

# Using Digital History for Positive Change in Social Studies Education

John Lee and Philip Molebash

## Abstract

*This paper reports on the Digital Historical Inquiry Project, an initiative for developing activities and programs that enable preservice and inservice social studies teachers to learn the methods of digital historical inquiry and implement those methods in their teaching experiences. At one of the project sites, San Diego State University social studies teacher education students are creating pedagogical historical resources called Web Inquiry Projects for using digital primary historical source materials. At another site, Georgia State University preservice and inservice teachers are developing original local digital historical resources for teachers and students to use in their classrooms. Both of these projects are presented as examples of how technology can be leveraged to enhance social studies instruction.*

To date, most history and social studies teachers' preparation for facilitating technology-enhanced historical inquiry has been inadequate, disconnected from student learning and lacking subject context (International Society for Technology in Education, 1999; National Council for the Accreditation of Teacher Education, 1997). Some schools and colleges of education are beginning to address these problems by infusing technology throughout the preservice teacher experience. This is no simple task, for it requires social studies teacher educators to become model users of technology in their own instruction.

Recently, the National Council for the Social Studies' College and University Faculty Assembly (CUFA) approved the "Guidelines for Using Technology to Prepare Social Studies Teachers" (Mason et al., 2000) to serve as a vision and plan for how technology is to be integrated into preservice social studies methods courses. Developed as a collaboration between social studies and technology teacher educators from several universities, the CUFA Guidelines posit that technology should be "introduced in context," should "extend learning beyond what could be done without technology," and should "be used to encourage inquiry, perspective taking, and meaning making" (p. 108).

Among other things, the activities described in the CUFA Guidelines focus on how to use technology for historical inquiry. These activities collectively fit within an emerging domain of history known as digital history. Digital history is the study of the past using a variety of electronically reproduced primary source texts, images, and artifacts as well as the constructed historical narratives, accounts, or presentations that result from digital historical inquiry (Lee, 2002). When using digital historical resources, students become active participants in the interpretation and preservation of history. Along these lines, the CUFA Guidelines specifically state:

Students can conduct historical research to construct [knowledge about] the significance of people and events in history. These materials provide students with the opportunity to access, manipulate, and interpret raw materials of our past. Methods faculty can use archives such as these to model lessons that engage students in historical inquiry. (Mason et al., 2000, p. 108)

The *Digital Historical Inquiry Project* discussed in this article is focused on developing activities and programs that follow CUFA Guidelines and allow preservice and inservice social studies teachers to learn the methods of digital historical inquiry and implement those methods in their teaching experiences. As a part of this project, an initial collaborative consortium of teacher educators is developing innovative programs of study that train current and future teachers to learn historians' habits of mind and the metacognitive strategies that are required to engage in digital historical inquiry.

## Exploring the Potential of the Internet to Support Historical Inquiry

The current literature within history and social studies education suggests that the World Wide Web has the potential to support changes in the teaching and learning of history and social studies.

Web-based digital technologies are facilitating new methods for presenting both primary source historical materials and the narratives that result from historical studies. Digital history centers established in universities and libraries now provide access to a range of primary and secondary historical resources that otherwise would have remained inaccessible.

Although the Web places vast quantities of information before every social studies teacher and student, merely having access to a wide range of disparate sources alone will not transform history and social studies. In fact, ongoing research suggests that very few social studies teachers and teacher educators utilize the Web to encourage inquiry in their classrooms (Becker, 2000). Some schools and colleges of education are beginning to address these problems by infusing technology throughout the preservice social studies teacher experience. However, this is no simple task, for it requires social studies teacher educators to become model users of technology in their own instruction.

Compounding the problem of technology integration in social studies is the reputation the field has for being focused on memorization of historical facts. Using active historical inquiry to promote citizenship education is considered by the National Council for the Social Studies (1997) to be the “essence of the social studies.” Given the clear disconnect between intent and practice, it should not come as a surprise that up to forty percent of preservice teachers have had understandably negative experiences with social studies (Owens, 1997).

The primary goal of the *Digital Historical Inquiry Project* is to improve preservice and inservice social studies teachers’ abilities to teach using digital historical inquiry methods. We are accomplishing this goal by providing teachers with experiences that will enable them to acquire the skills needed for effective digital historical inquiry. In doing so, teachers are making use of new and existing primary sources of national, regional, and local importance as they determine the relationship between different types of sources and as they assess these sources for their historical value. They are also constructing historical and pedagogical materials for using authentic digital historical resources specifically related to local history. Some of the project’s activities are described in the pages ahead.

## Web Inquiry Projects

At one of the project sites, San Diego State University social studies teacher education students are creating pedagogical resources called Web Inquiry Projects (WIP) using digital primary historical source materials. WIPs are modeled after Bernie Dodge’s WebQuest (<http://webquest.sdsu.edu>), but promote classroom inquiry without the structure stipulated in the popular WebQuest model. By definition, WIPs are “open inquiry learning activities that leverage the use of uninterpreted online data and information” (Molebash & Dodge, 2003, p. 88) WIPs provide structure and guidance to social studies teachers wishing to make use of online primary historical source information. The six stages of a WIP include the following:

**Hook:** Teachers spark students’ interest by providing a “hook,” causing students to reflect upon the topic. The hook is the only part of a WIP given directly to students.

**Questions:** Based on the students’ responses to the hook, the teacher constructs or leads students to ask inquiry-orientated questions related to the topic.

**Procedures:** After questions have been asked by the students, the teacher assists them in defining the procedures for answering the questions. Here the teacher’s role is to ensure that the procedures are rigorous enough, to provide adequate evidence to support potential answers. The WIP defines potential procedures, including type(s) of data needed and suggestions for manipulating data.

**Data Investigation:** Students seek online data that will be used to answer their questions. At this stage, the teacher must provide guidance on the relevancy and reliability of data. Here also, the teacher might participate with students in finding resources or have preselected resources in mind in the event that resources are difficult to find.

**Analysis:** When data is found, the teacher must ensure that students have access to the tools needed to manipulate data. For example, if numerical data must be manipulated then students might need access to a spreadsheet application.

**Findings:** After students have manipulated the data, they discuss and defend their results with each other and the teacher. Here the teacher must support students’ efforts in presenting their results in writing, through graphical presentations, and through rhetoric. At this point, new inquiry-based questions might be asked as students reflect upon their results, restarting the process.

Preservice students at San Diego State University develop Web inquiry projects in integrated environments that combine educational technology and social studies methods course experiences. WIP development requires the preservice teachers to take on the role of a learner in addition to being the teacher. In the development of their WIP, each preservice teacher selects a social studies Big Idea<sup>1</sup> relevant to their situation. One student named LynAnne selected the issue of how religion and culture interact. She narrowed her Big Idea to focus on Christianity and 19<sup>th</sup> century American slavery and then found relevant online primary source collections from the Library of Congress’ American Memory, including “The Nineteenth Century in print” and “Southern Voices.” Using Inspiration software, LynAnne created a concept map to organize the information in the collection, which included topics/items in the collection and annotations. (See Figure 1.)

The process then calls for each preservice teacher to develop inquiry-oriented questions for students to pursue that both

---

<sup>1</sup> As a response to the morass of existing state and national social studies standards, the San Diego County Office of Education has developed the Social Studies Big Ideas, a database of the California state standards that have been distilled by grade level into major topics of study or “big ideas.” Teachers in San Diego County now focus their efforts on ensuring students at each grade level cover the Social Studies Big Ideas, as opposed to individual standards.

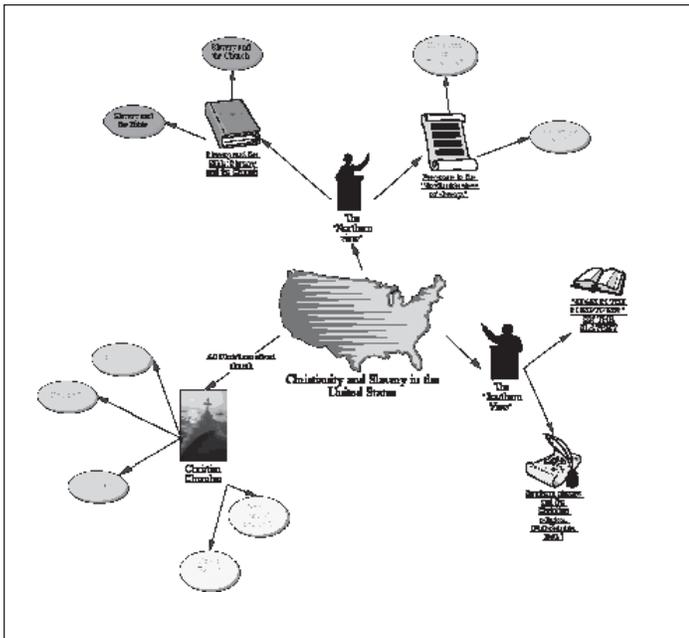


Figure 1. Concept map on interaction between the development of religion and culture

address their Big Idea and require students to use online primary sources. Teachers must provide descriptive details of the digital resources that their students will use to help them answer the inquiry questions as well as explanations of how they will expect their students to manipulate the historical source data they encounter as they answer their questions. With assistance from the methods course instructor, LynAnne and Joseph, her partner for the activity, developed three questions related to her topic, including:

- How did Christian religion influence the development of slave communities on Southern plantations?
- What was the relationship, in terms of religion, between slaves and their owners?
- How did Christian slave owners reconcile their religious beliefs with religious-based abolitionists' writings?

LynAnne and Joseph planned to have students investigate these questions in groups using Civil War-era narratives, journals, letters, and diaries from American Memory collections such as "Southern Voices." Some of the specific topics for student investigation, which emerged from LynAnne and Joseph's questions, included the education and family structure in slave communities as well as the emotional/religious condition of the average slave.

Possibly, the most important step in the development of a WIP is the teacher inquiry that occurs as they construct their pedagogical resources. These preservice and inservice teachers are essentially answering their own inquiry questions or addressing the issues they have posed for their students. At San Diego State University, preservice teachers who create WIPs are required to use the resources they have identified in the manner in which they described them in their WIP project.

This work provides evidence that the teachers are themselves capable of using technology tools to enhance student inquiry, as encouraged in the CUFA Guidelines.

Social studies methods training is advanced when teachers intimately experience the inquiry-oriented methods they are encouraging their students to use. For many preservice teachers, creating WIPs is one of their first experiences with authentic historical inquiry. As a part of the product that results from these inquiries, each preservice teacher must include references to the resources they used and a description of how each resource was used. For example, if numerical data is being placed in a spreadsheet or concept map, they must defend the organization of the data. They must also provide artifacts from the successive stages of their analysis. So if they are using a spreadsheet, they must show the raw data in the spreadsheet as well as the calculations, formulas, relevant charts, and so on. If they are using a concept map, they must show how the concept map evolved as additional pieces of information were analyzed. Finally, they must provide detailed and meaningful answers to their inquiry questions along with complete descriptions of how their analyses supported their conclusions.

Ultimately, each preservice teacher creates his or her own WIP Web site. Examples of teacher developed WIPs (including LynAnne and Joseph's) can be accessed at <http://edweb.sdsu.edu/wip/examples>. As a final activity, each preservice teacher must develop a detailed plan for how they will implement their WIP in their teaching.

The Web Inquiry Project process has proven to be productive and promising. Although we only have anecdotal evidence, we are finding that preservice teachers grow tremendously during the process of developing WIPs. One preservice teacher who had just completed one of the more difficult parts of her WIP stated in a somewhat surprised tone, "This was so hard. I'm used to learning how to teach, not how to learn." In many ways, this is a painful reminder to teacher educators of what often is lacking in our programs, namely authentic experiences for preservice teachers to use technology, or subtle reminders that teaching and learning are inexorably linked. At San Diego State University, digital historical inquiry has been a key component in improving our preservice teachers' preparation to become better social studies teachers and learners.

### Making Digital History

At Georgia State University, preservice and inservice teachers in the social studies teacher education program are developing original local digital historical resources for teachers and students to use in their classrooms. At the heart of this work is the belief that technology can be beneficial as an enabling mechanism in education only when it is used within the context of meaningful subject matter. For this project, we have chosen to situate our technological applications within the context of both historical inquiry and local history. As a subgenre within the larger discipline of history, local history has always played an important role in social studies. From the earliest grades, social studies students learn about their local communities. Studying local history provides students with

a meaningful and authentic context in which to use primary historical sources in constructing understandings of the relationship between local, national, and global events within and through time and space.

Georgia State University social studies teacher education students are digitizing resources gathered from private sources and a local historical society in Cherokee County, Georgia. This collection, titled the Cherokee County Digital History Project (<http://msit.gsu.edu/dhr/cherokee>), includes private papers and an online inventory of local historical properties. The most extensive part of the collection is a property survey of historical buildings in Cherokee County. The collection includes more than 200 reports on properties that have some historical value in Cherokee County. Each entry is accompanied by multiple photos of the property as well as architectural data about the buildings at that address (e.g. when it was built, by whom, building materials, architectural style, etc.). The surveys also contain some biographical information about notable people who have lived in some of the buildings in the survey. Visitors can not only learn about a particular property, but also get an overview of what different types of architecture are (or were) common in Cherokee County. Students of history can also discover what types of housing were typical for different classes of people and how that has changed throughout the nineteenth and twentieth centuries.

The Cherokee County Digital History Project includes archival historical resources as well as pedagogical and historical interpretative resources. The differences between archival and interpretative pedagogical sites are significant. Interpretative digital history Web sites are pedagogical in nature and include description, explanation, analysis, and/or evaluation of historical primary sources as well as original digital historical narrative or analytical works. These sites also include the primary source documents that are needed to conduct historical inquiry. High quality interpretative digital history sites such as DoHistory.com include a wide range of materials that enable students to learn about the past. DoHistory.com is an interpretative presentation of Martha Ballard's late 18<sup>th</sup> / early 19<sup>th</sup> century diary and is based on Laurel Thatcher Ulrich's book about the diary, *A Midwife's Tale*. The site includes Martha Ballard's diary, but goes well beyond the diary by providing users with a variety of tools that can be used to construct historical interpretations.

Because interpretative pedagogical Web sites allow for extensive interactivity and flexibility, they are different from traditional (or non-Web) interpretative historical works produced as text, audio, video, or film. The Web allows developers to incorporate multiple sources of text, still images, video, and audio as well as making possible non-linear approaches to teaching history. Because of the low barriers to publication, the Web enables virtually anyone with an interest in a historical topic to construct historical accounts, thereby democratizing the practice of history and enabling both students and professionals to practice the "doing" of history (Ayers, 1999).

Web producers within specific historical content areas must begin to address issues relating to the content they are making available online. With few exceptions, not much attention has been given to the pedagogical quality of the Web-based historical collections. Designers who know their sites will be used by students should take into consideration the learners who will use their sites, the objectives for presenting the materials, and the type of interaction they wish to facilitate on the Web site. We know more and more students are using the Web in history classes. One in every three students who completed the 2001 National Assessment of Educational Progress in history reported that they used computers to "study history" once a month or more. As students rely more and more on the Web, developers of history related Web sites must begin to create sites that infuse pedagogy into the design.

Newman (1999) recommends that Web developers should abandon what he called the overstuffed approach and spend more time organizing content. We have attempted to follow this advice by constructing principles for developing and evaluating interpretative pedagogical digital history Web sites (Lee, 2002). First, we believe that pedagogically effective online historical resources should make extensive use of metaphors, symbols, images, visual aids, and textual scaffolds. Second, we think these Web sites should invite active engagement and constructive interpretation. Third, we believe that the resources on Web sites with historical materials should be nonlinear, malleable, well focused, and pertinent to the interpretation.

We have put these principles into effect with the design of our Cherokee County Digital Historical Project. The site is imbued with various metaphoric visual aids, scaffolds, and images that enable students to construct historical interpretations informing their understanding of the history of Cherokee County. For example, one section of the Web site invites students to construct a geographic understanding of the history of Cherokee County by creating maps using records from the historical property survey. Students plot the location of properties at 7 historical times from 1830 to 1999. The spatial representation of these properties on the map will help students identify patterns in the growth of Cherokee County. We also present a collection of personal letters written by a Cherokee County resident named Asaph Perry in the early 20<sup>th</sup> Century in the context of a reconstructed family complete with descriptions culled from the letters of the relationships in the family and places where this family lived.

### **Extending Our Work**

The purpose of the *Digital Historical Inquiry Project* is to create a collaborative and productive community around the common goal of enabling teacher educators as they prepare social studies teachers to facilitate their students' digital historical inquiries. The project is envisioned as a long-term, sustainable, and scalable effort to substantially alter current practice in history and social studies. We have developed an initial consortium to create and model, in preservice and inservice teacher education courses, lessons and other guides for teaching digital historical inquiry. This initial consortium will expand as grant-produced resources are developed, tested,

and distributed by adding new members and describing our work for larger audiences. The extended consortium will test and revise new materials and these resources will be distributed to the broader social studies learning community.

To facilitate the distribution of project resources, project staff will design and implement an online learning forum as a primary clearinghouse for transforming teacher preparation and achieving sustainability. This forum will utilize the Internet and knowledge management systems to create a community of interested teachers and teacher educators who will share ideas and resources related to digital history. The forum will seek to improve the professional quality and public value of preparing history and social studies teachers to teach using digital historical inquiry methods in a sustainable, accessible, and responsive form.

## References

- Ayers, E. L. (1999). *The past, present and future of digital history* [Online document]. Available: <http://jefferson.village.virginia.edu/vcdh/PastsFutures.html>.
- Becker, H. J. (2000). *Teacher professional engagement and constructivist-compatible computer use* [Online document]. Available: [http://www.crito.uci.edu/tlc/findings/report\\_7/startpage.html](http://www.crito.uci.edu/tlc/findings/report_7/startpage.html)
- International Society for Technology in Education. (1999). *Will new teachers be prepared to teach in a digital age? A national survey on information technology in teacher education*. Santa Monica, CA: Milken Exchange on Education Technology. Available: [http://www.milkenexchange.org/research/iste\\_results.html](http://www.milkenexchange.org/research/iste_results.html)
- Lee, J. K. (2002a). Digital history in the history/social studies classroom. *The History Teacher*, 35(4), 503–518.
- Lee, J. K. (2002b). Principles for interpretative digital history Web design. *Journal of the Association of History and Computing*, 5(3). Available: <http://mcel.pacificu.edu/JAHC/JAHCv3/K-12/lee.html>
- Mason, C., Berson, M., Diem, R., Hicks, D., Lee, J., & Dralle, T. (2000). Guidelines for using technology to prepare social studies teachers. *Contemporary Issues in Technology and Teacher Education*, 1(1), 107–116.
- Molebash, P. E., & Dodge, B. (2003). Kickstarting inquiry with Webquests and Web inquiry projects. *Social Education*, 67(3), 158–162.
- National Council for Accreditation of Teacher Education. (1997). *Technology and the new professional teacher: Preparing for the 21st century classroom*. Washington, DC: Author.
- National Council for Social Studies. (1997). *National standards for social studies teachers*. [Online document]. Available: <http://www.socialstudies.org/standards/teachers/home.html>
- Newman, M. S. (1999). A call for a new generation of historical Web sites. *Journal for the Association of History and Computing*, 3(3). Available: <http://mcel.pacificu.edu/jahc/jahcI3/K12II3/Newmark.HTML>
- Owens, W. T. (1997). The challenges of teaching social studies methods to preservice elementary teachers. *The Social Studies*, (May/June), 113–119.

---

*John K. Lee is an assistant professor and coordinator of social studies teacher education at Georgia State University. His research focuses on the pedagogical and theoretical implications of digital history.*

*John K. Lee  
Department of Middle/Secondary Education and Instruction Technology  
College of Education*

*Georgia State University  
30 Pryor St.  
Atlanta, GA 30303  
jkleee@gsu.edu*

*Philip E. Molebash is an assistant professor of educational technology at San Diego State University. He is the project director of the Digital Historical Inquiry Project, a U.S. Department of Education FIPSE grant working to develop and disseminate best practices in digital historical inquiry.*

*Philip E. Molebash  
Dept. of Educational Technology  
San Diego State University  
5500 Campanile Drive  
San Diego, CA 92182-1182  
molebash@mail.sdsu.edu*

## Did You Know?

**L&L PDFs are free to current ISTE members and only \$5 per article for nonmembers.**



**Order PDFs of any L&L article for \$5 (formerly \$20). Contact ISTE Customer Service at 1.800.336.5191 (U.S.) or 1.541.302.3777 (Int'l) to order or to get more information.**