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Digitizing Knowledge: Exploring Archival Collections in Virtual Spaces

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November 2009

Development of the Abstract

The Digitizing Knowledge project began with an abstract written by Kiara Vigil and Colleen Woods, doctoral students in the Program in American Culture and the Department of History, respectively.

Abstract:

Our interdisciplinary project aims at answering questions about the proliferation of digital archive collections and the potential impact this has on both research and teaching. In particular, we are interested in the different research experiences that scholars have when they use a digital archive as opposed to (or in conjunction with) a physical archival site. Should a digital archive attempt to mimic the research experience of a physical archive? And if so, what is gained or lost by the process of digitizing what scholars typically describe as a tactile experience? If the archive does change, and does not mimic how collections are traditionally arranged, in what ways does a virtual experience force researchers and teachers to re-conceptualize their practices? For instance, the American Social History Project, under a grant from the National Endowment for the Humanities, recently launched a new initiative entitled: "Picturing United States History: An Online Resource for Teaching with Visual Evidence" under the aegis that "visual materials are vital to understanding the American past." Our project will analyze the efficacy of this approach, as well as explore other examples of virtual collections. In another virtual space, the Center for Digital Research in the Humanities freely distributes materials and critical responses from The Walt Whitman Archive, and offers a literary example of the ways that knowledge has gone digital. Just as these virtual spaces represent ample amounts of collaboration, our project relies on diverse disciplinary methodologies through the questions we ask and the expectations we bring to research and teaching.

We were historians and literary critics, concerned about the prospect of losing material archives to a digital world. We thought about all the things that we would miss about archives: traveling to different sites, being immersed in different cultures, meeting new scholars, physically touching historical documents and photographs, and on and on. The project stemmed heavily from our personal experience, as well as from the theoretical (and practical) implications of digitization as an emergent technological practice.

We wondered: were our professors trained to use digital archives? Would we be trained to use this new media? On the theoretical level we wondered about whether or not the process of digitization was truly "democratizing," since we were cognizant about the importance of context that arises for scholars when they have to travel to new locations to find materials to work with. We were limited in some sense as only users of archives, and in particular, we had disciplinary blinders on as humanities researchers. So, we sought out collaborators who could help us to expose these blind-spots, with whom we could develop new questions regarding the costs as well as the benefits of digital archives, from the perspectives of both archival users and producers.

Proposal Process

We added to our team to broaden the scope of our inquiry: Ricky Punzalan, a doctoral student in the School of Information, and Urmila Venkatesh, a Masters student in the School of Art and Design. Because each member was situated in a particular field of knowledge production, our project's methodology could represent different disciplinary questions that would be useful for us to pose to a wide range of archive users. After forming this team, we pulled together our full proposal, and included the following objectives:

- 1. To record and measure what is lost and gained in the translation to a digital archive.
- 2. To consider the technological environment of the digital archive in comparison with ,the physical archive to analyze how current technologies reflect or perpetuate the projected loss and potential gains of digitizing visual material.

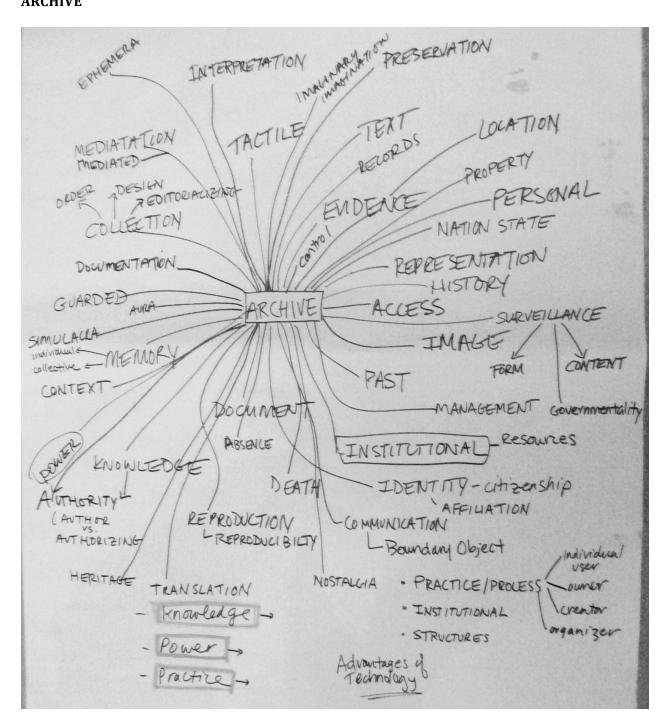
We came up with a bibliography, guiding questions for our research, preliminary interview questions for archive users, and a committee of faculty advisors representing each of our disciplines who would double as interviewees.

January 2009

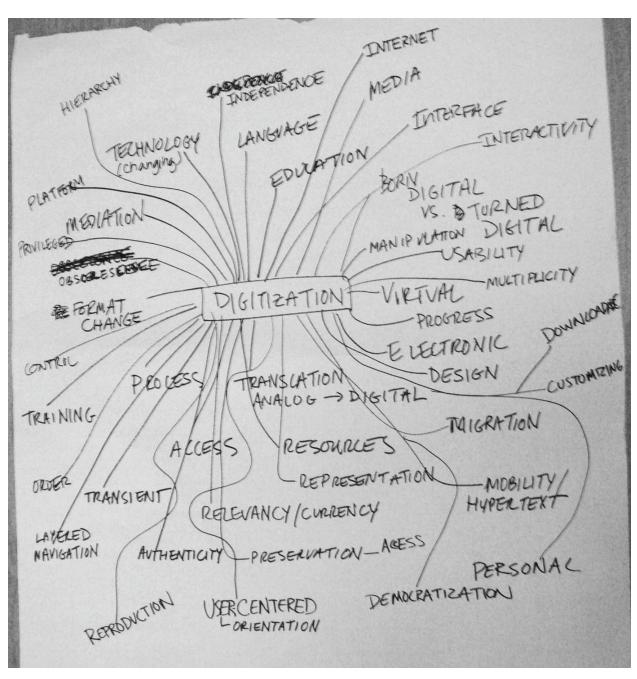
Conceptual Development

We quickly learned that in order to move forward, we first needed to share our varied understandings of the two core concepts in our proposal: the archive and the process of digitization. We met and developed a conceptual map for each:

ARCHIVE



DIGITIZATION



What arose from this mapping exercise was a clearer view about how power and knowledge are constructed; this is applicable to archives as institutions and as places where material practices take place, as well as to digitization is one of these material practices. Ricky pointed out that digitization is a process of mediation, but no more mediation than the mediation in physical archives that determines which materials we can access and how we access them.

This mapping exercise also allowed us to design a set of interview questions that would highlight the ways in which users and archivists could be put in conversation to learn from each other and inform their own future practices. This was a pivotal moment in our conception of the project, wherein we realized that this age of increased digitization and a shift in archival practice was a moment of opportunity in addition to loss. We could create a space a dialogue between users and archivists in conversation with each other to trigger recognition of the relationship between power and knowledge that we had uncovered through our mapping exercise.

Design Review One

We did a design review presentation for GROCS where we asked for feedback on the interview questions that were set in parallel, to create themes that would connect users' experiences with those of archivists.

Interview Questions

SUBJECT	USER	ARCHIVIST
Experience	What kinds of experiences have you had with analog archives? What kinds of experiences have you had with digital archives?	How do you imagine the experiences of users of digital archives? In your imagination, how might these differ from ones in the analog context?
Tools	What features (navigational, organizational, visual) do you find useful in a digital interface? What other tools could you imagine using?	In designing a digital archive, what features (organizational, navigational, visual, etc) do you consider?
Research	Given your current training and expertise, does the act of doing digital research change the nature of your research practices? Why or why not?	Given your current training and expertise, does the act of digitization change the nature of research practices? Why or why not?
Theory	There is an existing debate that while the digitization of archives is potentially democratizing, it is also responsible for contributing to separation and dislocation, resulting in a deepening of disconnection between people and places. What do you think?	There is an existing debate that while the digitization of archives is potentially democratizing, it is also responsible for contributing to separation and dislocation, resulting in a deepening of disconnection between people and places. What do you think?
Aura	When the object is separated from its original material context, what is gained and what is lost?	In the process of digitizing images, what is gained and what is lost?
Teaching	How might you use a digital archive in the classroom?	If a digital archive is used as a teaching tool in addition to a research tool, how might your process of digitization or the archival interface change?
Search Strategies	What are your strategies for finding images?	What decisions do you make regarding image searches (in terms of navigation, metadata, user search strategies)?

February 2009

Field Interviews, Part One

In February, we began a series of interviews with those who use archives and those who study archival users. We interviewed four people: Rebecca Zurier, professor in the Department of History of Art; Tiya Miles, professor in the Program in American Culture; Annette Haines, field librarian in the School of Art and Design; and Paul Conway, professor in the School of Information. We have included here a summary of the first three interviews here. (Paul Conway notes found in Part Two)

Interview with Rebecca Zurier, by Kiara Vigil

Professor Rebecca Zurier teaches at the University of Michigan and received her PhD from the American Studies Department at Yale University. Rebecca currently interacts with digital media in several different ways, and was eager to assist us in an interview about her past and present experiences working with digital archives as both a researcher and a teacher. Rebecca's training as an Art Historian has taught her about the importance of looking at originals, and through this she has developed a skill set for reading visual materials that does not transfer to working with digital media.

The first question I asked Rebecca was to recall her experiences using material archives; her immediate response was: the smell! In sharing several anecdotes about her research over the years, Rebecca commented on the nature of serendipity and the fact that it is the people you meet and the locations you come to know through travel when visiting archives as much as what you might accidentally uncover in sifting through folders and papers, which influences the direction of your research and your ultimate conclusions. Despite her excitement about travel, people, and the physical traces of the archive, Rebecca feels encouraged by the advent of digitized collections because these offer Art Historians the ability to sort through large assortments of images, and to do particular searches within these collections (say for portraits) that may enable them to come to different conclusions from looking at more limited array of materials in a library. Rebecca felt that serendipity could occur in either medium, whether one was physically sorting through records in a library or browsing the American Memory Collection online from their home computer.

Two key points emerged as most central to Rebecca's conclusions about the changing nature of research and teaching during this time of increased digitization. The first was the necessity of preserving the tactile and visual experiences that happens when students encounter the original work of Art. To this end, Rebecca told us that she and her colleagues in the Department of the History of Art here at Michigan have put aside a budget to enable teachers to take their students on field trips so that students might ask, is it bigger than me or am I bigger than it? Surely we can ask this question about our digitized images, and yet, when we uncover the answer through a computer interface we may not be as compelled by the answer.

The second important insight that emerged from this interview was that digitized images do have a pedagogical impact that crosses the boundaries of local libraries, universities, and nation-states. Rebecca commented on the historical role that American Art has played in the larger world of European Art History, and noted that scholars living and working in Italy and France who have access to computers now have access to viewing far more examples of American Art than ever before because they can travel through hyperspace sites to visit digital collections. Attitudes and arguments about the techniques and impact of American Art from scholars beyond the borders of the United States may change or deepen because of this increased exposure, which has the added benefit of bringing more viewers into this Art world, since they are no longer dependent on funding for expensive cross-oceanic travel.

Interview with Annette Haines, by Urmila Venkatesh

Annette Haines is the field librarian for the School of Art and Design, within the Art, Architecture, and Engineering Library at the University of Michigan. She insisted that she is not an archivist and doesn't use archives, but as we spoke, it was immediately clear that she had deep insights into the very relevant topics of information science, consumption, and production. Our conversation was an important turning point for me to rethink how we categorize objects and access information.

Annette began by talking about some of the broad differences she perceives between art practitioners and art historians in how they approach a library catalog, librarian, or library space. She finds that artists tend to feel intimidated by the process of searching because they sometimes struggled to translate their needs for seeking visual information into linguistic search terms. This brought us to a larger discussion about the challenges posed when searching for imagery. How do you search for "red" or "triangle"? Do you use the term red? What if the librarian did not use visual terms to categorize objects? Annette posited, "What if you had a keyboard who keys represented a color spectrum, rather than letters? Or, what if you searched using a drawing tool that created shapes?" She mentioned some of the research that is being done by computer scientists to use visual language as search methodology, and expressed the difficulties people have come up against.

Annette also discussed the trends she is seeing in the use of libraries and librarians in the advent of digitization of information. People use reference librarians less on a daily basis, but this is giving librarians more time to develop online guides and robust databases instead. She maintains that now, as in the past, she tries to engage patrons in a reference interview, wherein she asks questions to draw out people's interests so that she can get a better sense of what people look for. When people first approach with an inquiry into particular materials, it does not always capture the specific needs. As she engages them, she finds out more about why they are interested in the subject, for what purpose, and to what end, and this helps her guide them through the search process. I am guessing that as she creates online guides or contributions to databases, she uses the same thoughtful and probing questions to create a resource.

Interview with Tiya Miles, by Colleen Woods

Professor Tiya Miles teaches in the American Culture and History Departments at the University of Michigan and is currently also serving as the director of the Native Studies program. Out of all our interviewees Tiya was the researcher that was the most apprehensive and wary of digital archives. We began our interview by asking Tiya to describe her first experiences in doing archival research. She spoke very fondly of a trip, as a first-year graduate student, to an archival site that housed the letters of female prisoners from the 1920s. After reading through several letters and holding the paper on which imprisoned women had written on 75 years earlier, Tiya described a kind of feeling of "spiritual connection" to the letter writers. Indeed, the experience in the archives so moving that Tiya shifted the nature of her dissertation project from one that examined primarily literary texts to one based in historical archival research. After describing her initial contact with archival material Tiya relayed her most memorable archival experience---that "lottery-winning" moment when after hours of sifting through document after document she found the ONE piece of paper that she says, "made her dissertation possible."

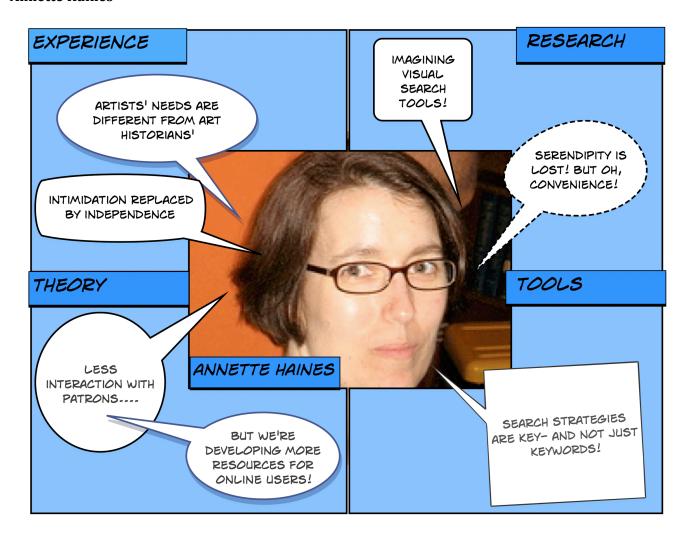
After talking about her experiences of meeting other researchers, interacting with Native communities near her archival sites, and travelling to libraries (large and small) across the country, Tiya brought up some of the limitations that she met at archives. As an African American female working in the field of Native American studies, Tiya described some of the negative aspects of archival research—primarily the issue that archives are 'gated' in a way that digital archives are not. These barriers vary from archival institution to institution and often involved "earning the trust" of the archivist in charge. While digital archives didn't provide that spiritual connection that Tiya felt while holding 19th century documents, they did provide her a way to get around the gendered and racial assumptions that she'd met visiting physical archival sites.

By the end of the interview, after through talking the many issues and experiences of archival research Tiya realized that she had in fact experienced some of the same "lottery winning moments" in digital archives. A moment she had previously didn't think was possible—or at least didn't associate—with digital archives. Part of this, for Tiya, was that searching on the internet or through an electronic database kind of felt like "cheating." It didn't feel like the hours of tedious, eye-straining, hard work that she was used to. But by simply typing into Google some keywords of a particular "faith biography," Tiya found the document that archivists had told her "did not exist." Not initially identifying the moment as akin to the one in which she found the document that made her dissertation work, our conversation made Tiya realize some of the potentials that digital archives might hold for researchers. While digital research is in many ways easier on Tiya's parental duties and personal life, the human interaction, tactile contact, and "hard work" of physical archives simply cannot be replicated in digital spaces.

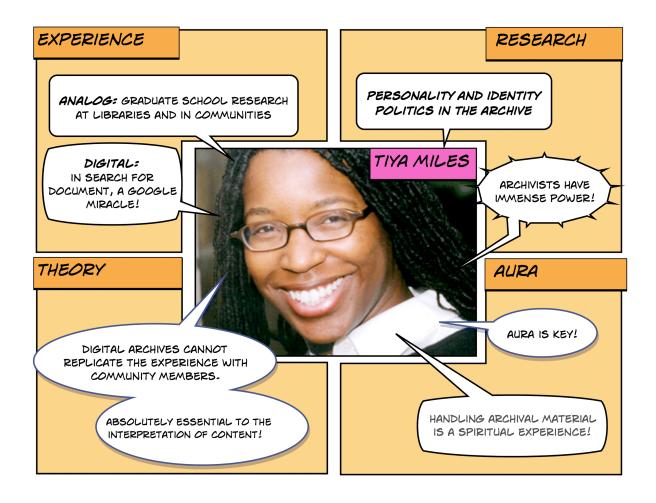
Rebecca Zurier



Annette Haines



Tiya Miles



March 2009

Public Presentation: Visual Culture Workshop

We arranged in December to present our research at the Visual Culture Workshop, an interdisciplinary group of faculty and graduate students across the humanities and social sciences. We used this workshop space to present the aim of the project to put users and archivists of digital archives and to use this space to offer a broad overview of our project. More importantly, we were able to use this forum as a focus group site, where we asked the participants in the workshop to respond to a series of questions. We discussed the difference between documents that are "born digital" and "turned digital", preservation versus access, and the notions of authentic, original, and unique which archivists must theorize as they do their work.

Design Review Two

Immediately following our presentation to the Visual Culture Workshop, we presented a second Design Review for GROCS. During this meeting Ricky presented extensively on the technical components of digitization and Colleen talked about her fieldwork experience as a historian who visited the Philippines in order to access archives there. Kiara, Colleen and Urmila each presented summaries of the three interviews we had conducted, and spoke about how these interviews shaped our ideas about moving forward. Our main concern for this design review was to gain feedback about what to do for our final project, and Urmila presented the idea of an exhibition in the Gallery at the Duderstadt Center.

Field Interviews, Part Two

Interview with Paul Conway, by Ricky Punzalan

Paul Conway is an associate professor in the School of Information and the coordinator of the School's Archives and Records Management specialization of the Master of Science in Information program. He has an extensive teaching and administrative experience in the archives and preservation professions. Before coming to Michigan, he served as director for information technology services and director for digital asset initiatives at Duke University and headed the Preservation Department at Yale University Library, respectively. His research interests include the challenges of representing and interpreting visual and textual resources in digital form, extracting knowledge from large-scale image databases, and modeling incentive systems for digital preservation, particularly in the context of emerging interdisciplinary scholarship in the humanities.

In our interview, Paul described the initial findings of his research into the decision-making strategies that researchers employ in a large-scale image digital library to choose and evaluate digitized photographs. According to Paul, while it is academically tantalizing to focus on issues of loss in the process of digitization, he sees the importance of exploring what is gained in the production of electronic referents especially at a time when the world is fast embracing the digital media. Arguments of loss are compelling, but Paul suggests that we still lack evidence and empirical studies on these claims. While scholars ponder the effects of "loss" in how we interact with images culturally, socially or academically, what we still need is an understanding on how users of archives with digitized images and how they judge the value of digitization. He is therefore interested in understanding the impact of digitization from the people on the ground (or the user's perspective) who may not be included in the decision-making process of digitization.

Paul shared three "modes of inquiry" that users employ in deciding the value of digitized image. These are *Discovery, Storytelling* and *Landscaping*. In the *Discovery* mode, researchers seek to obtain

from individual digitized photographs visual information that no one has ever seen or noted before the discovery. New discoveries are judged and evaluated in the context of the community or communities within which the researcher shares information. For discoverers, a digital image of a historical photograph should resolve the grains of silver in the negative or print before pixilation sets in. Discoverers are willing and able to manipulate the image data to reveal visual information possibly hidden in high-density areas of the photograph. Discoverers privilege digital images created from original camera negatives and are indifferent to the polarity of the displayed version.

Users in the *Storytelling* mode of inquiry consider digitized photographs as pieces of a puzzle that when assembled in just the right way tell stories visually, evoke an emotional reaction from the community within which the stories are shared, and/or supplement the textual historical record in some substantive ways. The image as a whole is the object of study, rather than the details of any particular piece of the image. Composition and emotional resonance of the subject matter as represented digitally take precedence over either the artifactual values of the original object or the explicit technical characteristics of the digital image. Cropping the borders of an original photograph in the process of digital conversion diminishes the value of an image more seriously than any other technical characteristic. More explicitly than researchers in the discovery mode, storytellers place significant value on the co-existence with the image of metadata derived from the original source photograph or from the photographer. Such metadata may prove ultimately to be partially inaccurate, but the combination of original description and a compelling visual image represented as a whole object define the point of departure for storytellers.

In the *Landscaping* mode view, the image is perceived as a window on historical space and time. Digitized photographs may serve primarily as mnemonic devices, as illustrations for a primarily textual narrative, or as a lens on events and activities that took place beyond the view of the camera itself. Formal histories that treat photographic evidence as a point of departure for an archival record-based inquiry share the landscaping mode with research that may be focused on the social environment of the photographers, or their particular working methods. For landscapers, the context of the photograph or its sequence of creation seems to carry more weight than either visual composition or any particular details evident in the photographs themselves. For landscapers, the source of the digital image (original negative, print, intermediate) is often secondary to the visual and technical context of multiple images. Such context is often derived from metadata associated with the images or physically scribed on the original photographs or negatives. For landscapers, the technical characteristics of the digital images only become significant at the point of creating a product whose technical requirements are strict. For example, a user may notice or care about the characteristics of the image when negotiating a book contract or transferring images for use in a documentary film.

With his modes of inquiry, Paul argues for a more nuanced understanding of digital image consumption and use. His research underscores the importance of getting to know what matters to archival users in specific contexts of use. There has been a proliferation of substantive theoretical arguments on loss and this has become an established discourse in digital archives. On the other hand, there seems to be very little solid accounts on what we gain in the process of digitization and how this could further enrich our understanding of visual culture. Paul's research proves that the counter argument to loss—that is gain—can be equally compelling.

Exhibition Development

After we received helpful feedback and some clarifying questions from fellow GROCS teams during our design reviews, we were closer to having a vision of our exhibit. We likedthe idea of an exhibit setting because we could invite users to experience our findings directly and, potentially, interactively as well. We knew that we wanted to create the dialogue between the user and the archivist after hearing "both sides", as it were. We were also sure that we wanted to demonstrate the differences in experiencing an archival collection through digital and tactile means, and that we hoped to give people a sense of the decisions that archivists make before a user even accesses an archive. Finally, we hoped to capture the sense that the concept of the archive is becoming very broad, with the advent of internet technology. Flickr would be an example of a user-based archive that includes born digital and turned digital images.

A pivotal moment in discovering the format of the exhibit was a meeting with Linda Knox. Linda suggested that we consider what experiences we might provide without any complicated technological setup; she urged us to return to the original questions about what is lost and what is gained, and to decide how we wanted the audience to also grapple with this question. With this advice in mind, we decided as a team to become a collective archivist- to create an archive and ask people to interact and document their interactions.

We chose a historical event – Election Day 2008 – during which Barack Obama was elected President, and we asked a wide range of participants for their photographs of the event from which we could build an archive. We were particularly interested in the seemingly impromptu parade and public gathering on the Diag that occurred shortly after television news programs announced their projections of victory for President Obama. We chose this event because it was local and something everyone could connect to in some way, and we thought that exhibit attendees would likely remember what that day was like, regardless of the level of historical significance it has for each visitor personally.

We used a number of means to solicit images – emails to our friends and colleagues, facebook posts and status updates written as requests, internet searches on websites like Google and Flickr, and inquiries to media outlets like the Michigan Daily. Acting as a collective archivist, we exhibited six of the over 125 images we collected to be the full archive of the event, having learned that typically only a small percentage of a collection is made available to users at a given time. Through a set of printed posters, we communicated the criteria and techniques we used to create our set, background information on archives and metadata, and instructions for visitors to interact with the collection and leave traces of themselves before they leave.

To communicate a dialogue between the archivist and the user, we also wanted an interactive exercise that asked visitors to interact with an image as if they were already in an archive (broadly defined) and could "tag" an image with their own metadata.

April 2009

Exhibition Fabrication and Presentation

The exhibit was built in two separate parts, or "stations": the Archive Station and the Tagging Station. In the Archive Station, visitors engaged with our pre-manipulated collection to participate in the various practices that make up the digitization process. People would choose from images that were run through the types of digital manipulations we outlined in our second design review (color, tonal, saturation shifts; size reductions; cropping). Once visitors were acquainted with the collection we present, they were asked to become archivists themselves, to look at the entire set of

images, and to determine a collection that best represented their own experience, or the way they felt that the event should be represented. After visitors chose their images, the visitor would display their archive and perhaps document the criteria they used for the next visitor to see through a written note.

Originally we were going to have our collection as a set of printed images hanging on hooks, and where each successive visitor would replace those images with her own. But in an effort to document each visitor's collection, especially when we were not there to assist, we decided to build a device that could capture an image of each collection, as well as written notes about selection criteria, and save the image to a computer for us to access after the show.

Dan Fessahazion adapted the Animation Station and its software, and with it we set up a workspace on which visitors arranged images, with the suspended webcam capturing images of the arrangement on the work surface. Once people captured their image, they had the option to write a note describing their criteria, place it on the work surface, and capture an image of that note as well. Included in the setup was a large plasma screen television displaying live feed of the archivist's hands arranging images on the surface. To drive home the idea that the archivist was separate from the user in this case, the archivist could not see the plasma screen live feed at the same time that she was arranging images, so that the analog and the digital remained separate.

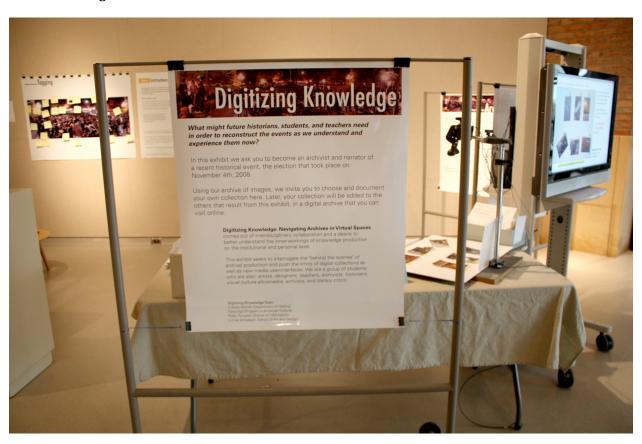
For the Tagging Station, in order to highlight the experience of collectively tagging one image, as one could do in an online environment, we displayed a large image onto which people added their own metadata written on post-it notes; through this exercise we hoped to demonstrate the many different ways one image might be categorized or made meaningful. We used a photograph taken by Jeremy Cho, a photographer for the Michigan Daily, which is a panoramic image of the midnight rally on the Diag. We hung the image and asked visitors to tag it with metadata they think it should have, or phrases that it or their memory conjures up. Over the five days of the show, we hoped that the increased, layered complexity of data would be demonstrated. More broadly, we wanted visitors make connections as well as distinctions between archives that are mediated and controlled by institutions, and the vernacular, homegrown archives like Flickr that allow people to create, categorize, and share their own visual production.

Finally, we created a set of homemade buttons that represent the exhibit in some way, attached to a small flyer with our website address on it, so that people could see their collections after the exhibit was done. We have not yet done this, but plan to do so in May.

Reflections

Our attitudes towards the idea of digitization became much more complicated and not simply ones of concern, as we learned about the many benefits to the process. As Linda and Ricky pointed out to our group, archives of visual images, and then even visual images themselves, are so highly mediated at so many stages, that we would be shortsighted to think of digitization as an unprecedented intervention in the process of collecting, sharing, and interpreting historical documents for consumption. Though we interrogated the archive as a site of power and control early in the process, we began to see digitization as another step in that cycle of power, but one that makes these visual artifacts more widely available and puts the possession of power in more hands.

Exhibition Images



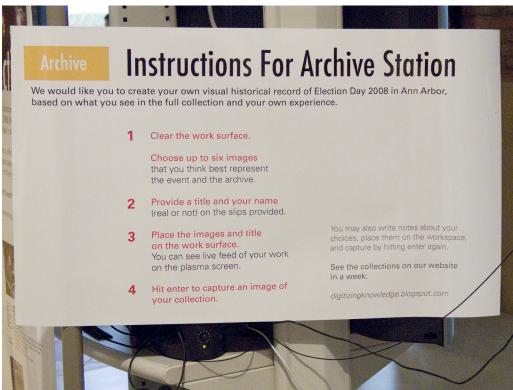
























Appendix One

An Overview of the Discourse of Loss in Visual Archives, by Ricky Punzalan

The relationship between archives and their photographic collections has largely been characterized in terms of "loss." Australian archival scholar, Joanna Sassoon (2004) is one participant in the discourse of loss, particularly in the context of digitization. In the act of translating a photographic object into a digital referent, Sassoon points to the loss of "materiality." Access to photographs has traditionally been a tactile experience. The ability to feel, hold and touch—the very tangibility of photographs—are the very characteristics of analog images that cannot be translated through electronic reformatting. Loss of materiality is thus equated with the loss of context and meaning of images.

Canadian visual archives scholar Joan Schwartz (2000) bewails the application of textual and bibliographic models of descriptive standards and practices as a kind of linguistic "othering" that relegates photographs into the periphery of archival science. Using textually biased descriptive conventions is thus regarded as a way of colonizing images, of limiting the possibility of discovering visual collections only by means of one's capacity for sophisticated use of words and texts. In many repositories, as Schwartz observes, there is a fixation on describing the factual and visible contents of images. This practice assumes that photographs, just like textual records, can simply be read and mined for their "factual content." Yet, there is more to the picture than its content: Who produced, consumed and used the images and for what purpose? What was the sociocultural life of the image?

In their influential essay, American archivists Elizabeth Kaplan and Jeffrey Mifflin (2000) lobbied for "visual literacy" as a necessary set of skills archivists need to possess in order to become more responsive to the ever-increasing research demand to engage in visual materials, as well the proliferation of images largely facilitated by the then emerging electronic media. For Kaplan and Mifflin, archivists possessing visual literacy would be able to better understand and efficiently describe visual objects in their care. Loss, of course, is never simply the result of archivists' insufficient command of visual literacy. In fact, it is rather simplistic to assume that visual literacy is simply a manifestation of one's ability to describe images proficiently in words. Following Schwartz, loss is the result of a host of normative values and socio-technical systems where the archivist is only one, albeit significant, element. Schwartz further argues that, with their inability to confront their own assumptions about photographs and inadequate terminology, archivists prevent users of archives from appreciating the holistic value of the visual. In this light, Schwartz is not alone in emphasizing the limitations of archivists in dealing with the visual in their care.

Archivists frame loss as an expression of perceived destruction, removal, displacement or elimination of the context and meaning of photographic images whether done deliberately or inadvertently in the process and practice of archiving. This notion resonates with Walter Benjamin's (1936) classic work on how the very reproducibility of photography enabled the shattering of the "aura" thereby liberating works of art from the exclusive realm of elitist ritual. Most archival processes, decisions or actions rendered and applied on photographs have been accused, at some point, of contributing to the loss of certain elements, if not all aspects, that make pictorial images meaningful, valuable and trustworthy records or artifacts of social, cultural, technological and historical milieu. Schwartz's notion of linguistic "othering," Kaplan and Mifflin's insinuation of archivists' lack of visual literacy, and, finally, Sassoon's anxiety over the steady transformation of images from tangible material objects into digitized referents are the key expressions of the discourse of loss in visual archives.

Benjamin, W. (1936/2003). The Work of Art in the Age of Mechanical Reproduction. In L. Wells (Ed.), *The Photography Reader* (pp. 42-52). New York: Routledge.

Kaplan, E., & Mifflin, J. (2000). 'Mind and Sight': Visual Literacy and the Archivist. In R. C. Jimmerson (Ed.), *American Archival Studies: Theory and Practice* (pp. 73-97). Chicago: Society of American Archivists.

Sassoon, J. (2004). Photographic Materiality in the Age of Digital Reproduction. In E. Edwards & J. Hart (Eds.), *Photographs Objects Histories: On the Materiality of Images* (pp. 186-202). London: Routledge.

Schwartz, J. M. (2002). Coming to Terms with Photographs: Descriptive Standards, Linguistic 'Othering' and the Margins of Archivy. *Archivaria*, *54*, 142-171.