My Vision for Technology in Education

Technology is becoming as important a part of education as paper and pencils, in my opinion. One of the biggest reasons I believe technology is becoming such an integral part of education today is because of technology's integral role in SOCIETY today. Our young people are growing up in what some are calling the "Net Generation". An article called "The Net Generation: The Kids are Alright," (http://www.economist.com/books/displaystory.cfm?story_id=12591038) the author discusses a book called "Growing Up Digital" by Don Tapscott, who describes some of the characteristics of this generation. He says

> "Net Geners value freedom and choice in everything they do. They love to customize and personalize. They scrutinize everything. They demand integrity and openness, including when deciding what to buy and where to work. They want entertainment and play in their work and education, as well as their social life. They love to collaborate. They expect everything to happen fast. And they expect constant innovation."

I have found that especially when it comes to teaching history, students can identify better with historical information when it comes from some sort of technological outlet. They view dusty old textbooks as outdated and misinformed. Many of my students feel that if it is on the internet, it is the latest and greatest information. And unfortunately, they wrongfully assume that if it is on the web, then it is accurate.

I, myself, am a member of this "Net Generation." I was practically raised on a computer. I taught myself how to read using "Reader Rabbit" software, as opposed to my older siblings who learned using books and reading guides. My mother often cites the difference she noticed with me and my knack for technology. She likes to tell stories about walking into our home office, seeing me on the computer surfing the web, holding countless Instant Messenger conversations, listening to music, AND doing my homework. Based on this upbringing, I understand the youth of today and their propensity for technology, especially when it comes to learning. Books *alone* will not do the trick for today's students. They want information easy to find and fast. Ask a student to use the Dewey Decimal system and they will look at you like you are crazy! Ask them to Google something, and they will have it done before you can finish your sentence. I believe it is important that our students understand *both* ways of doing things. They should be able to look up information in an encyclopedia or other written source, just as they know how to use the internet and other forms of technology for research.

Promises of Technology

In my opinion, with technology, the possibilities are endless! One great new aspect of technology I love (maybe not new, but newly utilized) is personal GPS units made by companies like TomTom and Garmin. I find that having a navigator that knows exactly where you are at any given moment and can direct you accordingly is much more efficient than a human navigator with written directions. I found this out firsthand on a road trip with girlfriends when we were following written directions and took a wrong turn but did not realize it for a very long time. I remembered we had borrowed a GPS from my dad and quickly started it up and it put us back on track.

The internet offers an ongoing, constantly updating source of information on any topic one could want to look up. Technology makes everything faster, easier, and more efficient. Rather than watching my students search endlessly through a library to find information, I can give them a list of websites to use and let them work autonomously at their own pace.

Technology also provides variety. I now have an abundance of ways to teach a single concept. Our students are very diverse when it comes to their learning styles. One teaching strategy is not going to work for every single student. Using technology in the classroom, I have multiple ways to teach something, and I can do it relatively quickly. Because there are so many options, I can come up with a back-up plan if something is not working much faster.

Pitfalls of Technology

Unfortunately, nothing in life is fool-proof. This includes various forms of technology. Even that which seems like the greatest thing since sliced bread can have some issues! And this includes pieces of technology that can be very useful, like the GPS. For example, on a recent family vacation, the very same GPS that got me "un-lost" on a different trip had us take a wrong turn and then said we reached our destination when we were in the middle of nowhere!

And then there is the problem of accuracy I discussed above. Students need to be taught *how* to use the web properly. They are so used to the internet and all things digital that they assume they know how to properly use them. As educators, we need to make sure our students are using technology accurately and efficiently. When I was teaching World History, I had my students doing a research project on the ancient Greeks. The project requirements included a combination of print and digital sources.

I wrongly assumed students knew how to use the web properly for research, but I was wrong. I actually had one group admit to me that they realized one of the websites they used for their information was an internet project done by some eighth graders! I learned very quickly the importance of teaching students how to find credible sources.

One major issue faced by districts across the country for technology implementation is money. Particularly in these uncertain economic times, districts are struggling to maintain staffing, let alone be able to buy the latest and great classroom technology. How could a school justify the purchase of Smart Boards while they lay off teachers?

Another issue with technology is that it is too easy to become dependent upon. For example, at my school, our gradebooks are online. So if the internet goes out in the building, we have no access. Same goes for attendance information and student records. Most of the teachers still maintain a paper and pencil gradebook to make up for this shortfall. I try to keep up a regular attendance book of my own, but I find it difficult and somewhat tedious to keep records in multiple locations. I think part of my annoyance with this is my being part of the "Net Generation." Because I was raised on a computer, I often find it difficult (and somewhat pointless) to use anything else!

I also find it frustrating sometimes when I have to make adjustments at the last minute to my lessons if there are problems with the technology. If I want to do a PowerPoint or something with the LCD projector, and the bulb burns out, I am in trouble. Or if I want the students to complete a WebQuest and the internet goes down, we have to make some changes. It is important to keep these problems in mind and plan accordingly.

As I will discuss in more detail later, one major problem I face when I take my students to the computer lab is the freedom the web provides them. It is too easy to stray from an assignment and check out funny videos on YouTube or go on MySpace. Our district has filters in place, but many students seem to be one step ahead of the game and can find their way around these filters.

One of the problems with technology and the internet, for example, is how easy it is to borrow information. When students are doing internet research, the temptation is very strong to just copy and paste info from the web onto their project or assignment. Some may argue that this temptation and the internet's ease of use is creating a generation of lazy non-thinkers. However, according to "The Net Generation: The Kids are Alright",

> "the net is interactive, and…stimulates and improves the brain.
> There is growing neuroscientific support for this claim. People

who play video games, for example, have been found to process complex visual information more quickly. They may also be better at multi-tasking than earlier generations, which equips them better for the modern world."

It is common, however, for older generations to always question the actions of the younger generations, and vice versa. The way people are raised and the time in which they are raised has a big impact on this. This is why it is important that different generations understand each other, and specifically why older generations of teachers need to seek to understand the tech-savvy nature of their younger students.

My Current Use of Technology

I used to think I was using technology in my classroom simply because I had PowerPoints! Wow, have things changed! I have realized what Web 2.0 is and how much more useful it is than the simple technologies Microsoft Office has to offer. I am very fortunate to teach in a district that recently passed a major technology bond. My first year of teaching, every teacher received a brand-new desk top computer. We had electronic grade-books and an online attendance-submission system. At this point, I was still just using Word and PowerPoint and occasionally showing video clips. As a district, we started using a new program (PowerSchool) that combined an online grade-book, attendance-submission program, record-keeping and parental notification system. I honestly cannot imagine what it was like for older teachers to have to keep track of grades on paper and to have to calculate everything by hand! I am so thankful for this technology…especially around the hectic time of final exams!

One of the frustrations I had (particularly because of my limited view of technology in the classroom) was the fact that we only have one small computer lab that cannot fit all the students enrolled in a class. Our average class size is 20 students, and the lab only has 14 computers, some of which are quite temperamental on a day-to-day basis. My students are not exactly the most patient of teenagers, and they tend to give up rather quickly when they hit these kinds of road blocks. This tends to make interactive learning obsolete!

Last year, we all received document cameras and LCD projectors for our classrooms. I can now do so much more in my classroom. Not only can I still use the simple Web 1.0 technologies like Word, Excel, and PowerPoint…but I can make learning so much more interactive with the students with these in-room tools. Now, I do not have to take my whole class to the computer lab to show them some kind of interactive model. For instance, Indiana University's Center on Congress website offers multiple interactive modules for explaining various civic concepts related to the legislative branch. Instead

of going to the lab and having students explore the modules on their own, we can go through them together. Of course, I do like giving students freedom to explore on their own, but doing so can cause problems. As previously noted, my school does not have enough computers for each student. Also, when my students are in the computer lab, they tend to stray away from the website they are supposed to be on. Although we have internet filters and restrictions in place, they seem to always find a way around them, except for when they need to! I have assigned projects in the past where the filters limit the students' ability to research certain topics (such as the KKK of the 1920's, Babe Ruth, etc.).

My Plan for Enhancing and Increasing My Use of Technology

It is difficult to determine exactly what I will do in the coming months and years with regard to technology, as technology is ever changing. It seems amazing to me when I think back to before something like text messaging entered my life, and that was just a couple years ago! It seems they are always coming out with "the next best thing" and I look forward to that! It can be frustrating (and expensive!), however, because I am of the type who always wants the "newest and coolest" piece of technology. Ultimately, I plan to continue utilizing the tools I have already learned in the MSU program, and constantly seek out more. I worry, however, about making too lofty of goals about increasing technology, but I do have the best of intentions! Here's a rough sketch of how I would like to implement my goals:
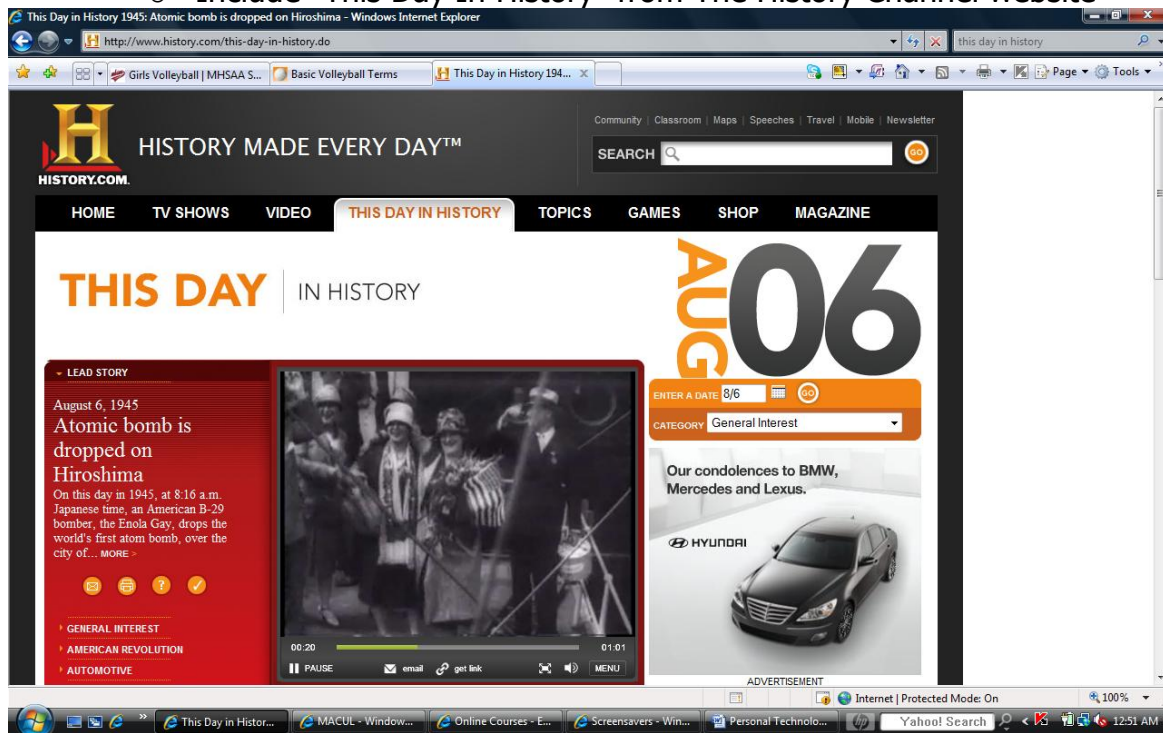
Fall 2009
- Continue enhancing personal webpage (created in CEP 811) to be full professional portfolio, starting with fully implementing all MSU Educational Technology Certificate components by doing the following:
  - Add CEP 810 page
  - Upload assignments from CEP 810 and 812
  - Fix links to CEP 811 assignments
- Create classroom blog for my Civics class
- Create another StAIR for Civics
- Create delicious page for personal websites I frequent, along with links to useful sites for each of the subjects I teach
- Seek out more interactive technologies for teaching social studies
- Join MACUL

Spring 2010
- Start a webpage for LCHS
  - Add pages for classes I teach (Civics, Economics, and US History)
  - Add Unit Outlines
- Link my LCHS page to portfolio page that I started in CEP 811
- Link LCHS page, blogs, and delicious pages together
- Use WebQuest created in CEP 811 in both US History and Current Issues classes
- Create StAIR for Economics
- Attend MACUL Annual Conference in Grand Rapids
- Attend Michigan Council for the Social Studies Spring Conference (to learn how to utilize technology in the Social Studies classroom, specifically)
- Create classroom blog for US History
  - Include "This Day In History" from The History Channel website

Summer 2010
- Continue enhancing LCHS webpage
  - Create course calendar
  - Add links to assignments
  - Link blogs
- Update Portfolio page (from CEP 811) to include assessment examples
- Continue MSU-MAET program in either East Lansing or overseas cohort, taking these classes:
  - CEP 800
  - CEP 815
  - CEP 822

Fall 2010
- Continue utilizing LCHS webpage for all courses
- Continue utilizing blogs for all courses taught
- Continue utilizing delicious and other social bookmarking and social networking tools
- Create podcasts for Civics and History lectures and discussions
- Create another StAIR for US History

Spring 2011
- Take CEP 820 as part of my MAET program
- Attend MACUL Annual Conference
- Continue utilizing LCHS webpage for all courses
- Continue utilizing blogs for all courses taught
- Continue utilizing delicious and other social bookmarking and social networking tools
- Create podcasts for Civics and History lectures and discussions
- Create another StAIR

Summer 2011
- Continue utilizing and seeking out new forms of educational technology
- Complete MAET by taking CEP 807
- GRADUATE!!!

Beyond Graduation…
- Continue advocating for technology in education
- Continue utilizing and seeking out new forms of educational technology
- (Perhaps) take on a role as a technology director or coordinator