits that social media are attractive to users not because they're so shiny and new, but because they allow them to have the social connections they would have had in the pre-digital era, even when they don't encounter as many people during the course of a day as they did in that era.[xiv] She adds that, "given the audience size and the length of exposure time consumers spend in the network, it is no wonder that advertisers have embraced social networks for social media networking…"[xv]

2.3   Greater "brand" recognition for university libraries

One of the great concerns that many libraries and librarians have, regarding the public's increasing reliance on Internet organizations like Wikipedia, is that their own reputation, for being *the* source for reliable information, is being diluted. Part of this can be chalked up to the idea that the library is the place to go for books and *only* books, and that special collections are dusty repositories containing rare, old documents. These ideas hold some truth, but are only part of the truth for organizations that intend to endure.

Being seen as a authoritative source of information is still important, but the role model to emulate is the cool big brother, not the authoritarian father figure. Marketers have many cogent thoughts on using social media to promote products; reading their literature, it's clear that while libraries and special collections tend to shy away from

"selling" themselves and their collections, they already have many advantages that advertisers crave, including their reputation for high quality information and materials. Opening a dialogue with users via social media shows that libraries are not part of the past, and that they are willing to embrace the best of what the present and future offer - as Hanlon and Hawkins note, "Reaching out conveys confidence, accessibility, respect and authenticity to people both inside and outside of the brand community."[xvi]

Much of the "marketing and social media" literature also emphasizes how appropriate branding, including savvy use of social media, helps increase customer/user brand loyalty.[xvii] Gentry likens the use of social media marketing to a "Chamber of Commerce/Rotary Club mixer or cocktail party online," and emphasizes that users are "there to connect, engage and build meaningful relationships."[xviii] Christodoulides would concur, adding that "Post-internet branding is about facilitating conversations around the brand."[xix] In order to be on people's minds, it helps to be findable in the locations where they frequently are, including on the Internet. "The brand manager who used to be the custodian of the brand has now become a host whose main role is not to control (that is impossible) but to facilitate this sharing."[xx]

2.4 Improved User Ease and Familiarity with Collections and Processes

Among the major duties of those managing special collections and archives is to ensure that users are educated about the proper use of their collections, and that they understand the professional processes that go into the processing and organization of those collections. Traditional methods of doing this, which often rely on oral instruction to patrons by professionals, do not easily make the jump into the remote usage model of the digitized collection, arguing for innovation and rethinking of the traditional approach. Likewise, it should be noted that this transition from paper to digital is not happening within a vacuum – it is occurring as archives and special collections are deluged with voluminous new collections (like the Morton collection's half a million items) and rising expectations of "everything [being] on the Internet" and findable there; this is occurring, too, without a concurrent increase in funding.[xxi]

Archival findings aids, for instance, are known to be difficult to comprehend without the aid of a professional, and thus, it makes sense that Nimer and Daines question the appropriateness of putting traditional finding aids on the Internet, since they often require professional assistance to decode; they also cite Ian Anderson, noting that "if users get frustrated by an online finding aid, they are liable to go elsewhere for their information without ever contacting the repository in question."[xxii] Evans promotes the idea of making archival collections easier for digital users to work with, though he prefers to begin the process with EAD mark-up of an existing finding aid, then adds hyperlinks to each item.[xxiii] The Morton Collection and the Duke Digital Collections take different approaches to the problem described by Nimer and Daines, but the focus is still on supporting findability for a specific group of patrons. This will be discussed further later in this paper.

Rising user expectations also argue for clarity on archival processes, as well. Collections rarely arrive at collecting institutions ready for use – a great deal of work must go towards that end before it is achieved. Additionally, while users often want the convenience of being able to access collections remotely, they still require interaction with professionals – they may need assistance or they may have information about an item or collection that would be of use to the archive or special collection. Both of these circumstances, and many others, in the common requirement that the digital collection be a dialogue, not a monologue, point to the necessity of making use of Web 2.0's affordances. Yakel argues eloquently for this in her "Inviting the user into the virtual archives," noting that while there has been some action on this front, there is still much more for improving innovations.[xxiv]

2.5   Intelligent Web Design

Many of the most popular social media websites can credit their success, at least in part, to the simplicity of their interfaces; Google and Twitter both provide excellent examples of this. To paraphrase Joseph B. Miller, Web 2.0's impact on web design has been to reinforce the maxim "Everything should be made as simple as possible, but not simpler." He notes that both visual simplicity and appropriate levels of usability (which

may require added complexity to be achieved) must be balanced for a website to be most effective.[xxv]

Reeb also emphasizes the need to involve users in the design of websites, with "analyze user needs" being the first step in a process that leads through "gather[ing] requirements, goals, and functions of site," to design and testing of prototypes, repeating the latter two steps until time runs out.[xxvi] She emphasizes that the following factors must be taken into account in making a site as useable as possible: The system must be:

- Easy to learn
- Efficient to use
- Easy to remember from one usage session to another
- Accommodating of errors
- Pleasant to use.

In addition, Lynch and Horton emphasize the requirement that these needs be considered vis-à-vis the collection's *own* users, rather than the hypothetical "typical" user, and to support use in a variety of contexts. Many users will have visual impairments, for instance, including adults over fifty, and if a collection is known to be appealing to them, it makes sense to provide ways to increase type-size. And if a collection is expected to be viewed with any frequency on mobile devices like iPhones, it behooves designers to consider this as well.[xxvii]

The literature described above demonstrates the promise of social media to support the promotion of special collections and to provide access to those collections, and argues for the need for further study of this topic. The study described below examines how this is being done in two North Carolinian university special collections.

3   Research Objectives

The objectives of the research presented in this paper were to:

- Gain a sense of the use of social media technologies in the Hugh Morton Collection and the Duke Digital Collections, both of them special collections deemed to have used these tools creatively and appropriately;

- Identify where these collections might wish to improve their usage of these tools to support the promotion of and access to their collections;

- Describe how each collection has approached the question of website design in the Web 2.0 era, and analyze the strengths and weaknesses of their designs, in terms of usability;

- And finally, to determine how other special collections wishing to learn from the practices and experiences of these collections might do so.

4   Methodology and Key Operational Definitions

A multi-method approach consisting of a content analysis and semi-structured interview was conducted. I analyzed the websites of the two collections, keeping in mind the outcome variables described in the literature review, with a particular eye to what optimizes access for users. Of particular importance here is the "intelligence" of the sites' web design, including the following criteria:

- Does it support appropriate use, including providing copyright information in an easily-accessible location?

- Is it inviting to the average user? (i.e., does it follow current web design standards?)

- Does it provide context for documents? Historical and social context is of particular importance.

- Is navigation adequately supported? Does the site include multiple access points for search and borrowing?

- In light of the other social media discussed in this paper, does the site make it easy to "stumble upon" content and share it with others? For instance, do individual record pages include ways to share materials on outside social media websites, like Delicious or Twitter?

- Are there ways to contact those responsible for the collections, in order to ask questions, share information, or otherwise inquire?

This analysis included a careful reading of each collection's blog, looking for both content that supports user awareness and for usage statistical data.

The data gathered from these preliminary/initial evaluations provided useful information that informed the staff interviews I conducted next. At both collections, I found the professional staff to be highly informed about the affordances offered by the social media tools they were using, and happy to speak what these tools could and could not do for their collections. At the Morton collection, I interviewed Elizabeth Hull, the photographic archivist who has been supervising the processing and digitization of the collection. At Duke, I spoke with Sean Aery, who holds dual roles as the Digital Collections' Web Designer and Project Manager for their website redesign project. From these interviews, I drew both quantitative and qualitative insights into their use of social media. Both collections have used their blogs to share use metrics, and I wanted to know where those numbers currently stood. Anecdotal information also proved to be of interest, regarding the kinds of responses they received from their audience, in response to the remote sharing of these collections.

4.1   Key Operational Definitions

An obvious reason for libraries and special collections to make use of Web 2.0 technologies is to introduce users to their collections' contents and to provide them access to those collections. As Abby Smith of CLIR notes, "as more and more is born digital and a new generation of users grows up with digital as the default mode of delivery, resources that are not in digital form will be 'orphaned' over time because they are in 'obsolete' formats.'"[xxviii] Collections need to be properly publicized in order for them to be known to exist. If would-be users don't know that a collection exists, they are essentially denied access. In his article, "Supply and Demand: Special Collections and Digitization," Ricky Erway adds,

> Our first order of business is to describe these collections, but then we must push these descriptions to the surface of the web where they can be discovered. No one

is demanding to look in our supply rooms, as they have no idea what is there. ...in the main, our digitisation [and related activities] should be in service to increased access.[xxix]

Also,

Users bypass the authoritative content of libraries in favour of just-in-time information from sources more convenient to their daily networked lives. Discovery happens elsewhere - we need to be there.[xxx]

While the term "Web 2.0" has been applied to many concepts of dubious relationship, the most reliable definition of it comes from the coiner of the term, Dale Dougherty, and Tim O'Reilly, who popularized it in his seminal article, "What is Web 2.0?" Shortly after that article was published, O'Reilly provided this compact definition of the term:

> **Web 2.0 applications are those that make the most of the intrinsic advantages of that platform**: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an "**architecture of participation**," and going beyond the page metaphor of Web 1.0 to deliver **rich user experiences**.[xxxi] (emphases mine)

The reader will notice that O'Reilly never speaks of specific pieces of social software, such as Facebook or blogs - throughout this study, it will be shown that the most important aspect of the Web 2.0 phenomenon is not the tools themselves, but the *intent* behind them. As Ian Davis puts it, "[Web 2.0 is] an attitude not a technology."[xxxii]

4.1.1   Social Media / Social Networking (Technologies)

The terms "social media" and "social networking" (or "social networking technologies") are often used interchangeably.[xxxiii] In essence, they are also synonyms for "Web 2.0" technologies. Additionally, as Thor Harris notes, "social media can take many different forms, including blogs (Blogger, WordPress), social networking sites (Facebook, MySpace, LinkedIn), wikis (Wikipedia), podcasts (which are like radio or television shows over the Internet), photos (Flickr, Photobucket), and videos (YouTube)."[xxxiv] The social media software that will be discussed here are those currently

in significant use on the Morton Collection and Duke Digital Collections websites, including blogs, Facebook, Twitter, and social bookmarking tools.

5   Limitations of this Study

There are two primary limitations to this proposed study. First, there is the question of *scope*. This project is limited to a close examination of a pair of special collections, and both are primarily image-based, with one (Morton) being exclusively photographic in nature. Thus, it is limited both by the small population of collections to be studied and the precision of those collections. While many of the lessons to be drawn from their experiences will be instructive to other kinds of special collections, which differ by institution and topic area, lessons will not necessarily be *directly* correlative to results for other institutions that experiment with social media.

Secondly, social media is topically a moving target. This point is brought home by the fact that as this paper was being prepared, the Duke Digital Collections were undergoing a radical overhaul of their organization. A tool that is in wide use at the time of this writing will not necessarily in be use, or recognizable, very shortly. While the plasticity of social media is one of its great "features," it can also be a "bug" - a tool may quickly be replaced by in common usage by another, and new tools with new affordances are constantly emerging. On the negative side, other tools may fall by the wayside because of poor maintenance of infrastructure, as happened to the Ma.gnolia social bookmarking service.[xxxv] By focusing on the useful *qualities* of social media and how to best exploit them, rather than on special tools, the author hopes to prevent this paper from becoming immediately out-of-date.

6   Analysis and Discussion

The data analysis presented below is divided into five sections, mirroring the literature review above, and presents the results of the content analysis and semi-structured staff interviews conducted. This section begins with an introduction to the

intellectual context for the development of the Hugh Morton Collection of Photographs & Films and the Duke Digital Collections. The collections are then analyzed and discussed in terms of what they show in regards to

- Greater user interaction with institutions,
- Greater visibility for the collections in extra-institutional settings,
- Greater "brand recognition" for host-university libraries,
- Improved user ease and familiarity with collections and processes, and
- Intelligent web design.

Within each of these five sections, each collection is analyzed and discussed separately, rather than compared to the other.

6.1   Organizational overview

The University of North Carolina at Chapel Hill (UNC) and Duke University are both located in the central "Triangle" region of North Carolina. UNC is a public university, and it prides itself on being home not only to the vast Southern Historical Collection, which houses archival materials from across the southern United States, but also to one of the best research library systems in the United States. The American Library Association currently ranks it the twenty-sixth largest library in the country. Duke, a privately-funded university in nearby Durham, is ranked twenty-ninth.[xxxvi] Raleigh, the state capital and third major city in the Triangle, is home to North Carolina State University and was recently identified by Forbes magazine as the most "wired" city in the United States; it has high rates of access to broadband Internet and wi-fi connections, and is home to many high-tech companies.[xxxvii] The excellent digital special collections discussed in this paper spring from this atmosphere of intellectual innovation and digital engagement.

The websites of both the UNC and Duke University library systems prominently feature links to their digital collections. Duke's "Search Resources" box includes a tab that supports both keyword search and browsing of the collections (see p. 12). At UNC, a link to the university's digital collections is provided in the left-hand column on the page; materials from the collection are displayed in a "Featured" section directly below search

tools. Observant readers will have noted that this paper covers the Duke Digital Collections (DDC) as a whole, but does not do the same with UNC's collections. This circumstance arises from the unit of coverage in the blogs that served as my initial entrées to the collections - the DDC blog covers the entirety of the collection, while "A View to Hugh," the blog for the Morton collection, was developed specifically for that collection, and even more specifically, for describing the archival processing that has gone into preparing it for public use.
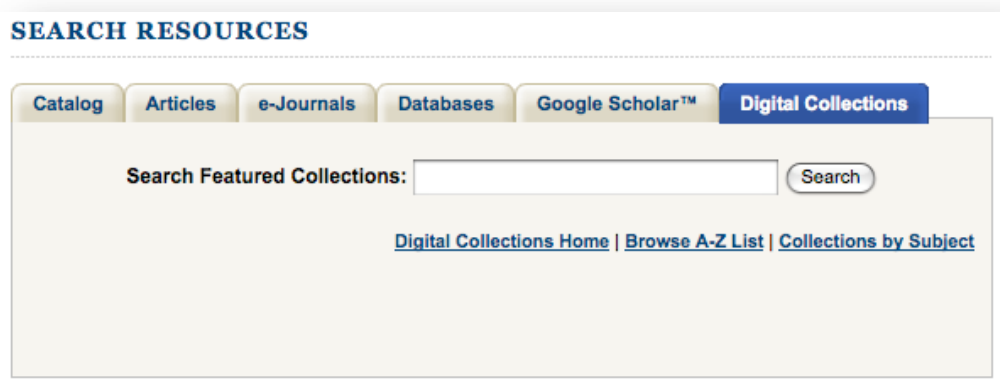

Figure 1: The Duke Libraries Search Resources box, with Digital Collections selected.

6.1.1 UNC's Hugh Morton Collection and "A View to Hugh"

In 2007, when the Photographic Archive at UNC first learned that Hugh Morton's widow, Julia, would be donating his archive to the university, they realized two things: one, that they had a big project on their hands (early estimates of the size of the collection ranged up to 500,000 items, and there was "very little existing internal order"),[xxxviii]and two, that there would be immediate communal interest in accessing it. During his long career (the 1930's to the 2000's), Morton *did* photograph other places, his primary subject was North Carolina. His archive is full of images of the mountains of western North Carolina, including his ancestral home, Grandfather Mountain; local athletics, mostly notably UNC basketball during Michael Jordan's college career, and UNC football in the Charlie Justice years; local politics and beauty queens; and much other

North Caroliniana. How was the Photographic Archive supposed to maintain patrons' patience as they made this huge olio of fascinating items ready for their perusal?

Recognizing that they had a "built-in audience" for it, Stephen Fletcher, the Photographic Archivist at UNC, decided that a blog would be the perfect way to communicate with potential users.[xxxix] Fletcher and Elizabeth Hull, the Project Photographic Archivist, could provide updates about their progress, and educate users about archival processes, as well. What they didn't expect, Hull notes, is that it would "develop a life of its own," with "cascading" results, including drawing in several committed readers who've gone on to share lots of significant information during the course of the project, often via the comments section at the end of blog postings.[xl]

Fletcher and Hull were also pleasantly surprised to find that other archival professionals soon joined their audience: when the blog was begun, most blogs at similar institutions were being used to share event announcements and such; using the blog format to describe the processing of a collection was a new innovation and it drew immediate professional notice when members of the public began sharing useful information about collection items with the UNC team. They had successfully managed to turn the traditional monologue, from institution to patrons, into a dialogue, drawing patrons into conversation about their collections.[xli]

6.1.2 The Duke Digital Collections

The Duke University Libraries' Digital Collections (DDC) were, in their first iteration, a completely Web 1.0 phenomenon. According to Sean Aery,[xlii] the collections' Web Designer, they were first created in the late 1990's and were hand-coded in HTML. Their content was necessarily quite static and lacked means by which users could interact with it. By the mid-2000's, this has become problematic, with the arrival of the social web. Not only couldn't material be shared easily offsite, but the collection was not searchable.

In 2006, the company providing the Dynaweb software that undergirded the site announced that it would no longer provide support for the software. The library tech staff decided to take this as an opportunity to revamp the site. As Aery notes, the Internet had continued to evolve without them, and they wanted to replace the collections' existing

"stale tools and interface conventions." He adds that, where social media had made more actions possible on the Web, they'd also altered and elevated users' expectations of what should and would be done, and the Duke team wanted to meet such expectations.

Like the Morton Collection team, the DDC maintains a blog, which they similarly use to solicit interaction with users; its dedicated purpose is to inform users about the uploading of new collections and, of late, to keep them up-to-date on the development of the new site. In addition to the blog, a variety of social media tools are used by the DDC, with the idea that in using a cornucopia of carefully-chosen tools, they'll reach the maximum number and variety of users:

Figure 2: A posting to the Duke Digital Collections' Facebook page.

- Postings to the DDC's Facebook account are intended for a primary audience between the ages of 18 and 24.
- Twitter postings are intended to reach slightly older users, and to highlight timely items in the collection, such as British Airways advertisements for flights to the 1948 Winter Olympics, during the 2010 Winter Games.
- YouTube and iTunes are used because they support the sharing of videos. The DDC are particularly anxious to highlight materials relating to the AdViews collection, as this collection of advertising media is one of the "jewels" of Duke's Special Collections.
- The pre-populated "Share-This" bar includes the option to share individual items in the collections with others on the Connotea, Delicious, and Digg social

bookmarking sites, as well as on Facebook. One can additionally save the item directly to one's own Google Bookmarks account. Further options are available on the homepages of individual collections.

One of the beauties of the social bookmarking options offered is that because items that are selected for those sites are selected by users, they rely upon social relationships outside of the "authority" of the archives – their selection relies not on a librarian guessing that a user will find the items interesting, but on a user herself *saying* it is interesting by her decision to share that item with her peers.[xliii]

The collections' digital implementation team is currently in the midst of developing the next evolutionary stage of the collections. In Aery's words, they work with the assumption that the site is in "constant beta," as so much of the social media world is - the version currently available is never the final, authoritative iteration, and there is always some kind of "tweak" that will make the tool or the website more useful. As this "skin" changes, what remains constant is the digital repository on the "back end,"[xliv] which safeguarding their digital material using Fedora software.[xlv]

Go for the Gold! Duke Digital
Collections and Winter Olympic
Games: http://tinyurl.com/yl5xvnc
10:08 AM Mar 3rd via Echofon

Figure 3: A posting to the Duke Digital Collections' Twitter account.

6.2   Greater user interaction with institutions

"Libraries are not just about tangible objects; they are about people."[xlvi] One of the great opportunities libraries are discovering in Web 2.0 technologies is that they allow libraries to bring their great strengths – authoritative data and, just as importantly, the well-trained *people* to share it – to the Internet more fully than ever before. While the library itself exists physically in one discrete location, and its contents and knowledgeable staff are reachable only during business hours, putting manifestations of

those contents and staff online make them accessible everywhere, all the time. The plasticity of Web 2.0 tools makes it easy for staff to update regularly, and to push those updates to interested users via RSS feeds and social networking sites – users need never visit the library or its website to be aware of its staff and collections, and be able to *respond*, by commenting on a blog post, replying to or retweeting a link on Twitter, or bookmarking a page on a social bookmarking site. Dialogue is easy when the lines of communication are open. The staffs of both the Duke Digital Collections and the Morton Collection recognize this, and value the opportunity to draw users into online conversation around their collections.

6.2.1 The Morton Collection

The aspect of the Morton Collection's online presence that has attracted the most attention in the professional archives community is the response it's gotten from readers. While those readers have a panoply of other Internet locales they could visit, they are visiting "A View to Hugh" to read what the archivists on the project are saying about the processing of the Morton Collection, and they are responding with kudos, commentary, and clarifying information. Several have become quite invested in the project and comment frequently; one, Jack Hilliard, has gone on to volunteer with the processing of the collection and has himself written several blog posts. While this can be credited, in part, to the appeal of the collection's contents, credit is also due to the conversational nature of the blog and the staff's direct questions and requests of the audience. An excellent example can be found in the "Camp Yonahnoka" postings. In Part I, Elizabeth Hull posted a set of photographs taken at a summer camp that Morton supported, noting that there were many unknown faces in the images. In the comments section, readers responded with identification of individuals in the photographs, links to related UNC library resources, and thanks to the team for preserving images of the now defunct camp.[xlvii] In the second posting, Hull commented on these useful responses, and then solicited further information about the camp itself, pausing to mention research done with the North Carolina Collection's copies of brochures from the camp, thus introducing further authoritative information sources to readers. Readers responded in kind, with further data and research resources.[xlviii]

The Morton team is generally pleased with how the blog format serves its audience, which, based on Hull's interactions with its members, tends to be older. Indeed, when asked, she cited that as a major reason for declaring that there were no other social media tools she was interested in adding to the collection – in her view, they would likely represent more of a draw on the team's limited time than they would return in user interaction.

One feature that Hull *would* like to add to the collection, which is hosted on CONTENTdm digital collection management software, is a commenting feature on individual item pages. At the time of my interview with her,[xlix] CONTENTdm supported this feature, but it was nonfunctional at UNC. Hull noted that the existing stopgap feedback arrangement makes it difficult for users to comment on an image: after clicking on the feedback button at the top of individual item page, the commenter is taken to a separate page, which does not show the image he is responding to, thus divorcing the content from the response. Hull believes that if this cumbersome setup were replaced with one more conducive to commenting, blog-style, the quality of commentary on individual pages would improve to match that of comments to "A View to Hugh," the blog.

6.2.2 Duke Digital Collections

By contrast, the wide variety of social media tools in use at the Duke Digital Collections support more discussion *around* the collection. The Digital Collections blog[l] is informative and engaging, but direct, commenting response to it has been muted, outside of comments on postings regarding the website redevelopment. More interesting here is what is going on offsite, on commercial social media websites, particularly social bookmarking sites like Digg and StumbleUpon. In a recent presentation, members of the Digital Initiatives team quote Ricky Erway, who opines that "we need to stop thinking of our lovingly crafted sites, designed specifically for a particular collection, as the only way people will discover our content."[li] This is supported by the DDC's Web Analytics,[lii] which found that between May 2009 and March 2010, fully 44% of all visits to the collection began with an external referral, and 11% of visits came through social media tools.[liii] The decision of each user to bookmark an item, visit the collections after seeing an intriguing item from the collection on a social networking site, or comment on that site

about that item represents interaction with the collections – the user is taking a moment, wherever she is on the Internet, to reflect on the item and respond to it, thereby flagging it as relevant and readily accessible. Sometimes it may take the form seen below, in an example taken from the DDC's Facebook page,[liv] in which a user, seeing an update titled "Jingles, Singing Commercials, and other Earworms: Highlights from AdViews," jokes about the "insidious" nature of catchy jingles, and receives a chatty response from a Digital Initiatives Team member.

Other times, it may be seen in the comments on a video posted to YouTube: a 1982 interview of Sam Maloof by Barbaralee Diamonstein-Spielvogel, from the DDC's archive of her work, had been viewed more than 8,000 times and the comments posted include several thanks to the DDC for posting the "inspirational" video, as well as a notice of Maloof's death, in 2009.[lv] While the comments on other videos included more "trollish" behavior, the mere fact of the offsite viewing of DDC videos – while they

Figure 4: An example of social media-facilitated interaction between a Duke Digital Collection and a staff member.

also use iTunes, they found, during an eight week study in 2009, that more than fifteen times as many videos were viewed on YouTube than iTunes[lvi] - this is the primary means by which their videos are being viewed, and they have chosen to embrace the norms of YouTube over attempting to control response by disabling commenting.

One interactive feature missing in the current iteration of the DDC, which Sean Aery laments as a "lost opportunity, " is a commenting feature for individual items. Like Elizabeth Hull, he sees its absence as one less open avenue for response and interaction.[lvii] Just as with the feedback feature at the Morton Collection, the circumstance that if users wish to say anything about an item, they must do so offsite, with a social bookmarking tool, causes dissociation between items and the related commentary.

What conclusions can be drawn from these two collections' attempts to spur user interaction with their materials via social media? First, that users will respond to sincere invitations to share their knowledge and responses to materials' content, and often, their knowledge will be of use to the collection, not merely a form of circulation statistics. Second, that creating a fertile environment for this intellectual activity is an iterative process – collections will discover what tools and features best suit *their* materials and *their* audience by testing them out, not by referring to some authoritative source on the subject. Additionally, the needs of the audience will evolve over time, as they are exposed to new tools for discovery. This requires digital special collections to evolve with them, to maintain the quality of interaction.

6.3   Greater visibility in extra-institutional settings

Both the Morton Collection and the Duke Digital Collections have received wide notice based on interest in their collections and use of social media. Each has been covered in traditional media, such as university media and local news. The Morton Collection has also been cited admiringly in a variety of archival profession literature - the use of "A View to Hugh" to describe the processing of the collection has appealed to many professionals working to provide institutional transparency. At the DDC, the most intriguing development has been the huge number of extra-institutional page referrals - only a small percentage of page-views for individual items originated in page-views of the collection's homepage or that of the university libraries.

Sean Aery of Duke speaks of the need to use a variety of social media platforms to reach the maximum number of would-be collection users.[lviii] I would expand this to say that when digital collections are recognized and spoken of in a multiplicity of media, both old and new, the potential audience increases yet further.

6.3.1   The Morton Collection

The concept of the Morton Collection's "A View to Hugh" as a blog to describe the processing of a collection had immediate and wide-spread appeal to members of the archival profession. Less than six months after the first posting to the blog, it was cited in the influential *ArchivesNext*[lix] blog, for "Best Use of Web 2.0 Technologies," based on reader voting. This is even more impressive when one considers the high profile of the "honorable mention," the Library of Congress on the Flickr Commons. Kate Theimer, the main writer of *ArchivesNext,* also interviewed Stephen Fletcher, the UNC Photographic Archivist, for her 2009 book, *Web 2.0 Tools and Strategies for Archives and Local History Collections*. The thesis of the book is that "to connect with and successfully serve the growing generation of native Web 2.0 users, archivists, and other professionals responsible for historical collections must learn how to accommodate their changing information needs and expectations."[lx] "A View to Hugh" is also discussed in Erway's article "Supply and Demand: Special Collections and Digitisation," published in *Liber Quarterly - The Journal of European Research Libraries*; he explicitly notes the intents both to keep would-be collection users up-to-date with the processing of the collection, as well as the ultimate intent to maximize accessibility.[lxi] Whittaker and Thomas, in their *Special Collections 2.0,* also mention it as part of an honor roll of special collections blogs focusing on professional practice.[lxii]

In addition to professional notice, "A View to Hugh" also drew the attention of people interested in the history and culture of North Carolina. "Blue Ridge Blog," which focuses, in the main, on the Appalachian part of North Carolina, profiled the blog and the associated processing project, in January 2008, telling readers that "if you are a North Carolinian with even a remote interest in history, or if you want to see yet another interesting way in which blogs are useful in problem solving, please visit often, especially if you have ties to Wilmington, UNC-CH or the High Country."[lxiii] The *Winston-Salem Journal* also profiled the collection, focusing on the size of the processing project and Morton's ties to the state and UNC.[lxiv] And finally, *Windows*, published by the Friends of the (UNC) Library, profiled the collection when it arrived at UNC in 2007. Article author Ginger Travis makes an impassioned case for the collection's importance, saying "Morton's ... career in photography strongly shaped the way we North Carolinians picture our state - through iconic images of wild ponies and black bears, the Blue Ridge

parkway, the Hatteras lighthouse, and much more."[lxv] UNC University Librarian Sarah Michalak is quoted as saying, "The Morton collection, added to our already outstanding photo archive, has made UNC the broadest and deepest source of photographic images of North Carolina in the 20th century. What a treasure trove for scholars, for students and their teachers, for people researching local or family history—for everyone with a strong interest in our state."[lxvi]

6.3.2   Duke Digital Collections

According to Web Designer Sean Aery, one of the major audiences the Duke Digital Collections hope to speak to with their experimentation with social media is the Duke University library community itself.[lxvii] A major theme that emerged in my interview with him was the need for cultural organizations to be open to trying out new e-tools to reach audiences old and new, and to learning from that experimentation. Some of the most startling statistics the DDC has gathered relate to how users arrive at individual item pages in the DDC. Aery notes that while only one in five (approximately 20%) of these page views begins at either the homepage of the Duke University Libraries or the DDC itself, the general library community continues to assume that this is the general model. Of the remaining 80% of page views, half stem from results from search engines like Google, half from social media sites, particularly the social bookmarking services they link to from their pages and StumbleUpon, which represented 15% of the total page views.[lxviii] Aery points to the current explosion of new Duke library blogs and social media accounts as indicating that the message is getting through, and that static Web 1.0 web pages are being replaced by dynamic Web 2.0 pages, as the libraries' default choice. He cites the growing recognition that blogs are more timely and easier to update, as well. The growing willingness to take the DDC as an example within the Duke University Libraries at large can also be seen in the choice by the libraries' official magazine to dedicate an entire issue to the Collections and their development. This may yet also have farther-reaching results, as the magazine is distributed to members of the Duke academic community and other libraries,[lxix] where the DDC may yet serve as an inspiration to others.

The theme of increased general dynamism can also be recognized in several local media reports, as well, including a *Durham Herald-Sun* article profiling the creation of

socialmedia.duke.edu, the central portal for the university's social media presences on the Internet. While David Jarmul, the university's associate vice president for news and communications, is quoted speaking about the general social media page, his statements hold true for the DDC's work, as well: "We're trying to have Duke University communications reflect where the world is going. The days in which a university could communicate only through official news releases is long gone."[lxx] The consumer technology blogger at the website of WRAL, a Triangle-area television station, also emphasized the "fun" and unique items in the Collections, also highlighting how WRAL website users can optimize their searching of the site.[lxxi]

The DDC has also received notice for its experimentation with the development of a smartphone application. In July 2009, the "Northwest History" blog described the new Duke Digital Libraries iPhone application, accompanied by a YouTube video created by the Duke University Libraries. Larry Cebula, the public historian who maintains the blog, was intrigued but skeptical, saying,

> I am not sure if this is an oddity or a glimpse of the future, but Duke Digital Collections has developed what I believe is the first iPhone app for a digital archive. The app is really nicely designed and takes advantage of many of the iPhone's capabilities. ... And yet--I can't see using my iPhone to do historical research. … Is this a very impressive novelty or something more?[lxxii]

I don't have an answer for him, but this seems like the next obvious step for the DDC, who've clearly taken to heart the thought at the heart of Erway's dictum that "Users bypass the authoritative content of libraries in favour of just-in-time information from sources more convenient to their daily networked lives. Discovery happens elsewhere - we need to be there."[lxxiii]

Both the Duke Digital Collections and the Hugh Morton Collection are successfully leveraging their use of social media as a means to garner attention for their use of those tools and for the content shared with those tools. In doing this, they are able to prompt interest in their collections in audiences to whom they might not otherwise be visible, thus improving access to the collections - the first step to providing access to an available resource, after all, is to make sure that the audience knows it exists.

6.4 Greater "brand recognition" for university libraries

All libraries and archives, not just special collections, want their audiences to be invested in their continuation, and to take an active interest in their collections. The problem in the Internet Age, unfortunately, is the continual multiplication of rivals for these "eyeballs." Additionally, the collections of general libraries have become more homogeneous. In these circumstances, it becomes clear not only that libraries need to emphasize that yes, their special collections are indeed special, but that the institutions that they belong to must be ready to actively highlight this specialness. In the cases of UNC's Hugh Morton Photographic Collection and the Duke Digital Collections, these tasks are perhaps easier than they are for other special collections - both hold materials with a great deal of intrinsic appeal to their intended audiences. Also, while both clearly brand the items in their digital collections as their own, the Duke Digital Collections are particularly savvy about the intersection of their branding and web design.

6.4.1 The Morton Collection

The Morton collection, as previously described, covers a broad swath of 20th century North Carolina history in beautiful photographs, which makes them particularly intellectually accessible to their long-term primary audience, people interested in North Carolinian history. This audience includes scholars, schoolchildren, and those with casual interest in the state's history, among others. While the title "Mr. North Carolina" hints more at beauty pageants than might be desired, it is an apt title for Hugh Morton, as evidenced by a simple "author" search for his work in the UNC Libraries catalog. In addition to the materials held at the Photographic Archive, the libraries hold a number of his books, including *Hugh Morton, North Carolina Photographer, Hugh Morton's North Carolina* and *Making a Difference in North Carolina*. Even the few items without "North Carolina" in their titles cover North Carolinian subjects, such as Grandfather Mountain's *Mildred the Bear*. Sensibly, copies of all these items are held in the North Carolina Collection, housed in UNC's Special Collections library, a few floors up from the Photographic Archive. These published items and the unpublished materials in the Photographic Archive serve to illuminate each other, often quite immediately: Hull has discovered a great deal of information about the photographic materials she is processing, by reading the published materials held in the North Carolina Collection, and often, the

photographic materials include both the original prints and negatives of images in the books, as well as unpublished but topically-related materials.

As to web-design branding, it is not difficult for a user who happens upon the collection or an item in the collection to learn what institution hosts it. The "UNC University Libraries" logo is present on every page of the site, though one generally must scroll down to locate it. This, however, seems to be a design choice made on an institutional level, rather than by the Morton team, as the logo is found in the same location in other UNC-held digital collections, both photographic and otherwise.[lxxiv]

6.4.2 Duke Digital Collections

The Duke Digital Collections, while they contain a wide range of fascinating material, are, according to Sean Aery, particularly proud of their "Advertising and Consumer Culture" collections. Of late, the Digital Initiatives Team has been focusing their energies on the redevelopment of the website and polishing this section of the DDC, in an explicit attempt to make use of one of the strengths of the university's Rare Book, Manuscript, and Special Collections Library, its historical advertising collection.[lxxv] This library is home to four "special subject-focused research centers," one of these being the John Hartman Center for Sales, Advertising, & Marketing History.[lxxvi] On the Hartman Center's homepage, several collections from the DDC are linked-to, including several of the DDC's most popular collections, "Ad*Access" and "AdViews." "Ad*Access" materials are still images, while "AdViews" materials are "vintage television commercials."[lxxvii] Aery notes that these materials are interesting to multiple audiences, specifically:

- Academics studying a wide range of topics, including American history and design history, and
- General audiences who have developed an interest in these topics from pop culture exposure, including the television show *Mad Men*,[lxxviii] which centers on life in a Madison Avenue advertising firm in the 1960's.

The Hartman Center has taken particular advantage of the latter phenomenon, hosting the exhibit "Not Just Mad Men: Real Advertising Careers in the 1960s," and, when it ended, continuing to offer video coverage of it on their homepage, alongside "Ad*Access" and "AdViews."[lxxix]

The Rare Book, Manuscript, and Special Collections Library's other three research centers are also well-represented in the Duke Digital Collections. Using the "Browse by Topic" option on the DDC's homepage, patrons of The John Hope Franklin Research Center for African and African American History and Culture can easily locate relevant materials in the DDC by examining the collections listed on the umbrella subject heading of "African-American History." Those interested in the topics covered by the Sallie Bingham Center for Women's History will identify the "Women's History" subject heading as pertinent to their research. And finally, Duke Documentary Photography Archive users will find suitable materials under the "Documentary Photography" heading. It should be noted, as well, that numerous collections are of potential interest to patrons of several centers, and thus, are listed under several of these subject headings.

As to the topic of branding in the DDC's web design, it seems, like the Morton Collection at UNC, to be dictated by the general university libraries' web design. The "Duke University Libraries" logo is located in the upper-left corner every page of the digital collection. For branding purposes, this is the ideal location for the institutional logo. Jakob Nielsen, the influential web usability consultant, has done web user eye-tracking studies and found that typical reading of a webpage follows this pattern: "Eyetracking visualizations show that users often read Web pages in an F-shaped pattern: two horizontal stripes followed by a vertical stripe."[lxxx] Thus, the upper-left corner of the page is read twice, once in the first horizontal pass, and again during the final vertical pass. Anything found in that location will be most clearly remembered of all content on the page. While the example shown here is from an individual-item page, the arrangement is repeated throughout the digital collections, with the university libraries' logo in the upper left and other pertinent information, like the collection and item titles, located along the "stripes" described by Nielsen. (Please see p. 25 for an example)

Both collections are trying to create added value for items discussed elsewhere on their institutional websites, through "related resource" metadata and linkage. In the case of the Morton Collection, this represents current practice; for the DDC, it is a goal of the ongoing redesign of the website. When a photograph of an individual is provided on "A View to Hugh," clicking on the image takes the viewer to the item viewer page in the Morton Collection website proper, and
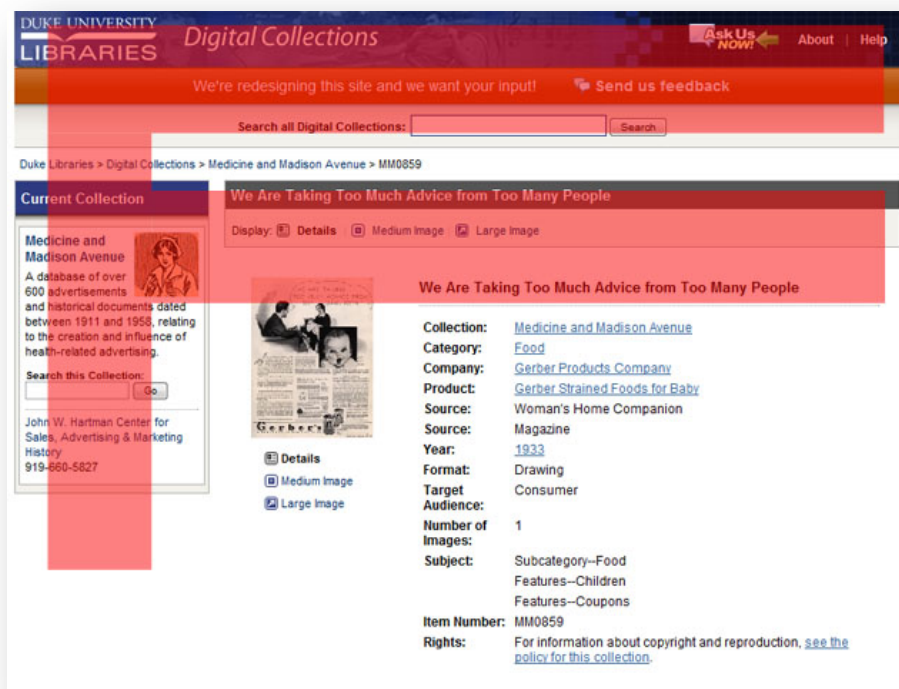
Figure 5: Nielsen's F-shaped eye-tracking concept, applied to Duke Digital Collections individual-item page (details view).

from there, the viewer can click directly through to the archival finding aid, or discover "related resources," including books in which that individual features.[lxxxi] The DDC hopes to provide similar functionality across the university library blogs - Aery notes that while materials from the DDC are discussed in many of the newly-developed library blogs, there is currently no method by which users can access the information in those blog-postings from the collection. The Digital Initiatives Team hopes to make this possible in the next iteration of the collections website.

6.5   Improved user ease and familiarity with collections and processes

To be frank, proposing to measure "improvement in user ease and familiarity with collections and processes" is a rather difficult task, asking for the quantification of something that's often intangible, for an often-unclear set of users; the latter is particularly difficult on the Internet. As such, in this section, I will describe what the related goals have been in the Duke Digital Collections and in the Morton Collection, and

the "good faith" efforts they've made towards reaching these goals, particularly in the collections' blogs and in descriptive sections of their websites. In choosing this method, I hearken back to the Society of American Archivists' Code of Ethics, previously quoted in the introduction to this paper:

> Archivists **strive to promote** open and equitable access to their services and the records in their care without discrimination or preferential treatment... Archivists recognize their responsibility to promote the use of records as a fundamental purpose of the keeping of archives.[lxxxii]

While reliable measurement of success in this task may prove elusive, the effort and the recognition of its necessity warrant comment.

6.5.1 The Morton Collection

From the moment that Julia Morton promised her late husband's photographic archive to UNC, it was clear to the university photographic archive that establishing good communication channels with would-be users was of paramount importance. They knew that Morton's collection would draw much interest, and members of the public would want to access it as soon as possible. "A View to Hugh," the collection's blog, was established with the explicit goals of educating these would-be users about archival processes and thus maintaining their patience and interest as the team prepared the collection for usage. Elizabeth Hull locates this decision-making process in the archival world's current drive towards institutional transparency, noting that remaining "mysterious" and opaque to those outside the archive does not serve them well.[lxxxiii] This is particularly true in the current informational climate, in which the vast majority of users unreflectively believe that "everything is on the Internet" already. The team's proactive strike against this misunderstanding, vis-à-vis the Morton Collection, is what drew professional interest to the blog - the archival community is striving towards transparency, and "A View to Hugh" is a concrete illustration of this concept. Ricky Erway of OCLC supports the photographic archive team's reading of the situation in his scholarly article "Supply and Demand: Special Collections & Digitisation," opining, as well, that their workflow (wisely) unbalances the traditional professional focus on preservation over access, emphasizing the latter with their choices in digitization methods.[lxxxiv]

Within "A View to Hugh," postings with the "Behind the Scenes" categorical tag directly address these archival education goals. In these postings, particularly in 2008, early in the blog's existence (it was begun in November, 2007), topics include

- The team's grappling with the enormity of the collection (estimated at various points as numbering between 200,000 and half a million items),[lxxxv]
- The enormity of its technical requirements,[lxxxvi]
- File-naming conventions,[lxxxvii] and
- How archival processing occurs.

An early entry on this last activity, "A Processor's Perspective,"[lxxxviii] written by Hull, clearly delineates why, although the collection was now in the archive's possession, it was not yet open to the public, and also established Hull's voice as a major contributor to the blog. As many other successful bloggers have noted, including Sean Aery, when asked about the Duke Digital Collections blog, *voice* is central to establishing credibility and connection with an online audience.[lxxxix] This is particularly true when blogs belong to institutions - their voices must be established as both accessible and authoritative. In this particular case, Hull illustrates her professional competency, the challenges of the project, and her enthusiasm for it. When asked for advice that she would give to other archivists, blogging about their collections, she advises posting often (the Morton team has averaged about one entry a week over the course of the project), in part to ensure that readers who've become familiar with the archives' "voice" remain familiar and engaged with it. She also notes that the voice in question need not belong to one individual[xc] - the voice of "A View to Hugh" belongs not just to Hull, but to several other professional archivists, student workers, and a highly-dedicated volunteer.

In addition to the inclusion of photographs from the collection, the bloggers frequently include images to illustrate their educational data. Entries describing the size of the collection are accompanied by photographs of large piles of slides and haphazardly stacked boxes.[xci] Where technological issues, specifically, those dealing with digitization and data storage, are discussed, contrasting enlargements of the same original photo are provided.[xcii] Where the arcana of file-naming is delved into, a chart is provided, describing the intellectual divisions chosen, as seen in the entry "Name That File."[xciii] Where appropriate, archival information is provided in the collection website-proper, with the "About This Site" section providing the greatest amount of archival data.

In addition to a short biographical description of Morton himself, the subjects covered here are:

- *Searching the Collection*, which describes the methods by which one may search or browse the collection,
- *Cataloging Information*, which corresponds to blog entries like "Name That File," defines the catalog fields used and the kind of information provided there (including, for the "Subject" fields, the controlled vocabulary resource used, such as the Library of Congress Subject Headings), and
- *Permissions and Reproductions*, which covers appropriate use of materials in the collection.

On the whole, the Morton Collection team's work to make its website educational and user-friendly is successful. However, one issue, seen also in other UNC collections, like the Edward J. McCauley Photographs,[xciv] is the prominence of the archival inventory on the collection homepage. A link to it is located at the top of the page, directly below a couple sentences introducing Morton and the collection, which is specifically described as a *digital collection*. The implication that I, as a non-professional user of the site, take from the location of this link is that it will take me to the digital collection. Instead, the user is taken to a finding aid of the traditional sort. While it does provide some useful affordances, such as the ability to expand and collapse sections in the page view, which is helpful when looking at a long finding aid, I must question the assumption that the finding aid is what users want to see first. As the Duke Digital Initiatives team found in analyzing page views of their collection, many, if not most, users will be drawn into a collection at the level of the individual item, rather than at the level of the collection as a whole. On individual-item pages within the collection, the major metadata fields are provided, and a link to the finding aid. While I hesitate to advocate for removing the finding aid from the collection homepage entirely, I believe, based on the research described in the literature review and what I've learned in the interviews, that users would be better served by its demotion on the page. This assumes that most users of this digital collection will be more familiar with Internet search conventions than those of a traditional archive. While Hull notes that certain major information design decisions, like the choice to forgo other social media in favor of putting lots of effort into the blog,

reflect that the main audience for the collection skews "older," it still seems likely that more users, no matter their ages, will arrive at the site more comfortable with Internet conventions than archival ones. Particularly with casual users, the audience should be drawn in with a "friendly" interface design, and *then* educated further - as Ian Anderson notes, "if users get frustrated by an online finding aid, they are liable to go elsewhere for their information without ever contacting the repository in question."[xcv] Why introduce the collection with a frustrating experience?

6.5.2   Duke Digital Collections

The Duke Digital Initiatives team makes less extensive use of the blog format than does the Morton team; often, they supplement it with usage of other social media, such as Facebook and Twitter, particularly to highlight "cool" and timely items. While blog postings are less frequent than those to "A View to Hugh," their content is often similarly informative in regard to "how the sausage is made," describing the work that is going on "behind the scenes" and why those choices are being made. According to Sean Aery, the blog's purposes are to elicit response from the target audience, to highlight new developments such as the uploading of new collections and, currently, to keep users abreast of the redevelopment project.[xcvi] The Digital Initiatives Team has also used the blog to share slides from the informative presentations they are frequently called on to give. Not surprisingly, the team is particularly interested in the "community aspect" of social media and the dialogues that it can support.

The blog has been particularly informative in the Digital Initiatives Team's descriptions of user needs assessment and outside resources that inform the current redesign project. In my interview with Sean Aery, Facebook's frequent redesigns came up. While Facebook users have often greeted redesigns with indignation and protest, Aery notes that this "constant beta" approach to the website's design has steadily made it more *useful*.[xcvii] The key issues appear to be public relations-based: users should feel welcome to provide feedback on site features, existing and proposed, and they should be kept informed of intended changes. As Aery puts it, transparency is of paramount importance, and "we don't want to surprise people."[xcviii] As they plan the current website redesign, the Digital Initiatives Team has met these requirements in the following ways:

- Adding a link to the top of every page of the collections website, stating that "We're redesigning this site and we want your input!"

- Providing numerous examples of the "wireframe" page design prototypes on the blog,[xcix] and

- Sharing examples of "Inspiring Sites" that they've studied and parsed, as they make choices about what to add or subtract from the existing design.[c]

While change is necessary to maintain relevance, particularly in the digital world, where users have been well-prepared for it, they are better able to keep pace with it and their access to collections will suffer less real interruption. Based on the feedback they're received from users, this is the result of the site's blog-based informational campaign.

Where the blog is being used to provide updates on the website redesign and inform users of when new collections are added, other social media are being used to advertise the collections. Twitter and Facebook are used to share similar content with a diverse group of social media users. Materials on YouTube and iTunes are different, having been selected for posting there because of their format as video items; the majority of items are related to "AdViews: A Digital Archive of Vintage Television Commercials." As Aery notes, in addition to reaching out to users on sites they already visit, the DDC wants to highlight the "jewels" of their collections, particularly items from their advertising collections, which hold interest for a wide array of audiences, from scholars of advertising history to mainstream audiences interested in retro pop culture.[ci] The digital world is not a "Field of Dreams" – it is not enough to build something for "them" to come to, it must be promoted so that "they" will be aware of its existence.

While the "voice" of the Duke Digital Collections is no less diverse than that of the Morton Collection, with blog postings and social media updates being written by both Digital Initiative Team members and others, including interns, it too has a constant "sound." It is conversational and often irreverent, but consistently authoritative. Posts are often segued into using items from the collection. A prime example of this is the blog entry "Secrets of Duke Digital Collections… Revealed!" which publicizes a set of articles about them in the Duke Libraries magazine, using a 1938 cosmetic ad and joking claims that what makes the Duke Digital Collections happen is "glamour."[cii]

As mentioned in the first half of this section, one of the major insights the Duke Digital Initiatives Team gleaned from analysis of page-views to their site was that the majority of users were arriving at individual item-pages not from the libraries' homepage or even that of the Digital Collections, but through references on search engines like Google and social media tools like StumbleUpon and Delicious. In a presentation to the Duke Libraries, they highlight this on a slide titled "Discovery Happens Elsewhere," and quote Lorcan Dempsey of OCLC, opining that "[T]he library needs to be in the user environment and not expect the user to find their way to the library environment."[ciii]

One of the most striking things about pages for materials in the Duke Digital Collections is how little focus there is on traditional archival finding aids as, well, *aids* to finding. Indeed, while several of the older collections in the digital collections are accessible via finding aids, newer collections often break up finding aid contents into more "bite-sized" bits, to better fit the constraints of digital platforms. A good example of this is the "Ration Coupons on the Home Front, 1942-1945" collection. The collection homepage provides an abstract of the historical background to the collection and information on copyright (including permissible uses) and preferred citation. In a column at left, a search box is provided as well as links to these sections:

- "About," which provides processing information and the subject headings that are applied to the collection in the library catalog;
- "Browse," which allows users to narrow their searches by time, product, and "ration order";
- "Copyright and Citation," which returns them to the collection homepage, as described above;
- "Related Material," which directs users to other resources, including digital collections at other universities and a topical bibliography; and
- "History and Context," which includes a chronology of rationing in the US, and information on ration codes.
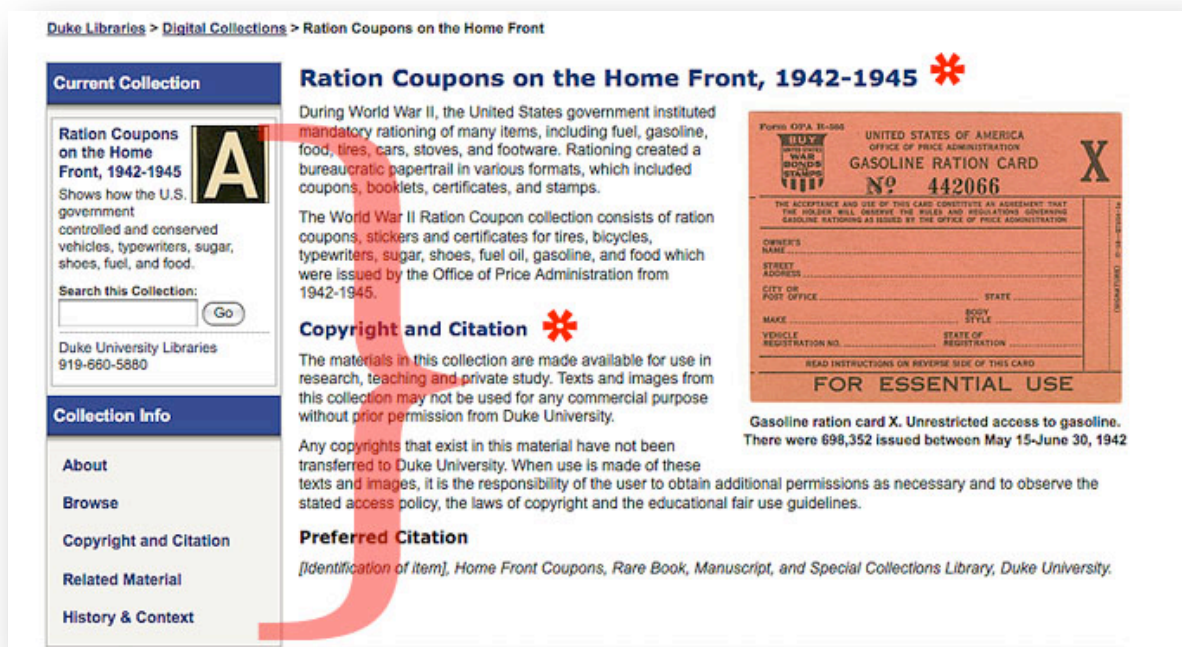
Figure 6: The Duke Digital Collections split finding aid data apart to suit the digital environment.

Individual-item pages, while providing a "large image" viewing option, provide metadata in the more popular and quickly loading "details" and "medium image" viewing options. This metadata includes the name of the item's home collection, subject headings, and date, among other data. The user who arrives at an item page and wants to see more of the collection is supported in this by a hyperlink to the home collection's homepage and a breadcrumb trail.

6.6   Intelligent Web Design

Because "intelligence" in web design can be a nebulous concept to measure, this section will analyze the two websites based on the factors described by Reeb (see section 5 in the literature review) and in the introduction to the analysis section. There are overlaps in the two lists, though the latter emphasizes several factors that are reflective of the collection's needs than those of users.

6.6.1   The Morton Collection

This analysis will examine the "Morton Highlights" website,[civ] which is hosted with CONTENTdm content management software. This software is widely-used in academic libraries and its format is easy to identify, particularly at the individual item level; in my research into other institutions doing interesting things with their digital collections, I encountered it often. Because the strengths and weaknesses of the software in terms of "intelligent web design" will be thoroughly covered here, I purposely excluded other collections using it from the "other sites to see" section. It should be noted that the website's structure is "home grown," and is thus completely subject to the Digital Initiatives Team's design decisions.[cv]

The Morton site is easy to learn to use and return to at later dates. The vast majority of tools in the CONTENTdm software are standard in design, and thus, most users will recognize them from using heavily-visited commercial sites like Google Maps and online clothing sites, like The Limited. These features can be seen at each level of the website's structure.

On the homepage, multiple means by which to access the site, both in browsing and search. One can browse by name, location, subject, and time (decade), and both a single search box and an advanced search option are offered. The advanced search option also supports search across the UNC digital collections.

On search results pages, basic details to support selection of individual item pages to view. A thumbnail image, item title, short description, and approximate date are provided. Individual items can be accessed by clicking on the thumbnail or the item title.

On individual item pages, the view-finder allows the user to zoom in and out of the image, as well as drag the image around the page. This is particularly useful if one wants to look closely at details of an enlarged image. The individual item pages also provide adequate metadata to support most outside usage, using a modified Dublin Core metadata set. This includes providing frequently used citation data such as creator name, title, date created, and usage rights. The host location of the collection is also prominently displayed in the metadata as well as in the page layout.

While the site does not explicitly provide a means to immediately share interesting materials on social bookmarking sites, it does provide a reference URL that can be used on those sites. While adding another step to the process may cut down on the

frequency with which items in the collection are shared offsite, at least it is possible to do.

Similarly, while the site does not offer explicit navigation aids like breadcrumb trails and side-columns supporting movement around the site, if users choose to use their Internet browser's Back and Forward buttons, their search is not "eaten" by the software. Additionally, every page of the site provides links to the homepage, to a browsing option, to a feedback page, and to the "About" section of the site. This last option would be particularly useful to a user arriving at the site from an external referral. Less crucial but still potentially useful are the links that allow users to jump to the advanced search page (labeled here as "search selected collections") and a help page, as well as a link to the homepage for all of UNC's digital collections. One intriguing tool provided here is the option to label individual items as "favorites." Items that have been added to "my favorites" can be managed within the site and saved as a web page for future usage.

To the question of whether the site provides adequate context for materials, I would point again to the consistency with which links to the collection's "About" page are added across the collection. This page contains an overview of the collection, including its contents and a short biography of Morton, as well as description of how to search the collection, understand the cataloging fields, and how to obtain reuse permissions and reproductions. The collection homepage provides an prominent link to "A View to Hugh," the collection blog, as well, on which the user can quickly access quite a lot more high-quality biographical information about Morton than most traditional finding aids can reasonably support.

In regard to usage of current web design principles, CONTENTdm-supported websites, in general, and the Morton Collection, in particular, obey most of the major rules. The design is simple and does not include extraneous design elements; those it supports are sensible, including the bar of navigation options displayed at the top of search results and individual-item pages. Two choices, however, bear reconsideration. First, in light of the fact that the photographic archive team knows, from their work on the collection blog, that the audience tends to be older, it would be wise to provide a way of increasing type size from the page itself. While knowledgeable users know they can increase type size by typing Ctrl-+ (on a PC), many older users have only rudimentary Internet computing skills. It would be good if the site explicitly supported use by this

audience, in adding button that increases type size within the site, as many commercial sites do – the *New York Times'* website springs to mind. Second, in light of Nielsen's research results indicating that Internet users' eye-tracking follows an F-shaped pattern,[cvi] from an institutional-branding point of view, it would be wise to move the UNC University Libraries logo from the bottom-left of the page, which one generally has to scroll down to, to the top right, which is currently empty. The collection name is appropriately in the top left, which makes it one of the first things a user comes to, but it is equally important that users immediately know that the collection is at UNC.

6.6.2   Duke Digital Collections

One thing that is problematic about the Duke Digital Collections, taken as a whole, is that design choices are not standard across the collections. In some cases, this is obviously the result of choices made to provide appropriate levels of access to expected audiences, such as providing dual-language options for parts of the Sidney Gamble[cvii] and Deena Stryker[cviii] collections, which consist of photographs of China in the early 20th century and Cuba in the 1960's, respectively, and thus would be of particular interest to both English-speaking and non-English-speaking users. In others, however, the inconsistency is due to the fact that the collections were developed at different times and older collections were not migrated into the new format. A prime example is the Elizabeth Johnson Harris collection,[cix] which was first put up in 1996. While it still supports use, and provides access to digitized copies of the manuscript material, the design is dated, particularly by comparison with more-recently developed collections in the site. The rest of this section will examine the design choices made in regard to those more-recently developed collections, with the assumption that the upcoming redesign of the overall website will also lead to the changes to these older collections' design. Where specific design is described, I am speaking of the Styker, Gamble, or Michael Francis Blake[cx] collections, which were uploaded in 2008 and 2009.

Recently-uploaded collections in the Duke Digital Collections, like the three listed above, display a pleasing consistency. While some contain additional features, like the bilingual data described in the first paragraph, or interesting reuses, like the development of contextual captions for items in the Gamble collection by freshman writing classes at Duke, which is hosted on Flickr,[cxi] all are fitted into the template

developed by the Digital Initiatives Team. This template is certainly easy to learn how to use, and return to later, as, like the Morton collection's website, it borrows features from heavily-used commercial sites. These features include tags and tag clouds, multiple ways to display images, the most commonly used ("details" and "medium image")[cxii] also containing metadata.

Search and browsing capabilities are consistent and easy to comprehend for new users. From throughout the DDC, one can search the entirety of the collections via the search box at the top of the page. Within collections, from the collection homepage down to individual item pages, one can use this search box, or via the search box in the left-hand column, search that individual collection. The function of both of these search options is clearly labeled ("Search All Digital Collections" and "Search This Collection"). While Aery notes that the Digital Initiatives Team would like to add the option to search across a few selected collections, these two options offer quite a lot of utility.

Search result pages are also easy to use, and narrowing large search results is easily done. For example, searching "child" with the "Search All Digital Collections" search box yields 346 items, across 13 different collections; the results are displayed, but the right hand column provides options to narrow results by collection (the search box at the top supports cross-collection search), format type, additional subjects, and year.[cxiii] When a search is done within a collection, that collection has collection-specific narrowing criteria: the Gamble collection allows this to be done by Chinese province, while the Blake collection does it by the photographic setting (indoors or out).

The Duke Digital Collections are remarkably efficient to use, with important metadata findable at all times and very easy sharing of items in offsite locations. From every page on the site, users are offered support for sharing materials with others. Currently, the DDC homepage and the homepages of individual collections provide many more pre-populated options for sharing than do individual item pages, but providing all of these sharing options is clearly effective, as two-fifths of all hits on individual item pages originate offsite, from external referrals. The provision of stable reference URL's seems to support this as well, since a significant number of page views are coming from StumbleUpon, which is buried in the options on the homepages, and not even listed in the pre-populated options on the individual item pages.

DDC pages are quite supportive of error-correction, particularly in navigation. Breadcrumb trails are provided through the collections, and thus, one can return to more general topics at anytime, and it is always clear where one is located in the collection. At the top of every page in the collections is a link to the help section and to the "Ask Us Now!" page, upon which users are offered a number of reference options, from instant messaging to email to setting up traditional reference sessions. As the collections are being redesigned, the Digital Initiatives Team is soliciting user input, strategically positioning their feedback beside these other interactive links. This is sensible, as users who are experiencing difficulties with the collections are likely to have useful input as to how to better support their informational searches in the next iteration of the site.

Adequate context is provided for materials. Collection homepages provide abstracts describing the collections, and on every individual item page, the upper-left hand column features a sentence summarizing the collection, the name of the collection, and its home library department. On collection homepages, one also finds an unobtrusive link to the collection's finding aid. While some of the information provided there echoes what's found in the digital collection, the finding aid also provides the additional data one expects to find in one, including biographical data on collection creators and subject headings for the collection, which would support further research by motivated users.

The current iteration of the Duke Digital Collections displays an awareness of current website design standards, as do the wireframe mockups of the new site, as described by the Digital Initiatives Team on the DDC blog. This is clear from how closely each page, from the general homepage down to the individual item pages, hews to the F-shape pattern for reading web content, as described by Jakob Nielsen. The top horizontal line of every page in the site features the help links and the redesign feedback link, as well as the breadcrumb trail for orientating the user. Aside from the DDC homepage, every page on the site has a column at left which features contextual data and search and browsing options. On the DDC homepage, that space is filled by images from featured collections. The Duke University Libraries logo is given pride of place, at the extreme upper-left hand corner, supporting the branding of the collections.

While both of these collections have areas in which they could be improved to better support users, in an iterative environment, this is not a fatal flaw. In both cases, the interfaces are pleasant to use and extraneous options are kept to a minimum. Both the

Morton Collection and the Duke Digital Collections provide sufficient information throughout their sites for users to understand the context the collection springs from and how they may legally and appropriately reuse materials from the site.

7   Conclusion and Recommendations

This study was undertaken to examine how two special collections are using social media tools to promote their digital collections and provide appropriate levels of access, with the ultimate goal of suggesting how other special collections might also successfully use these tools for these same goals.

Through the use of website analysis and semi-structured interviews, this paper has shown that the Hugh Morton Photographic Collection at UNC and the Duke Digital Collections at Duke University Libraries are both making successful strides in using Web 2.0 technologies and their related website design principles to fulfill major duties to collection users, particularly to ensuring that they have "open and equitable access" to materials in those collections. They are both having success in promoting greater user interaction with their institutions, including interaction with the human face of the collections, their staff. Their visibility in extra-institutional settings, in a wide array of media, has risen, with the Morton collection being widely praised within the archival collection for its blog, "A View to Hugh," and the Duke Digital Collections finding that a large portion of hits on their site are originating in social bookmarking and networking sites.

Reflecting that part of promotion of a special collection lies in increasing "brand recognition" for its host institution, both digital collections are finding success in emphasizing their very specialness, Duke in large part for their advertising materials, the Morton collection for its deep ties to North Carolina history. The collections are also making good faith strides in improving user ease and familiarity with their collections and processes; each is using social media and intelligent web design to do this. I have also described how that latter concept, of intelligent web design, is being enacted in each collection. While both collections show room for improvement, this is not a fatal flaw in the Web 2.0 "constant beta" environment, in which all iterations are only permanent until new user needs are discovered and a better way of meeting their needs is discovered.

Both of these collections and the collections profiled in "Appendix B: Other Collections Using Social Media Tools" are working creatively to understand and meet user needs. I look forward to seeing how they continue to evolve over time, going through this process.

This topic offers numerous avenues to further research, not limited to the following: How have social media tools been used by non-academic special collections? What tools have proven most effective for the wide range of special collections hoping to achieve various different goals, particularly to promote their collections and provide access? As new social media tools enter the marketplace, what kinds of features should special collections staff look for, to achieve the best results?

While examination of the Morton Collection and the Duke Digital Collections has yielded many teachable moments, the primary lesson for other digital collections is no matter what they begin with, they must begin to experiment with social media. Despite the significant differences in their audiences and digital environments, Elizabeth Hull and Sean Aery both strongly emphasized the low cost of experimentation and the great potential dividends. The keys are recognizing the affordances and limitations offered by the tools available and what tools and design principles best suit the audience's information gathering habits. In the emphatic words of Sean Aery, *"give it a try - don't be afraid of trying."*[cxiv]

---

[i] Hanlon, Patrick, and Josh Hawkins. "Expand Your Brand Community Online." *Advertising Age* 79 (2008), no. 1, pp. 14-15. Communication & Mass Media Complete, EBSCOhost (accessed November 15, 2009).

[ii] Springer, Michelle, Beth Dulabahn, et al. *For the Common Good: The Library of Congress Flickr Pilot Project*. Released Oct. 30, 2008, pp. 8-12. http://www.loc.gov/rr/print/flickr_report_final.pdf (Accessed Nov. 22, 2009).

[iii] SAA Council. "Code of Ethics for Archivists." *SAA Council Handbook*, http://archivists.org/governance/handbook/app_ethics.asp (Accessed Nov. 20, 2009).

[iv] SLA. "Vision, Mission and Core Value Statements." (Adopted Oct. 2003) http://www.sla.org/content/SLA/AssnProfile/slanplan/index.cfm (Accessed Nov. 20, 2009).

[v] Bejune, Matthew and Jana Ronan. *Social Software in Libraries*. Washington, DC: ARL. 2008, p. 13.

[vi] Erway, Ricky. "Supply and Demand: Special Collections and Digitisation." *Liber Quarterly* 18, no. 3/4, (2008), p. 330.

[vii] Chad, Ken and Paul Miller. "Do Libraries Matter? The Rise of Library 2.0." (2005), p. 10. http://www.talis.com/applications/downloads/white_papers/DoLibrariesMatter.pdf (Accessed Nov. 17, 2009)

[viii] Fernandez, Joe. "A SWOT Analysis for Social Media in Libraries." *Online* Sept/Oct 2009, p. 37.

[ix] Curran, Kevin, et al. "Involving the User Through Library 2.0." *New Review of Information Networking* 12, #1/2 (2006), p. 58.

[x] "Putting your library 'out there'." *Library Technology Reports* 42.4 (2006), pp. 63-66. (Accessed on Nov. 22, 2009, via *Academic OneFile*).

[xi] Aery, Sean. "Presentation to Duke Libraries: 2008 Usage Stats." Duke Digital Collections blog, Mar. 4, 2009. http://library.duke.edu/blogs/digital-collections/2009/03/04/presentation-to-duke-libraries-2008-usage-stats/ (Accessed Nov. 15, 2009).

[xii] Erway, p. 333.

[xiii] Levine, Rick, et al. *The Cluetrain Manifesto: The End of Business as Usual.* Cambridge (MA): Perseus Books, 2000. http://www.cluetrain.com. (Accessed online on Dec. 5, 2009).

[xiv] Tuten, Tracy L. *Advertising 2.0.* Westport (CN): Praeger, 2008, pp. 33-34.

[xv] Tuten, p. 35.

[xvi] Hanlon and Hawkins, pp. 14-15.

[xvii] Hanlon and Hawkins; Harris, Thor. 2009. "It's good to talk." *ICIS Chemical Business* 276, no. 14, p. 34. Business Source Premier, EBSCOhost (accessed November 15, 2009).

[xviii] Gentry, Kristin. "The Social Networking Revolution." *Accounting Today*. Oct. 19-Nov. 1, 2009, p. 42.

[xix] Christodoulides, George. "Branding in the Post-Internet Era." *Marketing Theory* 9, #1 (2009), p. 142. Via Sage Publications (Accessed Nov. 15, 2009)

[xx] Christodoulides, p. 142.

[xxi] Well-covered in Evans, Max. "Archives of the People, by the People, for the People." *American Archivist* 70 (Fall/Winter 2007), 387-400. He also cites Meissner and Greene's iconoclastic "More Product, Less Process."

[xxii] Nimer, Cory and J. Gordon Daines, III. "What Do You Mean It Doesn't Make Sense? Redesigning Finding Aids from the User's Perspective." *Journal of Archival Organization*, Vol. 6(4), 2008, pp. 216-232.

[xxiii] Evans, 2007.

[xxiv] Yakel, Elizabeth. "Inviting the user into the virtual archives." *OCLC Systems & Services: International digital library perspectives*, Vol. 22(3), 2006, pp. 159-163.

[xxv] Miller, Joseph B. *Internet Technologies and Information Service*. Westport (CN): Libraries Unlimited, 2009, pp. 103-104.

[xxvi] Reeb, Brenda. *Design Talk*. Chicago (IL): ACRL, 2008, p. 5.

[xxvii] Lynch, Patrick J. and Sarah Horton. *Web Style Guide*, 3rd edition. 2009. http://www.webstyleguide.com/wsg3/2-universal-usability/4-guidelines.html (Accessed Feb. 28, 2010).

[xxviii] Cited in Arthur, Kathleen, et al. "Recognizing Digitization as a Preservation Reformatting Method." ARL, 2004. http://www.arl.org/bm~doc/digi_preserv.pdf, p. 5 (Accessed October 27, 2009)

[xxix] Erway, Ricky. "Supply and Demand: Special Collections and Digitisation." *Liber Quarterly* 18, #3/4, pp. 325-6.

[xxx] Erway, p. 328.

[xxxi] Cited in Miller, Paul. "Web 2.0: Building the New Library." *Ariadne*. Issue 45, Oct. 2005. http://www.ariadne.ac.uk/issue45/miller/ (Accessed 11.15.09).

[xxxii] Miller.

[xxxiii] Fernandez, Joe. "A SWOT Analysis for Social Media in Libraries." *Online* (magazine), Sept./Oct. 2009, p. 35.

[xxxiv] Harris, 2009, p. 33.

[xxxv] See Gilbertson, Scott. "Lessons Startups (and Users) can Learn From Ma.gnolia's Crash. " *Wired*, Feb. 17, 2009. http://www.wired.com/epicenter/2009/02/lessons-startup/ (Accessed Feb 10, 2010).

[xxxvi] ALA. "The Nation's Largest Libraries: A Listing By Volumes Held." http://www.ala.org/ala/professionalresources/libfactsheets/alalibraryfactsheet22.cfm (Accessed March 1, 2010).

[xxxvii] Woyke, Elizabeth. (2010) "America's Most Wired Cities." *Forbes*, Mar. 2, http://www.forbes.com/2010/03/02/broadband-wifi-telecom-technology-cio-network-wiredcities.html (retrieved March 22, 2010).

[xxxviii] UNC Photographic Archive. "About: A View to Hugh." http://www.lib.unc.edu/blogs/morton/index.php/about/ (Accessed March 1, 2010).

[xxxix] Hull, Elizabeth. Interviewed by Katherine-Rose Repp. February 10, 2010. UNC Photographic Archive.

[xl] Ibid.

[xli] Ibid.

xlii All data in this section from interview with him, except where noted. Aery, Sean. Interviewed by Katherine-Rose Repp. February 22, 2010. Perkins Library at Duke University.

xliii Aery, Sean. Presentation to UNC SILS class, User Interface Design, Mar. 22, 2010.

xliv Aery interview.

xlv Aery presentation.

xlvi Fernandez.

xlvii Hull, Elizabeth. "Who Am I?–Camp Yonahnoka Edition." *A View to Hugh* blog, entry posted October 20, 2008. http://www.lib.unc.edu/blogs/morton/index.php/2008/10/who-am-i-camp-yonahnoka-edition/

xlviii Hull, Elizabeth. "Camp Yonahnoka, part II." A View to Hugh blog, entry posted April 23, 2009. http://www.lib.unc.edu/blogs/morton/index.php/2009/04/camp-yonahnoka-part-ii/ (Accessed March 15, 2010).

xlix February 10, 2010.

l Accessible at http://library.duke.edu/blogs/digital-collections/

li Sexton, Will. "INLS 740 March 16, 2010." (Duke) Digital Collections blog, entry posted March 16, 2010. http://library.duke.edu/blogs/digital-collections/2010/03/16/inls740-2010-03-16/ (Accessed March 17, 2010).

lii They use Google Analytics. (slide 38 of Sexton presentation)

liii StumbleUpon was far-and-away the most popular external referral source – with 49,030 referrals, it sent four times more people to the DDC than the next most popular source, the Duke University Libraries' own Rare Book, Manuscript, and Special Collections Library homepage. Of the social networking tools, Facebook provided the most referrals, then Twitter. (slide 39 of Sexton presentation)

liv http://www.facebook.com/pages/Durham-NC/Duke-Digital-Collections/93127302069?v=info&ref=ts (item is from March 12, 2010).

lv Diamonstein-Spielvogel, Barbaralee. Handmade in America: Sam Maloof, 1982. http://www.youtube.com/watch?v=IKIoezZUK6s [video] Retrieved March 1, 2010.

lvi Aery, Sean. "Video Discovery Stats for DSVA: A First Look." (Duke) Digital Collections blog, entry posted February 25, 2009. http://library.duke.edu/blogs/digital-collections/2009/02/25/video-discovery-stats-for-dsva-a-first-look/ (Accessed March 17, 2010). The author was specially directed to this posting by Aery in an email on 2/22/10.

lvii Aery interview.

lviii Ibid.

lix Theimer, Kate. "The Winners: 2008 Best Archives on the Web Awards." *ArchivesNext* blog. http://www.archivesnext.com/?p=109 (Accessed March 8, 2010).

lx Neal-Shuman Publishers, Inc. "Web 2.0 Tools and Strategies for Archives and Local History Collections." http://www.neal-schuman.com/bdetail.php?isbn=9781555706791 (Accessed March 8, 2010).

lxi Erway, Ricky. "Supply and Demand: Special Collections and Digitisation." *Liber Quarterly* 18, #3/4 (2008), http://liber.library.uu.nl/(accessed March 8, 2010).

lxii Whittaker, Beth M. and Lynne M. Thomas. *Special Collections 2.0: New Technologies for Rare Books, Manuscripts, and Archival Collections*. Santa Barbara (CA): Libraries Unlimited, 2009, p. 30.

lxiii Freeman, Marie. "A View to Hugh." *Blue Ridge Blog*. Jan. 8, 2008, http://blueridgeblog.blogs.com/blue_ridge_blog/2008/01/a-view-to-hugh.html (Accessed March 8, 2010).

lxiv Rolfe, David. "The Morton Files - Man With a Passion For Taking Photos Left Archivists With Challenging and Fascinating Work." *Winston-Salem (NC) Journal*, February 17, 2008, p. A17.

lxv Travis, Ginger. "Capturing Seven Decades of Life in North Carolina." *Windows* 16, #2 (Fall 2007), pp. 3.

lxvi Travis, p. 4.

lxvii Aery interview.

lxviii Aery, Sean. "Presentation to Duke Libraries: 2008 Usage Stats." *Duke Digital Collections* blog, Mar. 4, 2009. http://library.duke.edu/blogs/digital-collections/2009/03/04/presentation-to-duke-libraries-2008-usage-stats/ (Accessed Nov. 15, 2009)

lxix *Duke Libraries* magazine. "About the magazine." http://library.duke.edu/magazine/about-the-magazine/ (Accessed March 2, 2010).

lxx Offen, Neil. "Tweet away: Duke opens page to new social media site." *The* (Durham, NC) *Herald-Sun*. (Feb. 20, 2010). http://www.heraldsun.com/view/full_story/6419836/article-Tweet-away--Duke-opens-page-to-new-social-media-site (Accessed Mar. 1, 2010).

[lxxi] Calishain, Tara. "Duke University adds several digital collections." *WRAL* website. (Dec. 8, 2008) http://www.wral.com/business/blogpost/4102374/ (Accessed March 8, 2010).

[lxxii] Cebula, Larry. "Duke Digital Collections iPhone App. "Northwest History" blog. (July 9, 2009). "http://northwesthistory.blogspot.com/2009/07/duke-digital-collections-iphone-app.html (Accessed March 8, 2010).

[lxxiii] Erway, p. 328.

[lxxiv] All UNC digital collections can be accessed here: http://www.lib.unc.edu/digitalprojects.html

[lxxv] Aery interview.

[lxxvi] Duke University Libraries. "Rare Books, Manuscripts, and Special Collections Library: Research Centers." http://library.duke.edu/specialcollections/research/centers.html (Accessed March 10, 2010).

[lxxvii] Duke University Libraries, Digital Collections. "AdViews: A Digital Archive of Vintage Television Commercials." http://library.duke.edu/digitalcollections/adviews/ (Accessed March 10, 2010).

[lxxviii] Aery interview.

[lxxix] Duke University Libraries. "John W. Hartman Center for Sales, Advertising & Marketing History." http://library.duke.edu/specialcollections/hartman/index.html (Accessed March 2, 2010).

[lxxx] Nielsen, Jakob. "F-Shaped Pattern for Reading Web Content." Use-It.com (April 17, 2006). http://www.useit.com/alertbox/reading_pattern.html (Accessed March 10, 2010).

[lxxxi] For example, if one clicks on the image of General William Westmoreland in this entry, http://www.lib.unc.edu/blogs/morton/index.php/2009/10/gen-westmoreland-keeper-of-the-hearth/ This picture also appears in Morton's *Making a Difference in North Carolina*.

[lxxxii] SAA Council."Code of Ethics for Archivists." *SAA Council Handbook*, http://archivists.org/governance/handbook/app_ethics.asp (Accessed Nov. 20, 2009).

[lxxxiii] Hull interview.

[lxxxiv] Erway, pp. 329-30.

[lxxxv] Fletcher, Stephen. "200,000 slides." *A View to Hugh* blog, entry posted December 7, 2007. http://www.lib.unc.edu/blogs/morton/index.php/2007/12/200000-slides/ (Accessed March 15, 2010).

[lxxxvi] Covered in entries like this: Fletcher, Stephen. "200,000 slides, part 3." *A View to Hugh* blog, entry posted January 15, 2008. http://www.lib.unc.edu/blogs/morton/index.php/2008/01/200000-slides-part-3/ (Accessed March 15, 2010).

[lxxxvii] See: Hull, Elizabeth. "Name That File." *A View to Hugh* blog, entry posted August 13, 2008. http://www.lib.unc.edu/blogs/morton/index.php/2008/08/name-that-file/ (Accessed March 15, 2010).

[lxxxviii] Hull, Elizabeth. "A Processor's Perspective." *A View to Hugh* blog, entry posted November 7, 2007. http://www.lib.unc.edu/blogs/morton/index.php/2007/11/a-processors-perspective/ (Accessed March 15, 2010).

[lxxxix] Aery interview.

[xc] Hull interview.

[xci] See "A Processor's Perspective." (end-note 89).

[xcii] An example: Fletcher, "200,000 slides, part 3."

[xciii] See: Hull, "Name That File."

[xciv] UNC University Library. "Edward McCauley Collection." http://www.lib.unc.edu/dc/mccauley/ (Accessed February 15, 2010).

[xcv] Cited in Nimer, Cory and J. Gordon Daines, III. "What Do You Mean It Doesn't Make Sense? Redesigning Finding Aids from the User's Perspective."*Journal of Archival Organization*, Vol. 6(4), 2008, pp. 216-232.

[xcvi] Aery interview.

[xcvii] Ibid.

[xcviii] Ibid.

[xcix] See: Weber, Jessica. "Portal Page: Prototypes, Analysis & Inspiration." *Duke Digital Collections* blog, January 15, 2010. http://library.duke.edu/blogs/digital-collections/2010/01/15/portal-page-prototypes-analysis-inspiration/ (Accessed February 1, 2010).

[c] For example: Aery, Sean. "Item Pages: Inspiring Sites." *Duke Digital Collections* blog, October 23, 2009. http://library.duke.edu/blogs/digital-collections/2009/10/23/item-pages-inspiring-sites/ (Accessed March 2, 2010).

[ci] Aery interview.

[cii] Murray, Richard. "Secrets of Duke Digital Collections… Revealed!" *Duke Digital Collections* blog, November 3, 2009. http://library.duke.edu/blogs/digital-collections/2009/11/03/secrets-of-duke-digital-collections-revealed/ (Accessed February 13, 2010).

[ciii] Aery, Sean. "Presentation to Duke Libraries: 2008 Usage Stats." *Duke Digital Collections* blog, Mar. 4, 2009. http://library.duke.edu/blogs/digital-collections/2009/03/04/presentation-to-duke-libraries-2008-usage-stats/ (Accessed Nov. 15, 2009) (Slides 6, 26-33)

[civ] UNC University Library. "Hugh Morton Collection of Photographs and Films." http://www.lib.unc.edu/dc/morton/index.html (Accessed March 23, 2010).

[cv] Aery interview.

[cvi] This is discussed in analysis section 3.

[cvii] Duke University Libraries, Digital Collections. "Browse Sidney D. Gamble Photographs." http://library.duke.edu/digitalcollections/gamble/browse/ (Accessed March 10, 2010).

[cviii] Duke University Libraries, Digital Collections. "Deena Stryker Photographs, 1963-1964 and undated." http://library.duke.edu/digitalcollections/stryker/ (Accessed March 10, 2010).

[cix] Duke University Libraries, Digital Collections. "Harris Life Story." http://scriptorium.lib.duke.edu/harris/harris-indx.html (Accessed March 10, 2010).

[cx] Duke University Libraries, Digital Collections. "Michael Francis Blake Photographs, 1912-1934." http://library.duke.edu/digitalcollections/blake/ (Accessed March 10, 2010).

[cxi] danielle.kane. "A Changing China Through Photographs." http://www.flickr.com/photos/37451742@N07/sets/72157617094536132/ (Accessed March 3, 2010).

[cxii] Aery interview.

[cxiii] Duke University Libraries, Digital Collections. "Search Results." http://library.duke.edu/digitalcollections/search/results?t=child (Accessed March 22, 2010).

[cxiv] Aery interview.

Appendix A: Resources for Further Study

These items will prove particularly useful to the special collections curator interested in using social media to publicize her institution's collections or in making her institution's website as user-friendly as the most popular social media tools. All resources listed here additionally provide either links or citation information to other high-quality resources on pertinent topics.

"Digital Collections Blog: Website Redesign." Digital Collections Team at Duke (University Libraries). http://library.duke.edu/blogs/digital-collections/category/website-redesign/ (blog sub-category)

The blog postings in this subcategory of the Digital Collections Blog will have the most appeal to special collections that are developing websites that reflect current thinking on usability, as it has been influenced by social media tools. These entries describe the design considerations that the team has made as they've gone through the 2009-2010 redevelopment of the Duke Digital Collections website. The writing is occasionally technical, but not forbiddingly so for the uninitiated. Topics include page layouts and the team's analysis of data gathered from web analytics.

- For readers looking for design inspiration, the Oct. 23, 2009 entry, "Item Pages: Inspiring Sites," examines outside websites that the Digital Initiatives Team found inspirational and instructive. http://library.duke.edu/blogs/digital-collections/2009/10/23/item-pages-inspiring-sites/

Nielsen, Jakob. "Alertbox: Jakob Nielsen's Newsletter on Web Usability." Useit.com. http://www.useit.com/alertbox/

Nielsen is an influential thinker on the topic of web usability. While many of the resources on his website require payment for use, the archives of his well-written biweekly column are free and available to all. Nielsen's own website demonstrates many

of the principles he espouses, sometimes to a rather startling extreme; this is intentional, as he describes in the "About This Site" section.

- While the Alertbox archives go back to 1995, Nielsen has provided visual assistance in identifying column postings that are particularly useful, highlighting them in bold. Recent topics that have warranted this treatment include "Streams, Walls, and Feeds: Distributing Content Through Social Networks and RSS" and "iPhone Apps Need Low Starting Hurdles," which describes iPhone application usage and how designers can leverage that knowledge to make their applications more appealing and user-friendly.
- Nielsen also flags two columns for "read these first" status. "Usability 101" and "Top 10 Mistakes of Web Design" are linked at the top of the archives list.

Springer, Michelle, Beth Dulabahn, et al. *For the Common Good: The Library of Congress Flickr Pilot Project.* **Released Oct. 30, 2008.**
http://www.loc.gov/rr/print/flickr_report_final.pdf

This excellent report describes the Library of Congress' amazing success with their partnership with the commercial image hosting site, Flickr. Of particular interest to those investigating social media usage by special collections are the "Background" and "Outcomes" sections. "Background" describes the constraints and goals that inspired the LC's decision to partner with Flickr, while "Outcomes" describes the interesting results that came of the pilot project. While the LC is obviously a huge institution with very different circumstances to most special collections, certain key characteristics carry over to smaller, more limited milieus.

Theimer, Kate. "ArchivesNext" blog. http://www.archivesnext.com/

Theimer writes extensively on the use of social media in archives and special collections. Appropriately, she uses an array of different social media tools to communicate with her audience. The "ArchivesNext" blog is the central hub of these tools; from this site, one can

- Read past blog entries
- Locate her professional Twitter account (@archivesnext) and

- Go to the Archives 2.0 wiki, which provides resources for usage of specific social media tools and links to examples of these tools in use by archives and special collections.

The wiki is particularly useful to those just beginning their investigation of social media in special collections. For those tracking new developments, the blog and Twitter accounts are more useful.

"A View to Hugh: Behind the Scenes." UNC Libraries. (blog sub-category)
http://www.lib.unc.edu/blogs/morton/index.php/category/behind-the-scenes/

While the rest of the blog covers many interesting topics related to the collection, and is instructive by way of how the archival team interacts with readers, the "Behind the Scenes" category of blog posts will prove most useful to those interested in testing social media tools for their special collections. This blog first gained attention in the archival community for taking the then-unusual approach of blogging the processing of a new collection, and while this is no longer an unusual tactic, the blog posts in this section will illustrate many important considerations the Morton Collection team explored.

Whittaker, Beth M. and Lynne M. Thomas. *Special Collections 2.0: New Technologies for Rare Books, Manuscripts, and Archival Collections.* Santa Barbara (CA): Libraries Unlimited, 2009.
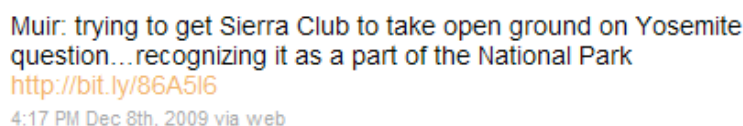
This highly readable overview of the intersection of special collections and general digital issues covers a number of general social media tools, such as blogs and wikis. The authors assume nothing of the reader's previous exposure to or use of social media. Also touched on are archival finding aids in the digital age and what the authors refer to as "the elephant in the room," digital preservation. The authors provide topical bibliographies at the end of each chapter and frequent reference to major thinkers in the field.

Appendix B: Other Collections Using Social Media Tools

The collections profiled below are all doing creative work with social media and web design. The short descriptions provided highlight the most useful points that other collections might want to borrow as they design their own sites or plan their use of social media.

1. Calisphere (hosted by the University of California Libraries and powered by the California Digital Library): http://www.calisphere.universityofcalifornia.edu/

Like the Duke Digital Libraries, Calisphere proudly advertises their presence on Facebook and Twitter. On the homepage of the collection, links to their pages on these services are provided in a box telling titled "Engage with Us!" On their Facebook page,[i] they highlight timely and interesting resources, particularly materials from their own collections. While their Twitter account replicates some of the content and style of their Facebook account, the team has also do creative things with the format, including tweeting lines from the works of naturalist John Muir, which are present in their digital collections, and providing links to those documents.

Muir: trying to get Sierra Club to take open ground on Yosemite question...recognizing it as a part of the National Park
http://bit.ly/86A5l6
4:17 PM Dec 8th, 2009 via web

Figure 7: Calisphere's Twitter promotion of their John Muir materials.

The Calisphere homepage emphasizes its utility as a teaching tool, with the slogan "a world of primary resources" at the top of the page, and a set of collections that were explicitly put together to "support California Content Standards." These collections are organized by time period and subdivided into topics within those periods. For instance, the pulldown menu for The Great Depression includes subtopics like "Dust Bowl Migration" and "San Francisco General Strike."

2. NYPL Digital Gallery - http://digitalgallery.nypl.org/nypldigital/index.cfm

As may be expected for such a major library as the New York Public Library, the digital collections on this site are extensive and well-organized. The most unusual and intriguing feature on the site is the option to buy high-quality reprints of items in the digital library. The interface also supports the cropping of images for print buyers. Provided a library holds clear copyright to items, this could serve as lucrative fund-raiser in a field where most grant money favors new projects, and where digital libraries are only just beginning to be included in regular library budgets.

3. University of North Texas - http://digital.library.unt.edu/

The University of North Texas' interface hints strongly that it makes use of a digital asset management system or was inspired by one. Among the useful features of the site are the cleanly-delineated interface, the many viewing-size options for individual items (located on individual item pages under "all images sizes"), and the option to download individual items.[ii] Individual item metadata can be viewed in a number of different machine-readable formats, supported by XML.

UNT's options for sharing and contacting the digital collection staff are similar to Duke's – each individual item page provides a wide variety of sharing and bookmarking options. While the site makes heavy use of a feedback form to interact with users, it is made easily findable, with the average individual item page providing a link to it at the top of the page, halfway down the page, and at the foot of the page.

4. Harry Ransom Center, UT-Austin - http://www.hrc.utexas.edu/collections/digital/

The Ransom Center, based the University of Texas at Austin, is one of the heavyweights of the academic archive world. It has many resources for acquiring high-profile materials, and its website is suitably impressive for display of these items. They make strong use of social media, providing links to a variety of options throughout the website. "Cultural Compass," the Ransom Center's blog, is fascinating, covering the wide breadth of their collections. Item pages are nicely organized, and offer text-resizing and transcription, which support use of the collection by visually and hearing-impaired users. The way that finding aids are incorporated into the individual item page is also

smart – a link is provided midway down the right-hand of the page, which makes it accessible, but doesn't imply that that is the means by which the user ought to navigate the collection.

Good choices have been made with presentation of several major collections shared in the digital collections, including their Edgar Allan Poe and Mike Wallace collections. The Poe collection is small, but adds value by providing links to related material in collections at other institutions. The Wallace collection is video and audio-based, and features subtitles, which is helpful to those with poor hearing or an unsteady Internet connection.

While many of the wonderful tools at the Ransom Center's disposal require more resources than most other collections can muster, others don't, and one is left wondering how the "bells and whistles" results could be achieved on a smaller budget.

5. Brooklyn Museum - http://www.brooklynmuseum.org/opencollection/collections/

The Duke Digital Initiatives Team cited the Brooklyn Museum on their blog, while discussing their inspirations for their site redesign.[iii] While I concur with their interest in features like the thumbnail gallery and the general layout, I also find their use of tagging intriguing. The Duke team highlights the site's commenting feature, which they themselves don't have; Sean Aery specifically mentioned this lack in my interview with him, citing it as a "missed opportunity."

---

[i] Calisphere. "Facebook – Calisphere." http://www.facebook.com/calisphere (Accessed March 20, 2010).
[ii] See example here: UNT Digital Library. "Red Army Encircling Balkans."
http://digital.library.unt.edu/ark:/67531/metadc291/m1/1/ (Accessed March 22, 2010).
[iii] Aery, Sean. "Notable – Brooklyn Museum Collection Homepage." https://www.notableapp.com/website-feedback/29607/Brooklyn-Museum-Collection-Homepage (Accessed March 22, 2010).

Works Cited

Aery, Sean. Interviewed by Katherine-Rose Repp. February 22, 2010. Perkins Library at Duke University.

Aery, Sean. "Item Pages: Inspiring Sites." *Duke Digital Collections* blog, October 23, 2009. http://library.duke.edu/blogs/digital-collections/2009/10/23/item-pages-inspiring-sites/ (Accessed March 2, 2010).

Aery, Sean. "Item Pages: What We've Learned." *Duke Digital Collections* blog, Oct. 19, 2009. http://library.duke.edu/blogs/digital-collections/2009/10/19/item-pages-what-weve-learned/ (Accessed Nov. 15, 2009).

Aery, Sean. "Notable – Brooklyn Museum Collection Homepage." https://www.notableapp.com/website-feedback/29607/Brooklyn-Museum-Collection-Homepage (Accessed March 22, 2010).

Aery, Sean. "Presentation to Duke Libraries: 2008 Usage Stats." *Duke Digital Collections* blog, Mar. 4, 2009. http://library.duke.edu/blogs/digital-collections/2009/03/04/presentation-to-duke-libraries-2008-usage-stats/ (Accessed Nov. 15, 2009)

Aery, Sean. Presentation to UNC SILS class, User Interface Design, Mar. 22, 2010.

Aery, Sean. "Video Discovery Stats for DSVA: A First Look." *(Duke) Digital Collections* blog, entry posted February 25, 2009. http://library.duke.edu/blogs/digital-collections/2009/02/25/video-discovery-stats-for-dsva-a-first-look/ (Accessed March 17, 2010).

ALA. "The Nation's Largest Libraries: A Listing By Volumes Held." http://www.ala.org/ala/professionalresources/libfactsheets/alalibraryfactsheet22.cfm (Accessed March 1, 2010).

Arthur, Kathleen, et al. "Recognizing Digitization as a Preservation Reformatting Method." ARL, 2004. http://www.arl.org/bm~doc/digi_preserv.pdf (Accessed October 27, 2009)

Bejune, Matthew and Jana Ronan. *Social Software in Libraries*. Washington, DC: ARL. 2008.

Calishain, Tara. "Duke University adds several digital collections." *WRAL* website. (Dec. 8, 2008) http://www.wral.com/business/blogpost/4102374/ (Accessed March 8, 2010).

Calisphere. "Facebook – Calisphere." http://www.facebook.com/calisphere (Accessed March 20, 2010).

Cebula, Larry. "Duke Digital Collections iPhone App." *Northwest History* blog. (July 9, 2009). http://northwesthistory.blogspot.com/2009/07/duke-digital-collections-iphone-app.html (Accessed March 8, 2010).

Chad, Ken and Paul Miller. "Do Libraries Matter? The Rise of Library 2.0." (2005). http://www.talis.com/applications/downloads/white_papers/DoLibrariesMatter.pdf (Accessed Nov. 17, 2009)

Christodoulides, George. "Branding in the Post-Internet Era." *Marketing Theory* 9, #1 (2009), p. 142. Via Sage Publications (Accessed Nov. 15, 2009)

Curran, Kevin, et al. "Involving the User Through Library 2.0." *New Review of Information Networking* 12, #1/2 (2006).

danielle.kane. "A Changing China Through Photographs." http://www.flickr.com/photos/37451742@N07/sets/72157617094536132/ (Accessed March 3, 2010).

Diamonstein-Spielvogel, Barbaralee. *Handmade in America: Sam Maloof, 1982*. http://www.youtube.com/watch?v=IKIoezZUK6s [video] Retrieved March 1, 2010.

Duke Libraries magazine. "About the magazine." http://library.duke.edu/magazine/about-the-magazine/ (Accessed March 2, 2010).

Duke University Libraries. "John W. Hartman Center for Sales, Advertising & Marketing History." http://library.duke.edu/specialcollections/hartman/index.html (Accessed March 2, 2010).

Duke University Libraries. "Rare Books, Manuscripts, and Special Collections Library: Research Centers." http://library.duke.edu/specialcollections/research/centers.html (Accessed March 10, 2010).

Duke University Libraries, Digital Collections. "AdViews: A Digital Archive of Vintage Television Commercials." http://library.duke.edu/digitalcollections/adviews/ (Accessed March 10, 2010).

Duke University Libraries, Digital Collections. "Browse Sidney D. Gamble Photographs." http://library.duke.edu/digitalcollections/gamble/browse/ (Accessed March 10, 2010).

Duke University Libraries, Digital Collections. "Deena Stryker Photographs, 1963-1964 and undated." http://library.duke.edu/digitalcollections/stryker/ (Accessed March 10, 2010).

Duke University Libraries, Digital Collections. "Harris Life Story." http://scriptorium.lib.duke.edu/harris/harris-indx.html (Accessed March 10, 2010).

Duke University Libraries, Digital Collections. "Michael Francis Blake Photographs, 1912-1934." http://library.duke.edu/digitalcollections/blake/ (Accessed March 10, 2010).

Duke University Libraries, Digital Collections. "Search Results." http://library.duke.edu/digitalcollections/search/results?t=child (Accessed March 22, 2010).

Erway, Ricky. "Supply and Demand: Special Collections and Digitisation." *Liber Quarterly* 18, no. 3/4, (2008),

Evans, Max. "Archives of the People, by thePeople, for the People." *American Archivist* 70 (Fall/Winter 2007),

Fernandez, Joe. "A SWOT Analysis for Social Media in Libraries." *Online* Sept/Oct 2009, p. 37.

Fletcher, Stephen. "200,000 slides." *A View to Hugh* blog, entry posted December 7, 2007. http://www.lib.unc.edu/blogs/morton/index.php/2007/12/200000-slides/ (Accessed March 15, 2010).

Fletcher, Stephen. "200,000 slides, part 3." *A View to Hugh* blog, entry posted January 15, 2008. http://www.lib.unc.edu/blogs/morton/index.php/2008/01/200000-slides-part-3/ (Accessed March 15, 2010).

Freeman, Marie. "A View to Hugh." *Blue Ridge Blog*. Jan. 8, 2008, http://blueridgeblog.blogs.com/blue_ridge_blog/2008/01/a-view-to-hugh.html (Accessed March 8, 2010).

Gentry, Kristin. "The Social Networking Revolution." *Accounting Today*. Oct. 19-Nov. 1, 2009.

Gilbertson, Scott. "Lessons Startups (and Users) can Learn From Ma.gnolia's Crash. " *Wired*, Feb. 17, 2009. http://www.wired.com/epicenter/2009/02/lessons-startup/ (Accessed Feb 10, 2010).

Hanlon, Patrick, and Josh Hawkins. "Expand Your Brand Community Online." *Advertising Age* 79 (2008), no. 1, pp. 14-15. Communication & Mass Media Complete, EBSCOhost (accessed November 15, 2009).

Harris, Thor. 2009. "It's good to talk." *ICIS Chemical Business* 276, no. 14, p. 34. Business Source Premier, EBSCOhost (accessed November 15, 2009).

Hull, Elizabeth. "Camp Yonahnoka, part II." *A View to Hugh* blog, entry posted April 23, 2009. http://www.lib.unc.edu/blogs/morton/index.php/2009/04/camp-yonahnoka-part-ii/ (Accessed March 15, 2010).

Hull, Elizabeth. Interviewed by Katherine-Rose Repp. February 10, 2010. UNC Photographic Archive.

Hull, Elizabeth. "Name That File." A View to Hugh blog, entry posted August 13, 2008. http://www.lib.unc.edu/blogs/morton/index.php/2008/08/name-that-file/ (Accessed March 15, 2010).

Hull, Elizabeth. "A Processor's Perspective." *A View to Hugh* blog, entry posted November 7, 2007. http://www.lib.unc.edu/blogs/morton/index.php/2007/11/a-processors-perspective/ (Accessed March 15, 2010).

Hull, Elizabeth. "Who Am I?–Camp Yonahnoka Edition." *A View to Hugh* blog, entry posted October 20, 2008. http://www.lib.unc.edu/blogs/morton/index.php/2008/10/who-am-i-camp-yonahnoka-edition/ (Accessed March 15, 2010).

Levine, Rick, et al. *The Cluetrain Manifesto: The End of Business as Usual.* Cambridge (MA): Perseus Books, 2000. http://www.cluetrain.com. (Accessed online on Dec. 5, 2009).

Lynch, Patrick J. and Sarah Horton. *Web Style Guide*, 3rd edition. 2009. http://www.webstyleguide.com/wsg3/2-universal-usability/4-guidelines.html (Accessed Feb. 28, 2010).

Miller, Joseph B. *Internet Technologies and Information Service*. Westport (CN): Libraries Unlimited, 2009.

Miller, Paul. "Web 2.0: Building the New Library." *Ariadne*. Issue 45, Oct. 2005. http://www.ariadne.ac.uk/issue45/miller/ (Accessed 11.15.09).

Murray, Richard. "Duke Core Metadata Policies." *Duke Digital Collections*, Feb. 13, 2009. http://library.duke.edu/digitalcollections/duke-core.html (Accessed Nov. 15, 2009).

Murray, Richard. "Secrets of Duke Digital Collections… Revealed!" *Duke Digital Collections* blog, November 3, 2009. http://library.duke.edu/blogs/digital-collections/2009/11/03/secrets-of-duke-digital-collections-revealed/ (Accessed February 13, 2010).

Neal-Shuman Publishers, Inc. "Web 2.0 Tools and Strategies for Archives and Local History Collections." http://www.neal-schuman.com/bdetail.php?isbn=9781555706791 (Accessed March 8, 2010).

Nielsen, Jakob. "F-Shaped Pattern for Reading Web Content." *Use-It.com* (April 17, 2006). http://www.useit.com/alertbox/reading_pattern.html (Accessed March 10, 2010).

Nimer, Cory and J. Gordon Daines, III. "What Do You Mean It Doesn't Make Sense? Redesigning Finding Aids from the User's Perspective." *Journal of Archival Organization*, Vol. 6(4), 2008,

Offen, Neil. "Tweet away: Duke opens page to new social media site." *The* (Durham, NC) *Herald-Sun*. (Feb. 20, 2010). http://www.heraldsun.com/view/full_story/6419836/article-Tweet-away--Duke-opens-page-to-new-social-media-site (Accessed Mar. 1, 2010).

"Putting your library 'out there'." *Library Technology Reports* 42.4 (2006), pp. 63-66. (Accessed on Nov. 22, 2009, via *Academic OneFile*).

Reeb, Brenda. *Design Talk*. Chicago (IL): ACRL, 2008.

Rolfe, David. "The Morton Files - Man With a Passion For Taking Photos Left Archivists With Challenging and Fascinating Work." *Winston-Salem (NC) Journal*, February 17, 2008, p. A17.

SAA Council. "Code of Ethics for Archivists." SAA Council Handbook, http://archivists.org/governance/handbook/app_ethics.asp (Accessed Nov. 20, 2009).

Sexton, Will. "INLS 740 March 16, 2010." *Duke Digital Collections* blog, entry posted March 16, 2010. http://library.duke.edu/blogs/digital-collections/2010/03/16/inls740-2010-03-16/ (Accessed March 17, 2010).

SLA. "Vision, Mission and Core Value Statements." (Adopted Oct. 2003) http://www.sla.org/content/SLA/AssnProfile/slanplan/index.cfm (Accessed Nov. 20, 2009).

Springer, Michelle, Beth Dulabahn, et al. *For the Common Good: The Library of Congress Flickr Pilot Project*. Released Oct. 30, 2008. http://www.loc.gov/rr/print/flickr_report_final.pdf (Accessed Nov. 22, 2009).

Theimer, Kate. "The Winners: 2008 Best Archives on the Web Awards." *ArchivesNext* blog. http://www.archivesnext.com/?p=109 (Accessed March 8, 2010).

Travis, Ginger. "Capturing Seven Decades of Life in North Carolina." *Windows* 16, #2 (Fall 2007).

Tuten, Tracy L. *Advertising 2.0*. Westport (CN): Praeger, 2008.

UNC Photographic Archive. "About: A View to Hugh."
http://www.lib.unc.edu/blogs/morton/index.php/about/ (Accessed March 1, 2010).

UNC University Library. "Edward McCauley Collection."
http://www.lib.unc.edu/dc/mccauley/ (Accessed February 15, 2010).

UNC University Library. "Hugh Morton Collection of Photographs and Films."
http://www.lib.unc.edu/dc/morton/index.html (Accessed March 23, 2010).

UNT Digital Library. "Red Army Encircling Balkans."
http://digital.library.unt.edu/ark:/67531/metadc291/m1/1/
(Accessed March 22, 2010).

Weber, Jessica. "Portal Page: Prototypes, Analysis & Inspiration." *Duke Digital Collections* blog, January 15, 2010. http://library.duke.edu/blogs/digital-collections/2010/01/15/portal-page-prototypes-analysis-inspiration/ (Accessed February 1, 2010).

Whittaker, Beth M. and Lynne M. Thomas. *Special Collections 2.0: New Technologies for Rare Books, Manuscripts, and Archival Collections*. Santa Barbara (CA): Libraries Unlimited, 2009.

Woyke, Elizabeth. (2010) "America's Most Wired Cities." *Forbes*, Mar. 2, http://www.forbes.com/2010/03/02/broadband-wifi-telecom-technology-cio-network-wiredcities.html (retrieved March 22, 2010).

Yakel, Elizabeth. "Inviting the user into the virtual archives." *OCLC Systems & Services: International digital library perspectives*, Vol. 22(3), 2006, pp. 159-163.