Take a Deep Breath: On Not Losing the Turtle in the Technology

Marilyn R. Pukkila, Colby College
I teach future teachers how to use technology to do research. This is as close as I come to a Maine classroom, but occasionally I get a tantalizing glimpse through the experiences of the student teachers I work with. Recently, one of them asked me about ways to use technology in a class on animals. I almost didn’t mention the Marvel databases, assuming that they were already well known and deeply integrated into the curriculum. Turns out in this instance they weren’t, and the student was thrilled to know the class could have online access to Britannica K-12 and EBSCO Animals. Picturing a class full of engaged students looking up turtles and other creatures, I was glad to have made a small contribution to teaching and learning with technology in Maine. But I also found myself wondering just how the word is getting out to Maine teachers concerning the content of all the technology we are (rightly) hoping they are using in their classrooms.

Technology has always been a part of teaching, beginning with hand-copied manuscripts, progressing through the first time someone painted some clabboards black, and arriving at the present day joys and frustrations of wireless. Each tool has its value and its drawbacks. It also has a great impact on how students learn (another essay altogether, though it’s good to know that laptops are contributing to improved writing (Sharp, 2007)). In the end, though, it’s still content that matters, and after that, what we do with the content. I want students to be comfortable with technology, but I also want them to ask who wrote that material on how to approach snapping turtles, so they don’t lose a finger to the page that comes up first on Google. As more and more technology gives us more and more information faster and faster, I need to step back, take a deep breath, and reflect on just exactly what I want my students to learn. Then I can decide which technology will serve me best — even if it’s “only” a white board.

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Our students know that much of their world considers them as potential customers practically from the point of conception and, with remarkably little guidance, “deconstruct” them to see how the ads are designed to sell. Ask them what attracts their attention in the ad, who created the message, what the message is, and if they agree with it. You’ll probably get different answers for the same ad to all these questions, and in the following discussions you can point out that everyone understands messages differently. Then get out the high-tech paper, markers, and glue, and ask them to make new ads that parody the old ones and send a message they want to convey. (This works especially well with tobacco ads, probably not so much with turtles.)

You’ve just done a class on media literacy. The students now know first hand that all media messages are constructed, that they have embedded values and points of view, that different people interpret the same images differently, and that most media messages are intended to garner influence and/or profit for their constructors. By making their own messages, students learn the language, images, and techniques of persuasion, and realize that all messages contain bias — even their own. The question to ask is whether the creators of the message have been upfront about their biases. If not, it’s time to do some digging. (See the Media Literacy Clearinghouse at http://frankwbaker.com for more on media literacy for K-12 educators.)

The reliability questions of information literacy remain the same whatever the technology of the material: was it a zoologist or a backyard enthusiast who made that web site on turtles? How long ago did they write it? Does it talk about tortoises as well? Was it written for the We Love the Outdoors Club or for the Organization of Efficient Wetlands Reutilization? And why am I interested anyway? Am I thinking of a paper for science class or building a terrarium for the turtle that lives in my compost pile? Critical thinking skills are more crucial than ever in these days of instant blog authorities and Photoshopped images, and varied perspectives are essential to convey our multifaceted issues.

As a college librarian, I cannot know first-hand the challenges facing Maine teachers using technology with their students, though I imagine those challenges are multitudinous, stimulating, exhausting, glorious, and
heartbreaking all at once. At the same time, I do work daily with students as they make the transition to college-level expectations of learning and research. They come with a full range of abilities, expectations, fears, and assumptions around technology and research, all based on past experience and a few rumors. Currently, I teach them how to use databases, online catalogs, PowerPoint, Web pages, search engines, wikis, and blogs. I expect in five years I'll be using some tool I've never heard of today as casually as I use the Web now. Our students must be equally (if not more!) adept and flexible. More importantly, though, they must be able to think critically about the content the new tool turns up, to know how to discern a reliable source from an insubstantial one, and to seek multiple viewpoints in order to build a complex picture of whatever it is they're investigating.

Our world faces enormous challenges. Technology can provide us with a world of information in an instant, but only a well-trained mind can pick through the detritus, apply healthy skepticism to the hard-core sellers (commercial, political, or ideological), and come up with knowledge. Only a reliably nurtured curiosity will be sufficiently robust to push through the thickets of today's technological short-comings and arrive at the next great discovery, whether it's a limitless clean energy supply or the best way to treat the turtle that just showed up in the parking lot.

Of course Maine students and teachers need to be competent in the best information technologies available. They also need the time and the support to step back, take a deep breath, and reflect on how to use them well.

REFERENCES

*Marilyn R. Pukkila is Head of Instructional Services at Colby College Libraries. She presents workshops each year to Colby students who are preparing for secondary teacher certification. She thanks colleague Alison Wygant for taking the time to read and respond to early drafts of this essay.*

NOTES FROM THE CLASSROOM

I teach beginning French in the seventh grade at LMS. This year the Lewiston Public Library has provided our school with online licenses for Rosetta Stone. This was originally done for the benefit of our ELL students. Since we had extra accounts they were offered to the French classes. We have access to French, Spanish and English programs. Using this program has given my classes the opportunity to have a language lab in the seventh grade. The students use their laptops and are able to listen to native speakers and they get instant feedback on their responses. This is also beneficial because it allows students to advance at their own pace. They are also able to record their own voices, listen to themselves, and compare their speech to that of native speakers. This is a huge improvement over the cassette recorders we were using before. We use this program for two classes a week and use the other classes to learn grammar and writing and to study about French culture.

*Claire Gamache, Teacher, Lewiston Middle School*

The most memorable experiences I've had with technology occurred in second grade when my class received its very own Macintosh computer. Each person had a turn each week to play Oregon Trail with a partner or create a crossword puzzle for class. In a seventh-grade typing class, which was required, we played typing games for forty minutes every day for one semester. Learning to type was probably the most important skills I learned in school. Overall, I do not consider myself a very technologically savvy person. Even so, I have learned to use word processors with pizzazz and can figure out how to create a PowerPoint presentation. One of my classes, Evolution and Ecology, requires a lot of statistical analysis using a program called Prism. While I can use this program, I do not enjoy my time with it, and I often feel that I struggle more than others. Sometimes technology does make a class more interesting but not always. Even though I rarely use a computer in my field work at the Auburn Land Lab, the staff and I have created several engaging lessons for students. So, even though students should keep up with current technology to have the necessary skills for the job world when they finish school, technology is not the only way for teachers to be progressive and innovative.

*Ariel Garfunkel, Student, Bates College*