#### Laura Christine Rochette

# What Classroom Technology Has Taught Me about Curriculum, Teaching, and Infinite Possibilities

The availability of new technology and a willingness to experiment led Laura Christine Rochette to re-imagine a successful high school English curriculum. A SMART Board, individual laptop computers, and blogs became essential tools to enhance the learning of all students and to renew her excitement about teaching.



e teach in a world that demands multiple literacies and, simultaneously, an interdisciplinary curriculum that serves these literacies.

Given numerous publications on the subject of multiple literacies in recent years, this statement is not original; however, it is my experience with classroom technology in the last six years that has brought me to this understanding. My journey can be marked by the various stages at which I was introduced to, and learned, different kinds of classroom technology. Along the way, I have seen a changed classroom and a redefinition of what it means to teach English at the high school level. Nearly twenty years into my career, this technology has opened up the multiple dimensions in which good teaching can occur and the different possibilities of curricular design.

About ten years ago, a colleague, in response to the increasing pressure to incorporate technology into our curriculum, said, "All you need in a literature classroom is the book, a pen, and some students." At that time, I agreed with her. I had not run across any software or CD-ROMs that would prove helpful in my high school classroom; from what I could see, material was superficial or geared toward elementary school students. Here at Marlborough, an independent girls' school, we had not gone much beyond Microsoft Word except for our science and math departments. Back then, too, we deemed ourselves "successful" in integrating technology into the English curriculum because students word-processed their essays and we used photo-CDs to accompany the literature under discussion, primarily at the sophomore and junior levels. Our department adhered to Thoreau's philosophy, "Simplicity, Simplicity, Simplicity!" and didn't mind when the technology department took the responsibility of teaching computers and programming.

## Implementing Instructional Changes with the SMART Board

How standards and expectations have changed. Six years ago, both my teaching and my perceptions of a successful curriculum took an exit off the Traditional English Classroom Highway-characterized mostly by "the book, a pen, and some students"with the installation of a SMART Board in my classroom, for which I had impulsively volunteered. Having never seen one, I secretly envisioned a fancy, overpriced, overhead projector. Little did I know my "oh why not" attitude in that department meeting would yield the third SMART Board to be installed in the school (the first two went to history and physics classrooms) and would ultimately lead to additional funding from a local nonprofit organization interested in bringing technology into the classroom. This funding, procured by our development office, would bring the school another five SMART Boards in the ensuing six months. Not being terribly gadget-minded but being easily amused, I learned the basics with the help of our Technology-Curriculum Coordinator and some after-school

time. I quickly discovered that this wasn't a gadget after all. It was, indeed, a tool for extending the horizons of teaching and learning.

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Suddenly, I possessed the means to take the tools of my teaching—class discussion, essay writing, and literature—and launch them into a different dimension, a different space. I shamelessly proselytized its usefulness and value to anyone who would listen. All of the notes produced and written on the board during a class discussion could be saved as a computer file and retrieved for the next class meeting. I could have a separate file for each section of a class—I didn't have to erase

my chalkboard and start over the next period. I could prepare background and contextual material to help set up the latest novel and save it for future use. I could import digital images from my files or the Internet to enhance presentations. Suddenly, I possessed the means to take the tools of my teaching—class discussion, essay writing, and literature—and launch them into a different dimension, a different space.

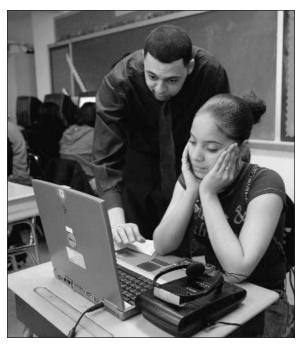
The SMART Board gave me another way to teach close reading, one that allowed me to demonstrate visually to the students the value of underlining, circling, and annotating passages. I could show them how to move from that kind of notetaking to interpretation and then on to argument. I was able to break down the writing and thinking process even more, giving students some insight into how interpretation and argument are composed. Close reading can take place with everyone sitting down, with their books, and a pen, but there is significant value to *illustrating* how this skill can be put into use. For example, on the SMART Board, I presented five descriptive quotations I had prepared in advance from Chapter 3 of The Great Gatsby, illustrating the title character's first party scene from beginning to end. As a class, we circled, underlined, dissected particular words, phrases, figures of speech, filling the board with connotations, ideas, notes, and questions; they did the same with the text in their books, quickly filling up their pages, finally seeing what note-taking should look like. In addition to this skill, they slowed down in their consideration of these particular quotations and were able to see motifs and

interesting imagery more readily; in fact, at this point a few students began to observe that they remembered "a contrasting image from the chapter before." When finished with our annotations, I asked the students to identify what each believed the most important ideas to be, carefully looking for what ideas could be combined or linked. I then asked them to draft a one-sentence argument about this party scene based on our collective analysis. We discussed the various interpretations, wrote them up on the SMART Board, and debated the merits of all of the arguments. Moreover, students possessed a predrafting process that they could transfer to their essay writing. This exercise took three forty-five-minute periods.

The visual representation of analysis and interpretation, and its collective creation, made a substantial difference in the written essays that followed. I required all of the students to mimic the process I had shown them in class, down to typing out their quotations, double-spaced, leaving room for notes. They needed to choose substantive quotations and demonstrate their analytical abilities by writing down their annotations; after pooling their individual annotations, they could then draft an argument with the bulk of their evidence right in front of them. Of course, teaching these skills was not new to me, but I would argue that utilizing this new dimension of representation gave me an understanding of teaching process that is only equal to what I can accomplish in a one-on-one conference. My quest became comprehending how students perceived, processed, and understood the class product now translated onto the dimension of the SMART Board; subsequently, I began looking for different uses of the board and additional approaches to supplement my more "traditional" choices as a teacher.

Little did I know at the beginning of my journey that the ease with which I could show art on the SMART Board to enhance the study of literature would open up a new realm of the English curriculum. Just a few weeks after its installation, I located a few Pre-Raphaelite paintings on the Internet and prepared a minilesson on the art movement for my juniors to complement some poems by Christina Rossetti. Having been a longtime fan of art history, I willingly allowed the seemingly tangential conversation that began when students made observations about some details in Dante Gabriel Rossetti's Ecce Ancilla Domini. I began to draw and annotate on the image itself, demonstrating the analysis and adding to the discussion, giving the students more to think about as they saw the visual representation of collaborative discussion appear. We were "close reading" the painting, looking at the "story" but also the painting's perspective, light, shadow, color, line, and composition, and the students-even the quiet ones-were engaged with the visual in a way that was palpably different than if we had had just a poem or the photocopy of the art in front of us on our desks. Some students struggled with what it meant to support one's argument using a painting. Where are the quotations? Learning that a concrete object, a color, or the placement of a figure could function as support for an argument allowed students to read a visual image.

Using this new technology, I could appeal to the visual and digital intelligences of students. I brought in more and more art, slowly realizing the value of seeing the paintings as text and not just as supplementary material. What began as a painting to accompany a poem in one course became a series of Winslow Homer paintings in my American Literature course to analyze and compare to writers' responses to war, including the texts of Walt Whitman, Mark Twain, and Ambrose Bierce. Studying Winslow Homer invited students to consider additional responses to war: Homer's admiration for his soldier subjects, his consideration of them as human beings, his illustrations of both the macroand micro-psychological impact of war, the hidden presence of the home front, and the visual representation of irony. While we took a close look at a series of study sketches of soldiers, combined with the finished painting Home, Sweet Home, one fruitful discussion with one section of tenth graders focused on Homer's technique with clothing, seen in the sagging weight of the soldier's uniforms; if clothing makes the man, one student argued, then Homer's individuals were indeed burdened with all that war entails. As I became more comfortable relying on art in the classroom, I became more conscious of ways to help the students transfer their developing visual reading skills to the page, the space of the verbal. What started as supplementary material that would never appear on an exam or in a writing



Photograph by Ryan Brenizer. Used with permission of the Student Press Initiative.

assignment became primary texts to include in any essay topics or creative writing prompts I offered. I wanted students to synthesize the different kinds of "texts," to understand thematic connections, and to

see how visual interpretation and verbal interpretation intertwine. The visual works of Mathew Brady, Asher Durand, and Mary Cassatt deserved a place alongside literature by Whitman, Emerson, or Chopin. Furthermore, combining the visual with the written text became an avenue of engagement the students hadn't encountered. Some believed it liberating to see English as a subject that could move beyond the page and the written word-imagine the appeal of this approach to the students who defined themselves as visually oriented or as

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visual artists. Students' responses to this technology helped me to think differently about what is necessary to teach critical thinking. It became more important for me to consider the necessity of technology in the twenty-first-century classroom and in what direction it was headed. With my confidence boosted by the ease with which I learned the operations of the SMART Board and its accompanying software, I started thinking bigger. What more could I do?

## Using Wireless Laptops to Support Composition

By way of a donation from a generous individual, twenty wireless laptops found a home in my classroom three years ago. The convenience of the laptops and, for example, the ability to send documents back and forth via email (technological glitches notwithstanding—I had to learn patience and some troubleshooting), quickly transformed how I implemented and articulated the writing process in class. Software allowed me to network the laptops to project a student's monitor up on the SMART Board. I could teach peer evaluation or discuss drafts of thesis statements; notes and changes could then be printed out for the student to use.

My classroom technology had finally caught up with the tools that students were most familiar with, reflecting Marc Prensky's definition of "digital natives." Could the same exercise be done on the chalkboard or on paper? Ten years ago, I would have said yes. Now, I believe that the more we can teach students using their media (chalkboard and paper are the media of Prensky's "digital immigrants"), the more effectively we can reach the space in which they learn.

Wanting to devote more time to the writing process, I removed some literature from my syllabus and included more time for in-class drafting and more conversation about process, in addition to the drafting students were responsible for at home. As I observed students using idea-organizing software and watched them composing on the laptops, I saw how exploring ideas, arguments, and interpretations using the laptops during class aided their memories, their understanding, and their ability to synthesize and make connections. Within the first year of using these laptops in the classroom, I realized there was more to explore, considering the growing flexibility of this digital environment.

## **Blogging in American Studies**

Last year, I was assigned to tenth-grade American Studies, and this intersected with my keen interest in implementing the blog. At our school, American Studies is a jointly taught, double-period class under the auspices of both the history and English departments. Aiming even beyond these two traditional disciplines, my teaching partner and I have created a class that explores American identity using a variety of documents, both written and visual, including texts of literature and history, paintings, photography, film, song, cartoons, and advertisements. This wide-open approach has given me a broader framework that extends our curriculum beyond conventional academic boundaries. My teaching partner and I were able to continue exploring the use of the visual in the classroom. Our school library had recently purchased a subscription to ARTstor, a database that culls digital art collections; combined with other resources on the Internet (Library of Congress and Artcyclopedia, to name two), researching art and showing paintings and photographs in the classroom using the SMART Board have become much more convenient. Thomas Cole, Asher Durand, Winslow Homer, Mathew Brady, Solomon Butcher, Mary Cassatt, Edward Hopper, Aaron Douglas, and Jacob Lawrence all have helped to bring to visual life themes and motifs, and most significantly, demonstrate myriad ways in which we can examine American culture.

In the second quarter, we had students construct topics using historical documents, literary texts, and visual media to argue aspects of American identity in the late eighteenth and early nineteenth centuries; we saw them through the carefully outlined process; held conferences about topics, arguments, and organization; and gave feedback on drafts. From students' choices of topics and documents, I learned about not only their interests but also their preferences in texts. One student pulled together Lincoln's Gettysburg Address and several Mathew Brady photographs to articulate an original approach: "President Lincoln states in the Gettysburg Address that the living can in no way add to the sacrifice given by the Civil War soldiers which so tributes their death; when photographers like Mathew Brady documented the Civil War, the majority of the photos exploited soldiers' deaths while a small few honored them like Lincoln intended." Later in the essay, she ponders the impact of a photograph, reflecting on significant universal issues regarding the use of media in wartime. She came to her topic and her argument on her own, with the teachers only asking questions to help her clarify and narrow. As with other students in the class, I am certain her investment in, and ownership of, her topic was enhanced by the appeal of the visual images and their contribution in bringing the written text to life.

Integrating fine art into American Studies, making students responsible for reading visual images, and articulating connections between the visual and the written texts coalesced in an unexpected way within the digital dimension of the blog. In the past couple of years, I had been looking for material that would support the use of the blog in the teaching of writing, showing how students explore their thoughts in this digital space, perhaps introducing a new rhetoric. Alas, I had found little. Intrigued, however, and undaunted, my American Studies partner and I dove into creating blogs. We challenged the students to explore, wonder, take risks, be curious, ask questions, and expand their thinking beyond the boundaries of the classroom; now, after nearly a year of this implementation, I do wonder if the blog is where the more impressive, powerful critical thinking can happen. Is there a form of liberation here in this digital dimension?

When students began their individual blogs, we started to see a few students offer smart observations and ask the intelligent, important questions any teacher wants students to ask. Yes, they can do this in discussion, but the nature of class discussion forces students to edit, keep it short. The blog is expanded thinking. What is so different about the blog as opposed to an essay assignment? One student told me it was the lack of pressure that somehow turning in a paper intensified and writing a blog post did not, even though she still faced a deadline. While she did need to adhere to my requests for Standard English and she knew the blogs would be assessed, she found herself not nearly as concerned with structure, the logic of her argument, or the accuracy of her content. A blog, with the tools available to quickly incorporate other material from files or the Internet, gives the student the freedom to create, and because of the level of engagement this entails, the writing, ironi-

cally enough, often is the student's strongest, even if it is not always mechanically "perfect." The following excerpt comes from a student's blog entry, entitled "The Migrant Mother: What gives an image power?" It explores the famous Dorothea Lange photograph we discussed in class, but the writer goes beyond class discussion with her initiative and research, something I'm certain I would not have seen in an essay assignment and something she

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would not have had the tools for in discussion. She proves she can read images successfully, synthesize, and challenge her audience:

> How is it that just a change in scale or field of vision regarding the composition of a photograph can change the effectiveness of a photograph in conveying tone and emotion? . . . In the last of the series, the famous "Migrant Mother," little of the background and the faces of the children can be seen. There is no hint of to what the mother is staring off at or where she is sitting. Because of this lack of information, we are free to fill in the blanks . . . increasing the emotional connection of the viewer to the subjects of the photograph. [In these five other pictures] other information is divulged about the subjects and their lives are subsequently demystified, a bit more personal, and more relevant to their individual story and history, not that of others. But as soon as you take away these crucial elements, the viewer is free to empathize and identify with the people in the photograph.

My American studies partner and I continue to look at this medium and assess its usefulness. While I am still exploring the blog's role in the teaching of writing, I know that asking the students to write more frequently, and in this public medium, can only benefit them; in fact, the very nature of its being public challenges them to be at their best—perhaps without their realizing it. In addition, they take risks that they may not feel comfortable taking in a paper or may not have the chance to take in a class discussion. Giving them the digital means to write, upload images, and articulate the relationship between these images and the broader concepts of the course does indeed demonstrate they can be thoughtful about the world around them.

## **Energizing Teaching and Learning**

When the SMART Board arrived in my classroom, I was in my thirteenth year of teaching, feeling restless, if not a bit bored. I was skeptical of technology. I had not seen or heard anything to challenge my skepticism, but the presence of the SMART Board and a willingness to see what it could do helped me realize what can happen by initially allowing a small change. Ever since, I have become happily addicted to the deep satisfaction of discovering something new.

Furthermore, both teaching and learning opportunities have continued to evolve and appear, to a point where I've never been more excited by the teaching career ahead of me. The opportunity, after all, to establish a curriculum that is primarily Web-based, where students can help create, and participate in, a dynamic 2.0 classroom environment that blends multiple spaces and multiple disciplines, is just around the corner. In some schools, this environment already is alive and thriving. If the promises of renewal and invigorating challenge aren't enough of an appeal to those teachers reluctant to enter this new arena, Jeffrey T. Grabill and Troy Hicks remind us of our educational responsibility to utilize this evolving digital space in our classrooms:

> Our students, those we have called "digital writers," rely on a rhetorically sophisticated combination of words, motion, interactivity, and visuals to make meaning. . . . These tools shift the ways in which composing takes place: They change the way we do research, the way we produce "texts," the way we deliver our writing. We think writing teachers must commit to this digital rhetorical perspective on writing, or they will miss the opportunity to help their students engage effectively in the ICT [Information Communication Technologies] revolution taking place right now. (308)

The more acquainted I become with the digital environment, and the more I see the intersections between this environment and interdisciplinary teaching, the more possibilities I see for appealing to students' multiple intelligences. The more possibilities I see, the more confident I am in knowing that as I approach my twentieth year of teaching, I can still believe in taking risks and seeing what follows.

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### **READWRITETHINK CONNECTION**

### LISA STORM FINK, RWT

Rochette details the importance of teaching students how to evaluate critically all of the multimedia they encounter, including artwork. Francis Cugat's 1925 cover art for *The Great Gatsby* and *The View of Toledo* by El Greco, mentioned in the final pages of the novel, are the focus of prereading and postreading activities in "Judging a Book by Its Cover: The Art and Imagery of *The Great Gatsby*." Students tap visual literacy skills as they analyze the artwork commissioned for the novel's cover. Based on their analysis, students make predictions about the plot and imagery of the novel. After completing their reading, students revisit the visual imagery and artwork, then conclude their study by designing their own cover for the novel. http://www.readwritethink.org/lessons/lesson\_view.asp?id=967