

# Crowdsourcing the Social Studies

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Digital technologies have expanded access to a wealth of resources stored in archives. But authenticating, describing, and indexing these resources requires painstaking work. Most cultural institutions (e.g., museums and libraries) lack the financial resources and workforce to optimize searchability and readability of digitized records, which limits their use as data sources. Consequently, digital history archives have reached out to the public and engaged the online community's participation in tagging, classifying, transcribing, and organizing content. These crowdsourcing projects are transforming and democratizing access to historical records. Recent crowdsourcing projects have not only benefited cultural heritage collections but also demonstrated value to students as part of their social studies learning.

Crowdsourcing projects give students the opportunity to examine historical records from a new perspective. These projects shift the focus from students as consumers of digital collections to collaborators in the development and enhancement of these information resources. Students gain insight into the process of discovery and conservation of cultural heritage. As students contribute to these projects, they become more aware of the significance of artifacts and documents as the data of historians. They gain an understanding of how historians analyze and interpret data and by extension how our knowledge of history is constructed.

Many cultural institutions recognize the power of public participation to improve the quality of online collections. In 2008, the Library of Congress piloted this practice when they invited the public to identify people and places in historical photographs posted to Flickr.<sup>1</sup> Crowdsourcing the social studies gathered additional momentum in 2010 when the Old Weather Arctic project invited citizen-scientists to

help advance research by transcribing logs from sea voyages of U.S. and UK ships dating back to the nineteenth century.<sup>2</sup> This project launched as part of the Zooniverse platform and to-date volunteers have generated high quality transcripts of more than three million pages of handwritten materials.<sup>3</sup> Even with computer technologies that “read” text, this task would have been impossible without the assistance of volunteers “due to diverse and idiosyncratic handwriting that only human beings can read and understand effectively.”<sup>4</sup> As a result of the collaborative contributions of the general public, historians and scientists have a more complete history of the life of the sailors as well as climate weather patterns. With the success of these early initiatives, a growing number of crowdsourcing projects have emerged to make historical data more searchable.

## Types of Crowdsourcing Projects

There are numerous crowdsourcing projects that would work well in the classroom (see sidebar on p. 107). Teachers should consider the best approaches for

their instruction and decide whether students should complete the task independently or as part of a whole class project.

For younger children, or older students who have limited experience with primary sources, classification projects provide an ideal starting point. Fitting these projects into a busy classroom schedule is easy. Even five minutes spent categorizing information is an important contribution. These projects can also be set up as a classroom game, with teams of students given one minute to collaborate on labeling items observed in a primary source. Examples of classification projects include tagging tasks (where objects are identified), as well as categorizing projects (where pre-determined labels are used to identify objects that share elements). In the Zooniverse project Science Gossip, contributors classify drawings from Victorian periodicals, indicating “Yes” on pages with illustrations such as drawings, photographs, or maps. In the Canid Camera project, students can identify animals in photos captured from cameras along forest trails in upstate New York, aiding conservation efforts.<sup>5</sup> Similarly, the National Archives Citizen Archivist Dashboard offers opportunities for more advanced tagging through the addition of descriptions or keywords to archival records. Guidelines on how to make good tags, as well as practice activities for tagging, are also provided.<sup>6</sup>

Transcription tasks allow students to explore people's letters, memos, and reports and develop a deeper under-



(Courtesy of the U.S. Holocaust Memorial Museum) Photographer: Joel Mason-Gaines

Students use and give testimonials about the History Unfolded Program in Staunton, Virginia.

standing of the lives of previous generations. However, transcription often involves the deciphering of handwriting and cursive lettering. Legibility is further complicated by changes in language over time and uses of nonstandard spelling, making transcription challenging for students. Gradually introducing students to transcription of old handwritten documents can start with having them hunt for a letter or word to train their eye. With practice they may enhance their abilities, and then can try out their skill assembling a jigsaw puzzle comprised of pieces of a handwritten document.<sup>7</sup> The National Archives provides a booklet of helpful tips and best practices.<sup>8</sup>

The accompanying C3 Framework lesson examples from John Lee and Jeremy Thomas connect to **Zooniverse.org**'s Decoding the Civil War project which engages students in the transcrip-

tion of Civil War telegrams. When students help transcribe documents in these collections, they learn about changes in writing conventions over time, observe individuals' unique communication habits, and explore the lives of ordinary people.

The most advanced crowdsourcing projects involve creating and uploading content. By studying and analyzing data, students learn to sift through forgotten pieces of history to produce knowledge. The U.S. Holocaust Memorial Museum's History Unfolded project invites students to explore local newspaper archives for coverage of Holocaust-era events. This national database aims to give scholars a greater understanding of how informed Americans were of the Holocaust as it was happening, as well as how Americans responded.<sup>9</sup> Students may reflect on where articles

about Holocaust-era events appeared in newspapers. In one class, students were dismayed to find that flashy war stories overshadowed news of Holocaust atrocities. Images of children in Jewish ghettos appeared with brief write-ups next to dog race results and ads for luxury rentals. These learning experiences also offer lessons about scrutinizing media coverage of contemporary events.

### Learning Outcomes from Crowdsourcing

Engaging in crowdsourcing projects helps promote students' data literacy skills. They learn to look more attentively at historical documents and consider how information is "read" and "written." These learning experiences draw on inquiry-based learning and promote informed decision-making.

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The American Civil War and Abraham Lincoln's presidency are perpetually fascinating. Over 150 years have passed since the end of the Civil War and it still captures our imagination. With all the recent attention focused on the Civil War and Lincoln, all we know and have learned, there is still much more to learn. This project is focused on some of those untold stories.

President Abraham Lincoln was America's first "technology" president. He used emerging telegraph technology in war, politics, and even in his personal life. The Decoding the Civil War (DCW) project is focused on transcribing and decoding Civil War telegrams to engage new and younger audiences through crowdsourcing technology and to spark their curiosity and develop new critical thinking skills. The project provides open source access to a large, rare collection of 15,922 Civil War telegrams in the Thomas T. Eckert Papers at The Huntington Library.<sup>1</sup> Zooniverse.org led an effort to develop a crowdsourcing website which utilized "citizen archivists" to decode and decipher the 15,922 telegrams with greater efficiency and accuracy than could be done using traditional methods.<sup>2</sup>

The Decoding the Civil War project also includes innovative instructional resources that build on the success of our ongoing efforts at collaborating on the analysis of telegrams through the Lincoln Telegrams Project.<sup>3</sup> The collection of instructional materials gathered in the Decoding the Civil War project (inquiries, activities, and explainers) makes use of Civil War historical resources using a variety of innovative pedagogical approaches on topics that emerged from the transcribed telegrams and the work of citizen archivists on the Zooniverse project site.<sup>4</sup>

Inquiries developed for the DCW project feature telegram sources and all the materials needed for 2–4 days of instruction on a range of Civil War topics. The inquiries were created using the Inquiry Design Model.<sup>5</sup> Each inquiry is driven by a compelling question and includes a blueprint overview of the lesson along with descriptions of the various tasks that make up the inquiry and the sources needed to implement it in the classroom.

- Inquiry #1 - Did the telegraph make a difference in the Civil War?
- Inquiry #2 - What do telegrams tell us about the Battle of Gettysburg?
- Inquiry #3 - Did the Civil War have to last as long as it did?
- Inquiry #4 - How did African Americans experience the Civil War?
- Inquiry #5 - How did the relationship between Abraham Lincoln and George McClellan affect the Civil War?

A collection of more direct instructional materials that we call *explainers* provide background on topics and issues related to the Decoding the Civil War project. Explainers emerged in journalism

as a way to build background knowledge among readers. Our two explainers focus on the general topic of telegrams in the Civil War and the techniques of ciphering that were used by Union telegraph operators to encode telegrams and protect them from Confederate spies. Additionally, a set of seven activities are hybrid lessons that incorporate the best of explainers and inquiries—meeting in the middle to provide students with structured and direct, but semi-autonomous learning experiences with content. Included among these activities are opportunities for students to practice decoding a telegram, analyzing telegram messages, transcribing telegrams, and making connections to current day issues of national security through a focus on Wikileaks.

In the classroom, these instructional resources provide students with an opportunity to learn about the Civil War (perhaps the most ubiquitous topic in American history) in a unique way. In one activity, students can make their own code. They are able to actually try their hand out at deciphering an encoded Civil War telegram in another activity. Students can then use the code they created and their knowledge of deciphering codes in an attempt to collaboratively decipher the codes of their classmates. They can learn about the sometimes-overlooked Hampton Roads Peace conference. The inquiries provide students the diverse perspective of enslaved, free and enlisted African American experiences during the war. Students can even inquire about why some personal relationships work and others may not, namely the super rocky relationship between President Abraham Lincoln and his first commanding general, George McClellan. As a whole, the materials stress a new perspective on the Civil War, typically not touched on in a traditional classroom by incorporating the importance of technology and relationship in the war.

### Notes

1. The Decoding the Civil War project is a partnership between the Huntington Museum, the Abraham Lincoln Presidential Library and Museum, the Digital History and Pedagogy Project at NC State University, C3Teachers.org, and Zooniverse.org at the University of Minnesota. You can explore the Eckert Papers at <https://hdl.huntington.org/digital/collection/p16003coll11>.
2. Learn more about the Zooniverse website at [www.zooniverse.org/projects/zooniverse/decoding-the-civil-war](http://www.zooniverse.org/projects/zooniverse/decoding-the-civil-war).
3. Learn more at <http://lincolntelegrams.com/> and <http://wiki.lincolntelegrams.com>.
4. The instructional materials are available online at [www.c3teachers.org/decoding](http://www.c3teachers.org/decoding).
5. K. Swan, J. Lee, and S. G. Grant, *Building Inquiries in Social Studies: The Inquiry Design Model* (Washington, D.C.: National Council for the Social Studies, 2018).

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Sifting through forgotten pieces of history allows students to scrutinize data sources and engage in deeper learning.

As students personally interact with the past, they actively engage in historical analysis rather than passively consuming information from others. Deciphering and transcribing documents can build students' transferable skills in close reading, examining historical context, and building interpretive consensus.

Public participation in historical research also introduces students to an online community that contributes through service learning and civic engagement. As students give their time to these collective efforts, they will develop an awareness of the benefit of their work to cultural institutions. Crowdsourcing projects not only democratize access to historical data, but they generate data that can accelerate historical discoveries. Students also benefit by building confidence with primary source analysis and developing collaboration skills.

Classroom assessments of learning outcomes for crowdsource projects may include the creation of a class timeline, map, or discussion board related to daily entries; student journals in which they reflect on their work, document what

they accomplished each day on the project, or draw illustrations to accompany diary entries; the curation of materials into a Gallery Walk with group discussion; and the re-creation of a document in their own words or using contemporary forms of social media. As students engage in these authentic assessments, they may also be prompted to research the people who created the resources and to learn more about how people living during different times and places experienced the world.

Other resources for crowdsourcing projects relevant for the social studies classroom include:

The Library of Congress "By the People" crowdsourcing site found at [crowd.loc.gov](http://crowd.loc.gov) provides students with opportunities to transcribe materials, tag keywords, and review typed documents for accuracy. The Library of Congress transcription projects offer a variety of diverse collections. Students may discover hidden stories in letters written to Abraham Lincoln, Clara Barton's diaries, papers of Mary Church Terrell, Branch Rickey's baseball scouting reports, or in writing samples from Civil War veterans.

The Smithsonian seeks volunteers to generate high quality transcripts of historical material in their collections (<http://transcription.si.edu>), including field

notes, diaries, ledgers, logbooks, currency proof sheets, photo albums, and manuscripts.

The U.S. Holocaust Museum's "Remember Me" project aims to identify children in photographs taken by relief workers during the immediate aftermath of the second World War, to facilitate connections amongst survivors (<http://rememberme.ushmm.org/>)

New York Public Library's "What's on the Menu?" project (<http://menus.nypl.org/>) invites users to transcribe their collection of historical restaurant menus. 🌐

### Notes

1. The Library of Congress Flickr photostream is available at [www.flickr.com/photos/library\\_of\\_congress/](http://www.flickr.com/photos/library_of_congress/).
2. Learn more about the Old Weather crowdsourcing project at [www.oldweather.org/](http://www.oldweather.org/).
3. Zooniverse is a crowdsourcing platform that features a variety of citizen-scientist projects. See [www.zooniverse.org/](http://www.zooniverse.org/).
4. Wendi Maloney, *Crowdsourcing Helps to Unlock the Mystery of Cursive*, Library of Congress, January 23, 2019, <https://blogs.loc.gov/loc/2019/01/crowdsourcing-helps-to-unlock-the-mystery-of-cursive/?loclr=ealocb>.
5. Science Gossip is available at [www.sciencegossip.org/#/](http://www.sciencegossip.org/#/), and Canid Camera may be accessed at [www.zooniverse.org/projects/sylvilagus/canid-camera](http://www.zooniverse.org/projects/sylvilagus/canid-camera).
6. The National Archives Citizen Archivist Dashboard organizes missions for volunteers to get involved in the process of discovery through tagging at [www.archives.gov/citizen-archivist/missions](http://www.archives.gov/citizen-archivist/missions). Guidelines for creating tags that enhance search capabilities of the collections are provided at [www.archives.gov/citizen-archivist/what-makes-a-good-tag](http://www.archives.gov/citizen-archivist/what-makes-a-good-tag).
7. Maloney, *Crowdsourcing Helps to Unlock the*

*Mystery of Cursive*. See [www.archives.gov/files/citizen-archivist/how-to-transcribe-booklet.pdf](http://www.archives.gov/files/citizen-archivist/how-to-transcribe-booklet.pdf).

8. Details on the History Unfolded project are available at <https://newspapers.ushmm.org/about/project>.

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(Courtesy of the U.S. Holocaust Memorial Museum) Photographer: Jason Colston

Bringing the Lessons Home ambassadors work on the History Unfolded project at the MLK Library in Washington, D.C.

## Crowdsourcing Projects

The list below highlights crowdsourcing projects discussed in the article with a brief description of how students might contribute to each project.

**Canid Camera** ([www.zooniverse.org/projects/sylvilagus/canid-camera](http://www.zooniverse.org/projects/sylvilagus/canid-camera)): Aid conservation efforts by identifying animals in photos captured from cameras along forest trails in upstate New York.

**Library of Congress “By the People”** ([crowd.loc.gov](http://crowd.loc.gov)): Transcribe materials, tag keywords, and review typed documents for accuracy in a variety of diverse collections, such as letters written to Abraham Lincoln, Clara Barton’s diaries, papers of Mary Church Terrell, Branch Rickey’s baseball scouting reports, and writing samples from Civil War veterans.

**National Archives Citizen Archivist Dashboard** ([www.archives.gov/citizen-archivist/missions](http://www.archives.gov/citizen-archivist/missions)): Tag archival records by adding descriptions or keywords.

**New York Public Library’s “What’s on the Menu?”** (<http://menus.nypl.org>): Transcribe the collection of historical restaurant menus.

**Old Weather Arctic Project** ([www.oldweather.org](http://www.oldweather.org)): Transcribe the handwritten logs from sea voyages of U.S. and UK ships dating back to the nineteenth century

**Science Gossip** ([www.sciencegossip.org/#/](http://www.sciencegossip.org/#/)): Identify pages from Victorian periodicals that include illustrations, such as drawings, photographs, or maps.

**Smithsonian** (<http://transcription.si.edu>): Transcribe historical material in Smithsonian collections, including field notes, diaries, ledgers, logbooks, currency proof sheets, photo albums, and manuscripts.

**United States Holocaust Memorial Museum’s History Unfolded** (<https://newspapers.ushmm.org/about/project>): Research newspaper archives for coverage of Holocaust-era events.

**United States Holocaust Museum’s “Remember Me”** (<http://rememberme.ushmm.org/>): Identify children in photographs taken by relief workers during the immediate aftermath of the Second World War.

**Zooniverse** ([www.zooniverse.org/projects](http://www.zooniverse.org/projects)): Discover and get involved in diverse crowdsourcing projects from around the world.