Chapter 13
Teaching and Learning with Technology in Social Studies

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Learning Outcomes

After reading this chapter and completing the learning activities, you should be able to:

13.1 Identify implications for technology integration of each current issue or challenge that social studies teachers face. (ISTE Standards for Educators: 1—Learner; 3—Citizen; 4—Collaborator)

13.2 Select technology integration strategies that can meet various needs for instruction in social studies. (ISTE Standards for Educators: 1—Learner; 2—Leader; 3—Citizen; 4—Collaborator; 5—Designer; 6—Facilitator; 7—Analyst)

Technology Integration in Action: Producing Authentic Historical Interviews

GRADE LEVEL: 8–12

CONTENT AREA/TOPIC: U.S. History

LENGTH OF TIME: Two weeks

PHASE 1 Analysis of Learning and Teaching Assets and Needs

Step 1: Analyze problems of practice (POPs)

Like many social studies teachers, Mr. Engle sought to create learning experiences where students could make meaningful connections between the past and present. In past years, students had read accounts of the Holocaust and Rwandan genocides, but he was not sure that his students really understood the experiences of people during these events. He wanted to better humanize historical events that might contribute to his students experiencing a richer vision of historical events. He noticed some parallels to current events too, when police and Immigration and Customs Enforcement (ICE) started arresting and detaining people suspected of living in the United States without documentation—even

adults and children who had no criminal backgrounds. While he did not know the circumstances of each local person, nonetheless, he wanted his students to humanize these past and current events.

Step 2: Assess technological resources of students, families, teachers, and the school

Mr. Engle's students had a lot of multimedia experience from the technology course they took in middle school, as well as from their continued media activities after school. Not all students had access to technologies at home, but the school library had a range of media devices, such as video cameras and computers, set up for video production, and Mr. Engle saw students using the library computers all the time. Mr. Engle's technological experiences focused on social media, especially the use of Twitter, productivity tools, and web content. He had little experience creating with multimedia tools. However, Ms. Reichenbach, the school librarian, had so much technological knowledge and resources that he knew whatever he chose to do, she would be a key collaborator. The high school used G Suite, which could facilitate technological collaboration and creation.

Step 3: Identify technological possibilities

Through his recent participation in a Twitter chat moderated by IWitness (@USCIWitness), an educational website developed by the USC Shoah Foundation, using the #sschat hashtag (see Krutka, 2016 for the Twitter archive), Mr. Engle had serendipitously explored with other educators how to teach with testimony using resources, like IWitness, offering access to testimonies of survivors and witnesses to the Holocaust, other genocides, and catastrophic events like deportations. Mr. Engle was inspired by the humanizing videos on IWitness' site, and he believed that they could impel students to consider the importance of personal testimony and accounts around issues of justice. Mr. Engle therefore approached his U.S. History students with the idea of producing their own media stories of people in their local or national communities, particularly those who had survived catastrophic events or experienced injustice, and sharing the stories beyond their class with authentic audiences. His students agreed that documenting and sharing testimony and accounts offered an opportunity to contribute to the collective historical memory in their local communities. Mr. Engle and his students wanted to analyze IWitness interview videos, prepare for interviews, and produce media.

The students believed that they could produce and post stories through a variety of mediums (e.g., blog posts, podcasts, videos) that could then be linked on a dedicated page on their class website and maybe even shared with their state historical museum. In an effort to provide multiple means of expression and representation, Mr. Engle and his students agreed that using different mediums could allow flexibility for students and their interviewees. Ms. Reichenbach, the librarian, volunteered to conduct workshops on media development and to support students as they edited their videos in iMovie and posted them on YouTube or edited audio files in Audacity and posted them on SoundCloud. While some students needed to check out a school computer tablet for recording content or to use a school computer to record a videoconference or develop video, other students indicated that they could use their smartphones. All audio and video files were saved in a class Google Drive folder so group members could access them.

PHASE 2 Design of the Integration Framework

Step 4: Decide on learning objectives and assessments

While students found the idea of sharing the stories of community members through media exciting, Mr. Engle had to determine how to best identify aims and assessments that would support creative and powerful learning experiences. After students shared their ideas for how to effectively conduct and capture interviews, Mr. Engle integrated the students' ideas with his own research to create a rubric that he could use with students to provide formative and summative feedback throughout the project. As students analyzed IWitness testimonies, prepared for their interviews, and produced media, they used the following outcomes to guide their work.

Outcome: The media story is clear, historically accurate, and thorough enough for the account or testimony to make sense to an external audience.

- **Objective**: Mastery—All students will develop historical accuracy and thoroughness in their story.
- **Assessment**: Teacher and peer assessment rubrics.

Outcome: The chosen medium is used effectively to share the story.

- **Objective**: Mastery—All students will choose or adapt the technological medium's affordances to effectively communicate the story.
- **Assessment**: Teacher and peer assessment rubrics.

Outcome: The testimony or account of the interviewee is acknowledged and honored.

(*Continued*)

- **Objective**: Mastery of all students' story depictions will forefront the interviewees' thoughts and experiences.
- **Assessment**: Teacher and peer assessment rubrics.

Mr. Engle and his students provided numerous rounds of formative feedback using the rubrics to analyze IWitness videos, critique their scripts and interview questions, and ensure that their final products were of a high quality. Because it was so important to properly tell the stories of community members, Mr. Engle did not let groups move forward until they showed mastery of each outcome area throughout the process. He encouraged groups to improve their analysis or products at each stage of the process until they produced high-quality work.

Step 5: Design integration strategies and determine relative advantage

Mr. Engle planned the following sequence of activities to carry out the unit:

- **Democratically negotiate project criteria and aims:** When completing a complex project that requires significant commitment, it is critical to ensure that students have a voice in whether and how the project is completed. Democratic discussions can also help to establish high and shared expectations for the project.
- **Discuss and analyze IWitness videos:** Introduce the project at the beginning of the World War II unit by discussing and analyzing interviews on the IWitness website as a whole class and in small groups. Mr. Engle introduced the project by asking students: How can survivor and witness testimonies help us better understand historical events? Students discuss how these first-hand accounts could humanize historical events and, when corroborated with other primary and secondary sources, offer us a richer vision of historical events. Mr. Engle then introduced students to the IWitness website (USC Shoah Foundation, n.d.) and the Facing History website where students viewed and discussed the testimonies of several survivors of the Holocaust. In addition to gleaning wisdom and knowledge from the testimonies, Mr. Engle encouraged students to consider how an interviewer might effectively use the audio-video medium as means for sharing such stories. Students were asked to consider the advantages and drawbacks of reading testimonies of the Holocaust, listening to audio stories, and watching video. Educators can consider watching first to discuss the testimony and historical contexts and then watch it again to guide students in analysis using the questions that guide the project:
  - To what degree is the media story clear, historically accurate, and thorough enough for the account or testimony to make sense to the audience?
  - To what degree is the medium being used effectively to share the story?
  - To what degree is the testimony or account of the interviewee being honored?
- **Students identify interviewee and historical topic:** With the help of Mr. Engle, his **personal learning network (PLN)** colleagues, local museums and organizations, and the school community, the list of interview candidates was generated. It included veterans from the Vietnam and Afghanistan Wars, African Americans who faced segregation and discrimination, Syrian refugees who fled violence, a survivor of the 9/11 attacks in New York, and a survivor of the 1994 genocide in Rwanda against the Tutsi. Students worked in small groups of three to four to select a person to interview from the list of interview candidates and identified what historical information they would need to research.
- **Students research historical topic for introduction and create interview questions:** With Mr. Engle's guidance, students researched historical topics with classroom and online resources. Students engaged in historical thinking that included sourcing, contextualizing, and corroborating primary and secondary sources related to their interviewee. Students used their historical knowledge to create interview questions.
- **Students learn wise practices for media creation:** Small groups met with Ms. Reichenbach to identify wise practices for creating their video (e.g., effective lighting, quality audio, integration of text), audio (e.g., audio quality, editing techniques, and integration of music), and blog posts (e.g., transcription techniques, editing, and synthesizing story). Groups then made arrangements to complete their interviews.
- **Students receive formative feedback periodically:** Small groups met periodically with Mr. Engle to ensure that projects were showing a high degree of mastery for each of the three outcome areas relating to historical accuracy, and medium quality, and that the projects honored the interviewees' story. Ms. Reichenbach assisted to ensure quality media production.
- **Final reveal:** Students placed their final media project on Mr. Engle's class website, viewed each other's products, and shared them with authentic audiences beyond their class walls. Students identified audiences in their schools, communities, organizations, and media that might be interested in their interview products.

Relative Advantage

This project aimed to humanize and produce a richer vision of historical events for Mr. Engle's students. Together, Mr. Engle, Ms. Reichenbach, and the students RATified the proposed IWitness testimony project. Figure 13.1 shows the aspects of instruction, student learning, and curriculum that they felt would be impacted by the interview project. They

Figure 13.1 Mr. Engle's RATified IWitness Project

	Instruction	Learning	Curriculum
Replacement Technology is a different means to same end.			
Amplification Technology increases or intensifies efficiency, productivity, access, capabilities, etc., but the tasks stay fundamentally the same.	• Primary source materials expand beyond texts and photographs to include IWitness testimonies	• Multiple, digital ways (texts, audio, video) for students to show evidence of historical understandings and testimony	
Transformation Technology redefines, restructures, reorganizes, changes, and creates novel solutions.	• Democratize instructional planning to include student input on the project, rubric development, and assessment	• Students engage in gathering historical primary source data (the interviews) • Students receive feedback from authentic audiences outside the school	• History becomes alive through interviews of live witnesses of history • Interdisciplinary project includes information and digital literacy and multimedia design and development

were delighted to see so much amplification and transformation of instruction, learning, and the curriculum in their plan. The teachers felt that there was relative advantage to producing historical media interviews for an authentic audience.

Step 6: Prepare instructional environment and implement lesson

Mr. Engle ensured that the project would run smoothly through the following activities:

- Work with a subset of students to identify several IWitness videos to show and discuss in class
- Collaborate with class members to create rubrics for the three outcomes to use for formative and summative assessment
- Collaborate with colleagues in his PLN on Twitter and locally, the librarian, and several museums and organizations to identify at least ten individuals who would be interested in participating in the project as an interviewee. The individuals could be local or global because the students could use a range of communication and recording technologies to conduct the interviews
- Ensure that Ms. Reichenbach had the technologies available for his students to check out and had various workshops prepared to teach video and audio capture, interview strategies, and design and development of movies and audio podcasts

PHASE 3 Post-Instruction Analysis and Revisions

Step 7: Analyze results and impact

At the end of the unit, Mr. Engle, Ms. Reichenbach, and the students met to discuss what they had learned during the project, what could be improved, and what skills might help them be effective citizens. Students felt that researching the historical background information and developing interview questions were the most difficult. Students described only a few technological challenges in editing their products. Everyone expressed excitement that their media projects had garnered over 500 page views and a local paper had published a story on their interviews.

Step 8: Make revisions based on results

Mr. Engle reworked the lessons on historical research to provide more student scaffolds in developing optimal search queries from their topics and choosing appropriate sources for information, such as some online database subscriptions in the library. Ms. Reichenbach's workshops were quite effective, but she added links to several tutorials that could provide just-in-time help when students were editing videos in iMovie and audio in Audacity. Finally, Mr. Engle planned to introduce the assignment even earlier in the semester next time to allow eager students time to start planning. Also, some students had complained that they needed more time to work on editing their media projects, so Mr. Engle revised the project schedule to allow for more in-class time and out-of-class opportunities.

Step 9: Share lessons, revisions, and outcomes with other peer teachers

Mr. Engle shared his students' and the community's enthusiasm around the project. He shared a blog post on his project with social studies educators using the #sschat and a state hashtag to inspire others to enact the project too. He and volunteer students also planned an event at a local senior center to show the testimonial stories that the students had created.

SOURCE: Based on ideas from the IWitness website's lesson plan IWitness Video Challenge. http://iwitness.usc.edu/SFI/Activity/

Introduction

This chapter has two major sections. First, it reviews major issues in the social studies field that shape how technology can be integrated. Second, it describes the integration strategies specific to teaching various social studies topics. Notice that the chapter also provides a helpful rubric for self-assessment of growth in how well a teacher is able to integrate technology in this area.

Social studies is a field where technology has become a double-edged sword. For example, easy accessibility to online information has made it easy for teachers and students to get source materials on every topic imaginable. Yet, it has also made it just as easy to post inaccurate and misleading information and even to broadcast hateful and malicious falsehoods posing as informed facts. For social studies, digital literacy and digital citizenship are important to teach and learn. Pay special attention to the new skills that students must have in order to use technology tools wisely and appropriately in social studies topics.

Issues and Challenges in Social Studies Instruction

The term *technology* originates from the Greek word *tekhnologia*. The term's meaning has shifted over time and place to describe techniques, tools, and tactics. Humans often think of technologies in terms of how we can use them but not necessarily how they change us. For example, the mechanical clock did not just allow humans to tell the time of the day but also caused humans to think of time differently. Most humans compartmentalize time in ways that would have been foreign to our ancestors but are simply part of our socialization today. Technologies are complicating human relationships, purposes, and ends more than ever before.

While humans have historically been afforded generations to adjust to new technological inventions, changes in the Internet, social media, and mobile technologies are sometimes too rapid for slow reflection and corresponding adjustments. Social studies education is a field where students learn not only to leverage technologies but also to assess the burdens and blessings they bestow on humanity and consider the responses of citizens in our democracy. Therefore, social studies educators should teach both with and about technologies from the past and present. This section reviews the broader issues and challenges within social studies education that inform teachers' integration of technologies.

Meeting Standards across Social Studies Areas

The National Curriculum Standards for Social Studies, most recently revised in 2010, address overall curriculum design and comprehensive student performance expectations. However, standards also exist for each of the social studies disciplines—such as civics, economics, geography, government, and history—which provide more specific content detail for each discipline. The intent of the National Council for the Social Studies (NCSS) standards is to encourage curriculum designers to use the NCSS standards for creating the overall social studies standards framework and then filling in details using disciplinary standards. The NCSS has adopted the following formal definition of **social studies**:

> Social studies is the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systemic study drawing upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate

> content from the humanities, mathematics, and the natural sciences. The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world (National Council for the Social Studies, 2010, p. 3; reprinted by permission).

NCSS (2010) has identified ten themes that offer a framework for the social studies standards. At the elementary and middle school levels, school systems usually address the social studies curriculum by teaching a variety of topics from these strands. In high school, social studies tends to be divided into more specific content areas, such as history and civics. While the term *social studies* could more commonly be used to describe K–8 classes than disciplinary high school classes, the aim of democratic citizenship should undergird all social studies instruction. The themes and related considerations about technologies and citizenship are summarized next.

THEME 1: CULTURE Teachers can draw on this theme to encourage students to consider not only how shared beliefs, behaviors, and traditions guide the way groups of peoples live and think, but also how cultures are different, particularly as humans increasingly inhabit multicultural spaces. Students should consider to what degree technologies encourage the beliefs, behaviors, and traditions of cultures. For example, students might consider how a technology, like the printing press, has historically influenced cultural traditions like orality and literacy.

THEME 2: TIME, CONTINUITY, AND CHANGE Teachers often teach this theme when students study history and answer questions like: How did the world become this way? How has the world changed or stayed the same over time? Students might investigate, for example, how agricultural techniques shifted the ways humans lived and related to the world over time. Other questions include: What would life be like if this technology was never invented? Which technologies defined different time periods and why?

THEME 3: PEOPLE, PLACES, AND ENVIRONMENTS Educators often highlight this theme in geography courses and studies of local areas to help students create "geographic perspectives of the world beyond their personal locations" (National Council for Social Studies, 2010). Students studying this theme gain knowledge about why humans settle where they do, how maps and globes change spatial understandings, and how the built environment influences health and wealth. Students might consider how cars paradoxically increase social and economic freedom while also trapping citizens in communities that require car ownership with limited public transportation options. Cars also increase individual mobility while at the same time inducing the suburban sprawl that has generated segregation, obesity, and pollution.

THEME 4: INDIVIDUAL DEVELOPMENT AND IDENTITY Social studies teachers can address this theme in psychology, sociology, or anthropology courses to help students better understand how their identity is shaped over time by their membership in a culture, groups, or institutions. With the rise of social media, students might consider how presentations of the online self represent, shape, or distort individual identity and compare representations of identity from different places and times.

THEME 5: INDIVIDUALS, GROUPS, AND INSTITUTIONS Educators find that this theme is integral to numerous subject areas in social studies because it centers on how schools, places of worship, families, government agencies, and courts of law influence or control people's behavior or thinking. Students might consider how institutions, like schools, are shaped by various technologies from clocks to books to smart phones.

THEME 6: POWER, AUTHORITY, AND GOVERNANCE In an effort to teach civic competence, teachers of courses in government, politics, political science, history, and

Video Example 13.1: Dust Bowl Inquiry with GIS

In this video, a teacher leads students to analyze population data and migration during the Dust Bowl years, which aligns with Theme 3 "People, places, and environments."

law integrate this theme and encourage students to understand how power, authority, and governance function in the United States and other countries. For example, students might investigate to what degree the use of face recognition technologies by police increase safety or violate Fourth Amendment privacy rights (Bedoya, 2017).

THEME 7: PRODUCTION, DISTRIBUTION, AND CONSUMPTION Integral to economics courses, teachers often address topics concerning the production and distribution of goods and services and how land, labor, capital, and management interact with them. Students might explore the economic and ethical issues associated with automation technologies and consider who would be the winners and losers if such technologies were adopted.

THEME 8: SCIENCE, TECHNOLOGY, AND SOCIETY Teachers can address this theme in numerous social studies courses as they urge students to explore how science and technologies influence life over time, lead to unanticipated social changes, and influence the moral values of cultures. By studying the history of technologies, students can consider the degree to which human societies control their technologies or are controlled by them.

THEME 9: GLOBAL CONNECTIONS A popular theme in geography, culture, and economics courses, teachers can implore students to dig into the ways that many global problems and issues are interconnected. Students might learn which countries and peoples benefit from global trade and which do not. Students might utilize Google Expeditions to take virtual field trips to different parts of the world as they learn about different cultures.

THEME 10: CIVIC IDEALS AND PRACTICES Teachers delve into this theme in history, political science, and cultural anthropology courses by addressing ideals and practices that enable students to be informed citizens and participants in their community, country, and the world at large. Teachers might consider what ways technologies from newspaper endorsements to television debates to Facebook algorithms facilitate or diminish democratic discussions.

COLLEGE, CAREER, AND CIVIC LIFE (C3) FRAMEWORK In addition to the 2010 social studies standards, the National Council for the Social Studies (NCSS) published

the College, Career, and Civic Life (C3) Framework for Social Studies in 2013. The four dimensions of the C3 framework are designed to be used across all ten social studies themes and include:

1. Developing Questions and Planning Inquiries
2. Applying Disciplinary Concepts and Tools
3. Evaluating Sources and Using Evidence
4. Communicating Conclusions and Taking Informed Action

Even with the NCSS themes and C3 framework, the content, methods, and purposes of the field have long been contested, and these disagreements influence how technologies are utilized. Social studies educators disagree on the degree to which the field should focus on disciplinary knowledge (e.g., history, geography) or social problems for citizenship (Evans, 2004; Thornton, 2005). Despite their value and relevance for future citizens, social studies themes and topics are not always included in statewide assessments. Many states limit graduation tests to English language arts and mathematics. Because schools tend to focus instruction and resources primarily on tested topics, social studies areas are often placed on the back burner (Passe & Fitchett, 2013) along with spending for social studies-specific technologies. Fortunately, there are many technology resources and sites social studies educators can use, but teachers must often seek out available applicable resources online to meet the needs of content areas (Berson & Berson, 2013). However, for both preservice and inservice social studies teachers there is no replacement for learning about authentic cases of inquiry-based technology integration and then gathering feedback from peers and colleagues (Brush & Saye, 2009).

Application Exercise 13.1 Technology Considerations within Social Studies Themes

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Critical Consumption of Online Content

While it would be historically inaccurate to suggest that the 2016 presidential election was the first time that "fake news" has been a hot-button political issue, the election did raise enough red flags to make the proverbial front page of both newspapers and Reddit. During and following the election, many citizens raised concerns about how fake, inaccurate, and biased news stories influenced the U.S. electoral process. Indeed, a fake story about Pope Francis endorsing Presidential Candidate Donald Trump was shared over one million times on Facebook (Tufekci, 2016). Even though some data suggest that Facebook activity can influence voter turnout (Haenschen, 2016; Markoff, 2012), Facebook CEO Mark Zuckerberg denied any responsibility for both the curation of fake news and the algorithms that created echo chambers where users were only exposed to like-minded views.

Citizens in the 21st century media landscape need to be able to exhibit online civic reasoning skills, including critical consumption and responsible curation of online content. Unfortunately, 60% of Americans find it difficult to know which sources and information they can trust online (Horrigan, 2016). To this end, the Stanford History Education Group (2016) researchers have piloted and researched "Civic Online Reasoning" lessons, which focus on "the ability to judge the credibility of information that floods young people's smartphones, tablets, and computers" (p. 4). In this large study of young people's reasoning about web-based information, results were "bleak" (Stanford History Education Group, 2016). Moreover, students cannot just analyze the messages of social media posts and news stories, but they must be able to interrogate

how social media platforms influence which stories or fellow citizens we see in our feeds. For example, teachers can encourage students to analyze how current events might be conveyed differently across different mediums like social media, print media, and YouTube videos (Krutka, 2017a).

The Need to Consider All Historical Resources as Perspective-Laden

Researchers have established that state standards (e.g., Shear, Knowles, Soden, & Castro, 2015) and mass-produced print or digital social studies textbooks have often failed to produce accurate and inclusive narratives and facts (Hilburn & Fitchett, 2012; Loewen, 2007; Stanton, 2014; Takaki, 1993; Woodson, 2015; Woyshner & Schocker, 2015). Misrepresentations in textbooks are not simply the result of poor research, but they are often the product of political ideologies and even wrangling in state legislatures. In fact, all sources, even historically accurate ones, carry biases in the emphasis and selection of included content. Wise teachers should encourage students to read textbooks and other sources critically.

Similarly, many social studies educators use documentary and feature films to bring historical events to life in their classrooms because the stories and scenes in films resonate with students. Teachers can use films for students to (1) gain content knowledge and determine the accuracy of historical or geographic representations and (2) encourage students to actively interrogate the medium and the message of the films (Hobbs, 2006; Stoddard, 2014). Social studies educators are more likely to encourage students to question Hollywood feature films for inaccuracies and perspectives than they are when watching historical documentaries, which are often presented to students as if they are unbiased sources of information (Stoddard, 2014). All films should be viewed as perspective-laden narratives in which students scrutinize both the medium and the message (Hess, 2007).

Instructional software and web-based content resources, similar to textbooks and other sources, are laden with the perspectives of their designers and thus require a critical eye. Unfortunately, some teachers tend to use games and documentary films as if they are unbiased or complete sources of social studies information. Games or simulations can be particularly harmful if they trivialize and distort topics like slavery or displacement by unethically and unrealistically asking students to walk in the shoes of those who faced historical human rights abuses. Organizations like the United States Holocaust Museum have long deemed simulations or re-enactments as unsound pedagogy in cases of human rights abuses. However, some scholars argue that with effective teacher preparation, simulations might be able to be pedagogically beneficial even in cases of tragic historical episodes (Wright-Maley, 2014). Teachers can teach with and about games by encouraging students to analyze the games for biases, oversimplifications, or inaccuracies as part of the debriefing experiences. Most important, teachers should review social studies materials in advance to identify potential biases, oversimplifications, and inaccuracies.

Students must also consider how interactive games, print text, and audio-visual films can shift the way that messages are presented and received (Mason, 2015). For example, some historians have argued that Richard Nixon won the 1960 presidential debate against John F. Kennedy among radio listeners but lost among television viewers. Teachers can encourage students not only to analyze the political messages of campaign commercials from 1952 to the present (Museum of the Moving Image, n.d.) but also to isolate the audio and visual components to increase students' abilities to critique the multisensory experience of visual screens (Mason, 2015). Similarly, teachers can challenge students to consider to what degree the social media's brief and always-shifting content influenced the 2016 presidential election and other elections. Teachers should challenge students to question any medium for biases that it carries in both its structure and its content.

Setting Instructional Purposes for Technology

Social studies teachers can leverage a variety of technologies to replace, amplify, and transform learning experiences in the social studies. Yet, few technologies produce quality educational experiences in and of themselves. Wise teachers must ensure that uses of technology are grounded in quality pedagogy and content knowledge. Unfortunately, teachers have long struggled to integrate technologies in ways that overcome weak pedagogical approaches for learning (Cuban & Jandrić, 2015). For example, films should not be used as a reward or to control student behavior. Instead, teachers should have clear instructional purposes for their use, pause and rewind films for analysis, and encourage students to actively question the medium and the message of the film (Hobbs, 2006; Stoddard, 2014).

Check Your Understanding 13.1

Shared Writing 13.1 Credibility of Online Information

Technology Integration Strategies for Social Studies

Technology tools make possible a variety of strategies to enhance and transform learning for the diverse topics and concepts that comprise social studies content. Evaluating the affordances, shortcomings, and biases of various technologies is the work of every teacher. Teachers should seek out ways to utilize technologies that can allow students to explore the world in ways that would not be possible without the technology. Moreover, students should be able to leverage technologies to create new products that can be shared with authentic audiences (e.g., parents, community members, voters) beyond the classroom walls. The following integration strategies highlight activities that touch on various themes in the NCSS National Social Studies Standards, as well as the C3 framework dimensions. In addition, consider the Top Ten Must-Have Technologies for Social Studies in Table 13.1.

Videoconferencing for Global Citizenship Education

Videoconferencing activities hold promise for social studies educators hoping to mediate humanizing experiences that can help students grow as global citizens. As Krutka and Carano (2016) argued, there are three overlapping ways that videoconferencing has generally been used for **global citizenship education (GCE)**.

INTERCULTURAL EXPERIENCES Social studies educators can encourage intercultural experiences when the main purpose for participants' videoconferencing activities is to learn about the people, cultures, and communities (NCSS Themes 1, 3, 9). Students can develop a pen pal-like videoconferencing relationship with people of other cultures. For example, Canadian educator Leigh Cassell connected her elementary students to students from 16 different countries as a means to learn about their communities, celebrations, and cultures (Krutka & Carano, 2016).

Table 13.1 Top Ten Must-Have Technologies for Social Studies

Technology Name	Description
Google Expeditions	Virtual reality app that allows students and teachers to partake in virtual field trips with 360 degree and 3-D views from around the world
NatGeo Mapmaker Interactive	Interactive site and mobile app that allows students to add customized text, photos, and videos to tell stories about places
Zoom In!	Free, web-based platform that helps students build literacy and historical thinking skills through "deep dives" into primary and secondary sources
National Archives DocsTeach	Interactive application for working with primary source documents from the National Archives
Smithsonian Learning Lab	Website that allows students to discover and choose from more than 1 million digital images, recordings, and texts to create and share personalized collections of Smithsonian assets and user-generated resources with a global community of learners
Chronicling America	Website that provides a database giving access to information about historic U.S. newspapers published between 1836 and 1925
Sutori	Formerly HSTRY, website that allows students to create multimedia timeline stories and even embed quiz questions
Countable	Website and app that allow citizens to read succinct summaries of legislation, directly contact their lawmakers, and follow up on how their elected officials voted on bills.
AllSides.com	Website that aims to expose bias and provide multiple angles on the same story.
The Redistricting Game	Simulation game designed to educate, engage, and empower citizens about the issue of political redistricting

SOURCE: Several of these suggested technologies emerged from Glen Wiebe's blog, History Tech. https://historytech.wordpress.com/

INTERCULTURAL PROJECTS The central goal of intercultural projects is for participants to use videoconferencing to complete some activity together like studying global deforestation from different geographic places (NCSS Themes 1, 2, 3, 9). For example, Hopper (2014) presented a case study on a K–8 Texas school that used videoconferencing to complete cross-cultural project-based learning activities with students in Japan, Belarus, and Kenya. A teacher could also connect U.S. students with counterparts in Vietnam to discuss different perspectives on the Vietnam-American war.

LEARNING ABOUT CULTURES Educators can help students learn about cultures by bringing in people from different countries or cultures to share their expert knowledge or perspectives via videoconferences (NCSS Themes 1, 3, 9). For example, teachers can videoconference with a South African citizen in a single hour-long session where students learn from the expert about what it was like to grow up under apartheid. Teachers facilitate videoconferencing activities using the following resources:

- Digital Human Library
- ePALS Classroom Exchange
- International Education and Resource Network
- Skype in the Classroom

While most social studies educators cannot arrange for international travel for student field trips, videoconferencing technologies and resources can serve as global passports that can help students grow as citizens of the world.

Using Simulations and Problem-Solving Environments

Simulations, or software that allows users to work with computerized models of a real or imagined system, can help make abstract concepts more clear and meaningful. Social studies teachers often teach students about civic and historical knowledge and

skills through direct instruction, but simulation and problem-solving experiences offer unique opportunities and challenges. As mentioned earlier, simulation games can have shortcomings. For example, some games oversimplify complex civic issues in favor of "right answers" that help players win the game. Games can be valuable when paired with other curriculum materials and experiences that represent the complexity of the topic (Blevins and LeCompte, 2016; Stoddard, Banks, Nemacheck, & Wenska, 2016). For example, iCivics games can position students as citizens and government officials in a simulated environment where they can learn some aspects of how government works. When games and simulations are combined with other class activities, they collectively can help students begin to understand various aspects of the government system in the United States and ensure that students gain the knowledge and skills necessary for civic engagement (NCSS Themes 6, 10). Teachers should ensure that games and simulations portray historical events, especially traumatic ones, in appropriate ways (Bigelow, 1997; Herold, 2015). Teachers can teach with and about games by encouraging students to question the games for biases, oversimplifications, and inaccuracies as part of debriefing experiences.

Other simulation or problem-solving resources include:

- The Redistricting Game (USC Game Innovation Lab)
- Who Killed William Robinson? Race, Justice, and Settling the Land (Great Unsolved Mysteries in Canadian History)
- The International Communication and Negotiation Simulations (ICONS Project at the University of Maryland)
- Making History Series (Factus Games)

Virtual Field Trips

Virtual field trips are "visits" students make to online sites to see places they could not easily reach in real life and to prepare students for field trips to the actual place. For example, visiting geographic locations online gives students a richer, more comprehensive perspective on the world around them and makes the world a living part of their classroom. For students who travel little, the wealth of images and information from virtual field trips helps them see and understand the variety of cultures, sights, and events outside their own communities (NCSS Themes 1, 3, 9). Virtual field trips also offer budget-friendly opportunities for schools and students who are not able to afford the expenses of physical field trips, while at the same time reaching an unlimited number of students.

While students can use the Google Earth app or Street View on a computer, the Google Expedition app, in particular, can allow students to experience virtual reality (VR) field trips with 360 degree and 3-D views from around the globe and even outer space. See the following field trip resources for social studies classrooms:

- U.S. Capitol Tour (NCSS Theme 6)
- National Museum of Natural History (NCSS Theme 2)
- Colonial Williamsburg (All NCSS Themes)
- Mount Vernon (NCSS Theme 2)
- Google Expeditions (NCSS Theme depends on topics/use)

Adventure Learning (AL)

Adventure learning (AL) is a pedagogical approach that lets students learn through real-world experiences either by taking actual trips themselves with mentors or by following the explorations of others using distance tools (NCSS Themes 1, 3, 9). Go North! Adventure Learning and Earthducation are examples (Doering & Henrickson, 2015). Another

Video Example 13.2: Machu Picchu Virtual Tour

In this video, a sixth grade teacher shares how she uses virtual tours to deepen content learning.

variation, referred to as AL@, capitalizes on students' capacities to engage in locally based exploration and inquiry related to a broader AL expedition (Hougham, Eitel, & Miller, 2015). The accompanying curriculum, travel experiences, observations of teams, and the online learning environment allow students to learn about locations, as well as skills in content areas that include science and geography. Most adventure learning explorations are archived for continued use after real-time explorations have ended. Miller, Hougham, and Eitel (2013) provide practitioners help in answering "where will you AL@?" by encouraging local, place-based education. Adventure Learning sites include:

- Go North!
- Earthducation
- AL@UI (Adventure Learning at the University of Idaho)

Information Visualization Strategies

Students often have problems visualizing abstract concepts and data. The availability of large data sets combined with exponential growth in hardware and software capabilities creates the potential to improve communication through the use of enhanced visualization techniques (All NCSS themes). In the past, teachers strove to use various technologies to represent concepts and data graphically, which can help novices understand and apply them. Today, students can use products such as graphing software, spreadsheets, and numerous online information visualization sites and apps to put historical or geographic data into a visual form for easier analysis and the representation of concepts. Social studies teachers have used Wordle or IBM's Many Eyes to compare frequently used words in inaugural speeches, infographic sites like Piktochart can be utilized to represent social studies information or data, and tree mapping can visualize global poverty levels by country. The following information visualization products allow students to understand time sequences, track change over time, and represent complex data in ways that can be readily understood:

- Social Explorer
- Gapminder

Video Example 13.3: Visual Charting of Ideas

In this video, the teacher has students use ReadWriteThink's flowchart to visually chart their own experiences with movement of people, products, and ideas.

- Tableau Public
- Graph Club
- NCES Create-a-Graph
- Instant Atlas
- Time Lines (e.g., Office Timeline, ReadWriteThink's TimeLine)

Geospatial Analysis Strategies

Geospatial technologies, the use of technology for visualization, analysis, and measurement of features and phenomena, are included in U.S. social studies standards. The use of geospatial technologies such as Google Earth and ArcGIS allow individuals to view and examine the world through multiple layering of data sets (e.g., population density, roads, earthquake activity) within a spatial environment (NCSS Theme 3). Recently geospatial technologies have become increasingly popular with the general public. Milson and Curtis (2009) described how **Geographic Information Systems (GIS)** enables spatial thinking, which calls on learners to consider distances and closeness, to represent space visually, and to reason and make decisions, such as where to live, play, or work (p. 116). Google Earth is free and available in 45 languages with much of the world's land surface and population in high-resolution imagery (see Figure 13.2).

Google is not the only company providing new geospatial technologies—the Environmental Systems Research Institute (ESRI) has long dominated the GIS world with technologies such as ArcGIS and ArcView (NCSS Theme 3).

Another tool that allows students to look at social studies from many different perspectives is a **global positioning system (GPS)**. A GPS provides users with a location and time anywhere on Earth and is commonplace in today's automobiles and smart phones. An educational use of GPS is geocaching. **Geocaching** is an online activity in which students look at a database of caches or items listed at a geocaching website, decide on one to hunt for, use GPSs to help them locate it, and share their experiences with others involved in the hunt. Gillin and Gillin (2010) note that geocaching's appeal is that it gets people out in nature and examining physical locations firsthand. In education, students look at a database of caches at numerous geocaching websites and decide

Figure 13.2 Geospatial Technologies

Geospatial technologies like Google Earth have become the foundation of numerous geography learning activities.

Annie Pickert Fuller/Pearson Education, Inc.

on a cache to hunt for using a GPS to help them locate it (see Technology Integration Example 13.1). Sources for GIS and GPS lessons include the following:

- EdCommunity at ESRI includes software, data, lesson plans, support, and instructional resources
- Geocaching

Students can also analyze how GPS technologies produce data about citizens' whereabouts, as well as how that data are, and should be, used or restricted for use by both private companies and government agencies.

Video Example 13.4: Using Geospatial Tools in the Classroom

In this video you will hear students describe how online geospatial tools, like ArcGIS, help them visualize locations better than on a flat map.

Technology Integration

Example 13.1

TITLE: A Geocache Tour

CONTENT AREA/TOPIC: Geography

GRADE LEVELS: 6–12

ISTE STANDARDS•S: Standard 1—Empowered Learner; Standard 3—Knowledge Constructor; Standard 4—Innovative Designer; Standard 5—Computational Thinker; Standard 6—Creative Communicator; Standard 7—Global Collaborator

NCSS THEMES: Thematic Standards: 8 – Science, Technology, and Society; Disciplinary Standard: 2 – Geography

DESCRIPTION: Students go in small groups on a geocaching adventure that the teacher sets up ahead of time in the local area by hiding caches of three plastic containers or waterproof boxes that contain a toy replica of their school mascot. The teacher numbers the containers and hides each. Finally, the teacher gives students one GPS per group with the GPS coordinates of the three caches. Students use their GPS to locate the boxes. After their experience, the students create a school-based, geocache tour of public areas of their school. They devise the caches, set up the cache in the geocaching.com websites, and monitor cache finding. For example, they create a cache near a historical tree in the parking area of the school.

SOURCE: Based on an idea from the lesson "Are We There Yet" by Catherine Hutchings at The Learning Network website. http://learning.blogs.nytimes.com

Accessing Primary Sources

The power of integrating primary sources into social studies has long been documented in research. Through primary sources, teachers can use familiar objects, images, and sounds to represent distinct time periods and cultural traditions. Primary sources foster the visual literacy and historical inquiry of students by making academic content meaningful and building on prior experiences (All NCSS Themes). Moreover, primary sources capitalize on the active and social nature of children's learning when teachers engage students in sifting, questioning, comparing, evaluating, and constructing their own interpretations of the primary sources (Berson & Berson, 2013). The following resources represent some of the very best primary source digital databases:

- Library of Congress—Print, pictorial, audiovisual, and other digital collections that record the documented history of the American people
- DocsTeach (National Archives and Records Administration)—Important documents from the U.S. federal government
- Stanford History Education Group (SHEG)—Encourages historical inquiry through lessons that use primary documents from a variety of contexts
- Zoom In!—Web-based platform that allows students to build literacy and historical thinking skills through "deep dives" into primary and secondary sources
- Our Documents—Compilation of 100 milestone documents from the National Archives that chronicle U.S. history from 1776 to 1965
- The Oyez Project—Multimedia archive of cases from the U.S. Supreme Court
- Project Gutenberg—Freely accessible historical books in digital form
- The Presidential Timeline—Using primary sources, students can develop historical thinking skills

Video Example 13.5: The Benefits of Using Primary Sources in the Classroom

Watch this video to learn about the benefits of using primary sources from both students' and teachers' perspectives.

Social Media Integration

Many social studies teachers use social media services like Twitter to engage in professional development (PD) using the hashtag, #sschat, to communicate with colleagues and community members, to be active in social issues or social justice, and to facilitate in- and out-of-class learning activities with students (Krutka & Carpenter, 2016). Twitter is a popular medium among educators because it is easy to seek out politicians and fellow citizens with similar interests (Carpenter & Krutka, 2014). Utilizing individual, group, or class Twitter accounts can offer opportunities for students to engage in and analyze civic discourse online, reach an audience beyond the classroom, or share class ideas or projects (All NCSS themes). Social studies educators have used Twitter to connect students to authentic audiences while role playing Enlightenment philosophers (Krutka & Milton, 2013), chronologically tweet out the Cuban Missile Crisis (Lee, Shelton, Walker, Caswell, & Jensen, 2012), and analyze tweets about current events (Killham & Chandler, 2016) (NCSS Theme 2).

Digital Research and Analysis Strategies

As students study areas such as politics, economics, and current events, information is likely to change quickly and frequently, necessitating the need for students to search for web content. Throughout history, there are examples of images being manipulated to control people's impressions and opinions. As informed digital citizens, students need to develop skills in evaluating digital information critically. These skills include analyzing images for hidden meaning and telling fact from fiction in articles, reports, and websites (NCSS Themes 6, 7). Social studies activities provide a context for simultaneously exploring the social impact of images and developing digital information literacy skills. Social studies teachers, in particular, should review Chapter 6 for strategies to build students' web searching and information literacy skills when seeking web-based content. As mentioned earlier, the Stanford History Education Group has Civic Online Reasoning lessons that aim to help students judge online source credibility. To meet students' diverse needs, review the Adapting for Special Needs feature box.

Box 13.1: Adapting for Special Needs

Adapting for Special Needs in Social Studies

Social studies topics can be challenging for some students with disabilities because of the significant amount of reading required. As a result, educators should consider how to provide multiple means of accessing information such as photos, movies, audio devices, and simplified text. A strategy that incorporates a variety of media in a meaningful, enjoyable activity is to use technologies that allow students to follow news stories and create their own personalized newspaper. The value to students is that they take responsibility for deciding the stories that they want to follow, which engages them more in reading, and for creating a professional-looking product of which they can be proud. The following are some resources that can help carry out this kind of activity:

- Smithsonian TweenTribune—Students can read the same current event news article at multiple grade levels and Lexile levels.
- Newsela—Current events news articles are available at multiple Lexile levels.
- Boston Globe's The Big Picture—Major news stories are depicted in photographs.
- Newsmap—This aggregates and visualizes news stories (headlines) in a tree structure to reveal the most current, hot topics in the news. Links take readers to the full stories.
- News-2-You—This subscription-based service prepares a weekly online current-events reader with different reading levels and text-to-speech. For students with mild or moderate cognitive impairments, this specially designed newspaper can help them keep in touch with the news by using high-interest, low-vocabulary stories with each word accompanied by a rebus image.

—Contributed by Dave Edyburn

Digital Storytelling

Digital storytelling is the process of using images and audio to document the stories of lives, events, and eras. This strategy allows students to use a personal narrative to explore community-based history, politics, economics, and geography. Using technologies such as movie-editing software or VoiceThread, camcorders, digital cameras, voice recorders, and smartphones, as well as primary source materials, such as interviews, documents, photographs, or even video, students can create their own digital stories or documentaries. By sending students into their world with a digital camera in hand, teachers provide opportunities for them to bring their lives into the classroom, creating a rich, authentic authoring space (NCSS Themes 1, 4). Writing text and arranging pictures as artifacts within a digital space allow students to explore events from multiple perspectives (NCSS Theme 1). After creating the digital story, the student can post it online for a broad audience. Technology Integration Example 13.2 shows how to use technology in innovative ways to construct these stories. The following resources support digital storytelling:

- StoryCenter (Center for Digital Storytelling)
- Digital Documentaries
- Digital Resource Centers (DRS)
- The Oral History Society
- PBS Civil War (NARA – National Archives and Records Administration)

You can practice identifying the benefits of the various technology integration strategies for social studies introduced in this chapter.

Application Exercise 13.2 Technology Integration Strategies for Social Studies

Technology Integration

Example 13.2

TITLE: Using QR Codes to Tell Digital Histories

CONTENT AREA/TOPIC: History

GRADE LEVELS: 6–8

ISTE STANDARDS•S: Standard 1—Empowered Learner; Standard 3—Knowledge Constructor; Standard 4—Innovative Designer; Standard 6—Creative Communicator; Standard 7—Global Collaborator

CCSS: CCSS.ELA-LITERACY.W.8.6, CCSS.ELA-LITERACY.W.8.2, CCSS.ELA-LITERACY.W.8.3

NCSS THEMES: Thematic Standards: 1 – Culture and Cultural Diversity; 3 – People, Places, and Environments; 5 – Individual Development and Identity; 8 – Science, Technology, and Society; Disciplinary Standards: 1 – History, 2 – Geography, 3 – Civics and Government

DESCRIPTION: Following a brief introduction to the unit and the use of quick response (QR) codes, students learn about digital storytelling by looking at and discussing samples of digital stories. Next, they practice the technique of digital storytelling by using digital cameras, scanners, and digital story creation software such as Microsoft's PhotoStory to create digital histories of local sites and events by locating and analyzing photographs, videos, documents, and other historical artifacts. They place the QR codes on plaques at the locations they discuss so that anyone who visits the sites can read the digital stories by scanning the QR code. Finally, they use a wiki to house their digital stories to be shared with the class and the local community.

SOURCE: Based on an idea from "Taking It to the Street: Using QR Codes to Tell Student-Created (Hi)stories on Location" (2013) by Mark van 't Hooft.

Teacher Growth in Technology Integration Strategies for Social Studies

These sections have introduced the issues, challenges, and strategies for integrating technology into social studies. In the future, teachers should begin to expand and strengthen their capabilities to understand emerging issues, generate possible solutions, and address technology integration in social studies. Review the rubric in Table 13.2, which measures a teacher's progress in integrating technology in social studies instruction.

In addition to resources from this chapter, teachers should become involved in social studies professional organizations, such as the NCSS, which offers teaching resources, advocacy ideas, professional development, and collaboration opportunities. We recommend that you seek out your state or region social studies organization. Social studies educators should also consider participating in a moderated Twitter chat using the #sschat hashtag (Krutka, 2017b). While #sschat is the largest hashtag, social studies educators can also participate in other social studies–related chats to grow in their craft:

- #sschat
- #engsschat (English and social studies)
- #histedchat or #historyteaching or #historyteacher or #history
- #hsgovchat
- #socialstudies
- #worldgeochat

Table 13.2 Rubric to Measure Teacher Growth in Social Studies Technology Integration

	Part I: Teachers Knowledge of Social Studies Issues and Challenges		
	Basic Knowledge (1–2 points)	**Intermediate Knowledge (3–4 points)**	**Advanced Knowledge (5–6 points)**
	I can articulate the nature of the issue/challenge.	I can both articulate the nature of the issue/challenge and identify some of the possible ways to address it.	I can articulate and implement my own plan for addressing the issues/challenges in my own teaching.
Meeting standards across social studies areas	❑	❑	❑
Critically consuming online content	❑	❑	❑
Considering all historical resources as perspective-laden	❑	❑	❑
Setting instructional purposes for technology	❑	❑	❑
	Part II: Teachers' Technology Integration Strategies for Social Studies		
	Basic Knowledge (1–2 points)	**Intermediate Knowledge (3–4 points)**	**Advanced Knowledge (5–6 points)**
	I can describe the strategies and identify technologies to carry them out.	I have designed at least two activities based on these strategies to enhance my teaching and my students' learning.	I have designed and implemented my own plan for integrating these strategies throughout my curriculum to enhance my teaching and my students' learning.
Videoconferences for global citizenship education	❑	❑	❑
Simulations and problem-solving environments	❑	❑	❑
Virtual field trips	❑	❑	❑
Adventure Learning	❑	❑	❑
Information visualization strategies	❑	❑	❑
Geospatial analysis strategies	❑	❑	❑
Access to primary sources	❑	❑	❑
Social media integration	❑	❑	❑
Digital research and analysis	❑	❑	❑
Digital storytelling	❑	❑	❑
Teacher growth in integration strategies	❑	❑	❑
Total Points	_____ **of 90 possible points**		

Check Your Understanding 13.2

Chapter 13 Summary

The following is a summary of the main points covered in this chapter.

1. **Issues and Challenges in Social Studies Instruction**—Issues and challenges include possibilities for meeting standards across social studies areas, critical consumption of online content, simplification or inaccuracy of historical perspectives or portrayals, and setting instructional purposes for technology.
2. **Technology Integration Strategies for Social Studies Instruction**—Technology integration strategies include:
   - Videoconferences for global citizenship education
   - Simulations and problem-solving environments
   - Virtual field trips
   - Adventure learning
   - Information visualization strategies
   - Geospatial analysis strategies
   - Access to primary sources
   - Social media integration
   - Digital research and analysis strategies
   - Digital storytelling
   - Continued teacher growth in integration strategies

Technology Integration Workshop

1. Apply What You Learned

In this chapter, you learned about teaching and learning with technology for social studies. Now apply your understanding of these concepts by doing the following activities:

- Reread Mr. Engle's lesson *Producing Authentic Historical Interviews* in the Technology Integration in Action scenario at the beginning of this chapter. Pay close attention to Step 3 of the TTIPP when Mr. Engle, Ms. Reichenbach, and the students identify the technological possibilities for the problem of practice: to humanize historical events. Using your knowledge about technology integration strategies for social studies introduced in this chapter, generate at least one or more new technological possibility for targeting the problem of practice.
- Review how the teachers and students RATified the project in Step 5 of the TTIPP, as represented in Figure 13.1. Use the RAT Matrix to analyze the role(s) and relative advantage that your new technological possibility (identified in the last step) would play in the lesson. You must reflect on the roles that the identified technological possibility plays as replacement, amplification, and/or transformation of instruction, student learning, and/or curriculum. Do you feel your proposed technology would provide relative advantage?

2. Technology Integration Lesson Planning: Evaluating Lesson Plans

Complete the following exercise using the Technology Integration Examples 13.1–13.2, any lesson plan you find on the web, or one provided by your instructor.

a. Locate lesson ideas—Identify three lesson plans that focus on any of the social studies technology integration strategies you learned about in this chapter, for example:
- Videoconferencing
- Simulations and problem-solving environments
- Virtual field trips
- Adventure learning
- Information visualization strategies
- Geospatial analysis strategies
- Primary sources
- Social media
- Digital research and analysis
- Digital storytelling

b. Evaluate the lessons—Use the **Technology Lesson Plan Evaluation Checklist** and the **RAT Matrix** to evaluate each of the lessons you found. Based on the evaluation and your RATification of the lessons, would you adopt these lessons in the future? Why or why not?

3. Technology Integration Lesson Planning: Creating Lesson Plans with the TTIPP Model

Review how to implement the TTIPP Model (see Figure 2.6) for technology integration planning and use the Technology Integration in Action scenario *Producing Authentic Historical Interviews* in this chapter as a model. Create your own technology-supported lesson that uses technologies to support instruction or learning in social studies by doing the following activities:

a. Describe Phase 1—Analysis of Learning and Teaching Assets and Needs:
- What is the problem of practice or main content topic in your lesson?
- What are the technology resources your students, their families, you, and your school could bring as assets to the lesson?
- What are the technological possibilities for helping to solve or help the identified problem of practice? Identify the technology(ies) you will integrate into the lesson and ensure that you have the skills and resources you need to carry it out.

b. Describe Phase 2—Design of the Integration Framework:
- What are the objectives of the lesson plan?
- How will you assess your students' accomplishment of the objectives?
- What integration strategies are used in this lesson plan?
- What is the relative advantage of using the technology(ies) in this lesson?
- How would you prepare the learning environment?

c. Describe Phase 3—**Post-Instruction Analysis and Revisions**:
- What strategies and/or instruments would you use to evaluate the success of this lesson in your classroom, in order to determine revision needs?
- Create descriptors for your new lesson (e.g., grade level, content and topic areas; technologies used; ISTE standards; 21st-century learning standards).
- Save your lesson plan with all its descriptors and TTIPP Model notes and share with your peers, teacher, and others.

When you use your new lesson with students, be sure to assess it using the **Technology Impact Checklist**.