Feature

# Teacher Vision in the New

*By John Elfrank-Dana*

**Subject:** Social studies, lifelong learning

**Audience:** Teachers, teacher educators

**Grade Level:** 8–12 (Ages 14–18)

**Technology:** Internet/Web, e-mail, database software

**Standards:** *NETS•S* 3–5; *NETS•T* I, II, V (www.iste.org/standards). *NCSS* II, III (www.socialstudies.org/standards).

# Media Classroom

New media has challenged many of us to rethink our practice as educators. For me, it has afforded the opportunity to approach my vision for teaching in new ways. The interactive power of the Internet has not only shaped the delivery of content but also enabled my classroom practice to better reflect my values as an educator. I thought that if I could connect my students to the outside world and offer them more sources of information, it would enhance their motivation for learning and for being involved in life around them. More specifically, I thought that using the Internet would be a powerful tool for instilling the values of inquiry, critical thinking, and action.

I teach social studies at Murry Bergtraum High School for Business Careers in New York City. (***Editor's note***: Find the author's URLs and others in the Resources section at the end of this article.) I left private industry and a higher paying job to enter the classroom of a downtown Brooklyn high school as an emergency hire. I wanted to do something that felt more meaningful to me. I was drawn to teaching by a desire to help instill democratic values in students. What I brought to the classroom was a lot of enthusiasm and a growing set of computer skills, but I had no clue at the beginning how I was going to make it all work for my students.

In this article, I describe how technology has facilitated the achievement of my educational vision for my social studies classroom. The vision is manifested in the following objectives for my class:

1. Open process learning
2. Lifelong learning skills
3. Collaborative skills development
4. Critical thinking about Web-based content
5. Student-produced knowledge

I attempted to address each of these objectives using the Internet.

Fortunately for us all, the Internet has become more accessible and user friendly. I no longer have to code class Web pages in HTML but can use WYSIWYG (what you see is what you get) Web-authoring software. Add to this the affordability of Web server space and relative ease for publishing, and I was set to take my U.S. History course online—to transform the traditional classroom into one that had no walls and was open any day at any time.

## Barriers to Overcome

Creating a course that married the online world and the traditional classroom was not easy. One difficulty involved Internet access. Approximately 20% of my students did not have regular access to the Internet away from school. I needed to make sure these students would not be left behind. For that reason, I based all the homework on the class textbook. Whenever I gave an assignment that required using the Internet, I gave students several days' notice so they could use class time or the school library to access the Internet.

Another challenge was the mandatory New York State U.S. History & Government Regents Exam to be given at the conclusion of the semester. This exam is the quintessential high-stakes test. It can lead to students not graduating, principals being fired, and schools being reorganized if the battery of Regents Exam scores fall too low. I am opposed to high-stakes testing but felt compelled, for the sake of my students, to prepare them for the exam. This meant we had less time to use the Internet in creative ways. Yet, with careful planning, we were able to cover Regents material, expand on Regents subject areas with the Internet, and do some additional projects, including projects for extra credit. We used Web-based Regents review sites to help prepare for the exam (find these at my Web site). These included one made available by the State University of New York and another by textbook publisher Prentice Hall. The site had multiple-choice and Document-Based Question (DBQ)—or short

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answer—practice sections, the results of which were e-mailed to me. I used a discussion forum to post exemplary student answers to this section. The Regents Test Prep Center site had a Cold Fusion application that gave students the correct answer or a hint if they got it wrong when they clicked on their multiple-choice selection. The students were surprised and grateful for the instant results. My students' U.S. History Regents scores were consistent with the rest of the school, with approximately 68% passing. The only difference was that I spent roughly one-third less time teaching to the test than my colleagues. Instead I was able to expand on Regents content by projects, with Web-based projects for enrichment (mentioned later in the article).

### Web Design for Open Process

One primary purpose of a class Web site is to provide a window into the classroom for the entire educational community. I emphasized functionality over a slick appearance when designing the Web interface for the class. I have the components of the class I consider most important easily accessible on the front page of the site: About the Course, Comments, Course Schedule, For Parents, Grade Book, and Discussion Forums (Figure 1).

Because accountability and the free exchange of ideas are better attained in the light of public space, I decided to use the Web to present the class to the world. (Parental permission is required to display student work publicly.) Public pages—more accurately, anonymous browsing areas—include the Course Calendar, most of the linked instructional materials, Student Work, a For Parents page, and homework pages. Semi-private spaces, for which registration is required, include discussion forums, student work under development, and some instructional materials (for reasons of fair use). Only the online gradebook and student journal are private. Parents could view their child's


*Figure 1. The front page of the U.S. History class online (www.elfrank.net/elfrank/ushistory).*

grade record. Student journals were kept confidential between the individual student and me. Visitors who wished to obtain a password for the semi-private areas of the site could do so by e-mailing me. Typically, they were a parent, educator, or administrator. There, they could have a look at the student conversations taking place in the discussion forums. These conversations ranged from requests for help on homework and test topics to discussion around the 1998 film *Saving Private Ryan.* One of the more energetic conversations was in reference to Prohibition and its relevance to today's war on drugs. Parents can take advantage of the homework assignments link on the course calendar to monitor their children's work. A jump menu provided a list of more links to specific areas of the site. Just as important is the quote from George Santayana, which sets the tone and is provocative. I hoped to make clear to visitors the intent of the course and the links inside to demonstrate how we tried to achieve our educational vision. His quote captures both the intent of the class Web site and my vision as a history teacher: "Those who cannot remember the past are condemned to repeat it. … History is always written wrong, and so always needs to be rewritten."

For practical reasons, I chose to build my Web environment with the most popular and ubiquitous software available—Microsoft Office Suite. The construction of the Web site was done with Microsoft FrontPage 2000 and 2002, using a Web server utilizing FrontPage extensions. Because FrontPage is integrated with the Win version of the Microsoft Office 2000 Suite, I was able to link my Web site to an Access database that resided on the Web server, and served as the gradebook and student journal repository. With FrontPage 2002, I was able to provide Web forms for the students to query the database for their information. Excel was useful in crunching the numbers for grading to be imported back into the Access gradebook. All of this was achieved without any programming, just the wizards that come with FrontPage. Most of my students used Microsoft Word to create their Web pages. I believe this gave me more flexibility and control in shaping the kind of Web environment I wanted for my students. It's popular these days for school districts to sign contracts with education application service providers that offer Web-based shells in which teachers can build an interactive environment. However, I feel this scenario builds a dependency on the services of a particular company. Using software and learning the basics of HTML code would better prepare my students to be content contributors to the Web.

## Lifelong Learning Skills

There appear to be two schools of thought on how students should use the Web. If we use a travel metaphor, the first school of thought is to put them on a tour bus to visit prescribed sites. Students get off the bus at each stop with an allotted period of time and a list of activities to perform. Many teachers, especially elementary school teachers, use this approach with the Web. Students are told to go to a specific Web site and answer a prescribed list of questions. Though this is appropriate for elementary students, I think by high school, students need to be weaned off this approach for one that is more suitable for developing habits for lifelong learning.

I adapted a WebQuest to create a project that includes more lifelong learning skills. I call it a WebQuery. The goal was similar to a WebQuest but the students had to find the information themselves and evaluate it for its usefulness and credibility. To continue with our travel metaphor, in this class there was no tour bus, but I gave students tools (e.g., information on the area and a compass, map, and phrase book) to find information on the Web, so they could plot the destinations themselves, decide what they wanted to see, and make decisions about the value of their findings using a simple rubric. In the end, this approach provides for a much more satisfying exploration.

It is imperative that student search skills are effective so they don't lose too much time. I emphasized the development of "guiding questions" for the

WebQuery project and the use of effective search methods. A simple lesson on search methods helped to ensure effective and efficient use of search engines. I asked students to stay with three youth-oriented search engines: Ask Jeeves, Google, and Yahooligans. They were introduced to the "+" and "–" operators to expand and limit their searches. I demonstrated how a search query framed as "Abraham Lincoln" yielded different results than one framed "President Abraham Lincoln" to show them how the more specific one typically yields better results. With practice sessions, students could share their results on the Web discussion board and benefit from the examples of others.

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### Web-Based Collaboration Interface

Some assignments were structured to foster collaboration between students. Working together is an essential skill in the workplace and in the world of citizenship. I used Web discussion boards for general sharing of information such as reviewing for a test and active server pages for group sharing. To help foster and organize collaboration between the students in their small groups doing the WebQuery project, I developed a Web-based collaboration interface called a Work Log. It was a place where students could submit, share, and retrieve information for their project. This feature was developed as a form page in FrontPage that was linked to a Web server-side Access database. With FrontPage 2002 I could have the results of this database queried from the Web. The discussion boards were developed with FrontPage's discussion Web wizard template. With fewer than 12 clicks of the mouse, I had a discussion board.

A help discussion forum, also produced with the Web wizard template, was created for students to share information to help complete a project or prepare for a test (Figure 2).

Sharing information for everyone's benefit was the theme. Students would, for example, conduct searches of the Web for information on a topic to be covered on the next test. They would post their findings with an annotation and a link to the source in the discussion forum. This spirit of collaboration got out of control during the exam, which was given on and submitted through the Web. I had to ask some students to turn off their instant messengers and not to use their newly acquired search engine skills to seek and share the answers!

Small groups needed a more focused sharing mechanism. They had a specific topic to write about and deadline to meet. The topics included: the History of Jazz and the Role of Women in the Workforce During World War II. I had developed a Web Work Log interface that fed an Access database on the Web server using Microsoft Front Page (Figure 3). This log would:

- provide a work history for the group,
- structure the input so that individual members would account for their contribution,
- state what was accomplished,
- explain what the next steps were in the project,
- list any URLs they had found, and
- describe what help they needed from me.

Every student had access to this information anytime from their e-mail or the Web. It gave me an opportunity to observe their process and comment on it in an e-mail message to the group.

In the database, I set up a comments field where I could enter my thoughts and then, through an e-mail merge using Outlook 2000, send a mass-customized response back to the group members. With FrontPage 2002, I can now use the insert database feature and choose the settings to have the results queried by the student or parent user from the Web site. Because the results were stored in a database, I could request a summary of the participation of any group or individual member in the form of a simple query for assessment and support purposes (Figures 4–5).

### Critical Thinking about Web Content

The Internet has upped the ante on information management. Students typically found a dozen or more sources of information on individual topics explored in class. I could have made the judgment on which sources were good and which ones weren't. However, I decided that would not serve to help them become discerning of information—a skill I consider fundamental to lifelong learning and active participation in a democracy. Most of these students were only a year away from being old enough to vote. I feel the time is ripe to err on the side of free access to information instead of censorship in the name of safety. When the Board of Education's Internet filter, I-Gear, blocked a legitimate site (e.g., an .edu) listed on a search, as it did approximately 20% of the time, I showed students how to copy and paste the URL into an e-mail message to themselves so they could look at the material at home.

I constructed a rubric for students to use in evaluating Web material (Figure 6). This rubric was not designed to ascertain which sites were telling

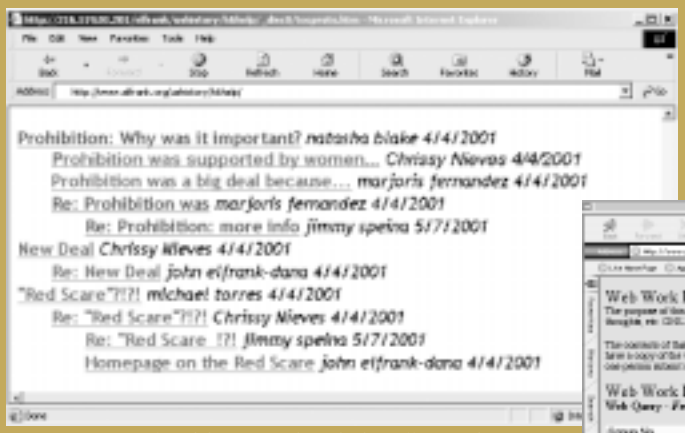


*Figure 2. Examples of discussion threads that allow students to share information to prepare for an exam on the 1920s.*

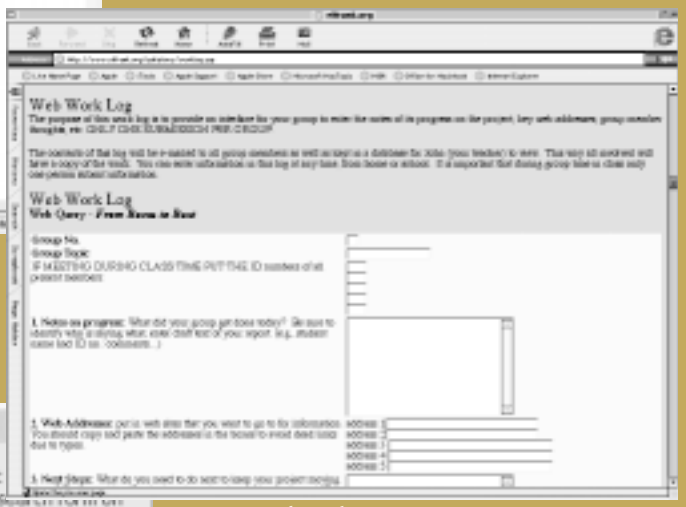


*Figure 3. Web Work Log.*


*Figure 4. Specify the query field to be automatically inserted into a Web form with this FrontPage wizard (see next figure).*

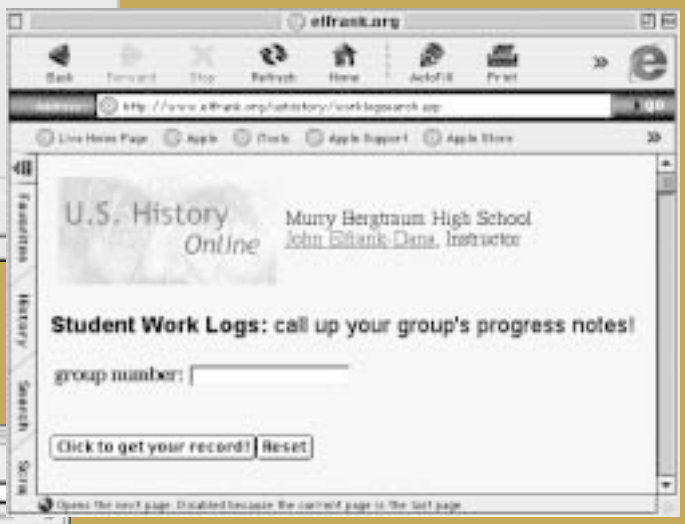


*Figure 5. The students would just enter their ID number to bring up the record on their group's progress.*


*Figure 6. Web site evaluation rubric.*

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the truth and which ones weren't. The truth was a matter that only the individual student could decide through a process of reflection and evaluation. The focus of this method of critical thinking was to determine the credibility of the sources based on how verifiable the information was. I developed a checklist of criteria, culled from previous examples on the Web. The criteria were:

- Author or organization contact information
- Date of page update
- Citation of sources used
- Evidence of peer review

A typical approach would have the students rely on the credentials of the institution or individual publishing the material. However, a striking phenomenon of the Web is the ability for "amateurs" to post valuable sources of information without publishing houses. In particular, many U.S. Civil War sites have sprung up over the years that offer valuable primary source documents through family treasures such as letters and photographs. For these sites to get fair treatment, I had to let go of the authority criteria and focus on the logic of weighing arguments on their own merits. It appears to be the best approach to critical thinking when the professional historians have been joined by members of the general population. Many Web evaluation schemes list credentials as essential to concluding that a source is "legitimate." My scheme allows students to weigh arguments on their own merits and, therefore, does not defer to institutional names. This opens up the field of sources of information for students to use.

### Student-Published Knowledge

Helping students learn how to post their work on the Web was a major goal for me as an educator. Nothing is more motivational for students than seeing their work presented to the public. For the students in my class, this was achieved by the creation of Web pages.

Plagiarism is the most cited reason for not allowing students to develop content using Web resources. I have been able to address this concern through close observation of every step of my students' development of their projects. Through their electronic journal entries for group projects and e-mail reports of progress for their primary history projects, I was able to help them shape questions and overcome obstacles. Because the work log data were submitted to an Access database on the server, I could query any group's records and get a chronology of their work on the project. This was important for providing feedback and assessment. This focus on the process of learning makes it almost impossible for students to duck doing the work themselves.

To keep Web authoring simple, we used Microsoft Word, which was already installed on the machines in the lab and available to many students at home. The students were all familiar with word processing. All I had to do was show them how to create hyperlinks, format a background, and save as an HTML document. It took one class period to present and some facilitation by other students and me in subsequent classes for those students requiring extra assistance. To avoid the problems of Web server space, most students worked on the local hard drive and e-mailed the results as attachments to me and other group members. A few had free Web hosting accounts with commercial providers such as Tripod and Geocities. Draft copies of student work were available on the Web site for visitors interested in seeing the progress of the student work.

### Conclusion

> Now, grasping new tools, we can make our work more progressive, more powerful. Our time to lead is here. We work in history. There, powerful forces meet to set past pedagogical limits aside. What should we do with our new possibilities? (McClintock, 1999)

We are faced with a tremendous opportunity to reshape public education through the use of new media. Though my course makes use of many of the

Elfrank-Dana's scholarship of teaching compels him to examine his teaching practice with new media. But that examination raises the following questions:

- What takes place in teachers' minds when they move from vision for their class to developing the new media applications that will bring that vision to life?
- How might vision-driven use of new media inform a school's Acceptable Use Policies?
- What are the implications for the educational community when the Web is used to make a course and the teaching practice behind it public?

Send your thoughts to Kate Conley, editor, at letters@iste.org.

advantages of the Internet, it is still hindered by the factory-style conditions that surround it. Class periods are short, assessment methods are standardized, curriculum is controlled by educational bureaucracies, school structures are rigid, and school culture is being coopted by a corporate ethos with the values of competition and hierarchy.

Technology can be used to transform the educational experience of students, making them truly agents of their own learning and better prepared for active citizenship, or just to facilitate the factory model that is currently in place in which students are the passive recipients of information in a quest to pass standardized exams. Teachers must take the lead in defining the best uses of new media in the classroom. We are closest to the students and to the learning process. With technology at the service of teachers' educational visions, we have the chance to profoundly improve education.

## Acknowledgments

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(***Editor's note***: John Elfrank-Dana will provide specific instructions for creating a database in a related article in the next issue.)

## Resources

***Author's Sites***

Elfrank-Dana's Web site: www.elfrank.org
Elfrank-Dana's U.S. history site: www.elfrank.net/elfrank/ushistory
FrontPage Tutorial: www.elfrank.net/elfrank/tutorials
Murry Bergtraum High School for Business Careers: www.bergtraum.org

***Search Engines***

Ask Jeeves: www.askjeeves.com
Google: www.google.com
Yahooligans!: www.yahooligans.com

***Web Hosting Services***

GeoCities: http://geocities.yahoo.com/home
Tripod: www.tripod.lycos.com

***Web Sites***

Teachers Network: www.teachersnetwork.org
The Carnegie Academy for the Scholarship of Teaching and Learning: www.carnegiefoundation.org/CASTL

## Reference

McClintock, R. (1999). *The educator's manifesto. Renewing the progressive bond with posterity through the social construction of digital learning communities*. Unpublished manuscript, Institute for Learning Technologies, Teachers College: Columbia University, New York. Available: www.ilt.columbia.edu/Publications/manifesto/Contents.html.

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