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### Teaching Digital History Through the University Archives: The Case of Nebraska U: A Collaborative History

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UNIVERSITY OF NEBRASKA-LINCOLN

# Teaching Digital History through the University Archives: The Case of *Nebraska U: A Collaborative History*

Peterson Brink, Mary Ellen Ducey, Andrew Jewell, and Douglas Seefeldt

The idea for *Nebraska U: A Collaborative History* emerged in the Archives & Special Collections of the University of Nebraska-Lincoln Libraries (UNL) in response to a desire to expose our collections to a broader audience. We knew, as every archives staff knows, that we held innumerable treasures in our collections that were not fully appreciated by our audience. Simultaneously, we felt that our university's student body was under-exposed to primary research in a professional archive, and we looked for an opportunity to bring more students into active engagement with the materials. A digital project that involved undergraduate students would potentially accomplish both of these goals: students would personally work with collections and learn more about the benefits of archival research through use of the materials in potentially compelling interpretative projects, and the online world would be able to discover our collections digitally.

## WHAT IS NEBRASKA U?

*Nebraska U: A Collaborative History* (<http://unlhistory.unl.edu>) is an effort to help prioritize, digitize, and contextualize materials held within the University Archives in the UNL Libraries. The site is currently imagined as a combination of an access point for digitized University history materials (multimedia and texts) and a series of student-driven research projects with focused presentations on select subjects, which build upon and link to transcribed texts, scanned images, and other digital derivatives

of archival material. Such a site is a unique resource for the many researchers, scholars, and members of the public interested in the history of the University of Nebraska, and it provides excellent visibility for materials in the Archives.

An important part aspect of the project's design is the way it serves as outreach to the campus and, specifically, its use as a pedagogical tool. Kenneth Price, Professor of English, and his students were the first collaborators on the project in his fall 2005 class "Electronic Texts: Theory and Practice." As part of the course, students selected a topic from several suggested to them, did research in the Archives, selected materials for digitization, scanned images and/or encoded texts, and wrote essays contextualizing their material. In the years since this initial collaboration, many students have continued to contribute to the site, both via classrooms and the University's Undergraduate Creative Activities and Research Experiences (UCARE) program.<sup>1</sup> The most significant collaboration in the past few years has been with Douglas Seefeldt's "Digital History" course. Undergraduate students in that course were assigned a *Nebraska U* project, which means they had to select a topic relevant to the history of the University of Nebraska, research that topic in the Archives, prepare or obtain digital surrogates of selected primary materials, and then construct a project analyzing and synthesizing those materials for web publication. At writing, there are 28 student projects from the spring 2008 and fall 2009 semes-

ters published online as part of this program covering a wide range of topics, including the history of the marching band, the University's response to the Ku Klux Klan in the 1920s, the emergence of the Chicano Studies program, and the scandal of the 1912 Yearbook recall.

## STRATEGIES

Our experience building *Nebraska U* in the past few years has taught us much about the best way to efficiently and effectively work with student collaborators. One thing we've learned is that a general introduction to the Archives and how to use materials is essential to the success of the project, both for the students and the Archives staff. This initial training session leads to the opportunity for staff to get to know individual students, to become involved in the research, and to provide a wide variety of records

and collections for use. It was very important that the right information is provided during this initial training. We shifted from providing a brief tour of the collections and resources we felt would elicit student interest to explaining to students how to use collections, what they would need to do to use the collections, how we run the department, and what kind of care and handling would be required for the use of the materials. This is what Elizabeth Yakel and Deborah A. Torres define as "archival intelligence: the researcher's knowledge of archival principles, practices, and institutions, such as the reasons underlying archival rules and procedures."<sup>2</sup> This initial training session is followed up by several other interactions with the students once they have identified their topics, including one-on-one reference interviews, training sessions on digitization best practices, and classroom visits to discuss and

**Figure 14.1.** A screenshot from Jessica Dussault's Nebraska U project "The Pride of All Nebraska: A Band's Growth from the Military Tradition" at <http://unlhistory.unl.edu/exhibits/show/nebraskaband>.

The screenshot shows the top of the website with the header "Nebraska U" and "A Collaborative History". Below the header is a navigation menu with links: "Browse Items", "Browse Collections", "Browse Exhibits", "About", "Yearbooks", "Student Projects", and "Image Collections". The main content area is titled "The Pride of All Nebraska: A Band's Growth from the Military Tradition" and includes sub-navigation links: "Home", "Military Foundation", "Growing Identity", and "Browse Sources". A secondary navigation bar highlights "Military Foundation", "A Proud Tradition", "The Cadet Band", and "R.O.T.C. Band". The "The Cadet Band" section is active, featuring a photograph of a band at a summer camp and the heading "The Cadet Band is Formed". The text below the heading describes the band's formation in 1876 and its early years, mentioning Lt. Isaac T. Webster and D. F. Easterday.

**Nebraska U**  
A Collaborative History

Browse Items Browse Collections Browse Exhibits About Yearbooks Student Projects Image Collections

The Pride of All Nebraska: A Band's Growth from the Military Tradition  
Home Military Foundation Growing Identity Browse Sources

Military Foundation A Proud Tradition **The Cadet Band** R.O.T.C. Band

Picture: Summer camp, band

**The Cadet Band is Formed**  
In 1876 the University of Nebraska began a small military department at the request of the War Department. The program was plagued by a lack of discipline and funding from the beginning. Drill practice was optional, as were uniforms, and the Cadets' enthusiasm for attending the non-compulsory drill was understandably low. In 1879 Lt. Isaac T. Webster sought to create more excitement for the otherwise doldrum military drill with the creation of the University's first band. Twelve volunteers with no musical background volunteered and the University of Nebraska Military Cadet Band was created (1).

Very soon the Cadet Band found its services being requested by clubs, political rallies, funerals, and baseball games. By 1883 it became clear that the popular, though rather unmusical, group would need more musical direction and D. F. Easterday was hired as a director for the fledging band. He would serve in that capacity until 1898 (1).

Much of the band's time in the early years was occupied by military pursuits. Drill practice and parades were required of the band, but outside of classes they played at athletic events and local gatherings, often gaining individual compensation for their pains.

troubleshoot issues the students have during the creation of their online projects.

In the classroom, the students were prepared for building *Nebraska U* projects by studying relevant materials on the history of computing, digital history theory and practice, and university history. Students were charged with the task of exploring the methods of digital history by assessing the value of digital media tools and environments to historical inquiry and communication. Historians Daniel J. Cohen and Roy Rosenzweig identify seven potential contributions of digital media and networks to the historian's task: "capacity, accessibility, flexibility, diversity, manipulability, interactivity, and hypertextuality (nonlinearity)."<sup>3</sup> Students from a variety of majors including, advertising, anthropology, cultural studies, English, film studies, history, marketing, political science, and psychology took up the challenge and read, thought, wrote, and discussed a wide range of new and old facets of the historian's craft to prepare them to design and implement a small thematic digital archive.

On the technical side, our strategies for building *Nebraska U* have altered over the years. Our first attempts at building content for the site were based on experience we had at the Center for Digital Research in the Humanities at UNL (<http://cdrh.unl.edu>) building thematic research collections (see, for example, the *Walt Whitman Archive* at <http://www.whitmanarchive.org> or the *Willa Cather Archive* at <http://cather.unl.edu>). Such digital scholarly publications were designed to follow the established standards of the digital humanities community. With a heavy emphasis on presentation of texts, our thematic research collections had their foundations in Text Encoding Initiative (TEI)-conformant XML files that were transformed for web presentation using Extensible Stylesheet Language for Transformation (XSLT) files. Given our success with this model in the past, and given its fit with best practices established by the digital humanities and libraries communities, we thought it made the

most sense as the structure for *Nebraska U*.

In our first efforts at building content for the new site, the XML/XSLT model seemed to work. We created a few marked-up texts locally, built a stylesheet, and had a basic web design that we felt would work well with the kinds of student projects we imagined. Our first classroom collaboration—with Kenneth Price's course in the UNL English Department—encouraged us further. The students in that course selected largely text-based projects: transcriptions of unique archival documents or essays accompanied by limited illustrations. The students in Price's course also had training in XML markup as part of their curriculum, completing challenging transcriptions and markup of poetry manuscripts. So, since their final project for *Nebraska U* was completed after some markup training, the technology presented only limited challenges to them. We certainly had to train and help individual students, and we had to revise the stylesheet to accommodate all the variations in their specific projects, but the XML/XSLT model seemed reasonably efficient and robust for the needs of the project.

Yet even while we were confidently moving ahead with more content-creation on this model, we detected cracks in the surface, limitations that would need to be addressed. A couple of the students in Price's course clearly wanted to build their arguments around images, not texts. Their evidence for analysis was visual, and they hoped to build a website that would highlight the visual artifacts. Though we were able to include their images on the site, they were integrated into the design in a clumsy way: photographs stacked in a long-scrolling page, interrupted occasionally by analytical text.

When we entered into our next classroom collaboration, with Douglas Seefeldt's "Digital History" course in the spring of 2008, we persisted with the existing XML/XSLT model, reasoning that most projects would be text-based and that we needed to adhere to—and teach—accepted markup standards. Though overall the experience with this

class was successful and students created several interesting research projects, it became clear that the XML/XSLT model needed to be reconsidered. Too often, the projects imagined by the students were poorly represented by the text-heavy markup scheme. These students, unsurprisingly, imagined web-based articulations of their historical research that were rich in interactivity, distinctive page layouts, and heavy use of images. This desire to build unique web projects (rather than just write texts accompanied by illustrations) was absolutely appropriate to the readings and discussion of their course, which was focused on the ways historiography is re-imagined using the digital medium. Though we were trapped in our existing infrastructure for that semester, we noted and, frankly, empathized with the frustration of some students who wanted more control over layout and content.<sup>4</sup>

Furthermore, in the context of this history course, which included instruction focused on editorial markup theory but not practice, the XML creation proved frustrating for both students and faculty. After Archives faculty provided the students with in-class training in XML, a template file, and markup guidelines, the students built their projects on multiple computers and various software. When the students delivered their XML for uploading to the project server, a range of mistakes and problems had to be addressed before the files could be transformed by the stylesheets and published online. Though some of the problems were tried-and-true parsing errors (that is, markup that didn't follow the project schema), many of the problems were character encoding issues. The students' insistence on using Microsoft Word and other software not designed for markup editing resulted in XML that was clogged with "smart quotes," control characters, and mysterious, invisible bits of code that required tedious hours of work to find and eliminate. The use of improper software meant that proprietary or incompatible characters migrated with the students' transcriptions as they cut-and-paste into the XML

template that was provided for them, and the presence of those characters prevented the XML from being transformed by the XSLT processor; instead of a lovely webpage, the transformation would spit out a list of character-encoding errors.

Ultimately, the students found the experience to be both challenging and rewarding, as a sampling of their end-of-semester self evaluations reveals. One student reflected, "I spent a lot of time sitting in front of my computer and marking up text. This was really difficult at first, but the more encoding I did, the more confident I felt working with XML." Another confessed, "it took many 'self-pep-talks' to spend the hours upon hours in the library and late nights encoding material, but in the end, it's all worth it." Others found their interaction with archival materials to be the most rewarding part of the project: "the best part of this whole experience...was doing the research. Being able to get my hands on original documents and handle the old yearbooks and look into the past is what draws me to history." Others found the tools and interactive medium to be rewarding: "after multiple semesters of nothing but writing papers the way others want, I was finally able to branch out and do what I wished to do." Overall, the student comments from this class did encourage us that our goal of getting undergraduates to appreciate and be engaged with unique historical materials was being achieved.

As we looked toward future classroom collaborations with the program, however, we knew that we would prefer to find a new technological infrastructure for supporting student projects. We lacked the resources to build something natively, so we began investigating other software options. About that time, Omeka was released by George Mason University's Center for History and New Media. Omeka (<http://omeka.org>), "a free, flexible, and open source web-publishing platform for the display of library, museum, archives, and scholarly collections and exhibitions,"<sup>5</sup> is designed for our precise needs. It is meant to empower institutions and individuals

to build high-quality, standards-compliant websites without requiring extensive technological expertise or time investment. In the summer 2009, we began the process of switching from the XML/XSLT model to the Omeka-driven site, and by the fall semester 2009, we were ready to collaborate for a second time with students in Seefeldt's "Digital History" course using the Omeka platform.

In brief, Omeka requires users to create digital "items" and "collections," which are typically digitized objects—texts, photographs, videos, etc.—from the Archives. Once the user has created the "items" and appropriate metadata for each item,<sup>6</sup> the user can then create an "exhibition" from the items. It is this "exhibition" that is the opportunity for the students to provide analysis and synthesis on their topic. The exhibition combines text, selection and arrangement of items, and development of sections and subsections—in short, it provides students with a chance to do history using the highly visual and interlinked rhetorical methods of web publication.

After solving some problems with the Omeka preferences and settings related to linking in Exhibit pages, font size, navigation conventions, and default image size, the students were able to quickly master the interface and build their thematic research archives to present their annotations and interpretations. For some, the entire process was novel, as this student self-evaluation conveys: "Before this class I had not ever been in the archives, used a microfilm reader, scanned documents, or used interlibrary loan." Most of these undergraduates developed a new relationship with the Library in general and the Archives in particular, as did this student: "Special Collections became my home on campus; little did I know that I was succumbing to the lure of pure research." Another student confessed, "I am not afraid of computers the way I was at the beginning of the semester. I see how digitization, unlimited access and collaboration will enhance my work as a historian in the future."

The experiences shared by librarians, archivists, and faculty working with the Nebraska U project have been challenging and rewarding. From simply introducing advanced undergraduates to the rich collections of the Archives and the possibilities of digital media to opening up those collections to the vast and varied audience interested in University history throughout the world, the endeavor is a model for interdisciplinary collaboration. For students, it can be a defining experience of their undergraduate career: "the final project of this semester proved to be one of the most challenging of my academic career... Working with Omeka forced me to be adaptive in my presentation of my research. This challenge to deviate from the typical term paper format might prove to be one of the greatest experiences of my final year as an undergraduate." *Nebraska U* gave them an opportunity to contribute to the University's mission to create knowledge, as this student put it: "I think my biggest motivation in the class has been the idea that my work will actually be on the web. I'm leaving a project to the university that other students can build on, and hopefully, people (especially alumni) will turn to for information. That's pretty cool!"

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## NOTES

1. This program is an excellent endeavor of the University of Nebraska-Lincoln to give undergraduate students the opportunity to work with faculty mentors on

- distinctive research projects. For more information, please see <http://www.unl.edu/ucare>.
2. Elizabeth Yakel and Deborah A. Torres, "AI: Archival Intelligence and User Expertise," *The American Archivist*, 66 (Spring/Summer 2003): 52.
  3. Daniel J. Cohen and Roy Rosenzweig, *Digital History: A Guide to Gathering, Preserving, and Presenting the Past on the Web* (Philadelphia: University of Pennsylvania Press, 2006), 3. This book is also available at <http://chnm.gmu.edu/digitalhistory/>
  4. The limitations we've indicated above are not necessarily limitations of XML/XSLT, but rather limitations of our own understanding and mastery of those technologies at that time. The process made us consider how to apply these technologies to a capacious-themed project on University history rather than the exemplar digital humanities archive projects that are more narrowly focused on an author or an event. No one intimately involved in the collaboration was a trained programmer or expert technologist. Instead, we were faculty and staff dedicated to use the tools and expertise we did possess to find ways to improve instruction and build innovative collaborations for Archives and Special Collections.
  5. "Omeka: Serious Web Publishing"
  6. We do not depend upon a sophisticated level of metadata in the Omeka system, as we concluded that the diverse group of people creating the metadata—particularly students—would be unlikely to create uniformly high-quality metadata. Instead, we inform the students (who are being graded on their projects) that part of the evaluation of their projects is the quality and extent of the metadata they create.