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[Middle School Social Studies Teachers Integration of Technology to Meet 21st Century Challenges](#)

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Abstract

In 2006, the Corporation for Public Broadcasting (CPB) sponsored a grant program to retain young audiences by stimulating the development of youth-focused cross-media and technology applications. As part of the *Young American Heroes* project, a focus group of 14 middle school teachers met with a video production company, curriculum design team, and a project evaluator to discuss some of the ways in which teachers use digital technology to meet the challenges of engaging students in the social studies classroom. In order to promote critical thinking and encourage students to view history as relevant and meaningful, the teachers employed Internet resources as well as digital video and digital storytelling projects. Standards addressed by the project include those derived from the National Center for History in the Schools (2005), as well as those from the Partnership for 21st Century Skills (2007).

Introduction

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In October 2007, a focus group of teachers was convened to discuss the use of digital media to meet the challenge of reaching students in the middle school social studies classroom. This group was brought together as part of a CPB American History and Civics Initiative grant to inform the development of a multi-platform project on the lives of *young American heroes* throughout U.S. history. A goal of the CPB was to fund educational projects to “reach the iPod-equipped, PlayStation-addicted inheritors of American democracy” (Egner, 2007). Since youths tend to stop watching public television once they outgrow children’s shows, the CPB hoped to reach them through multi-platform projects, such as *Young American Heroes*. This project was designed to teach American History to middle school students through stories of youths doing extraordinary things at seminal historical moments, with a pilot based on the life of Frederick Douglass. Collecting data on the types of resources and materials that engage students with human story would inform the developers of the *Young American Heroes* television program in creating components of the project: DVD, graphic novel, interactive Web component, and accompanying curriculum.

Participants

The participants in the focus group were selected using purposeful sampling. Thirteen middle school social studies teachers and one school media specialist participated in the focus group. In general, most teachers were mid-career and their number of years of teaching experience ranged from one to more than thirty years (see Table 1). Most of the participants taught in affluent suburban schools in southern Connecticut.

Table 1 Teachers' Years of Experience

Number of years teaching	Number of teachers
1 - 3	5
4 - 10	5
11 - 20	2
30+	2

The participants were chosen based on the recommendations of the local historical society and a school district coordinator of information and technology literacy. Had this been a random sampling of social studies teachers, their use of technology would likely have been more representative of what is happening nationally with the use of technology. In fact, the uses described herein are anomalous to previously reported social studies teachers' technology use, which has been described as in its "adolescence" since social studies classrooms tend to lag behind other disciplines' integration of technology (Bennett & Pye, 2003; Berson & Balyta, 2004).

Questions Posed, Issues Raised: Challenges and Rewards

The facilitator began with probing the focus group to uncover what each individual found most rewarding about teaching, as well as what each found most challenging. During the conversation it became clear that there was a direct correlation between the two; it is precisely what is most challenging in the classroom that provides teachers with the greatest reward. These teachers thrive upon the moments when they work with their students on what is hardest to address. Two themes of challenges and rewards emerged from the conversation: getting students to think critically and getting students to see history as relevant and meaningful.

Critical Thinking

Five participants expressed their most rewarding moments in the classroom as watching the students have their "aha" moments, or "see[ing] the light bulb go on, when somebody has that look they got it." The process of discovery, exploring ideas, and using higher-order thinking skills is an important part of these teachers' classrooms. At the same time, achieving this state was inversely related to the state of un-engagement or disengagement, which is precisely the source of the teacher's greatest challenge. This in itself has usefulness in understanding the tensions inherent in teaching, and, if thinking about teaching and learning as energy, it is the transformation of students' energy from the state of potential to kinetic. Therefore, seeing and using the energy and tension in the transformation as the "creative tension" generates the most rewarding states (Alibrandi, 2003).

Several participants expressed their biggest challenges as not only getting students to engage in critical thinking, but also to express their thoughts both orally and, as one teacher put it, "motivating students to independently elaborate on their ideas in writing ... emphasis on elaboration." Another teacher was challenged by getting students to respond to one another. For one of the two urban teachers in the group, the biggest challenge was dealing with the students' lack of prior knowledge; however, her greatest reward was cited as, "Watching my class becomes enthralled with a subject they've never even heard of or thought about."

Seeing History as Relevant and Meaningful

Nine of the 14 participants in the focus group cited making connections to history as both challenging and rewarding. It is not surprising that social studies teachers are passionate about their subject and that they want to pass that love of history on to their students. "With all due modesty, it's the best subject, honestly. You know, it involves every aspect of their lives," one teacher said. Another teacher enjoyed "watching them learn and understand how they connect to the world as a whole and the past, where they fit." Teachers identified "making history relevant" as a central focus, and "making the connection between past and present and ... applying it to current [conditions]." "Active participation" and civics were among the goals these teachers had for their students: "Helping to create responsible and contributing members of society—emphasis on *contributing*."

When asked to articulate challenges, several participants noted that social studies had a special challenge to get students to relate to the historical figures of another time. One teacher described the

challenge of getting “the kids to relate to the fact that these were people. And it's not just dead folks we're reading about because you have to—but the chances, the risks they took, the challenges they had.”

Another teacher commented, “These historical figures aren't people that just live in a textbook. They were heroic, why are they important?” A participant discussed her efforts to have her students accept and grasp cultural differences. One teacher found it difficult to convince students that social studies is relevant in their lives, now more difficult since it is not a part of the Connecticut state's high-stakes test in middle school: “... it's being squeezed out of the curriculum ... Science, math [is] what everyone values now.” Teachers are challenged to balance the desire to have those rich moments in the classroom that promote critical thinking and a love for the subject with the pressure to cover the amount of material dictated by the curriculum. A first year teacher found “the whole time element to be the most crushing challenge ... like how do you set enough time to what's appropriate to study, Colonial America versus the U.S. Constitution?” Another teacher, struggling with “knowing what things to actually teach and what to leave out”, echoed this. One teacher who wanted to incorporate current events into the curriculum found it difficult to fit it in. Choosing the right materials and making lessons appropriate for different types of learners also presented challenges.

Digital Media Resources

Half of the focus group had reliable (i.e., usually available and functional) access to a LCD projector for their classrooms. Two had reliable access to carts, and 11 teachers had access to a lab, though several teachers complained that the labs were often booked by other teachers well in advance. Most of these teachers were using technology in their classrooms, although one of the teachers with more than 30 years of experience admitted to being “relatively new to technology.”

The two urban teachers had experiences that differed from their suburban counterparts. One of the urban teachers told the group that she had “tried a lot of [technology] things over the years, and nothing has really worked that well for [her] students.” Another teacher who had worked at an inner-city school in Los Angeles noted that when his students used markers and glue sticks to create posters about the Enlightenment thinkers, “It was like they had the best time doing the most simplest, low-tech thing ... it doesn't have to be complicated, but we didn't have the technology in a classroom like that.” The hands-on learning activity and the use of resources is central, but it is not completely dependent on technology.

The intent of the focus group was to discern from the teachers' everyday practice what types of technology and curricular support are currently in use and what teachers would like to have accessible in order to provide input on the design of the video, accompanying curricula, and Web components. When teachers were asked to share some of the technology projects that have worked with their students in the past, their responses fell into two broad categories, with some projects overlapping both: using Internet resources and digital video/imagery projects.

Using Internet Resources

The Internet was widely used by the teachers in the focus group. Teachers used the Internet for group work on the United Streaming video website (Discovery Education, 2008) and to find information on Colonial life to report back to the rest of the class (see <http://streaming.discoveryeducation.com/>). They also used the Internet to Web research different points of view and propaganda on the Holocaust. Several teachers made use of the Internet with websites that allowed students to make their own contributions to a wider audience. The Governor of Connecticut has a website called “One Thing,” (see <http://onethingct.com/>) where students can do a question-based navigation of the website to come up with their own “one thing” they might do to conserve energy. These were presented to the class and submitted to the website. Students used the PBS POV (Point of View) website (American Documentary, Inc., 2008) to see different views of Americans from around the world, and they submitted their own views on Americans to the website (see <http://www.pbs.org/pov/>).

Teacher: I just put the use of a website on PBS, it's called POV, Point of View. The kids get to see different views of Americans. It's kind of good to kick off the year that way, and they can also – they watch little video clips on there of people that don't live in America, kind of speaking about Americans. Then they get to choose their own words to describe America, and they can submit them right on the site, and it shows them where they rank, who else kind of added those. So this idea of *contributing* to something bigger, I think that's important for

kids.

Facilitator: And they get to see their own words.

Teacher: Yes.

Facilitator: And are they interested in doing that?

Teacher: They are. Yeah, they see where they rank and how many times it was submitted.

Most of the projects teachers cited as engaging had some collaborative component, such The Virginia Center for Digital History's Valley of the Shadow (Ayers, 1998) website (see <http://valley.vcdh.virginia.edu/>) with its rich Civil War primary sources database. One Social Studies teacher collaborated with the English teacher when having the students read Civil War diary entries: "That made that personal connection, and you could have heard a pin drop. It's really engaging for them."

Teachers employed WebQuests (see <http://webquest.org/>) with students working collaboratively to collect data, analyze data, and draw conclusions or make decisions based on that data. One teacher stated, "Two kids have to figure out questions, they're not allowed to ask the teacher a question until they've discussed it further with each other, trying to problem solve." These student collaborations embody the type of "distributed learning environments" described by Dede (1996) as new landscapes of learning with technologies. Students were developing digital stories, podcasts, and Web-authored products based in the use of resources from these sites.

Digital Video/Imagery Projects

A digital video or digital imagery project allows the students to become authors and provides opportunities for alternative assessment. These teachers identified a number of engaging, student-authored projects:

- Students use digital cameras to take pictures of themselves exercising their day-to-day rights from the Bill of Rights, narrate the photos, and show them in the cafeteria.
- After doing Internet research on the 1960's, students create a three-minute news broadcast using *Windows Movie Maker* or *Photo Story 3*, and show them to the rest of the class.
- After doing Internet and library research on a person from Latin American history, the students video themselves interviewing each other role-playing these historical figures and create an *iMovie* to share with the class.
- Students research pirates, create statistics and take a photo of themselves dressed as the pirate to create trading cards.
- In previous years, a teacher had students create posters for a pop culture decades project. Recently he has discovered that using *iMovie* has been extremely beneficial. Each group chooses a decade between 1950 and 1990 and answers the central question of how an event from that time period changed or impacted society in a three to four minute movie. Research is conducted using databases, United Streaming video website, and interviewing parents.
- Student groups create a Civil War newscast on different battles. Students do research on the battle, create a script or summary of what they learned. One teacher said

I give them a video camera and I let them go. They have an anchor, they have interviewers, they have guest analysis ... and it really teaches the kid—I've become more of a skills teacher than a content-driven teacher, and the skills that the kids learn in a project as simple as this: research, writing, critical thinking, and then working together as a group, it's invaluable at the end of the year.

One of the added benefits of a video project is the opportunity for students to collaborate with one

another and show their projects to an audience. Several teachers described their use of *iMovie*. These projects are not only shown to classmates, but they serve as exemplars for future classes. Several of these projects use Internet research as a basis for the content knowledge that will be assessed by a movie or imagery project. One teacher stated

One of the great things about something like *iMovie* or something like that is it allows those kids who may not be the shining stars in the class as far as academics, they are unbelievable whizzes. And they're the ones who become the experts, so in terms of collaboration and allowing kids to really find their spot, it's great.

This sentiment was echoed by another teacher

[*iMovie*] been a nice way to sort of integrate technology into the curriculum as opposed to the old days where we have poster boards and everyone would get up, make a presentation, and sit down. And that way really, what I like about the *iMovie* is kids are involved. And they're into it and—you might have a child who is learning but not participating on a regular basis in class, but they're the leader when they're doing that.

The Role of Collaboration

These middle-school students are growing up in an era where it has become commonplace to use technology for constant communication with peers (Lenhart, Madden, Macgill, & Smith, 2007). According to these teachers, students respond well to projects that ask them to work together and share their ideas or products with an audience, either in-school or online. Collaboration, however, is important not only for the students but also for the teachers. Many of these teachers found inspiration and ideas for their projects with other teachers or with the library media specialist. One veteran teacher, when asked if his project was an original idea, responded with the following statement:

I don't know that I've had an original idea. I survived in 38 years with stealing from all my good colleagues. And I'm very much a 19th century guy, so coming here was really—I'm really relatively new to technology, so all these ideas I've been writing down notes, this is great, fantastic. But I think a lot of the stuff is working with colleagues, so which is the same—the librarian comes in with this good thing. We had a chance to go to a Holocaust project, deal with that, and you look at what's there and you say oh, I think we can use that, and you talk with someone and it comes out.

Another teacher also said

I mean I like to think all my ideas are original, but they're pulled from everybody else. I mean it's sort of a little bit here, a little bit there, and then I make it my own, and go to the library and say 'I really want something with primary and secondary sources,' and so it's just sort of a joint effort.

The school media specialist emerged to play an important role. One participant commented, "They all go to the media specialist who then turns them on to the stuff."

What was surprising about this focus group of social studies teachers was that a clear majority was actively using technology to enhance social studies. The second most striking outcome was that although they were utilizing some content-based websites, they were most often using technologies to have students create technology products that incorporated the content. While there is often a call for content-based technology products to be available, it was the active creation of digital products that was most often cited as the engaging activity.

While at some level, the request for this particular information was posed as the central goal of the focus group, within the social discourse setting—teachers from area schools together in one room, hearing one another for the first time, and perhaps wanting to "fit in" as they presented themselves publicly—were encouraged to speak more about their uses of technology than of other media. The enthusiasm for using these technologies was however highly evident.

As the teachers listened to one another and represented their own middle school practice, their stories

became more animated. In many ways, this focus group's reporting may indicate a greater latitude for integrating technology in middle school social studies settings as compared to other grade levels. This may be due to greater interdisciplinary collaboration amongst middle school teams. The proclivities of middle school students to use these media also contribute to their implementation.

Another surprising finding was the new focus on skills; it was refreshing to hear teachers articulating their commitment to developing skills and using these media as *the method and pedagogy by which content was learned*. This is particularly significant given the climate and demands of content-based testing. Do these teachers see more content being better learned through the application of these technologies? This is apparent in one 8th grade teacher's statement

I'll explain it to you. I think we get too content conscious. I've heard this from a lot of my colleagues and I heard it a couple times in this room, that they're worried about the timing. They're worried about okay, how much time should I spend on this? I've become a skills-driven teacher. I teach skills. I use social studies or American history to teach the skills. So I'm not caught up on whether I teach every single battle of the Civil War. I use three battles to teach the Civil War. But I teach the kids skills to critically think, to write, to analyze in the midst of that, to research. That's what I'm there for because these kids are going to get the same content in high school, and I think my job as an eighth grade teacher is to prepare the kids for the next level, and be able to do the things they need to succeed on that level, and that's the type of teacher I've become, and it's working.

Another teacher commented on teaching information literacy skills to students:

Social studies and ITL, Information Technology Literacy, they sort of blend very well together. And with an assignment like that, if you're looking at ITL skills, finding information, figuring out what piece of information is the correct information and then figuring out how am I going to synthesize the information together and make a presentation. It sort of blends together.

Teachers mentioned their training with these technologies and the cultural milieu of students being versed in them, acting as technology "cultural agents" of innovations such as digital imagery, podcasting, and digital videography.

Conditions for Successful Classroom Integration

Having access to technology, as most of these schools do, is not enough. It takes equipment and quite a bit of time to learn, for both the teachers and students. This time should, according to many of the teachers, be class time: "Give the kids class time to do it, so you're there to help them. Don't let them walk out of class and expect them to do it." One teacher who has been doing an *iMovie* project for six years felt that it has taken six years for it to "hit its plateau."

Without providing class time to actually teach the technology tool, the students will struggle with both new content and new technology at the same time. The library media specialist or other technical staff will often have to bear the burden from a teacher who has not adequately prepared the class:

I can't tell you how many times kids have said, 'Oh, let me make a video!' And their teacher says, 'Fine, you go make a video.' And then they land on my doorstep and they don't understand the complexity of the project they have just undertaken. They don't understand that they need a storyboard, that – all those things that you guys do, that you just go to it and then it sometimes just flops because they weren't prepared to make the effort to make something that's quality, unless they have a lot of guidance with that. You get standup comedy that's not so good so far.

According to the focus group, there are other preconditions for successful integration of technology: curriculum, audience, and visual learning.

Curriculum:

I think another big piece is you have to let the curriculum piece drive the technology ... to

have standards, central questions, and that's—the technology is the piece that enhances the curriculum. And that's the way it has to be designed in order for it to be truly meaningful.

Audience:

You have to know your audience as well. You have to know what the kids are going to be excited about. You can't try and force them to be excited about a subject that you're not getting that feedback. But if you see that there's a spark there, run with it. You can't try and force it onto them, I don't think at least.

Visual learning:

There's one fundamental thing which I think—I'm finding eighth graders have a very difficult time dealing with, when they go to a visual medium. It's understanding that they have to structure it very differently as a visual than an auditory medium. Oftentimes it's a picture of them doing auditory things. And to get them to talk, you're speaking to the right half of the brain, you're speaking to the visual side, the spatial side, that's a very difficult thing for them to get. Once they get it, the technology itself, they can handle it beautifully. But I find that a lot of kids will do a video, and technologically they'll put in all this stuff, they get the background sound, do all this great stuff, but a lot of it is not doing—attending to the audience on the visual side.

Conclusions and Implications

Several of the teachers in the focus group mentioned the shifting roles of students taking initiative in creating digital stories and products. Some of teachers' inhibitions about the change in the locus of control were being bridged in these classrooms. There is often an assumption that youths who are adept at using technology tools understand the complexities of using technology to demonstrate their knowledge of content. Even though many middle school students can fire off rapid text messages on a cell phone, have multiple instant messaging chat windows open, and easily post content to a website, they still need the teacher to provide scaffolding to use technology in the context of learning.

Factors that became evident to the research team were the "digital divide" issues among the teachers. While number of years in the classroom did not affect curricular innovation, (in this focus group the self-admitted non-technology user was a proven and published innovator), the demographic of the school communities was a definite factor that teachers identified as significantly affecting their classroom technology integration. In particular, the level of professional development and support of library media specialists is key. The school media specialist discussed her ability to support the teachers in her school:

I spend a lot of time showing people great stuff. I have multimedia pages, but nobody has any time. And professional development is the key, and the way that you—I think the best way to deliver it is, like Teaching Books [<http://www.teachingbooks.net/>] now has. You can watch a 15 minute little video broadcast when you're ready to learn how to use something. So you need point of need instruction that those teachers ... Just-in-time training, and it has to be 15 minutes a pop. So organize it in such a nice little way, here's what I need, 15 minutes, I can find 15 minutes.

Therefore, while studies on student demographics point to digital equity issues, so also would the district-level demographics affect what teachers had accessible, as well as the district's provision (or non-provision) and commitment to professional development (Freemeyer, Nelson & Greer, 2003). These issues could not be further investigated in the initial focus group, but ensuing focus groups will be composed of teachers from different districts to balance these findings.

The research team drew from the focus group findings that curriculum to be developed for the project might more closely resemble the types of sources teachers were currently using. Applying Rogers' *Diffusion of Innovations* theory, this process is known as "matching" (Rogers, 2003), during which the producers of the innovation negotiate with the potential users or market for the innovation (see <http://nml.gov/evaluation/pub/bowes/Image3.gif>). By operationalizing the "matching" process, the video producers are trying to minimize the distance, or overcome the barriers to use or adoption of the innovation by its intended users or markets. For example, here the focus group explains to the facilitator

their needs to have materials that are flexible and adaptable to their own classrooms:

- Facilitator: What are the sites, and how many people—how many people actually think of and go to sites to find teaching materials that they modify and—but use with some regularity, a couple times a year. Are there sites that you refer—that you go to, to find good teaching materials?
- Teacher 1: I have a comment. That's a very loaded question.
- Facilitator: Oh, how so?
- Teacher 1: Because I don't think any of us can actually go to a website, print out a lesson and do it fit for tat.
- Facilitator: We are not saying that. We're saying sources for you. Sources that are not Google—I mean look, before Google, the Web was a place that was—institutions had websites and you would go to them
- Teacher 1: In that case I think there's too much out there. It's impossible to go through all this stuff.
- Facilitator: No, I don't mean all through. Are there ones that you like that you go to with some regularity? National Geographic, you're a geography teacher. Do you go to National Geographic?
- Teacher 1: Once in a while.
- Facilitator: So this is what I'm asking. Are there sites that you go to find stuff?
- Teacher 2: United Streaming. Fantastic for video clips. But not so heavy on lesson plans.
- Teacher 3: No, not at all.
- Teacher 4: Library of Congress, I mean this idea of the American experience. There's lessons up there but you don't need to use them. They group the images—say I'm teaching Civil War. You can click on reconstruction, and they will have images grouped. I'm not—you can't print out a lesson plan, that's ridiculous. They don't have your kids. So this idea that there are things grouped together that can be easily inserted into an idea that you already have.
- Facilitator: How many people understand what he just said?
- Teacher 5: I do.
- Teacher 6: That's what I do.

The fact that teachers were willing to enter into this type of a process was not only encouraging and exciting for the researchers and developers but for the teachers, as well. Although this research and development model is one that has not been sufficiently used to include teachers in the process of designing innovations, it may prove to bridge some of the gaps between research and practice. Determining cultural and developmental factors in student learning and technology use, and collaboratively constructing technology-enhanced learning environments may provide useful insights and directions. As developers seek to create technology-driven content for use in the classroom, it is essential to elicit feedback from the audience that will be using the technology.

Finally, if teaching social studies combines the standards of teaching history as presented by the National Center for History in the Schools (NCHS, 2005) and those promoted by the Partnership for 21st Century Skills (2007), a broader *application* of social studies learning is facilitated. These standards include the following: Information literacy, Media literacy and ICT (Information, communication and technology) literacy, and Creativity and innovation. For students to be able to *apply* (or *conduct*) social studies, the combining of these standards that guide the *Young American Heroes* project moves beyond traditional content goals to applied learning.

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