

Students as Contributors: The Digital Learning Farm

by Alan November

Years ago, when farms dominated our landscape, children were responsible for performing meaningful jobs that were vital to each family's success. Depending on their age, children would care for animals, repair farm equipment, prepare food to sell at local markets, and more. Children were essential to the very survival of the family. At the same time, these jobs taught children the value of hard work, leading them to become more productive citizens within their communities as adults.

As mechanized tools and other advances developed, the work of children was replaced. To prepare for the industrial economy, students were required to attend school where teachers became central figures and where children took on more passive roles within their communities. Children's contributions to their community shifted to the responsibility of completing schoolwork. This continuing trend contradicts a fundamental human need that draws us to make contributions to our communities.

We have come full circle as globalization quickly becomes the norm, and it may now be essential for our students to compete with peers from around the world. Today, we can restore the dignity and integrity of the child as a contributor.

Across the country, pioneering teachers are providing students with new roles that have students contributing to their learning communities. We have powerful, easy-to-use tools such as screencasting and podcasting that give students opportunities to contribute content to the class. At the same time we can also provide them with rigorous and more motivating assignments and better prepare them to become more productive in our new global economy. It's an exciting time.

The six jobs described below outline creative ways that your students can make valuable contributions to their learning community. While these jobs can be successfully implemented individually, it is in bringing them together in harmony that we can create a more balanced vision of teaching and learning.

TUTORIAL DESIGNERS

Students from Lincoln Middle School in Santa Monica, California, have energized their school through the use of screencasted tutorials. Through the leadership of their teacher, Eric Marcos, these kids have begun documenting their learning by recording themselves solving problems based on material discussed in class.

Marcos has been using Camtasia (www.techsmith.com) with his class to allow students to record the actions being performed on their computer screens while also recording their explanations about how to solve each problem. When completed, these movies are uploaded and become part of an online database that Marcos' students—and anyone else around the world—can access at any time. Another option by TechSmith that is free and equally as powerful is Jing (www.jingproject.com). With this software, and a single click of the mouse, students can begin recording their work easily and at any time.

Marcos has found this task to be so motivating that he has worked to build a new YouTube-like Web site (www.mathtrain.tv) that he and the rest of his school's math department use to share the growing number of screencasts that students are creating. He has found that allowing students to create material for this site increases engagement and provides struggling students with more opportunities for reviewing troubling concepts.

OFFICIAL SCRIBES

Do all of your students take excellent notes every day? What if there were online collaboration tools that would give your class the opportunity to collaboratively build one set of perfect notes? Using a shared blog, wiki, or another collaborative writing tool like Google Docs (<http://docs.google.com>) students can share this responsibility and create a detailed set of notes that the entire class can use.

Darren Kuropatwa, a high-school calculus teacher, has transformed his classroom from individual students working on "their stuff" to a collaborative learning community. His "scribe of the day" program (http://adifference.blogspot.com/2006/11/distributed-teaching-and-learning_21.html) has been a great success. Each day, a new student is responsible for taking notes and collecting diagrams that become part of his class' online calculus textbook.

Kuropatwa has found success with this program, as students who never took notes in the past are now doing so knowing that their peers depend on what is published on the class blog. At the same time, students who struggle to take good notes are getting better as they see constant high-quality models being posted by others.

RESEARCHERS

Many classrooms have one computer sitting in the back that gets very little use. What if that computer became the official research station where one student each day was responsible for finding answers to all the questions in class—including the teacher's?

This might not sound imaginative, but it can be very effective. Each day, assign a different student to sit by that computer. When questions come up during class, it is that student's responsibility to search out the correct answer. Once sites are found that give details about the questions being asked, you might consider adding it to your own search engine built using Google's Custom Search Engine creator (www.google.com/coop/cse/).

This search engine can be designed to meet standards, coordinate with your curriculum, and include sites from reputable resources. Imagine creating a Global Warming Search Engine that cuts through the hype on both sides of the issue and only accesses factual information from NASA, NOAA and other scientific research organizations.

Don't expect this to work easily right from the beginning. Most educators know that there is a great amount of misinformation online and acknowledge that students don't always use the most effective search techniques. Understanding this makes this student job that much more important. We should be providing students with guided opportunities and teachable moments that allow them to practice and hone their research skills.

COLLABORATION COORDINATORS

Not long ago it was cost prohibitive to have your class connect with other classes and subject experts around the world. That time is gone! In an ever-shrinking world, we now have free access to make these very connections.

Using Skype (www.skype.com), a collaboration team could be responsible for establishing and maintaining working relationships with classrooms around the world via the Internet. How can you leverage that power?

Prior to a discussion of the American Revolution, charge your collaboration team with finding a class of British students who would be willing to interact with them concerning the issues that led to the start of the Revolutionary War. How many eyes do you think would be opened by the differing views that arise during the debate?

Connections can also be established with experts who might be willing to talk to your students regarding other meaningful topics. For example, middle school students from one Chicago suburb

were learning about the effects of globalization. Their teacher, Andrea Trudeau, could have provided students with only a short passage from a textbook or a few magazine articles. Instead, she facilitated a project that had her students creating interview questions for an American factory owner who felt he had to outsource his production to China as well as a businessman in China who was managing a factory for the American market (<http://dps109.wikispaces.com/Skype>).

The questions the students developed became a part of a series of interviews that were recorded and provided students with a learning experience that went far beyond any textbook or article. This project attracted a global audience, including a teacher in the United Kingdom who repurposed this material with his class as they were discussing similar issues.

Hundreds of other opportunities like this are waiting for any adventurous group of students looking for opportunities to bring the world into the classroom.

CONTRIBUTING TO SOCIETY

It's almost impossible to watch TV or listen to the radio today without hearing about issues in countries around the world. While they do seem distant, these issues are important, and we can use them to teach students about social justice and empathy.

Kiva (www.kiva.com) is one of today's most important social responsibility Web sites. This site opens the doors of learning and gives students the opportunity to make a small but meaningful difference in the lives of others.

Through this site, your class can join others in making small loans to entrepreneurs in developing countries who are trying to make better lives for themselves and their families. These loans are repaid over time as students are kept up to date on the successes and struggles of those to whom they have invested contributions.

You might consider pulling together a team that searches out investments the class finds important and relates to their current studies. They might organize snack sales or penny drives while educating other classes about their mission. This team then works with the research team to investigate what is happening in these other parts of the world. They might work with the collaboration coordinators to find experts whom they can talk to about how loans work.

The learning cycle can go on and on as loans are repaid and reinvested. Your students can be tracking the results of their micro-investments long after the school year has ended.

CURRICULUM REVIEWERS

As the resources above come together, the curriculum review team jumps into action to create material that can be used for continuous review. This team combines visual and audio components into podcasts that can be posted online for individuals to download into their mp3 players.

Bob Sprankle and his class from Wells Elementary School in Wells, Maine, are quite well known for doing exactly this. Their Room 208 Podcast burst onto the scene several years ago and provided classes with a fantastic model that can be duplicated by others. Weekly, during their snack time, Sprankle's students organized, recorded and edited their podcasts before publishing them to a global audience (www.bobsprankle.com/podcasts/0506/rm208vodcast.mov).

If you plan to attempt this, you may want to get your school to purchase a few generic mp3 players that can be used by students who might not have their own. These devices can be loaded up at school with podcasts that cover multiple courses, and the material on these players can be accessed anywhere, at any time.

CONCLUSION

In some ways, the idea of the digital farm and the jobs outlined above is counter to the current policies of many schools where community tools are routinely blocked on the network. The opportunity before us is much too valuable for this to continue.

If our children are to grow up to make important contributions to our society, it is essential that we provide them with powerful tools and experiences across the curriculum. This will require a new culture of teaching and learning that engages students as contributors. Our students have already chosen tools such as MySpace and Facebook for their own communications and social interaction. Now is the time to take elements of these tools and provide students with the appropriate role models of how to use them to make important and rigorous contributions to their own school and beyond. If we do not teach students social responsibility and ethics, then our worst fears of children abusing these tools will come true.