

Technology Scenario 1: Miranda Stevens, Principal of Western Middle School

As the principal of a struggling school in a struggling neighborhood, Miranda Stevens has always worried about perceptions. “What will families think,” she often wondered, “when they find out that THEIR children are assigned to OUR building? Will they be embarrassed? Disappointed? Will they try to move to a ‘better’ school in a ‘better’ neighborhood?”

Over the course of her first few years in charge, there were signs that parents DID see her school in a negative light. Membership in the parent/teacher organization was stagnant – there hadn’t been a significant increase in new members in years – and momentum was almost nonexistent. No one came to open house presentations, no one signed up for school committees, and no one was ever excited enough to celebrate the work being done by students and/or staff.

To make matters worse, a new building that was LOADED with digital tools – appropriately named High Tech High School –had just opened up across town. EVERY classroom had its own Interactive Whiteboard and ceiling mounted data projector, every classroom had a complete set of student responders that allowed teachers to gather instant information about what students did and didn’t know during the course of a lesson, and EVERY classroom had 15 iPads that students could use for researching on the web.

The local press was having a field day with High Tech High. Barely a week went by without some new story about the extraordinary work being done in what Miranda began to see as her cross-town rival. Worse yet, local politicians and business leaders were lining up to tout High Tech High as a model for what schooling should look like in the 21st Century. There was a buzz in the community around the school that Miranda hadn’t seen anywhere during her 20 year career.

For Miranda, all of that attention hurt simply because she knew that her teachers deserved the same kind of celebration in the press. They worked long hours in the face of challenging circumstances to do the best that they could on behalf of the students that they served. They were inventive and determined, polishing their practices together and scratching their way forward with a determination that would make any principal proud.

“Why doesn’t anyone ever come to see what we are up to?” she said to her assistant principal one morning. “Our teachers work twice as hard with half the resources and yet no one ever bothers to notice.” High Tech High was the final straw, she decided. If change was going to happen, she was going to have to open her school’s checkbook and buy it.

“We simply HAVE to start filling up our classrooms with technology if we are EVER going to stand a chance at making parents and community leaders proud of our school,” she thought. “Now where did I leave the phone number for that Interactive Whiteboard salesman? I want one in every classroom by the beginning of next year.”

Technology Scenario 2: Antonio Villareal, Elementary Literacy Teacher

As the literacy teacher in a suburban elementary school, Antonio Villareal had one of the most challenging jobs on the faculty: Supporting students who struggled on school, district and state level reading assessments.

The challenges for Antonio were many. First, the small groups that he met with for 40 minutes each day were incredibly diverse. Some students struggled with fluency while others struggled with comprehension. Some were reading a few months behind their grade-level peers while others were years behind. Some were easy to motivate while others seemed defeated and resistant on a good day.

Making matters worse was the fact that the stakes – for the students, for the school and for Antonio – had just gotten a whole lot higher. In an effort to “introduce accountability to education,” policymakers had recently passed laws that required EVERY student to pass a standardized reading exam before being promoted to the next grade level, EVERY teacher to be evaluated based on the test scores of their students, and EVERY school to be labeled on a scale from A-F based on the growth rates that grade levels showed on yearly end-of-grade exams.

Antonio’s principal had made it clear to him that failure was not an option. All of his students HAD to be prepared for that end-of-grade exam – and if Antonio couldn’t produce results, his position could be in jeopardy. “What’s the point of a literacy class,” his principal had explained, “if we still have students that can’t pass the required tests?”

The good news was that a special programs grant had just landed in Antonio’s lap. His classroom had been outfitted with 15 desktop computers – enough for every student to have their own computer for the entire class period. Better yet, there was enough money left over to purchase a subscription to WonderRead – a widely celebrated digital program that worked students through a series of reading lessons tailored for their individual abilities and that assessed progress and mastery after every lesson.

At the beginning of each semester, all Antonio had to do was give his students an online diagnostic screening test and WonderRead would do the rest. Automatically analyzing student responses to multiple-choice questions, the program could spot individual skill gaps in every student. More importantly, it could also offer up remediation lessons – complete with animated characters and videos designed to encourage students to try harder and to learn more – that addressed each skill gap.

When students demonstrated mastery of new skills – something that they had the opportunity to do at the end of every lesson through additional multiple choice testing – WonderRead would record progress for students and send an email directly to Antonio. Never had tracking progress been so easy.

As he sat in the back of the room watching his kids quietly working through their digitally differentiated lessons each day, Antonio couldn’t help but feel a sense of hope. “Finally,” he thought, “I can meet every student in my diverse classroom where they are. Maybe they’ll pass those tests after all.”

Technology Scenario 3: Marsha Turnbull, High School Biology Teacher

When Marsha Turnbull got hired at John Adams High School, she was convinced that she had died and gone to professional heaven. You see, Adams High had more technology than any other building that she'd ever worked in. Not only had students been allowed to bring their own devices to school for the better part of the past five years, the building was making a serious investment in a one-to-one laptop initiative. The goal was to make sure that EVERY child was connected during EVERY class period.

For Marsha, this meant she could FINALLY start experimenting with all of the digital tools that she was learning about in her personal learning network. No longer would access get in the way of all of the fun things that she had always wanted to do with her kids – and no longer would she be forced to try to cajole and entertain digital natives who were bored by low-tech classrooms. “Every kid will be motivated every day!” she thought on her first day at Adams. “What a relief.”

Marsha jumped feet-first into the digital waters, starting a classroom blog where she planned to let interested students reflect on each day's lessons. “Anytime that you want to share your thoughts about what we're learning in class, just let me know,” Marsha explained. “I'll give you a username and a password and you can post your thoughts for everyone to see!”

She also required students to submit digital content for every project. “You can create movies using Animoto, tutorials using YouTube, or presentations using Prezi. You can use Visually to create infographics or Wordle to design word maps with unit vocabulary – but you AREN'T allowed to turn in anything on paper! How cool is that?!”

Marsha tried to model digital production for her students in every lesson. Some days she recorded her lessons so that she could flip instruction. Other days she used Livescribe pens to create recorded tutorials for her remedial students. She started her own blog – the Turnbull Times – where she wrote her own reflections on what she was learning away from school. She used her cellphone to interview students working on classroom labs and posted the recordings as podcasts online.

What Marsha found after a few months of working at Adams, however, surprised her.

Her students weren't ANY more motivated than the students that she had worked with in her previous school – a place with almost no access to technology. No one took the time to add reflections to her classroom blog even after she started offering extra credit for interesting posts. Worse yet, the digital projects that students were turning in were mediocre on a good day – and on a bad day, they were absolutely awful.

“Maybe today's students really ARE the dumbest generation,” Marsha said to herself one afternoon while grading projects after school. “If all of the technology that they have available to them here at Adams can't motivate them, nothing will.”

Technology Scenario 4: Thomas Vanderheusen, Art Teacher

Thomas Vanderheusen had been the art teacher at Central Middle School for the past 15 years – and in that time, he had experimented with a thousand different ways to get students to reflect on the pieces that they were creating. In his first years, that reflection always started with students writing a short paragraph detailing the choices that they made when creating their final products. These paragraphs – called artist’s statements – would be attached to student work before it was turned in.

Thomas loved the artist statements because they became a transparent lens into just what his students knew about the techniques that they were experimenting with. He could see when each child had made intentional choices about the use of line or color or perspective in their work – and by studying patterns in the artist statements made by all of his students, he had begun to spot gaps in what his kids knew and were able to do. He’d used those patterns to successfully make choices about teaching and reteaching more than once in his career.

What had always frustrated Thomas, though, was that getting students to give and receive feedback to OTHER artists had always been a difficult and cumbersome process.

He’d tried having students do gallery walks around the classroom, looking at the pieces created by peers and leaving thoughts – questions or comments or artistic challenges – with sticky notes, but nothing productive ever seemed to come of it simply because writing thoughtful feedback on sticky notes wasn’t easy. Worse yet, it was almost impossible for students to archive feedback received on sticky notes – which meant that feedback almost never resulted in changes to future products.

Thomas recently discovered a digital tool called VoiceThread (<http://voicethread.com>), though, which might just make giving and receiving and learning from peer feedback possible. A forum for hosting simple asynchronous conversations on the web, VoiceThread allowed users to upload any content – quotes, videos, photographs – to use as conversation starters. Then, groups of users could interact around that content by leaving text, audio and/or video comments for one another.

Thomas quickly realized that this simple digital tool could be incredibly powerful. “Students can upload photos of their final pieces and then add their artist statements as a comment for visitors to explore,” he thought. “Then peers could leave ‘digital sticky notes’ for one another. All of the feedback for every artist would be stored online in a digital artist’s portfolio forever.”

Thomas’s students were hooked almost immediately. They loved having their content posted online and loved giving feedback to their friends. What Thomas loved, however, was that each new comment gave his students another opportunity to practice evaluation and to wrestle with the content and skills that they were studying in class. The process of critiquing a piece was as valuable, he realized, to the student giving feedback as it was to the student receiving feedback.

“Finally,” thought Thomas, “I’ve found a digital tool that I can believe in!”

Technology Scenario 5: Susan Smith, Middle Grades Language Arts Teacher

For the students in Susan Smith's seventh grade language arts classroom, learning to persuade is the PRIMARY objective for an entire year's worth of lessons. While Smith sees persuasion as important in and of itself – people do, after all, spend MOST of their lives trying to change minds – persuasion is also an important part of the seventh grade curriculum. In fact, every one of Smith's students is required to pass a persuasive writing exam before being promoted to eighth grade.

Smith's approach to teaching persuasion starts in digital discussion boards that she sets up using Edmodo (<http://www.edmodo.com>), a virtual home for classroom conversations that her district has given every teacher and student access to. Each Monday, Smith introduces her students to a new article about a controversial topic connected to the science or social studies curriculum. They've studied everything from racism and global poverty to cloning and the government's role in requiring citizens to make healthy choices. As long as it's controversial, Smith is willing to share it with her kids.

After reading the article together in class and beginning to craft a personal position, Smith requires every student to visit their classroom discussion boards to wrestle with the controversial issue together. With Smith's help, they've learned to ask provocative questions. More importantly, they've grown comfortable with having their thinking challenged and with challenging the thinking of others.

Smith's students are also writing blog entries about the controversial positions that they are studying that are designed to raise awareness and change minds. Blogging, Smith argues, provides her students with a chance to practice being influential. Forcing students to carefully articulate ideas, Smith's blogging projects address her required curricular objectives while simultaneously giving students an authentic audience for work that is often kept private in other classrooms.

While all of these projects are exciting for her students – they ARE centered around opportunities to be social and to drive change in the world around them, after all – what Smith likes the best about her work with technology is that digital tools make it possible for students to receive far more feedback on their thinking than she could ever provide alone.

Parents and classmates who follow the digital conversations that Smith's students are involved in regularly challenge misconceptions. This means that every child – no matter what they thought they knew about a topic – is forced to polish their core beliefs in a very public way. Even better, the feedback that they are receiving is immediate, which researchers like Robert Marzano spotlight as a characteristic of the most effective learning environments.

"Persuasion doesn't just happen in essays written for end-of-grade exams," Smith explains. "It happens in conversations around the water cooler. I want to give my kids chances to practice THAT kind of persuasion too – and digital tools make that possible."

Questions to Consider

- **Scenario One:** From the evidence that you can gather in this story, what is this practitioner doing well? What can we admire about their thinking around the use of technology in schools? How is that thinking likely to move their school and/or classroom towards a more responsible vision of the role that technology should play in classroom instruction?
- **Scenario Two:** From the evidence that you can gather in this story, what is this particular practitioner struggling with? What challenges might their thinking around the use of technology in schools lead to in the future? How do you know?
- **Scenario Three:** How would the students in this practitioner's classroom and/or school feel about the role that technology is playing in instruction? Would they be motivated and excited? Bored? Would they see technology as a tool for making learners more efficient and effective? Would they leave this practitioner's classroom and/or school better prepared to survive and thrive in tomorrow's world?
- **Scenario Four:** Make a prediction about what will happen next for this practitioner. Will they experience any successes? Failures? Will they be forced to change directions? Explain the factors that will cause your prediction to come true.
- **Scenario Five:** Create a metaphor or a graphic image that represents the work that this practitioner is doing with technology *OR* that represents the kinds of support that practitioner needs in order to move forward in the work he/she is doing with technology.