2009

Tech Integration in Social Studies

Mark J. Hofer
College of William and Mary

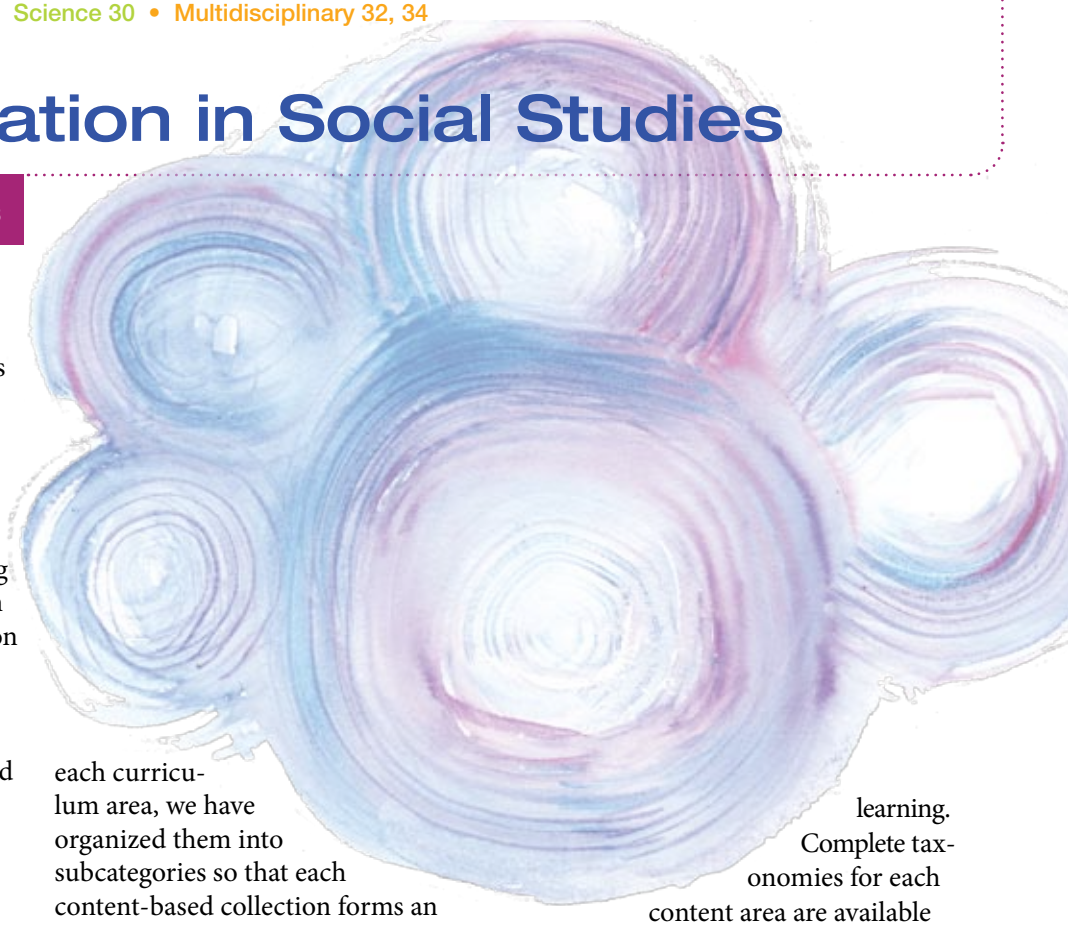
Judi Harris
College of William and Mary

Recommended Citation

Hofer, M., & Harris, J. (2009). Tech integration in social studies. Learning & Leading with Technology, 37(2), 22-25.

Tech Integration in Social Studies

By Mark Hofer and Judi Harris



Web-based archives of primary source documents, student-produced podcasts and documentaries, content review games, and more provide social studies teachers with opportunities to integrate educational technologies into their teaching in student-centered ways. Yet, despite increasing access in schools, technology is often an add-on or enhancement to a lesson rather than something that is truly integrated into teaching and learning. How can technology integration efforts focus on the curriculum-based learning needs of students while exploiting the educational benefits of tools and resources?

One way to help teachers integrate technology effectively is to focus on instructional planning. We suggest matching technology integration strategies to how teachers plan, rather than asking teachers to plan instruction around technologies. (See Grounded Tech Integration on page 22.)

Because research demonstrates that teachers organize their lessons according to content-based learning activities, we think what is needed is a way to think about planning for technology integration that focuses primarily on learning activities and secondarily on technology tools and resources. To assist teachers in their instructional planning, we offer a comprehensive set of learning activity types for each curriculum area, with specific educational technologies that best support the types of learning for each activity. Because we have identified many learning activity types for each curriculum area, we have organized them into subcategories so that each content-based collection forms an informal taxonomy. Once teachers have determined the learning goals for a particular lesson, project, or unit, they can review the activity types in the taxonomy for that content area, selecting and combining the learning activities that will best help students achieve the selected learning goals. By first selecting the learning activities and then considering the suggested educational technologies for each of the learning activities in the taxonomy, teachers may be more likely to select technologies to support the plan in sensible, practical, and usable ways. We think of this as "grounded" technology integration, because it is based in content, pedagogy, and how teachers plan instruction.

Social Studies Learning Activity Types

To date, we've identified 42 activity types for social studies teaching and learning. Complete taxonomies for each content area are available on the Activity Types Wiki (http://activitytypes.wmwikis.net). In the tables that follow, we've provided brief descriptions of sample activity types, along with technologies that may be used to support each.

Fifteen of the 42 social studies activity types focus on helping students build their knowledge of social studies content, concepts, and processes. (See Knowledge-Building Activities.)

Twenty-seven of the 42 social studies learning activity types provide students with opportunities to express their understanding of curriculum topics developed through knowledge-building activities, both formatively and summatively. Six of these knowledge-expression activity types encourage convergent understandings of a topic or an idea. (See Convergent Knowledge-Expression Activities.)

ISTOCKPHOTO.COM/STEREOHYPE

Knowledge-Building Activities

Activity Type	Brief Description	Possible Technologies
Listen to Audio	Students listen to digital or nondigital recordings of speeches, radio broadcasts, oral histories, music, etc.	Podcasts ("Great Speeches in History"), Audacity, Odeo, Evoca
Simulation	Students engage in paper-based or digital experiences that mirror the complexity of the real world	Fantasy Congress, the Stock Market Game

Convergent Knowledge-Expression Activities

Activity Type	Brief Description	Possible Technologies
Create a Timeline	Students sequence events on a paper or digital timeline, online or offline	Timeliner, Photostory, VoiceThread
Complete a Review Activity	Students answer questions to review content on paper or digitally; didactic or game-based	PRS systems, Jeopardy (or other games), online survey tools

Divergent Knowledge-Expression Actvities

Activity Type	Brief Description	Possible Technologies
Create a Diary	Students write about an event from the past from a first-person perspective	Blog, Word, Google Docs
Draw a Cartoon	Students create a drawing or caricature using paper or digital tools	Comic Creator, digital cameras
Develop a Knowledge Web	Using teacher- or student-created idea webs, students organize information in a visual/spatial manner, on paper or digitally	Inspiration, PowerPoint, Mindmeister
Design an Exhibit	Students synthesize key elements of a topic in a physical or virtual exhibit	Wiki, PowerPoint, Scrapblog
Engage in Historical Role Play	Students impersonate a historical figure, live or recorded	MovieMaker, iMovie, digital camera

The remaining 21 knowledge-expression activity types help students share divergent understandings of social studies concepts and ideas. The complete taxonomy divides these into written, visual, conceptual, product-oriented, and participatory activity subcategories. Divergent Knowledge-Expression Activities includes a sample learning activity type from each subcategory.

Combining Activity Types: An Example

As helpful as this taxonomy may be for discovering (or rediscovering) social studies learning activities, rarely would a teacher use a single activity type in isolation—even during a single class session. Instead, we combine knowledge-building with knowledge-expression activity types to form engaging learning experiences that help students develop and communicate social studies knowledge.

For example, in a two-day lesson designed to introduce her students to Manifest Destiny and westward expansion, sixth grade U.S. history teacher Julie Bray used the activity-types planning approach to design a lesson to engage students in a variety of learning opportunities. Specifically, she helped her students describe territorial expansion and how it affected the political map of the United States, emphasizing the Lewis and Clark expedition.

Realizing that her students had little prior knowledge of westward expansion, Bray planned an opening activity that would engage students while helping them build their knowledge. Students viewed an image of the famous 1872 painting Manifest Destiny by John Gast. While projecting the image at the front of the room, Bray brought her students into the painting by positioning them in front of the screen in the same poses as the painting's figures. Bray then asked the students questions about their historical roles depicted in the painting.

Students then viewed a presentation in which Bray introduced the origins and purpose of the Lewis and Clark expedition. Previously, Bray had used historical documents to address these goals, but she noted that they didn't inspire students' interest or deeper-level knowledge sufficiently.

To introduce the expedition more effectively, Bray created a virtual field trip. Students began to create an illustrated map of the expedition using the classroom document camera. As they progressed along the expedition route, Bray introduced people, landmarks, and discoveries by viewing a series of images. As students viewed the images, Bray engaged them in group discussions using excerpts from Lewis and

Clark's journal, which helped them to interactively build their knowledge of the expedition. These learning activities also provided formative and summative assessment opportunities for students' content understanding.

Understanding her students' learning needs and preferences, access to technological resources, and experience in using different types of learning activities helped Bray select the particular combination described above. She noted that using the activity-types approach to instructional planning helped ensure that knowledge-building and both convergent and divergent knowledge-expression activities were included and sequenced appropriately in the lesson.

Invitation for Collaboration

Given continual changes in curricula and available resources, the range of social studies learning activity types and the technologies that can support them will change over time. We invite you to help us expand, refine, and revise the social studies learning activity-types taxonomy. To contribute, please visit the Activity Types Wiki (http://activitytypes.wmwikis.net/Social+Studies) and share your ideas via the online survey posted there.

Acknowledgment

We offer special thanks to Julie Bray for her assistance in testing and vetting the social studies activity types as well as for her willingness to share her instructional practices.

Mark Hofer is an associate professor of educational technology at the College of William & Mary. He partners with classroom teachers in using technology to support curriculum-based teaching and learning.

Judi Harris is the Pavey Family Chair in educational technology at the College of William & Mary. Her teaching and research focus on K–12 curriculum-based technology integration, telementoring, and teacher professional development.

Graphic Design Online

Exciting careers are waiting for creative students interested in computer-aided graphic design, but the cost of Photoshop and Fireworks is too high for many teachers to purchase these programs for their classrooms. I discovered a solution: a burgeoning number of Web applications for artists. Web apps—computer programs delivered online—eliminate the need to gain administrator privileges to use the program, and many of them are free. With a connection speed of at least 56K and the proper plug-ins (Flash, Java, and Shockwave), students can go online and get started immediately. During a two-week enrichment class last summer, I tested these apps with middle school students and discovered that they enhanced student creativity while meeting national arts and technology standards.

HeroMachine allows students to choose from a variety of clothing and accessory options to create their own superheroes.

Apps for Artistic Types

The National Art Gallery's NGA Kids Art Zone is an online laboratory of artistic exploration. We used the Art Zone's Brushster program to create abstract art. Students used Brushster to learn how to modify paintbrush size and shape as well as paint opacity. The ArtZone also offers exploration in collage design, 3D objects, and kinetic art.

The students loved HeroMachine, which made them all cartoonists despite their varied drawing skills. HeroMachine allows students to choose from a variety of clothing and accessory options to create their own superheros. Using HeroMachine, students learned to adjust the order of various layers. We extended this activity into language arts by encouraging students to write stories about their superheroes. (A warning about this program: It contains weapons and stereotyped female clothing options and may not be appropriate for younger children.)

Next we were on to photo editing. Students used Fotoflexer to change colors, sharpen lines, delete portions of images, and apply filters. Students can import the original photos from Facebook and MySpace, and post the finished creations on those sites as well. Students were able to use the Aniboom Shapeshifter to make frame-by-frame animations, though we had trouble with the save feature at this site.

By Jill M. Olthouse