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Teaching Use of Digital Primary Sources for K-12 Settings

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Abstract

This paper describes learning outcomes of a three-day workshop on integrating primary sources into K-12 teaching. The short curriculum — intended for teams of teachers and school librarians — combined visits to a museum and a library's special collections with an introduction to significant national and local digital collections of primary sources. The paper draws on focus group data, reflection papers, and a conference presentation by the workshop participants as well as curricular artifacts presented to the workshop instructors. Using their workshop experience, teachers integrated digitized primary sources into their curricula thereby creating quality instructional content that engaged students' interest. School librarians and teachers worked together during the workshop, establishing a model for future collaboration. They were exposed to readily accessible digital sources they can draw upon for scholastic projects and lifelong learning. Primary source sets created by workshop participants were added to local and national educational websites for others to use.

1. Introduction

Digital resources on the web realize full potential only when they are found and used in a meaningful way. Without access and use, they languish, a waste of potential and effort. In short, unless digital resources find their way to users, they are no better than the paper, print and other non-digital formats that preceded them.

In the last decade, libraries and other cultural heritage entities with rich historical materials have focused on digitizing their best, most unique items for the benefit of researchers, scholars, genealogists, and college students. Often the objects deemed most worthy of digitizing are primary sources, the stuff of history: letters, personal papers, newspapers, diaries, photographs, and the like. Scholars have always known the worth of going to original "primary" sources in the pursuit of knowledge, both old and new. While they existed only in their original state, these irreplaceable objects had to be protected by limiting who handled them; often only credentialed researchers could gain admission to secured collections, handling fragile documents and fading photographs under the careful eye of archivists.

Digitized and on the web, however, primary sources are now available to anyone with a computer. These once hidden resources are finding new audiences and new uses. Library of Congress's Teaching with Primary Sources (TPS) program seeks to introduce K-12 teachers and their students to these increasingly available, rich learning resources that so engagingly and effectively convey the sounds, words, and images of the past.

2. Background

The Library of Congress (LoC) helps teachers enrich their teaching by showing them how to use the many digitized primary sources available from its American Memory digital collections. Collaborating with school districts, universities and libraries, LoC's Teaching with Primary Sources (TPS) Program offers ongoing professional development training via its TPS Educational Consortium and funds regional workshops and other endeavors outside the consortium with \$5,000 to \$15,000 grants. Incorporating digital primary sources into classroom learning does more than simply add engaging content to the K-12 curriculum. It teaches both students and teachers the significance of primary source material to the historical record, and perhaps even more important, teaches students how to find, analyze and evaluate web content. [Orchowski](#) (2009) quotes the Librarian of Congress who says that "... the ability to analyze, identify, fact-check, and, as needed, challenge sources of information is crucial for Americans' success in an increasing media-saturated knowledge economy and to our citizens' fully informed civic participation." Yet, finding primary sources is a specialized research skill that students (and even researchers) often lack ([Archer, Hanlon, Levine](#), 2009; [Tibbo](#), 2003). The LoC has been especially active in providing access to primary sources and including educators in its outreach programs ([French](#), 1995; [Ireland](#), 2010).

After hearing about the LoC's Teaching With Primary Sources program at the joint Utah Library Association/Mountain Plains Library Association Conference in Salt Lake City, Utah in 2008, three staff from Utah State University (USU), authors of this paper, attended a two-day workshop in December 2008 to learn more. While the rest of the workshop attendees were K-12 teachers, we were two digital content creators and a coordinator for teaching new teachers. We were struck by the fact that not only were the K-12 teachers new to digital primary sources, but were also completely unaware of the region's many locally-created digital resources. Most had never heard of the [Mountain West Digital Library](#), [Utah Digital Newspapers](#), or even the [Instructional Architect](#), a free tool and database created to help teachers bring digital learning objects into the classroom. Inspired by the resources offered by the Teaching with Primary Sources program and their enthusiastic reception by the K-12 teacher participants, we applied for a grant to bring the TPS program to Northern Utah teachers. We received the grant in 2009. Our goal was not only to share with them the resources from the LoC, but also to augment those resources with others created closer to home.

3. Developing the workshop curriculum

Teaching with Primary Sources focuses on the Library of Congress [American Memory](#) collection and the Annotated Resource Set (ARS) organizer ([Library of Congress](#), 2008).

To these two resources, we wished to add other tools as well as digital collections created by regional cultural heritage institutions that are partners in the Mountain West Digital Library, one such being Utah State University.

Teachers as students present a number of potential challenges, including lack of formal training in finding and using primary sources and other research materials, unsophisticated computers and computer skills, unreliable internet access and internet filtering at schools, and unfamiliarity with web resources and interfaces. To mitigate these difficulties, we planned to define primary sources and teach use of several tools to help systematically track, organize, and reuse digital resources during the workshop and later, as the teachers return to the classroom ([Veccia, 2004](#)). We would demonstrate three digital libraries that schools have easy, continued access to: Library of Congress American Memory, Mountain West Digital Library, and [Utah State University \(USU\) Digital Library](#). With all of the above in mind, we organized a three-day workshop for 25 participants as follows:

First Day:

- Introduction to primary sources
- Hands-on tours of Utah State University's Special Collections and Archives and the Museum of Anthropology. Here participants would handle tangible primary sources such as handwritten letters and diaries, oral histories, photographs, the skull of the area's last grizzly bear, pottery shards, clothing, and more
- Demonstration of three diverse tools for collecting, organizing, and presenting digital primary sources: the [Library of Congress Annotated Resource Set](#), [XMind's fishbone chart](#), and the [Instructional Architect](#).

Second Day:

Armed with an enthusiasm for primary resources and introduced to tools for organizing and storing digital resources, participants would learn about and begin using significant and reputable digital libraries appropriate for supplying digital objects for classroom use.

Third Day:

Participants would work in teams to select a topic, begin collecting resources and organizing them using the Library of Congress ARS. Each team would give a brief presentation at the end of the day.

The team concept was intended to create support groups of teachers and school librarians that would facilitate continued learning and integration of digital primary sources into teaching practices and lessons long after the workshop was over. With this intention, we requested that teachers register for the workshop in teams that included their school librarian. Involving the school librarian was desirable for overall and continued integration of TPS resources and skills since the librarian possesses broad awareness of a school's curricula and interacts with many teachers. This expectation of team composition

was not met fully, but we still feel it was an important criterion. With one exception, the most successful efforts involved those who came as a school team which included the school librarian.

The workshop curriculum was developed with the following learning outcomes in mind:

- Understand the nature and significance of primary sources and how they differ from secondary sources
- Identify and select digital libraries with relevant primary source content
- Formulate information needs and possible search strategies based on core curriculum
- Browse and search various digital libraries for relevant content
- Organize, store and annotate retrieved digital content for future use
- Create primary source sets to produce quality instructional content that engages students' interest
- Collaborate with school librarians and teacher colleagues to find curricular content resources to combine with accompanying effective teaching strategies
- Integrate digital primary sources into the curricula of participants' school
- Foster development of critical thinking skills in students by incorporating primary sources into teaching and providing analytical support
- Share content with local and national educators on educational websites.

After the workshop the participants were sent back to their real world to expand and refine the work they started in the workshop. We met together one more time in the fall to share our experiences as a focus group. We purposefully chose a date after the new school year started and they had an opportunity to use their newly found resources. Not all participants came for the fall focus group, but those who came prepared to share their experiences were enthusiastic about their results. Three of the participants also shared their results when the experience was shared in a Utah Education Association conference in October 2009.

Primary resource sets created by Utah teachers as a result of several TPS workshops, including the one described in this article, can be found at the [Utah Education Network](#) by searching that website using the phrase "teaching with primary sources." Primary resource sets are also available at [Teaching with Primary Sources \(TPS-Colorado\)](#). The diverse primary source sets available cover many time periods, topics, material types, and scopes ranging from local to global. Resource sets cover North American Explorers, Prohibition, World War II, the Civil War, the Dust Bowl, Child Labor, Immigration, Japanese-American Relocation Camps, National Parks, Native Americans, Political Cartoons, Inventions, the Industrial Revolution, Petroglyphs, and more. A good example of a participating school librarian's wiki on teaching with primary sources can be found at [Albion Middle School Library Classroom Helps, Child Labor Photo Analysis](#).

4. Lessons Learned

We learned lessons, both big and small, from our TPS experience.

The big lessons:

- Be clear about what you expect from workshop participants from the very beginning - when first advertising it on through to the end.
- Don't let technology become a barrier in what is being taught.
- Work around teachers' schedules; don't expect them to work around yours.
- Make it real! Provide ways for teachers to see and handle original primary sources in libraries, archives, museums, etc.

The small lessons:

- Keep it simple: use email rather than a course management system that may be new to some of the participants.
- Don't let taking care of workshop logistics prevent you from devoting sufficient time to focusing on the course material, teaching methods, and assignments.
- PC or Mac? Suit the Lab OS to the teachers and what they are most used to. An exclusively Mac environment will interfere with instruction and hands-on work if participants are PC users.
- Make assignments due in the summer, soon after the workshop ends and before the fall semester begins.
- Predicting costs is difficult; be prepared to punt to make effective use of your money under sometimes unpredictable conditions.

5. Analysis

After the workshop we analyzed the focus group notes, student conference presentations, student reflection papers, and curricular artifacts (ARS submissions) to explore what is important to the digital library curriculum.

The subject of digital libraries cannot be taught in isolation. The vast availability of materials is intimidating to teachers and students alike and providing them with tools to organize what they find as well as tools for presenting this information should be an important component of the curriculum. The workshop participants expressed on several occasions how important it was to have the ARS and Instructional Architect available to them. Participant #1 commented:

At TPS I learned how relevant primary sources can be to students, but most importantly how I can help teachers easily add primary sources into existing curriculum. Using tools such as ARS and IA, primary sources are easier to manage and incorporate into lessons.

When teaching about educational digital libraries the possibility of educational innovation and student impact needs to be explored. Digital libraries, when used expeditiously, can have a big impact on teaching and might bring certain core subjects to another level. Here is how participant #5 described her use of TPS and its impact on her teaching:

I created my lesson plan to help students understand the broad cultural perspective that existed at the time of the Civil War. Usually when students study the Civil War, they learn about events and people connected with the war. Often they learn it only from a textbook's perspective. Sound recordings of music of the period, photographs, playbills, literary works, and art were all part of the Annotated Resource Set I created. I believed that this variety of sources would give students a different perspective of the "regular" people who lived during this time period. Using primary sources also would allow students to have an "unfiltered" look at the segment of history.

Teachers who implemented their TPS lessons reported increased engagement of students with the materials. *"I have seen firsthand how students are touched by the words, stories, and artifacts of those whose lives and experiences precede their own" (Participant #7).*

Technology is inextricably connected to digital libraries. During the workshop several teachers could not keep up due to the lack of technology experience. Participants could not switch easily back and forth between different operating systems and were surprised to learn that switching to another browser would sometimes solve all problems they encountered with certain libraries. Too often we assume that most people have a basic understanding of technology that is required to understand and use digital libraries. Depending on the audience for a digital library curriculum this might not be the case. A pre-requisite skills list or module might be a good solution to the problem of widely varying technology skills.

6. Implications for higher education

While this workshop focused on helping K12 teachers and School Library Media Specialists find and use primary resources and digital libraries, the implications for higher education are vast. The role digital libraries play in education is growing. Memorizing information is not as critical an essential skill in education anymore and students need to know how to find and synthesize information. Digital libraries provide abundant quality resources for learners to find information at any time and almost anywhere, allowing learners to develop new skills rather than just acquire more information ([Collins & Halverson, 2009](#)). Learning incorporates knowledge and social practice; digital libraries provide a new way to incorporate both of these ideas for learning ([Van House, 2003](#)). As more students become Internet savvy, they expect to have access to digital resources in their learning environment ([Gunn, 2002](#)). As more K-12 classrooms use online resources and digital libraries, these students will expect to learn in similar ways when they become students in higher education. Online and face-to-face classrooms in higher education need to incorporate new technologies, online resources, and better access to information. Education will continue to change through the use of digital technologies and social networking, making how people teach and learn transformative ([Collins & Halverson, 2009](#)). Due to the digital and networked nature of many digital technologies, collaboration, just-in-time learning, and community building are components of learning that are supported by digital resources ([Pavani, 2007](#)). Higher education should be harnessing digital resources in the classroom to encourage new ways of learning that build on the skills and expectations of the students. These resources can

add value and increased functionality for learning through content sharing, interactivity, reuse, customization, cooperation, access control, and management. Teachers who understand the power behind digital resources and digital libraries can enable students to learn more than the content of a course ([Kayser, 2009](#)). These students will have increased motivation and greater skills to be life-long learners.

7. Future work

The TPS workshop received mostly positive evaluations and we continue to receive occasional enthusiastic reports from participants a year after the workshop as they teach others or create new lessons using TPS resources. While not all teachers had a chance to use their primary source projects in the classroom in the several months between the workshop and the focus group meeting, those who did were very positive about the results. They reported that students definitely were more engaged by class work that used primary sources rather than materials written second or third hand about topics and events. Their interest sparked, they continued working with the primary sources rather than surf the net after they had completed assignments; they also asked more questions about the subjects. A few teachers had already taught their colleagues about teaching with primary sources, which is exactly what we had hoped would happen. That said, there is room for improvement of the workshop itself, as well as a need to study the impact of teaching with primary sources on students.

Workshop improvements

Digital libraries are tightly coupled with technology and while technology wasn't necessarily on our workshop agenda it cannot be ignored. A few of the workshop participants found the technology quite challenging and intimidating, which reduced their enjoyment and learning opportunities. A future workshop needs to have technological ability expectations specified and can possibly provide pre-workshop materials to get everybody up to speed technologically. Also, we should extend our section on primary, secondary, and tertiary sources. Much to our horror, one of the workshop participants admitted still being unclear about the difference after the workshop had been completed.

Extending the workshop to higher education educators

The workshop was intended for K-12 educators with the goal to familiarize these educators with primary sources, the wealth of digital materials available to them, and how to organize and store them for continued use. We believe that students who are taught with digital materials are better prepared for college ([ACT, 2009](#)) and future information use. It makes sense to incorporate primary sources into higher education as well. The workshop can easily be adapted for that purpose.

Transferring the workshop into an online module

The workshop as described in this paper was taught over the span of three contiguous days that required campus residency, plus a face-to-face focus group three months later.

While we still believe this type of immersion increased collaboration between teachers, it excluded teachers who could not take the time away from home. To reach more teachers and allow for a more self-paced approach an online version of the workshop needs to be created.

Connecting digital libraries and primary sources to the curriculum

Using digital (primary) resources in the curriculum is not always an immediate fit. While workshop participants in the humanities did not encounter any problems finding and integrating digital library sources into their classrooms, other participants were often at a loss. Also, teachers in the elementary grades had a more difficult time finding age and grade appropriate materials. Since time is a precious commodity for teachers, digital libraries with an educational focus need to consider providing clear connections between materials and the core topics. A good example of this type of work is the Curriculum Customization Service ([Sumner, 2010](#)). Research needs to be done to make connections between core curricula, as expressed in state standards, and resources within a digital library that allow easy customization of these materials by teachers.

Digital resource integration and pedagogy

Truly integrating primary sources requires presenting the resource in context rather than a superficial or isolated presentation. Primary sources by themselves do not increase student inquiry or critical thinking unless they are presented carefully ([Cleary & Neumann, 2009](#)). Teaching educators how to find, organize and utilize resources is only part of the story. In future workshops we need to introduce how to incorporate primary sources effectively.

Evaluate the impact of teaching with primary sources on student learning

During the focus group and conference presentations, several workshop participants expressed that students were definitely more engaged with the material when primary sources were involved. While student engagement is certainly desirable, it is, as yet, unclear whether the students' primary source literacy also increased ([Archer et al., 2009](#)). We intend to study the impact of teaching with primary sources directly in a future study.

Practical Details Appendix

Workshop recruitment measures included presenting at the statewide School Library Media conference (UELMA), emails to the UELMA listserv, and flyers to school librarians in all northern Utah school districts followed up with postcards. Finally, the workshop was advertised among students in the School Library Media Administration endorsement program. Originally we required teams comprised of the School Librarian with at least one other teacher from their school but later modified this constraint, allowing one mixed team (a school media specialist and teachers from two different schools) to fill the final slots. We had 31 applicants but could only accommodate 26.

Budget categories for planning the workshop were: instructor time, materials (print and electronic), facilities (rental of computer lab), participant travel, lodging, meals, and university credit. The total amount spent on the 3-day workshop was \$9,368.

The computer lab contained 25 dual boot machines allowing for Windows as well as Mac participants. However, the Mac mouse proved problematic for some of the Windows users.

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