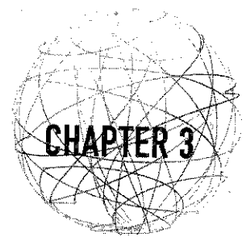


IMPLEMENTING A NETWORKED CLASSROOM

Seventh-/eighth-grade teacher Clarence Fisher has an interesting way of describing his classroom in Snow Lake, Manitoba. As he tells it, it has "thin walls," meaning that despite being eight hours north of the nearest metropolitan airport, his students are getting out into the world on a regular basis, using the web to connect and collaborate with students in places around the globe. The name of Clarence's blog, *Remote Access*, sums up nicely the opportunities that his students have in their networked classroom.

"Learning is only as powerful as the network it occurs in," Clarence says. "No doubt, there is still value in the learning that occurs between teachers and students in classrooms. But the power of that learning is more solid and more relevant at the end of the day if the networks and the connections are larger" (C. Fisher, personal communication, November 23, 2010).

Without question, Clarence exemplifies that notion of the "networked learner" that we talked about in the last chapter. Aside from reflecting on his life and his practice on his blog, he uses Twitter to grow his network, uses Delicious to capture and share bookmarks, and makes other tools like Skype and YouTube a regular part of his learning life. In other words, he's deeply rooted in the learning networks he advocates for his students.

"It's changed everything for me as a learner," he says. "I teach in a small school of 145 kids, so I don't know what it's like to have a lot of colleagues. I can't imagine closing my door and having to generate all of these ideas on my own."

Clarence helps his students create these networked interactions at every turn. A few years ago, his students collaborated with a classroom in Los Angeles to study S. E. Hinton's novel *The Outsiders*, using Skype for live conversations and blogs to capture their reflections on both the story and the interactions. More recently, his students studied *The Book Thief* by Markus Zusak with a class of Ontario students, listening online as their teachers read parts of the book aloud while conducting a chat in the background filled with questions, reflections, and predictions as to what would happen next. Over the years, his students have worked with kids in Australia, Brazil, Argentina, and China, just to name a few.

But here's the thing: while Clarence may initially be the one to make these connections, most of the networking quickly starts coming from his students. As he was beginning to explore the idea of the "thin-walled" classroom back in 2006, he wrote the following on his blog:

> The connections have had very little to do with me. I've provided access, direction, and time, but little else. I have not had to make elaborate plans with teachers, nor have I had to coordinate efforts, parceling out contacts and juggling numbers. It is all about the kids. The kids have made contacts. They have begun to find voices that are meaningful to them, and voices they are interested in hearing more from. They are becoming connectors and mavens, drawing together strings of a community. They are beginning to expect to work in this way. They want to know what the people in their network are saying, to hear about their lives and their learning. They want feedback on their own learning, and they want to know they are surrounded by a community who hears them. They make no distinction about class, about race, about proficiency in English, or about geography. They are only interested in the conversation and what it means to them. (Fisher, 2006)

That's a very different picture from what happens in most traditional classrooms, but it captures the essence of what student (and teacher) learning can look like in schools these days. Thin walls expand the classroom, and in the process deepen our understanding and practice of all of those 21st century skills that we referenced earlier—the critical thinking, the problem solving, and the rest. As students begin to experience the powerful pull of connections to other students and teachers outside of their physical spaces, they also begin to see the world writ large as a part of their daily learning lives. Just as Clarence says these networks "changed everything for me as a learner," they also change our interactions with the kids we teach, the way we think about classrooms, and the way we see the world. Those are big statements, we know, but we see these shifts being played out every day in profound ways. More and more, they reflect the real world of learning that our students will graduate into, whether we help them get there or not.

What Changes

As always, the change starts with us. If we truly commit to the idea of creating a networked classroom, we also need to commit to changing the way we think about our roles in those classrooms. To put it plainly, as George Siemens suggests, "social and technological networks subvert the classroom-based role of the teacher" (2010). When students can find content from many different sources, and when we can literally bring scientists and researchers into the classroom to interact directly with students, the traditional "teacher as expert" model is turned on its head (Siemens, 2010). We're talking about a shift in roles. Instead of being the smartest people in the room, we need to be effective connectors for our students, able to sift through all those potential teachers online, find the most relevant ones, and effectively use

technologies such as blogs, Skype, or others to bring them to our students. As Siemens says, we also need to be transparent about the process by modeling safe and effective techniques for connecting and learning with others. That all comes with being networked learners ourselves.

In turn, all of this changes the classroom culture itself. Instead of the teacher "teaching" and the students "learning," teachers and students become co-learners as well as co-teachers in the process. The classroom begins to become a community of learners in which each person takes some responsibility for achieving curricular goals and outcomes. In some cases, students become classroom "scribes," as Vancouver math teacher Darren Kuropatwa called it, rotating responsibilities for taking notes on the daily lessons and adding links, graphics, discussion questions, and other content to the class blog after class ends. As Darren explains it, "Over the course of the semester, the scribe posts will grow into the textbook for the course; written by students for students" (Kuropatwa, 2006). In a similar scenario, students work collaboratively to capture notes and other resources on a wiki page or in a shared Google Doc, taking what might otherwise be a linear, text-heavy book and turning it into a compilation of videos, virtual tours, interviews, blog posts, journal articles, and a whole host of other connected resources for further study related to the topic at hand. In the process, students find other potential teachers that may be suitable to bring into the classroom for live discussions or collaboration.

In other words, we need to unlearn much of what teachers historically have done, and instead begin to craft new roles and expectations for ourselves in the classroom. As Siemens suggests, we are now one of many teachers in our students' networked lives, though no doubt a prominent one among other people or resources. In that respect, our role becomes one of helping students organize their own learning and navigate the complexities of finding and connecting their own nodes of learning in ways that serve them well. We also must act as expert filters, demonstrating the fundamental literacies around information as we find, sort, synthesize, save, and share the most relevant resources in our own learning. And we must be transparent models of learning in these networked spaces. Our students need to be able to access our contributions, interact with them, and learn from them online.

We know the shift to the idea of "classroom as node" is not an easy one. As much as we hope we've made the case for teaching our students to be self-directed learners who can take charge of their own education, we also know they must still pass the test and achieve in traditional ways. The good news is that passing the test and becoming literate, modern learners are not mutually exclusive. We can help students achieve both goals. For those teachers who have no personal context for networked learning, getting started requires a leap of faith, but we're confident that once you've taken the time to create your own learning connections and networks, you will see a path to achieving important outcomes for your current students.

The Benefits of the Networked Classroom

Before we look at some case studies of teachers who have turned their classrooms into networked learning spaces, we want to give you some idea of what those classrooms look like. When you do eventually find yourself teaching and learning in a networked classroom, you'll also find that classroom looks and feels very different from the one that came before. In fact, there are a few qualities of new learning environments that particularly stand out. Networked classrooms are:

- Transparent
- Collaborative
- Learning centered
- Accessible
- Communication based
- Supportive of problem- or inquiry-based learning
- Driven by authentic assessment

First, networked classrooms are *transparent*. Just as individual learners need to share openly in order to foster connections, classrooms also need to open up to the world online. Why? For one, classrooms that share provide great opportunities for students to learn about participation, publishing, safety, and network building in real ways (as opposed to the fairly contrived opportunities in traditional classrooms). Instead of the project that gets displayed on the hallway bulletin board, student work can be published to a larger audience that, depending on the age and circumstance of the students, might be encouraged to interact with the work by commenting on it or perhaps even participating in the creation of improvements. Additionally, transparent classrooms are more apt to create connections with other classrooms around the world, increasing opportunities for collaboration and cultural awareness. In the same way that we need to be findable to others in order to learn with them, sharing our work and the work of our students can lead to many dots on our classroom maps.

Second, networked classrooms by their very nature are *collaborative*. At a time when we have so many potential others with whom we can learn and create, the adage "do your own work" doesn't make much sense any longer. If we remember that "none of us is as smart as all of us," we can begin to tap into the expertise of both those around us and those outside the school. Students can become teachers, helping both the adults and the kids in the room learn. Students and teachers together can begin to create meaningful things together, artifacts that have relevance and use far beyond the end of the school year. In this way, too, the primary activity within the classroom shifts from the acquisition of knowledge as individuals to the creation of knowledge with one another—knowledge that is then shared with the world.

Third, these classrooms are also *learning centered*, which means the emphasis is more on developing the skills to become lifelong, self-directed learners than on content that students are expected to stow away in their heads for recall at some future date. Again, the current educational regime still expects a good deal of that content knowledge, and at this point, we still have to make sure that our students "know" certain things. But in the spirit of helping students "create their own education," we must also focus on those learning literacies that will make them successful in a world in which there is simply far too much knowledge for any one person to know and remember.

Fourth, networked classrooms are more *accessible* in terms of the content and the students who are a part of it. Coursework is routinely posted to an online portal, be that a blog or a content management site like Moodle (http://moodle.org). Lectures might be recorded and shared online, and the class may have a designated space for students to backchannel—have text conversations—either inside or outside of class. While no one expects teachers to be on call constantly, the networked classroom reflects the idea that learning can happen anytime, anywhere. *Accessible* in this light doesn't just mean the content is available to the students and teachers in the room; it also means the content is findable to other classrooms, students, parents, and teachers who may seek to interact or collaborate in some way.

Fifth, the networked classroom is *communication based*, meaning that our students are constantly practicing oral and written communication in every interaction. Learning in networked spaces requires participating, not simply consuming passively, so students are continually engaged in a process of reading, writing, and interacting with other students and teachers and testing ideas. In this networked space, communication is not just a product of written text. As the NCTE literacies suggest, our students need to be fluent in the creation and analysis of multimedia and need to be able to use pictures, audio, and video to shape and convey ideas and knowledge.

Sixth, *problem-* or *inquiry-based learning* is more possible in networked classrooms. Many of the hallmarks of problem-based learning, such as promoting ownership and addressing large challenges, are a natural fit for the connected classroom. Students can work on real-world problems with the people trying to solve them, learning from them about the challenges in their fields and thinking about how they can contribute. This increases student engagement while sharpening the skills students will need when they finish their schooling.

Finally, these classrooms are driven by *authentic assessment*, meaning students are not just judged on quiz or test scores or traditional writing assignments. Students are doing real work for real purposes for real audiences, and the products they create are measured accordingly through self-reflection

on the creation process, performances, portfolios, and a host of other ways. That's not to suggest that all forms of formative or summative assessments are abandoned, but if the emphasis of the classroom is turning toward learning and the skills to best make that happen, the expectations are difficult to measure with a bubble test or a short-answer essay.

What the Networked Classroom Looks Like

Let's take a look at some extended stories of teachers like Clarence whose teaching lives have been transformed by making the connections now possible on the web an integral part of student learning. We've tried to offer diverse stories of fairly typical teachers who are representative of the many traditional classroom instructors beginning to shift their practices in truly transformative ways. None of us come to these changes in the same way, which is as it should be, but as you'll see, there are some overarching themes that all of us share when we take on this journey.

A word of context, however: these vignettes are what Chip and Dan Heath call "destination postcards": "a vivid picture from the near-term future that shows what could be possible" (Heath & Heath, 2010, Kindle location 1103). At some point, all of these teachers were where most of you are now, without a lot of connections or even a clear picture of what learning networks are. Their evolution to these spaces was years in the making. So please resist the voice that says, "I could never be like that." You can. You will.

Anne Smith

While there are literally thousands of teachers using the web to network their classrooms in meaningful ways, few have done it better than Anne Smith, a high school English teacher at Arapahoe High School in Littleton, Colorado. A thirteen-year veteran of the classroom, Anne has experienced a huge shift over the past few years in the ways she thinks about her own learning, and that shift plays out almost every day in her role as a teacher.

"Because of the abundance of information and resources and people online, our job more than anything is to connect kids beyond the classroom," Anne says. "And a big part of that is creation of their own learning networks, through reading widely on blogs, finding literature, finding experts, connecting pieces all over the place so that their minds just don't stop thinking. It's a whole different classroom and an important way to make sure our students will be successful in life" (A. Smith, personal communication, November 3, 2010).

What's different about Anne is that she's not afraid to ask some big-name authors and experts to connect with her kids, and she's got a think-outside-the-box approach to getting the most out of those interactions.

Case in point is best-selling author Dan Pink, who has been an integral part of her students' study of his book *A Whole New Mind* since 2008. While the idea of inviting an author to blog with a class or sit for an interview on Skype is nothing new, Anne saw an opportunity to deepen the experience for her students using other educators and experts around the world to help students reflect and discuss the themes of the book. While what follows may sound complex, few of you would need more than a few hours to learn the tools to make it work for yourselves.

Here's how it worked: Pink was invited to videoconference with the school using Skype, a free, online telephone/video tool, and was interviewed by a panel of students who led a two-hour discussion about one of the chapters of the book. At the same time, Anne streamed the video Skype conversation to the world using Ustream (www.ustream.tv) so that others in her network who had seen her tweets about the event could join in virtually. In addition, while the Pink interview was taking place, her other students were using their laptops to "live blog" the event using a service called Cover it Live (www.coveritlive.com), a sort of text chatting tool that has a moderator function built in. Other folks who were watching the stream live could join in the discussion as well. (Visit **go.solution-tree.com/technology** for a great video that discusses the event's planning process and for more resources.)

These interactions didn't just occur on the day of Pink's videoconference, however. Over the course of a couple of weeks, Anne's students had "fishbowl" conversations about the other chapters; some sat in the middle of the room discussing the chapters face to face, and others in an outer circle observed and live-blogged, asking questions, reflecting, and sharing their insights online. Those classroom conversations were streamed out as well so students had a global audience for their discussions. Finally, Anne solicited the help of educators in her network to join each live blog session as a surrogate mentor, gently probing and pushing back as the text chat ensued, helping students think more deeply about the discussion.

"I want my kids to constantly go beyond the piece of paper," Anne says. "I want to teach them to constantly search for more, seek out more voices, and take advantage of the chances we have for doing that now."

On other occasions, the connections are more serendipitous, stemming from her personal network ties. Last fall, Anne read an essay titled "Schools Would Be Great if It Weren't for the Kids" by Alfie Kohn (2010), and she responded with a blog post that pushed back against his ideas by citing the realities of the classroom (Smith, 2010a). As many bloggers do, Anne then tweeted a link to her blog post, inviting others to come and read and share their thoughts. Sure enough, Kohn read the tweet, read her blog post, and then exchanged emails with her to help clarify his points and offer suggestions that she might try in her classroom. Naturally, this all led to an extended conversation with her students not only about the power of the

connections, but also about how they could improve their classroom experience in meaningful ways (Smith, 2010b).

Finally, last fall, Anne invited educators in her network to collaborate with her students in creating "This I Believe" essays and podcasts fashioned after the popular National Public Radio segment. In a blog post, she wrote:

> I want my students to benefit not only from knowing what their peers believe, or what the other AHS classes believe, but to hear and see what the world values. What do kids elsewhere in the U.S. believe in? What do kids elsewhere in the world believe in? What do some of the learned professionals that I know believe in? I want my students to walk away from this experience realizing the power they have as professional writers as well as connecting to other teenagers and adults from around the world. I want to see them exchange ideas, foster relationships, and appreciate the variety of perspectives. (Smith, 2010c)

She added a link to a simple Google form at http://ahsthisibelieve.wikispaces.com/ where other teachers could sign up to participate in the project, and at this writing, her students are working with almost six hundred students from eight states and three countries.

While there is much to take from Anne's experiences, what's most important is her willingness to be transparent not just about the creative ways she's setting out to create these connections but also about the reflective practice she models on her blog. She encourages her students to read her blog, and they know that she writes about her classroom experiences there. It gives them a great example to follow as they create their own personal learning networks through their participation in class. All students blog, collaborate on wikis, and share their work widely in many different ways.

"The biggest shift for me personally was understanding that teaching now means sharing on a lot of different levels," she says. "You can't just take and not give back; I have to give back. My responsibility as an educator, as a parent and as a human is to give back ideas, to say 'here are my ideas, what are yours?'"

That type of participation and "giving back" is foundational when it comes to effective, successful networked classrooms. It's an ethos that is felt by everyone in the classroom community—students and teachers alike. Succeeding in a networked learning world is all about participating, and the more opportunities we can give our students to interact with those global audiences, the better.

Brian Crosby

Trying to help students see these connections when they don't have a great deal of Internet access outside the classroom to begin with is more difficult but still possible. In Brian Crosby's case, while the technological barriers for most of his fifth-grade students in Sparks, Nevada, are pretty

high, networking within the classroom and the school are still powerful ways of getting kids to see the potentials of online networks.

To get a clear sense of the poverty in which most of Brian's students find themselves, you might want to take a few minutes to watch this TED talk that he gave in Denver in 2010: www.youtube.com/watch?v=66mrAzz7nLw (TEDxTalks, 2010a). Ninety percent of his students qualify for free lunch, and only about half of his students in 2010 knew what state they lived in. Only three knew what country. Obviously, it's a difficult starting point for a discussion of learning networks with his students, but Brian, who has been blogging away at *Learning Is Messy* (www.learningismessy.com) for over four years, isn't daunted.

"It's important that students know they can network in their schools, that they have access to the math teacher down the hall and the science teacher and others in the community," Brian says. "But any chance we have to show them those networks extend beyond the classroom walls, we need to take advantage of it" (B. Crosby, personal communication, November 5, 2010).

That can be as simple as bringing kids who are home with illnesses into the classroom via Skype. A few years ago, Brian was told that he had a new student in his class, but that she was unable to come to school because she had leukemia. Instead of simply receiving packets of work to complete at home, Celeste joined her classmates every day through a laptop setup on the desk where she would normally have been sitting. The Skype video feature let her see the other students, while they could see her as well. She could hear Brian's lessons and participate in the discussions, and over time, she became just another student in the class. In the interest of sharing, Brian made a video of the experience (www.arisleyschool.org/Inclusion.mov), which has been viewed over half a million times at this writing.

That idea of making virtual students a part of the physical space holds true even for students 2,500 miles away. When Brian's classes collaborated with Long Island teacher Lisa Parisi's students on a project based on the book *The Mysteries of Harris Burdick* by Chris Van Allsburg, he soon found himself teaching her kids and vice versa.

"When you do collaborations of this type, you find your classroom expanding in interesting ways," he says. "You find you're helping to mentor a whole group of kids that you'll never meet, and that can have some unexpected benefits for everyone."

The Harris Burdick project is another great example of using networked spaces to expand the students' sense of the classroom as well. For those unfamiliar with the book, it offers a series of enigmatic drawings for which the accompanying story has supposedly been lost. Readers have the chance then to create their own new narratives around the pictures. Brian and Lisa's students formed small groups, two from each classroom for each drawing, and embarked on a process of writing these new stories. They used Google Docs to create the outlines and compose their stories

asynchronously (which was important, considering the three-hour time difference). Toward the end of the process, they shifted their schedules to allow the groups to meet synchronously using Skype, editing their Google Docs and discussing those edits in real time. In Brian's words, that's when the magic really began.

None of the magic would have happened at all, however, if both Brian and Lisa hadn't already been growing their own learning networks and connections. They originally connected their classes while using Classblogmeister, a blogging tool specifically made for school use, and they had their students reading and commenting on each others' posts. Then they also connected on Twitter, and through their interactions there, they started working on the book collaboration separately. Because both had existing networks, they were able to expand the project to include more than a dozen other classes from across the United States and as far away as Perth, Australia. The results, to put it mildly, were impressive and were published on a culminating wiki for the world to see.

Since then, Brian has been looking for more and more ways to bring the world into his classroom, and a quick glance at his wiki speaks volumes about those efforts. His kids have sent "high hopes" up into the air on a weather balloon along with the hopes they collected from dozens of other classrooms around the world. They've gone "Around the World in 80 Days," Skyping into classrooms in Argentina, Thailand, Iceland, New Zealand, and Canada. They've made public service announcements for the City of Reno, and they've hosted a slew of experts and leaders both in and out of the classroom. Almost everything they do extends their connections.

"I'm networked with other teachers and experts, and my kids are, too," Brian says. "My kids especially know so little about the world that networking the classroom like this is a priority, even though we don't have a great deal of technology either in the classroom, or in my students' case, outside the classroom. We just make it happen."

Shannon Miller

Even educators who haven't been participating in networked learning spaces for very long are finding ways to make their classroom walls a little thinner. In some cases, they're tearing the walls down. Shannon Miller—a teacher-librarian/technology coordinator for the Van Meter, Iowa, school district—went from starting to find her own connections in 2009 to teaching a full-fledged personal learning networks course for students in 2010. The results, both for her own learning and for that of her students, have been pretty impressive.

"We're literally in the middle of a cornfield," Shannon says, "and as I started making my own connections in the world, I also started thinking 'why can't we create a class to get our kids connecting in these ways as well'" (S. Miller, personal communication, November 11, 2010).

Since connections are the focus of the curriculum, Shannon spends the first half of the eighteen-week class doing just that, finding other classrooms and other teachers to connect her students with. She tries to do so in a way that both sides gain value. For instance, on a regular basis, her students learn how to use different Web 2.0 tools from the tool creators themselves as they Skype into her classroom. In return, her students give the developers feedback on what's working and what's not. If you're using tools like Juxio, Pixton, Diigo, or many others, odds are the students at Van Meter have had a hand in what you're doing. Shannon uses the interactions as a way for them to learn not just about the tools but about how the tools are created.

In addition, in 2010 she connected with Bill Brannick, the principal of Archbishop Pendergrast High School in Philadelphia; before long, Shannon's class had doubled in size as she began to teach his students virtually as well. Not long after, Patrick Larkin, a principal in Burlington, Massachusetts, added some of his students to the mix. Students in all of the classes connect through a variety of tools from social bookmarking to RSS feeds to Skype to Twitter, and they comment on each other's blogs and work collaboratively on projects. To make it all work, Shannon keeps all of her lesson plans on an open Google Calendar where anyone can follow along (Miller, 2010b). (Visit **go.solution-tree.com/technology** for a link to this calendar.)

Much of the early course curriculum is focused on the nuances of creating these learning networks and the tools required. The syllabus covers an impressive array:

> Students will become familiar with and use social networking tools, such as: Blogs, Wikis, Nings, Twitter, RSS Feeds (Google Reader), Diigo and Diigolet, YouTube, Foursquare, LinkedIn, Skype, Flickr, Facebook, Shelfari/Good Books, uStream, as well as Web 2.0 tools, such as: photo and slideshow creators, digital storytelling tools, comic and second life tools, interactive presentation tools, graphic and personal organizers, movie creators, photo tools, timeline creators, comic creators, music/sound tools, app inventors, poster creators, along with others. Students will also learn how to use a variety of tools to assist with online learning such as conversion tools, backchanneling tools, and others. Students will also learn about GoDaddy.com and the possibility of their own domain. (Miller, 2010a)

Ultimately, the personal learning networks class is about how to use those tools to build connections. On their blogs, students reflect often on how they go about finding people to learn with, the ethics and responsibilities that go along with that work, and how they are being effective in their pursuits. They talk in depth about how to use Twitter, for instance, not only to share with others but to promote their own work, which they share on their blogs. That, in turn, leads to conversations about "digital footprints" and rigor in the process, and as a classroom community, the work is

about how to support those efforts at every turn. It's an important foundation as, in the second half, Shannon gives her students more responsibility to begin creating their own connections and self-direct their learning.

"For some kids, it's all about getting over the fear of being embarrassed or of doing something wrong when they share their work online," Shannon says. "We do a lot of sharing inside the classroom first to really give the kids the confidence to start putting stuff out there more widely online."

Assessment is a challenge, especially in a district that is moving toward standards-based grading. But much of it is based on the students' own sense of what the class has taught them. Shannon believes the important question for students to think deeply about is "How has this changed my thinking/perspective of the world?" It's a reflection process that students engage in on a regular basis.

There's an irony to all of this work, however, and Shannon knows it. At the end of the day, networking shouldn't really be a "course" at all; it should simply be a part of how we do learning in schools today. She sees the course as a necessary first step, however—not just for her students, but for her colleagues as well.

"Right now, over half of our classrooms at Van Meter are connecting to someone somewhere else; they're on the road to being networked," she says. "I think much of that is because this class gives us the opportunity to show what's possible. This is exciting; our kids demand this because this is their world. And when they start sharing their expertise around these ideas in other classrooms with other teachers, those teachers get interested and the concepts grow. We're not at a point yet where these skills are being taught K–12, but we're definitely moving in that direction."

In many ways, teaching the personal learning networks course has been almost as transformative for Shannon as her own personal learning experiences online.

"I've never felt smarter in my life," she says. "I have a masters and two other degrees and yet I've never learned more than in the last year. A lot of people find it overwhelming and wonder how to make time for it, but you just have to find your own groove with how you use it, and when you do, the connections add so much to your life."

Strategies for the Networked Classroom

No question, these stories are in many ways exceptional, and we hope they begin to show the potential shift that networked-based curricula and pedagogies create in the classroom. While these kinds of experiences do require a certain amount of technology knowledge and Internet access, even more they require a shift in practice and thinking. As teachers, Anne, Brian, and Shannon (and many others we wish we could highlight here) have not only come to know the power of networked learning in their lives but also to understand the critical need for students to experience that power in their own learning lives as well. Because of these teachers' commitment to learning in these contexts, their students are reaping the benefits.

When we look at what these teachers and their students are doing in these projects, we notice a fairly narrow range of five methods for using networked learning spaces online in classrooms:

1. Connect students and teachers inside the classroom.
2. Publish student and teacher work locally and globally.
3. Connect students and teachers outside the classroom.
4. Connect with experts around the world.
5. Collaborate with others to create and share knowledge.

Very few teachers employ more than one or two of these strategies currently, but the most effective networked classrooms have a healthy mix of all five. In other words, networked classrooms have a culture of connections in which both teachers and students learn, and there is an expectation that the classroom experience will regularly reach far beyond the four walls. In addition, safety, balance, and ethics become an integral part of those interactions, not something that is taught in isolation.

While we don't offer this list of five strategies as a continuum per se, we can see them as a part of a "thin walls" construction process that starts with local connections, moves to global publishing, and then grows into extended connections, collaborations, and network building. Each step can serve as a building block for the next, moving students and teachers toward a fundamental shift in the way they see their classrooms and their roles in them. Let's take a moment to break down each of these and see how we might make them work.

Connect Students and Teachers Inside the Classroom

Creating connections inside the classroom is an important first step, and as Shannon's story shows, it gives teachers a chance to lay the groundwork for opening up the classroom later. In some ways, it's a way to "sandbox" the basic skills and literacies that kids will need to know in their more global interactions. While there are many ways to do this, one easy way is to create either classroom or individual blogs that are private or password protected. Teachers often start with just one blog that students can post to or comment on in order to learn and practice the rules of the road, so to speak, eventually giving them the opportunity to start their own blogs. Some great options for doing just that are www.21classes.com, www

.edublogs.org, or www.classblogmeister.com. These sites make it fairly easy to limit the audience and allow for drafting and thinking to be done in private. All content on these sites can be easily moderated by teachers, and there are easy options to open posts to larger audiences when the class is ready.

Other tools teachers use to connect students in the classroom are chat or backchannel sites such as www.todaysmeet.com or www.coveritlive.com, which allow them to interact with one another using text in an online space while watching a presentation or a lesson. In addition, private wikis are a click away at www.wikispaces.com or www.pbworks.com, sites where students can begin collaborating with one another to collect resources or share projects. There are even opportunities to create classroom social network sites using tools like www.edmodo.com or www.ning.com. In both cases, members can use the space to create and share content, link to resources on the web, and add their own videos, photos, and more. (Visit **go.solution-tree.com/technology** to access live versions of all links.)

Publish Student and Teacher Work Locally and Globally

Publishing can take many forms and should be seen as a necessary step to creating the global connections that build learning networks even if there isn't a lot of commenting or interaction at the outset. In many cases, what's published could be artifacts of learning from the classroom, projects, essays, artwork, and more. While personal blogs could (and perhaps should) be considered in the mix, we're talking here about work that may go beyond written texts. A public blog could serve as a great publishing vehicle for these types of multimedia artifacts.

While the different tools teachers and students are using number in the hundreds (at least), we'll quickly suggest some of the most popular publishing sites for students of all ages. To publish photos, try www.flickr.com or www.photobucket.com; both are places where you can create private and public spaces for student work. Creating video? Both www.youtube.com, or if that's blocked, www.teachertube.com will allow uploads for free. Screencasts—videos of what you are doing on your computer screen with a voice-over—can be captured with tools like www.jingproject.com or www.screentoaster.com. You can upload student PowerPoint-like presentations at www.slideshare.com. And if you create podcasts (audio stories or narratives using Audacity), you can share those at www.audioboo.com or even www.posterous.com.

Connect Students and Teachers Outside the Classroom

Connecting outside the classroom should be a logical outgrowth of the publishing you and your students do. Publishing is what makes you findable to others who are just a Google search away. Whether it's other classrooms or other expert mentors, and whether it's solicited or happens by chance, the goal of publishing should be to make connections around the world, to find others who share an interest or a passion in whatever the topic may be, and to begin to explore the ways in which those others may enhance the learning process. This requires a fair amount of the skills we discussed in chapter 2.

As we see in the previous stories, some of those connections happen by design and others happen serendipitously. Sometimes, these teachers work with nodes already in their networks, so to speak, while other times, teachers and classrooms may just show up at their door. They may also solicit input from "strangers" as well. In some cases, teachers may use their personal Facebook networks to find other classrooms to work with. That's exactly the way these connections work in the real world outside of school, so the more we can model them inside the walls, the better. Teachers might find these new connections at sites like www.classroom20.com, which is a large network of teachers sharing ideas and asking questions, or even http://twitter4teachers.pbworks.com, where you can find listings of educators on Twitter broken down by grade and discipline (among other categories.)

Connect With Experts Around the World

While other teachers and students from around the world can add a lot of learning to your classroom, inviting experts on particular subjects or experiences can have an even greater effect. One early example comes from Will's Modern American Literature class way back in 2003, when he connected with Sue Monk Kidd, the author of *A Secret Life of Bees*, which his students were reading in class. As his students read the novel and shared their thoughts on a class blog, the author followed along and then wrote a 2,300-word reflection that she posted to the class's site. She provided insights and anecdotes about the origins of the story and the writing of the book that had never before been made public.

Other classrooms around the world have brought in scientists from Antarctica, Holocaust historians, poets, and even astronauts on the space shuttle. In many cases, these experts are sharing blogs with students, but more and more, they are making live, virtual appearances using tools such as Skype. (In fact, Skype has developed a site where teachers can connect to experts—and other classrooms—at http://education.skype.com.)

When it comes to working with experts, the best approach is straightforward. We find that most people are happy to take a moment out of their busy lives to inspire or teach young people. We've seen schools work with authors, journalists, lawyers, scientists, and many other professionals. Many experts whom you might invite into your classrooms are as close as a Google search and an email away. Be polite and keep their commitment small, but meaningful—at least at first. The worst they can say is no, right?

Collaborate With Others to Create and Share Knowledge

Collaborating with others to create meaningful, important work should be the end goal of all this. In fact, we like the way author Clay Shirky suggests that "collective action"—working with others to affect positive change in the world—may be the greatest aspiration of all our connections (Shirky, 2008, Kindle location 47). Obviously, those types of collaborations take more work and planning on the part of both the teacher and the student, but it can be good, important work that gives our kids a sense of what's possible these days.

Aside from using wikis to plan, Skype to communicate, and blogs to bring their work to the world (as well as many other tools), we've seen a number of teachers—working with older kids—beginning to use Facebook groups or www.ning.com sites to bring their collective action to the world. To be sure, simply bringing students together to create resources that add to the global knowledge base is a valuable undertaking, but bringing them together to work as a collective to change the world is even better. For example, we know of one high school physical education class that created a Facebook page to help organize the collection of hair from various barber shops and salons to use in the cleanup of the 2010 oil spill in the Gulf of Mexico. In the process, students learned not just about the environmental issues surrounding the spill but how to more effectively organize online. With the global reach that we now have, all it takes is a bit of creativity and coordination to make the world a better place. To that end, we hope you'll keep in mind the larger potentials of the networked classroom by always asking, "What can my students create and share with the world that might lead to positive social change or opportunities for others to learn?" It's not just about individuals adding value; all of us are better than one of us.

The more you become a networked learner, the less daunting this will become from a how-to-do-it standpoint. We know there are many other considerations here, like safety, access, and others that we'll be addressing both later in this chapter and the next. The bottom line is this: these types of interactions in the classroom must be standard fare if we are to create literate readers and writers and if we are going to help students understand how to create their own learning opportunities.

The Challenges of the Networked Classroom

For all of the new opportunities for learning in these connected classrooms, making them work effectively is not without speed bumps. There's no substitute for having extensive practical experience in your personal learning to draw upon when attempting to meet the challenges head on. While we feel that none of these are insurmountable in and of themselves, we also understand that opening up the classroom in the ways we've been describing will create some additional challenges. To help make sense of them, here's a partial list of considerations that will most likely require some consideration:

- Safety and ethical use
- Transparency
- Assessment
- Ownership and rights
- Parents

Safety and Ethical Use

No question, the safety of every student is paramount as we begin to help kids fashion and connect to their own learning networks online. Just as in life offline, there are dangers in our online interactions, but the opportunities for positive, powerful learning interactions far outweigh the risks. In many ways, we have been "Datelined" to death into believing there is a predator around every corner on the Internet. We don't mean to minimize the seriousness of this discussion in any way, but the reality is that our kids are still much more likely to be preyed on by people in their physical spaces—people they know in real life—than by strangers online. As a task force created by forty-nine state attorneys general found in 2009, the problem of sexual solicitation of children online is "not a significant problem" (Stone, 2009).

Similarly, ethical use of the web is an important part of participating in online networks. With access to so much information and content and so many ways to interact, it's becoming easier and easier to cheat, plagiarize, or use the web as a medium for abuse and bullying. In fact, many teachers tell us one of the reasons they stay off the web is because of the highly confrontational nature of many discussion boards or comment threads online. While there's no doubt that online debates can become negative, the vast majority of online interactions are appropriate and helpful.

When bad things do happen online, the news is never good, and it makes headlines far and wide. At this writing, in fact, we're only weeks removed

from the suicide of a Rutgers University student, "outed" by his roommates who secretly live-streamed a sexual encounter from his dorm room. The story was a sobering reminder of what can go wrong, but it also underscores the need for online behavior instruction in our schools. Just as we teach our kids how to make smart decisions when they get behind the wheel of a car, we have to teach our kids how to drive on the web as well. They have to know that almost all of the rules that apply in face-to-face conversation apply online, too.

The safe and ethical use of online spaces can't be taught in an isolated unit in the curriculum. Nor can it be taught in a two-hour presentation by a retired police officer or an FBI agent. Part of the safety discussion has to center around the extent to which we allow students and teachers to use social spaces in the classroom. All too often, we've seen districts equate keeping students safe with filtering any online access to people and to content that hasn't been created in traditional ways (blogs, Wikipedia, YouTube, and so on). Even worse, many districts do not give teachers the ability to override the filter at their desktops or laptops if they find blocked sites that they deign either appropriate or relevant to the curriculum. In our view, that strategy actually makes students *less* safe. Students go home to primarily unfiltered access without having first learned, in the critical classroom context, how to make good choices about the content and people they connect with. Additionally, it conveys a lack of professional respect to adult teachers in those classrooms.

Safety is more than just a change in district policy, obviously. It's not something we can teach as a unit or add on to the curriculum, either. Web safety and ethical use should simply be a part of our operating culture in schools. In every grade and in every classroom, students should be seeing adults making smart decisions in their own online practice as a daily occurrence. We may need to revise our current acceptable-use policies to clearly define our expectations for participating in networked interactions to students and their parents, as well as the consequences for irresponsible use. (More on that in chapter 5.) These are teachable moments: opportunities to deepen the understanding of our students regarding how to use the web appropriately in real, uncontrived ways.

A case in point: when the Science Leadership Academy (SLA) opened in Philadelphia in 2006, the initial freshman class experienced an outbreak of online bullying from some students using the instant messaging (IM) client on the school-provided computers. Not only was the bullying abusive to students, it was disruptive to the classroom practice of SLA teachers. Unlike most schools, which probably would have simply shut down access to chatting at that point, the school chose to use the bad behavior as an opportunity to teach students about the consequences of the bullying and to discuss more appropriate practice.

"Our kids are going to have to use social media tools like IM in their adult, professional lives," says SLA principal Chris Lehmann. "Just making it

go away isn't going to solve the problem. We felt that it was up to the school to take the issue seriously when it was brought to us, to work with the kids to teach them why cyber-bullying was not o.k., and to help them develop strategies for dealing with it when they encountered it" (C. Lehmann, personal communication, January 8, 2011).

Students and teachers joined for schoolwide meetings to discuss the problem, with those being bullied sharing their feelings and teachers sharing the effects it was having on the school. Immediately afterward, things improved, and students actually formed strategies on their own to quickly block those students who continued to try to misuse the technology. Today IM is a valuable part of the culture of learning at the school.

"All of this speaks to the need to help students become better citizens," says Chris, "and in this age, that must include cyber-citizenship."

Transparency

We noted earlier that transparency brings great value to the learning interaction. It's also a challenge, however, as it's difficult for many to open up their classrooms and, to some extent, their students to the world online. Often, the transparency of the networked classroom is initially uncomfortable, but it's necessary for making those connections happen. Transparency can take many forms, depending on the comfort level of the district, the teacher, and the general school community. We've seen any number of variations. At the most transparent end of the spectrum are classrooms like the live-streamed classroom of fifth-grade teacher William Chamberlain at Noel Elementary School in Missouri. Anyone can hop over to *Mr. C's Class Blog* (http://mrcsclassblog.blogspot.com) and watch what's going on in his classroom at any time during the day. In addition, readers can find all sorts of other links to student projects, blog posts, videos, and more. It's easy to find comments on the site from places like the Melville Intermediate School in New Zealand and a host of other schools around the world, as well as a list of global student blogs that William's own students read on a regular basis.

"For me and my students it is about being part of a larger community; it's a constant reminder of the world outside our classroom," William says. "My students quickly come to realize our world is literally an Internet connection away" (W. Chamberlain, personal communication, November 4, 2010).

Other classrooms may not be as transparent as his, but there are many examples of students blogging to the world, producing podcasts, and working collaboratively in public with students in other parts of the globe. Take, for instance, kindergarten teacher Maria Knee's blog (http://classblogmeister.com/blog.php?blogger_id=51141), whose tagline reads "We want to share our work with our families and the world." She regularly posts videos of classroom happenings as well as student art and writing, many of which get comments from other teachers and classrooms from around the world.

To meet the challenges of transparency, everyone—students, parents, teachers, and administrators—needs to be on the same page regarding the benefits of sharing work online. In addition to that responsible-use policy we've already mentioned, we need to be clear with those participating exactly how open we intend these spaces to be and why. The *why* question, as always, is best answered by a teacher-learner who has participated in these spaces already and clearly understands the potentials and pitfalls.

Assessment

If we teach these network-building skills to our students in the classroom, how do we begin to assess their literacy in these areas and others? We've never really taught these types of skills in the past, and we struggle with knowing exactly what to assess. Obviously, it's not as easy as making sure our students can write in grammatically correct sentences. In addition, assessing how well students make connections with other teachers and learners around the globe doesn't lend itself easily to standardization. In other words, we don't see assessment of network-building skills as a unit test but instead as an ongoing formative assessment as these skills develop over time.

Many teachers attempt to quantify the participation of their students in networked spaces by giving grades based on the number of blog posts or comments. While those types of assessments may serve some role, we'd advocate for a more qualitative strategy. Any assessment of networked learning should include a healthy amount of self-reflection on the part of the student. That reflection may be given through oral conferences, written responses (perhaps on a blog post), or open classroom discussion about the process. In all of this, it's imperative that the teacher share reflections on his or her own process with the class, sharing successes as well as struggles that might be addressed by the experiences of others.

While a quick Google search for "assessing 21st century learning" will land quite a few results, we want to highlight the approach taken by Clarence Fisher, whom you met earlier in this chapter. In 2010, Clarence created what he calls a "Connecting Assessment" rubric that he uses with his students to get a clear sense of what their participation looks like and how successful they are at creating networked connections. (Visit **go.solution-tree.com/technology** for a link to this rubric.) He describes the rubric as a "conversation starter with students" that they can use in small groups to discuss their practice or as a self-reflection. As you look at it, remember that this is for a middle school class, but it could easily be modified for older or younger students (Fisher, n. d.).

This rubric gives students a clear sense of both the expectations for their participation and the opportunity to meaningfully practice their skills. For instance, in the "Developing a Global Understanding" section, students are expected to "access content from at least three different continents" on a

regular basis and to regularly create content about global issues as well. In the "Connecting and Networking" portion, Clarence expects students to be constantly revising and reflecting on their information flows and the ways in which they interact with others outside the classroom. Finally, the checklist at the end of the rubric provides students with quick reminders as to the types of habits they should be establishing in order to build their networking skills effectively.

Certainly, there are many ways to begin assessing these types of outcomes. The focus, however, should not be on whether or not a student can successfully use a particular tool to make something but instead on whether that student knows how to make that blog post or YouTube video or SlideShare presentation *connect to others* with whom she can potentially learn more. The goal is not sharing for the sake of sharing; it's sharing for the sake of connecting and learning. That's the important piece for us to assess and to ensure that our students can do well.

Ownership and Rights

At a time when so many people are sharing so much content online, using that content in ways that might not be ethically or even legally appropriate has never been easier. This presents a number of complex issues surrounding the ways we and our students navigate these online spaces and create and share work with the world. Most importantly, as educators begin to be more transparent about their own practices, it's imperative that we engage in ongoing conversations about how things are changing and model appropriate use.

Again, none of these discussions or practices should be added to the current curriculum as a unit. We need to be talking about copyright even with first and second graders as we help them build the skills to create their own online portfolios. Too often we've seen a haphazard approach to instilling a culture of ethical and appropriate use—an approach built more on policy and punishments than real-world application in the classroom. Because these concepts are in flux, parents have to be educated as well in hopes of getting them to partner with us in the process.

At a time when collaborative online workspaces are popping up almost daily, perhaps the most pressing need is for a professional discussion about what we should expect of students. For example, www.dweeber.com is a site used by students to do homework together, tutor one another, and share all sorts of information. It's a place where kids can go to make positive connections, but many teachers see it and other sites or tools like it (Facebook groups or even IM or Skype) as vehicles for cheating—for working together when the expectation is that students will work alone. This too is changing, however. Denmark, for example, recently allowed students to access the web during final exams (Hobson, 2009). In a world where we can collaborate so easily online, do we need to change our thinking or

expectations about student work? Is there a new line to be drawn in terms of "doing your own work" as opposed to tapping into the wisdom of the network to find answers and create solutions? It's a question that has no easy answer, and one worth a deep discussion within every school community.

We urge every educator to take a look at Creative Commons (http://creativecommons.org), a site on which creators of photos, music, videos and more can assign legally binding copyrights to their online work to make it easier for others to use. Right now, in the United States at least, it's difficult to use copyrighted works because of the permissions involved. (In our opinion, the idea that works take eighty years after the death of the creator to fall into the public domain to be exceptionally onerous.) At Creative Commons, we can find work that is licensed to use with simple attribution to the author or by allowing the material to be used for any noncommercial purposes. In addition, we can have our students choose licenses for their own original published work while engaging them in a conversation about what copyright means and what the implications are for not abiding by it.

Parents

Parents aren't necessarily a challenge to changing your classroom per se, but they are an important constituency that's always better to have with you than against you. To that end, we suggest being as communicative as possible with them in explaining the changes you're trying to effect with your students. No doubt parents (as well as department supervisors, principals, board members, and others) will want to know how your uses of learning networks with your students will help them reach the goals and objectives of the curriculum and achieve at a higher level. If you can't connect those dots, this will be difficult work indeed. And, obviously, you must be able to articulate how students will be kept safe in the classroom while interacting in these global ways. You'll have a leg up in that conversation if you can point to your own experiences online as a foundation for your pedagogy.

As much as you can, give parents a chance to be a part of the learning networks you create with your students. When appropriate, you might ask them to comment on blog posts, participate in Skype conversations, or even log in to a backchannel conversation while watching a live stream of a classroom event. If you can, give them copies of the books your students are reading in class, and set them up with their own book club blog where they can read along and participate. Have your students create screencast tutorials for parents and post them on a class wiki for easy access. With a little creative thinking, it's not hard to bring parents into the mix. In all honesty, it's an important part of the larger goal of building support for change across your school—a topic we'll discuss much more in chapters 4 and 5.

Making the Move

We know that for many, this move to a more networked classroom seems huge, and it is. As we said before, in its ultimate form, this move changes

the role of the teacher and the notion of what learning looks like in schools. Walking by any of the classrooms in this chapter's vignettes, you'd see students working independently, driving their own learning, with their teachers learning alongside them. There's little paper being passed back and forth, very little homework in the traditional sense, and the role of the instructor is more that of a coach or facilitator than an all-knowing expert who delivers the curriculum. While those may seem like huge shifts, they are really grounded in much smaller ones that begin by simply thinking differently about small parts of the curriculum that already exist, not throwing it all out and starting from scratch.

Author Sheryl Nussbaum-Beach, who is also the cofounder with Will of Powerful Learning Practice (www.plpnetwork.com), talks about these smaller shifts when she advocates for "21st Century-izing" your current lesson plans (S. Nussbaum-Beach, personal communication, November 12, 2010). In effect, she advocates taking what you already do well in the classroom and simply re-envisioning it through more of a 21st century lens, one that hopefully you've developed through your own participation in the network. For instance, say one of the most effective aspects of your current classroom is the role-playing activity your students do to more deeply understand the characters in a book they are reading. Right now, most teachers who use role play have their students engage in discussions or debates inside the classroom, during the class period, with a limited audience. But what if you were to connect your classroom to another classroom from another part of the globe and have your students discuss and debate in the same way in an online setting? It could be through regular blog posts in character, a live Skype debate, or even a live-streamed event to the world using Ustream (www.ustream.tv). In this way, students could still show their understanding of the characters, but they would also begin to understand and build connections outside the classroom. You might also give students options as to how they want to publish and share their understanding of the characters: a short YouTube video, a multimedia poster at Glogster (www.glogster.com), or a photo story at VoiceThread (http://voicethread.com). By giving students a choice of tools to use to show their knowledge, you give them more ownership over the learning process. (Visit **go.solution-tree.com/technology** for live versions of all links.)

In other words, *you can do this*.

We'll leave you with some reminders and helpful hints in terms of starting your own networked learning space:

- **It starts with you.** As always, having your own personal contexts for these types of interactions is imperative for helping your students experience the potentials themselves.
- **Start small.** Let the connections happen locally first, within the four walls, and then begin to think of easy ways to bring the outside world in.

- **Embrace uncertainty and failure.** This is different from what you've been doing. It won't be smooth sailing 100 percent of the time. That's OK.
- **Model, model, model.** Be transparent about your own learning in these contexts. Reflect with your students and colleagues on a regular basis, and share your best practices to your networks and communities online.
- **Remember the goal.** Very few adults are engaged in teaching these networking literacies to kids right now. Students need our help to create their own learning opportunities online.

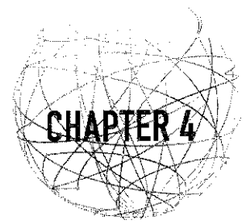
If you're looking for a role model in this transition, we'd suggest Shelley Wright, a high school teacher from Moose Jaw, Saskatchewan, who started this journey for herself last fall. Her blog, *Wright'sRoom* (http://shelleywright.wordpress.com), has chronicled her experiences in an inspiring way, and it speaks eloquently to all of the themes we've offered here. In one particularly moving excerpt, Shelley talks about the difficulty of this shift:

> Normally, in beginning a unit on Civil Rights, I would be the Civil Rights expert, and would have spent several days lecturing and telling stories of the great heroes of the movement. We would have spent time talking, discussing the issues, and laughing. I would be connected with my class. But today, I was not.
>
> Today, instead of teaching them information, I was teaching them how to learn. And yet, I'm not sure what my new role in this is. I'm not sure how to connect to my students and their learning process while doing this. I'm not sure how to laugh and enjoy them. And I was not expecting the profound sense of loss and the pain accompanying it. (Wright, 2010a)

But just a few weeks later, she wrote:

> This, in many ways, was a great week. Everything has changed in my classroom, and until the end of the semester, I will be teaching my students to learn and problem solve, rather than content. The ironic thing is, I have tried this in my classroom before; however, I always felt like I wasn't doing my job, and so I quickly reverted back to the old way. After all, wasn't I hired to teach them? But as Oscar Wilde eloquently quipped, "nothing that is worth learning can be taught."
>
> For me, this is just the beginning. Two of my classes this semester are being connected with e-pals half-way across the world. They're really excited about this, as am I. My ELA 20 class is going to spend several weeks learning in our own version of the TED-X Classroom Project . . .
>
> It seems in the past two months that everything has changed. I can't imagine going back to running my classroom as I used [to]; Thankfully, I don't have to. (Wright, 2010b)

May your own learning journey be as profound and important as Shelley's.



BECOMING A NETWORKED SCHOOL

On the opening day of the 2009 school year, Superintendent Lisa Brady stood in front of the 250 teachers at Hunterdon Central Regional High School in Flemington, New Jersey, and started a new conversation about learning in her district. "Our students are entering a different world," Lisa said, "one that is more global, more connected, more diverse and less structured than the one we knew. Our students are going to change jobs more often than we did, sometimes changing their field as well. To be prepared, they will need the skills that we have always taught, like the ability to write effectively, speak confidently, and think critically, but now they will also need skills that we have not always emphasized, like the ability to solve open-ended complex problems using creative approaches and to collaborate with peers around the world. Most likely, they'll need to learn 'on the fly' every day of their lives" (L. Brady, personal communication, September 8, 2009).

What Lisa said next is important for all of us to hear. "I only know two things for sure about the situation that faces us right now as educators," she said. "The first is that we will need to do things differently than we have done them before, teaching in new ways, with new methods of learning using new technologies in our classrooms. The second is that the best path to those changes isn't clear right now, and we will need every member of this community to work together to figure it out. Let me be clear about this—I need your ideas, your energy, your caring for our kids, and, most of all, I need your leadership."

Our Kids Need Everyone

Lisa knows that educators are at a critical moment of change that requires us to prepare our students not only to meet the traditional expectations we've had for a hundred years, but also to succeed in this new world of networked learning—a world that is just now emerging and that hasn't yet been captured in state tests or in college entrance exams or even in the larger conversation around education reform. In essence, we face the "problems" and the "challenge" we mentioned before; we've got to change, even though the way to change isn't clear and no one is demanding us to do so. Every school needs to figure out a solution, and every educator needs to start learning about networks so they can help develop that solution.