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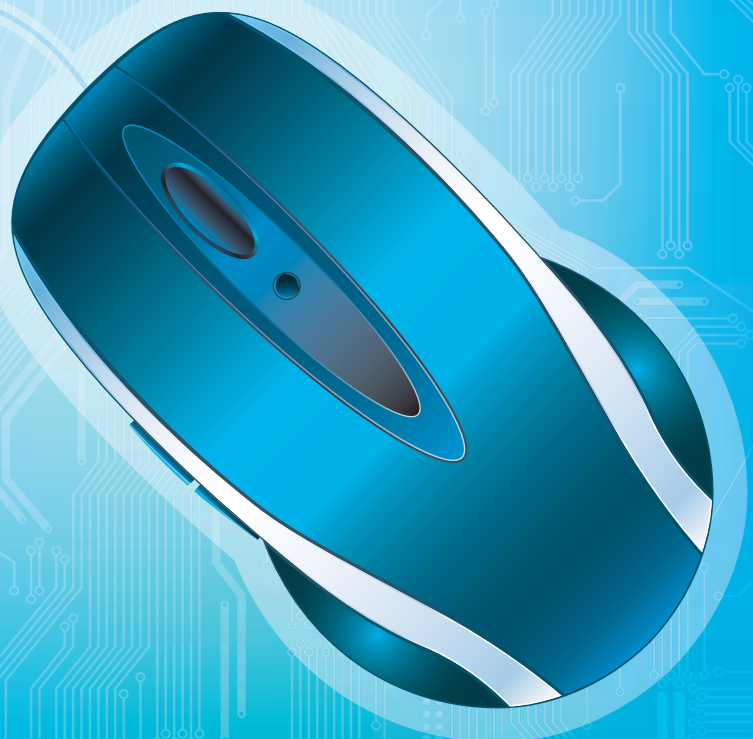
2012 EDITION

BEST PRACTICES in School Technology Use

Inside this issue:

- Ten ways schools are teaching internet safety
- How to make one-to-one computing a success
- How to engage parents more effectively in their children's schools

...and more!



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Ten ways schools are teaching internet safety

Meris Stansbury, Associate Editor

As internet use has become a daily part of most students' lives, students must know how to protect themselves and their identity at all times—especially when teachers and parents aren't there to help them.

Teaching students about internet safety has been important for as long as the internet has existed, but it's in the spotlight this year in particular as schools get ready to receive 2012 eRate discounts on their telecommunications services and internet access. That's because applicants must amend their existing internet safety policies by July 1 to include information on how they are educating students about proper online behavior, cyber bullying, and social networking sites.

To get an idea how educators are approaching this issue, we recently asked readers: "Do you teach internet safety at your school or district? If so, how?"

With thanks to our knowledgeable readers, we've compiled some of the most innovative and detail-rich answers here.

1. Through gaming

"Some of the classes I teach are in an online environment. The first week of the class [addresses] internet safety and time management. I feel that, since I send the students to many sites, and they are working from home, this is a very important part of the class. I use material from CyberSmart! for my content classes. I also teach a 3D game for the middle school called Quest Atlantis out of Indiana University, and internet safety is the first requirement … before the students are granted full rights in the game. I also include three additional internet safety classes that are available as part of the game. Information about it can be found at http://atlantis.crlt.indiana.edu/. They do, however, require that teachers go through [professional development] before allowing them to register a class in the program." *—Zena Johnston*

"I teach internet safety through the technology curriculum. I use a trio of internet safety games from WebWiseKids: Missing, It's Your Call, Mirror Image. These games cover cyber bullying, sexting, and predators. It keeps the students engaged as well as offering them hands-on work." *—Debra Smith, Gracemont High School, Okla.*

"I teach lessons on internet safety using the FBI-SOS scavenger hunt and on internet privacy using the Jo Cool Jo Fool website. Jo Cool Jo Fool has some dated areas, but the same concepts covered apply today. During the FBI-SOS scavenger hunt, we have commercial breaks periodically, and I show

the old Citibank identity theft commercials from YouTube. I also have my students figure out how to locate my college-age son via the information that can be found online. Creepy! I am a middle school librarian who co-teaches these lessons with our keyboarding teachers. It gives the kids vital knowledge and little breaks from the keyboarding class." *—Miriam Rone*

2. Through analogies and student-generated projects

"I am an Elementary Instructional Technology Specialist for South Jefferson Central School in New York State. I prepare, facilitate, and present an internet safety lesson yearly for all of our kindergarten through sixth grade students. I like to use analogies in my lessons, giving students a hook to … remember. This year, I used the analogy of Little Red Riding Hood—[that] things aren't always as they seem, there are people who try to pretend they are something they are not, etc. I also create SMART Notebook lessons to engage our digital natives so that they are active participants in their own learning experience. … In grades K-2, emphasis is on computer parts, computer care rules, always telling an adult when there is a problem (I use the book Arthur's Computer Disaster as an example), [not giving out] personal information, … being nice on the internet, and what to do if someone isn't being nice. In grades 3-6, emphasis is on rules, cyber bullying, personal and private information, think before you post, … predators, password protection, etc. A safety pledge is signed and filed for grade 3-5 students, and an AUP is completed for [sixth graders].

"Every year, we complete a project after the internet safety lesson to 'bring home' the lesson material. I believe this project allows students to take ownership of internet safety and allows what they have learned to be shared by others. [One such project was an] internet safety calendar: Each student's assignment was to create a drawing of an internet safety rule, … then they divided into groups of two to create a calendar page … using Microsoft Publisher. The calendars are printed and distributed to students at school. The file is put on our school website for parents to print at home. [In another project,] using Visual Communicator and a green screen, students have created their own script, their own backgrounds, and completed short [public service announcements] on internet safety, cyber bullying, think before you post, etc. These movie files are posted online on our school webpage for the community. After the lesson with the fifth grade students, I bring those students to the elementary classrooms and they help facilitate the lesson for another classroom. Here is the link to all of my resources and student files: http://www.spartanpride.org/webpages/tgroff/." *—Tina Groff, South Jefferson Central School*

3. Through investigative role-playing

"I teach about internet safety by having fifth grade students act as detectives. Students are assigned three web sites to look at. [They analyze information such as the site's] author, sponsoring organization, copyright date, contents, [and] purpose … and compare the information on the website to information in nonfiction reference sources [and] online databases. The catch is that one of the three websites is a hoax! The student's job is to figure out which website is the hoax. After students have looked at all three websites and figured out which one is the hoax, they share what they found with their classmates about the hoax site that made them question its authenticity. While many of our students

(and adults) are tech savvy, thinking critically about what they see on the internet is still something they need to be taught to do and how." *—Joan Curtis, teacher librarian, Information Literacy Education, Schwenksville Elementary School, Pa.*

4. With the help of guest speakers

"I am a middle school Technology Education teacher at Tuttle Middle School in South Burlington, Vt. I am teaching a pilot class called Media in Action. The goal of the class is to demonstrate how social media can be used for learning and also just as importantly online safety and etiquette. This is an eighth grade class. Students and parents sign a release/permission form in order to participate fully. I am a teacher trainer for the [National Education Association], teaching school district staff all around Vermont about bullying and harassment. I also partner with a national organization called Child Lures Prevention/Teen Lures Prevention. [Representatives from this organization] come in as our visiting guests and speak to the kids. My students video tape them, blog about them, summarize [their talk] on Facebook [and] Twitter, and take still pics to upload to our class blog. I also invite a state special online investigation detective. We carry the same routine for him. We then post our video on YouTube and link it to our blog. One special event involved an eighth grade girl from a neighboring school district who visited our studio. We did a live spot with her as she shared how she had been bullied and harassed since fourth grade and came close to taking her own life. She gave us permission to [record] her. We produced the segment and named it: "Sarah's Story." Here are a few links to our specials: (Sarah's Story) http://www.youtube.com/watch?v=FKOxyUcTYdk; (Online safety with Teen Lures Prevention) http://www.youtube.com/watch?v=QX9iUnyV55Y; (A New Way for Learning Socially Speaking) http://www.youtube.com/watch?v=tj0wDSoQF3I; (Casting The Social Net for Learning) http://www.youtube.com/watch?v=Qydf5IHBtNM; (Our class blog) http://fhtmsmediainaction.blogspot.com/." *—Jay Hoffman*

"Internet safety is a very important part of the computer/technology curriculum at St. Augustine School. Students learn safety tips, as well as ways to prevent/stop cyber bullying, and how to use netiquette when communicating online. A wonderful website, www.netsmartz.org, is a great resource for students of all ages. Through the use of interactive games and videos, the website offers a wide range of information to keep students safe in cyberspace. I also have my students design 'anti-cyber bullying' posters to display around our school, as well as PowerPoint presentations on internet safety tips. We have also had speakers from the Maryland Center for Missing and Exploited Children and the FBI as guest speakers on internet safety." *—Sherry Mobley, preK-8 computer teacher, St. Augustine School, Elkridge, Md.*

5. By having students be the teachers

"I use a combination of the Common Sense Media curriculum, Netiquette by Edutopia, and videos by BrainPOP (Digital Citizenship, Internet Safety and Cyber Bullying). After the knowledge acquisition segment, students make a keynote presentation with the purpose of teaching their audience the meaning of Digital Citizenship and Internet Safety. It is a subject that is extremely appealing to our students, and therefore the unit of study has been very successful in both fourth and fifth grades. For younger grades, I use elements from these sources and additionally, Webonauts by PBS Kids

for second and third grades. Common Sense Media has a very good age-appropriate video that I've used for kindergarten and first grades." —Judy Havens, elementary computer specialist, Seoul International School

6. Through third-party resources

"I teach internet safety to first through fifth graders using the CyberSmart! curriculum. I have used it for several years and feel that it exposes students to many aspects of online safety and courtesy. The students enjoy the activities and are enthusiastic about the lessons. I will be using it again this year and especially like that it is a free resource for teachers, easily available and adaptable to the needs of my school." —Heidi L. McDaniel, technology teacher, University School of Jackson Lower School

"We use the I-safe curriculum, which was recently revised. Additionally, we had a presentation for the parents at the Home and School meeting entitled: "Keeping God's children safe on the internet." It's essential to teach manners and procedures." —P. Keenaghan, principal, Academy of Our Lady

"As a part of the Information and Technology Essential Standards, I teach Safety and Ethical Issues: understanding issues related to the safe, ethical, and responsible use of information technology resources, understanding ethical behavior (copyright, plagiarism, and netiquette), as well as understanding internet safety precautions. These are a series of lessons I teach in the media center as an information specialist in August/September each year. The best resources I have found are free and are [available] through the Federal Trade Commission [at] bulkorder.ftc.gov. The 'Net Cetera Community Outreach Toolkit' has videos for viewing and discussion (Heads Up: Stop, Think. Click.; The Protection Connection; Share with Care; and Stand Up to Cyber Bullying). Also, I received free books for my entire population to send home to parents (in both English and Spanish): Net Cetera: Chatting with Kids About Being Online/Net Cétera: Cómo charlar con sus hijos sobre su comportamiento en línea, as well as the brochure in English, 'Heads Up: Stop. Think. Click.' The students really responded well to the discussion and the video clips!" —*Cathy DuPre, Media Coordinator, Merry Oaks International Academy (Courier No. 453), Charlotte, N.C.*

"We utilize a combination of direct communication at our orientation sessions plus a required safety course we purchase through Learning.com's Easy Tech." —*Michael H. Harris, principal/CEO, Gresham-Barlow Web Academy, Ore.*

7. Through self-created curriculum

"Being of the same generation as my students (for whatever that's worth) meant that I saw the digital world through a similar lens, rather than taking the traditional method of 'don't ask, don't tell' that many of my older colleagues preferred, or at least defaulted to. I have spent the past couple of years attempting to aggregate and curate some of the best resources I could find to develop my own method of presenting internet safety/digital citizenship to a group of students that are already, at the age of 13-14, heavily invested in the digital realm. The resulting product(s) have changed so quickly that I have literally revamped and reconstructed everything with each new semester-long class. We dig deeply into the ideas of privacy, permanence (is anything ever really deleted online?), and being considerate of others. Truthfully, my lessons on digital citizenship and online safety more strongly resemble character lessons than nerdy/geeky tech lessons. Interestingly, this 'hot topic' is in high demand as

educators everywhere begin to realize how truly important this issue is, and it's one that we can't afford to get wrong. As the statistics of cyber bullying, sexting, scandals, predators, and privacy invasions continue to rise, we realize just how vital it is for us to address these issues and coach our students through the Wild West of the internet. I have presented to other educators and business professionals regarding this topic. If you would like, feel free to view, use, and share my presentation (https://docs.google.com/present/view?id=dgbh7sdr_254952xrp2g) as it helps this cause. I am passionate about evangelizing this topic and feel very strongly about its message and necessity." *—Greg Garner, eighth grade technology teacher, Texas*

"I work for a BOCES (Board of Cooperative Extension Services) that supports 23 districts in upstate New York. I have read extensively about internet safety, bullying, cyber bullying, digital citizenship, and other related topics. After collecting resources and data almost daily, I have developed several different programs that I offer to districts through our BOCES to component districts and beyond. When a district requests these services, I ask what issue(s) there are in the district, and I tailor the program to their needs. Each district has its own issues, and I update the program almost daily as new facts, statistics, and thoughts about internet safety and everything in that realm change. My resources are from other educators, developed programs currently in use (NetSmartz, CyberBee, athinline.org to name a few), with some recent articles and information about social media as it becomes available. I also offer this information to adults as well as students, as they also need to be aware of their safety." *—Kelly Schermerhorn, Questar III-Model Schools, Office of School Improvement, Castleton, N.Y.*

8. Through a department citizenship program

"The New South Wales Department of Education and Communities has developed a series of online resources for students, teachers, and parents to support the digital citizenship program. The program aims to teach what it means to be a good digital citizen, how to use the internet responsibly, and how to keep yourself and others safe and healthy in an online world. The student activities are based on the domains of digital conduct, digital footprint, digital relationships, digital health and well-being, digital law, and digital financial literacy. The themes of cyber safety and how to deal with cyber bullying run through all activities. Links are included to other Australian sites, such as CyberSmart from the Australian Communications and Media Authority, as well as international sites such as Think you know and Digizen. The teacher resources include a professional learning course and support for implementing digital citizenship programs in schools. There are also links to videos and student games. The parent resources focus on staying safe online. The current site (www.digitalcitizenship.nsw.edu.au), designed for secondary students in Years 9 and 10, will be expanded in late November to cater for students from kindergarten to Year 10." *—Leonie Wittman, project leader, Learning Design, New South Wales Curriculum & Learning Innovation Centre*

9. As part of a research lesson

"I am the school media specialist, and I teach internet safety through my Media course. It has been bounced around as to grade level (seventh, eighth, both) but this year is being offered only to eighth graders. It is a trimester course, and I cover the basics of doing research, including internet safety. I use some of my own content, especially current articles in our newspapers, but I also heavily use the

curriculum from Common Sense Media. I see a real need to do a formal curriculum at a younger level, but my time with the elementary students is very limited, as is our technology teacher's." *—Sharon Gunkel, Nevis Public School*

10. Through a school-wide program

"We teach internet safety at Helena Flats School through our Olweus [Bullying Prevention] program (www.helenaflats.org/20961010131634252 37/site/default.asp?), and I spend a great deal of time with the students throughout the school year talking about how to keep safe. I have a doctorate from the University of Montana and conducted my study on internet predation." *—Ann Minckler, Ed.D., superintendent, Helena Flats School*

How to implement the 'flipped classroom'

By Jonathan Bergmann and Aaron Sams

*(**Editor's note:** Flipped learning, in which students watch instructional videos for homework and use class time to practice what they've learned, is catching on in many schools. This is an excerpt from a new book by two pioneers of the flipped approach, titled Flip Your Classroom: Reach Every Student in Every Class Every Day. Copyright 2012, International Society for Technology in Education and ASCD; reprinted with permission.)*

Despite the attention that the videos get, the greatest benefit to any flipped classroom is not the videos. It's the in-class time that every teacher must evaluate and redesign. Because our direct instruction was moved outside of the classroom, our students were able to conduct higher-quality and more engaging activities.

As we have seen teachers adopt the flipped model, they use the extra time in myriad ways depending on their subject matter, location, and style of teaching. We asked some of our colleagues to share how they have changed their class time. Following are some examples.

Foreign Language Classes

In foreign language classes, teachers are recording grammar lessons and conversation starters so as to create time in class to use the language more practically. This includes having more conversation, reading literature, and writing stories, all in the target language. We visited one of these classes, a level 1 class, and observed students actively speaking Spanish. They were responding and gesturing in ways that corresponded to the teacher's instructions, which were entirely in Spanish. He would then ask students questions, and they would respond in Spanish. He reported to us how the videos had freed him up to do more of these engaging activities in his classroom.

Math Classes

Math teachers are finding the time to really help their students engage with deep analysis of mathematical concepts. Others are embracing math manipulatives and emerging technologies where students are engaged not just in learning the algorithmic computation, but in deeply wrestling with the intricacies of the math concepts. Flipped math classes are becoming laboratories of computational thinking, inquiry, and connectedness with other STEM areas (science, technology, engineering, and mathematics).

Science Classes

One concern about the flipped classroom that has been recently posed is whether flipping is compatible with an inquiry approach to teaching science. We and others have responded with a resounding yes. Flipping a science class creates more time and more opportunities to include inquiry learning. In science classes, teachers who flip have time for students to engage in more inquiry-based activities and to conduct more in-depth experiments. In the chemistry education community, POGIL (Process Oriented Guided Inquiry Learning; www.pogil.org), has become a powerful tool for students to create conceptual understanding without direct instruction. The flipped classroom is ideally set up for this type of learning, and we have incorporated many POGIL

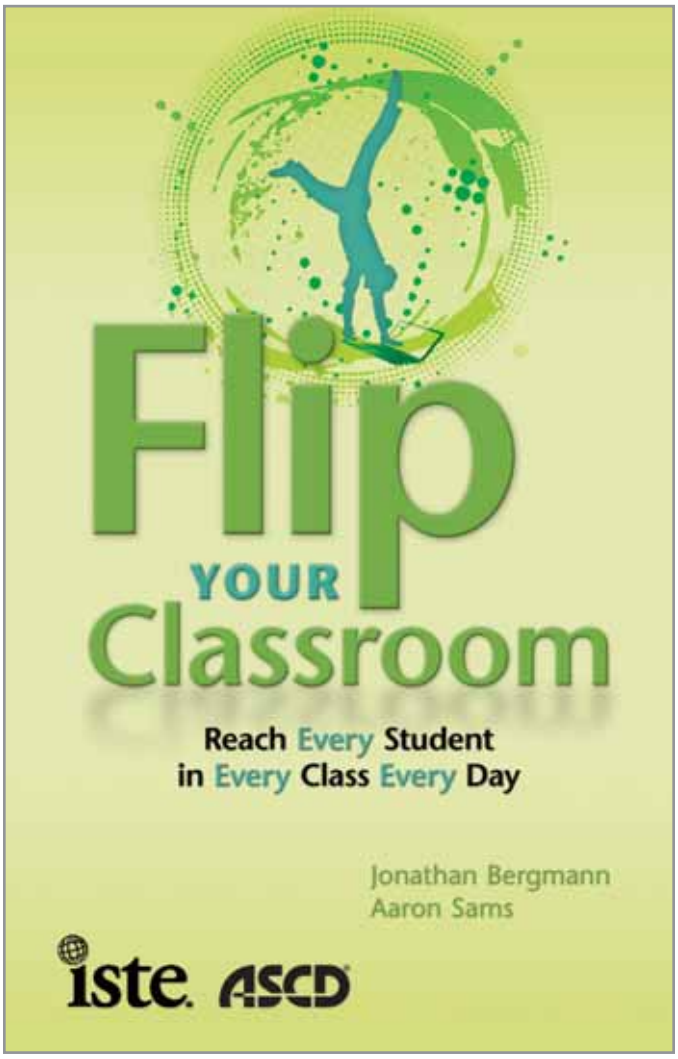
activities into our classroom. When a well-written POGIL activity is conducted well, the students learn all they need to learn via guided inquiry, and there is no need to teach the material with a video. In cases such as this, we use the POGIL activity as the instructional tool in lieu of a video. However, we have found that some students still use our instructional videos as a secondary resource for remediation.

Social Science/Language Arts/Humanities Classes

Social science instructors report using their extra time to discuss current events in light of the previous night's instructional video. Others are finding time to delve deeply into original document analysis. There is more time to debate, give speeches, conduct pro se court, and discuss what students are learning more deeply and without having to worry about a deep conversation being interrupted by a bell. There's plenty of time to write, write, write, and even more time to analyze and discuss each other's writing through peer review.

Physical Education Classes

We have been surprised to hear that some of the teachers most excited about flipped classrooms were physical education teachers. This dynamic team of teachers realized the flipped class had great potential in their courses. They told us that the most important aspect of the physical education class is for their students to be moving. Physical education teachers report that they spend too much time teaching students things like the rules of games and some of the techniques. When teachers began making videos (with a video camera) of rules, students can come to class and quickly get to moving their bodies and participating in the important physical education activities.



Project-Based Learning

Another concern is whether or not a flipped class is compatible with project-based learning. Again, we cheer yes. We love the idea of discovery-based learning driven by student interest. Most of us do not operate in an environment that allows for this, but educationally speaking, it is enticing and has great benefit. Picture a class driven by student-identified problems or interests. Students are exploring a real-world problem and developing solutions, and then suddenly realize that they need to know how to perform a particular mathematical function in order

to execute their solution.

The teacher now faces a decision. Does she spend valuable class time teaching the entire class how to perform the appropriate math and risk boring the advanced student and losing the student who struggles? Or does she create an instructional video (or perhaps access an archived one) to give the students what they need, without sacrificing class time for direct instruction? Marrying the technological tools and asynchronous content delivery used in a flipped classroom with a student-directed approach to deciding what is learned can create an environment in which curiosity thrives. There is no need to spend time reintroducing concepts that are well-established and just need to be quickly presented and learned, or to use valuable class time to deliver new content.

How to make videos your students will love

By Jonathan Bergmann and Aaron Sams

*(**Editor's note:** Flipped learning, in which students watch instructional videos for homework and use class time to practice what they've learned, is catching on in many schools. This is an excerpt from a new book by two pioneers of the flipped approach, titled Flip Your Classroom: Reach Every Student in Every Class Every Day. Copyright 2012, International Society for Technology in Education and ASCD; reprinted with permission.)*

When we first started making our own videos, they were not very good. Over time, our videos have gotten better. Give yourself some time and you, too, can make high-quality educational videos for your students. There are a few things we have learned which we now call our Cardinal Video Rules.

1. Keep it short. We are teaching the YouTube generation, and they want things in bite-sized pieces. If you are teaching the quadratic formula, teach just the quadratic formula. Do not teach anything else. When we first started making videos, they lasted the same length of time as our typical lectures. Most of our lectures contained multiple objectives. This is fine in a live setting, but in a video setting we have found that we need to stick to one topic per video. We try to keep our videos under 15 minutes and really shoot for under 10 minutes. Our mantra here: One topic equals one video.

2. Animate your voice. When you are making these videos, you are most likely using some sort of presentation software (e.g., PowerPoint, Prezi, Keynote, Smart Notebook). The only thing you have to engage your students besides your slides is your pen and your voice. Change the inflection of your voice. Make the videos exciting. We found as we got more proficient with the software, we were able to relax and be ourselves more and more in front of a computer.

3. Create the video with another teacher. There is something powerful about watching two people having a conversation instead of watching one teacher talk at the viewer. Not often do you listen to a radio show and hear only one person talking. Think about your morning commute. When was the last time you heard only one voice? Radio stations realize that a conversation is far more engaging than a single talking head. Our students told us the same thing: Two heads (and voices) are better than one. Students learn more. Because we have both been teaching for quite some time, we know which topics students will typically struggle with, so one of us usually takes on the role of the student learning the material while the other takes on the role of an expert. Students tell us this dialogue is helpful in their comprehension of the material.

4. Add humor. We typically have some sort of a running joke in our videos. We usually do this for the first minute of each video. Students either love these or hate them. Because they know the joke will take up the first minute, those who like our weird sense of humor tune in, and those who don't just fast-forward. [Humor brings] interest and a certain wackiness to the videos, which helps keep the students interested.

5. Don't waste your students' time. We've watched teacher-made videos where teachers talk about their favorite football team for five minutes.

Students are watching this on their own time, and this sort of discussion wastes that time. Keep to your topic.

6. Add annotations. Think of your screen as a whiteboard with cool pictures. Use annotation equipment to add pen markups. We do not think we would ever have embraced the flipped classroom if the annotation feature had not been available.

7. Add callouts. We incorporate a fair amount of postproduction editing in which we can add callouts. A callout is a text box, a shape, or some other object that will appear for a while in the video and then disappear. Our students have found these very helpful, because they bring their attention to the key elements in a video. We also use these to show steps in a problem. For example, we use the callouts to list the steps in the process. We state these steps during the recording, but also reemphasize them visually with the callouts.

8. Zoom in and out. In the postproduction editing, we zoom in to different portions of the screen. Having the ability to zoom adds to student comprehension. For example, when we do a mathematical problem, we zoom in to the onscreen calculator. Or, when we are highlighting a picture on screen, we can zoom in to the portion of the picture that is most important for comprehension. This not only emphasizes a particular item, but it declutters the screen and helps the students focus.

9. Keep it copyright friendly. Because these videos will likely be posted online, make sure that you follow all appropriate copyright laws. Consult experts in this area to ensure that you do not infringe on the copyrights of others.

Homebound students use robot to continue learning from home

From wire service reports

Teacher Ben Edwards points to the number 75 written on the board in his seventh-grade math class at Mohawk Junior High School in Pennsylvania.

"Is this going to round up to 80 or down to 70?" he asks all the students before calling on one to answer. "Cris?"

From a half-mile away in his bedroom at home, Cris Colaluca correctly answers, "Up!"

Edwards can hear and see Cris clearly through a screen set atop a 4-foot-tall, 20-pound mobile robot called a VGo. As the first student in the state to use the technology, according to the company that produces it, Cris is attending school for the first time in six years.

"I was surprised there was something out there to help me," said Cris, 14, an affable boy with a crop of curly brown hair and a quick smile.

Cris was born with spina bifida but attended school until his first-grade year, when he developed a rare condition that caused his body to seize almost 90 percent of the night.

"His brain was getting no rest," said his mother, Terry Colaluca.

Cris no longer can physically tolerate school. For several years, teachers came to his home. He tried a stationary web cam but missed out on the peer interaction he remembered from earlier years.

Last year, Mohawk technology coordinator Theresa McConnell discovered a solution when she saw a news report on the VGo, made by the New Hampshire-based company of the same name.

"I knew that was exactly what we needed," she said.

Cris can control the VGo—which has a camera, microphone, and video display—anywhere in the school via Wi-Fi coverage. Using a computer mouse to navigate the robot, Cris can look all around and zoom in and out. VGo is battery-powered and can run up to a full day between charges. It's stored at the school and charges on a docking station overnight.

The VGo cost the district $5,995 plus a $1,195 annual service contract. That's money well spent, educators say.

"In the past, we used technology to bring the world to Cris. Now it allows Cris to come to the world," said Kathy Kwolek, superintendent of the Mohawk Area School District.

Lorree Houk, assistant to the superintendent, has worked with Cris for years and was instrumental in obtaining the VGo, which required school board approval. Members were enthusiastic about the purchase, administrators said.

"Every day when I see him go down the hallway, I almost get a tear in my eye," Houk said. "It's a great experience."

Ned Semonite, vice president of product management and marketing at VGo, said about 20 homebound students across the country are using the robot.

At home, Cris's bedroom doubles as a classroom. Every morning, Cris sits at his computer, 15 minutes before class begins, alongside Mohawk teacher Josh Long, who works at home with him daily.

Above Cris's desk is a map of the school handdrawn on green construction paper, though by now, he doesn't seem to need it. Between classes, Cris

zips his robot down the school's crowded hallways, pausing occasionally to chat if a friend stops him to say hi. Once he's in class, Cris positions his VGo in a spot near the front, often gliding into a space between two desks next to his classmates.

Fred Gadelmeyer, 18, a Mohawk senior, escorts Cris's VGo after his first class, a journey that requires a ride on the elevator. He said he was initially surprised by the robot's design, but now it simply fits into the scene.

"You don't see anything, but you know there is always someone driving it from home," he said. "It's kind of neat."

Being back in school has changed Cris in ways his mother struggles to explain.

"There was an old Cris, the boy that existed before the seizures hit. The seizures changed his health and his personality. He's still a happy-go-lucky kid, but because he had no peer interaction, he became subdued," she said.

"When VGo came into his life, some of that spark came back. Some of his personality is back. It's an enthusiasm I haven't seen in a long time."

School program makes use of new skills, old computers

By Patti Mohr

When a large company or famous philanthropist donates computers to children to advance their learning and give them online access to the world, it makes an impact. But when the donors are young teenagers who revamped and renovated the computers themselves, it makes an even bigger impact.

Students and teachers at Forest Park High School, a public magnet school in Woodbridge, Va., say their school's computer donation program has become an essential part of the learning experience. It has also become an essential asset for the community.

The program combines academic learning and hands-on lab work with community service. First students learn about computer systems and networks. Then they rebuild used computers and give them away to children and other schools needing computers.

It is the act of giving that solidifies the learning experience, says Brian Hackett, an instructional technologist at the school and co-coordinator for the program. "It becomes personal. You don't get personal in learning until the kids see results of what they have learned."

Hackett thinks education in general should head in the direction of combining schooling with community service. Applying academic material gives it relevance.

The students seemed to agree. "When we go to events to give the computers away, the parents and students are overwhelmed with joy. The smiles on their faces are amazing," said Karl Stallknecht, a student at Forest Park. "You can see the big picture."

As the students worked on restoring computers to mint condition during class, they spoke about their coursework with enthusiasm. They seemed to grasp the complexities of information technology as they discussed network systems, web hosting, cloud-based solutions, Linux operating systems, and various software programs. Listening to their high level of discourse, it was clear they understood as least as much about technology as the average adult working in the field.

What is especially significant is that the students involved in the refurbishment-and-donation program sounded genuinely interested in using their knowledge to help others. The program is, after all, about giving.

A model program

The program started during the 2000-01 school year when Chuck Drake, the school's new IT coordinator, introduced the concept of computer refurbishment to students enrolled in networking classes. Teachers formalized the program, making it part

of the curriculum, and their students excelled.

The school's proximity to Washington, D.C. made it easy to find free computers. Many federal agencies were glad to unload their old computers someplace that could use them. By the 2011-2012 school year, Forest Park was receiving laptops by the truckload. Now teachers say the most challenging aspect is finding space to store the donations. The rewards for the community are endless.

"We've been able to save a whole lot of dollars for schools and families," Drake said. They have also delivered internet access to people who lacked it.

All the computers are wiped clean and rebuilt from scratch. If the hard drive is missing, a new one is installed. Thanks to corporate-giving programs from Microsoft and Comcast and to open-source software programs that are free to download and use, the school can equip each computer with the following:

- Microsoft XP operating system
- LibreOffice, a free suite of office tools for writing, drawing diagrams, and making calculations
- GIMP, a free graphics program
- An antivirus program
- Internet Essentials, a low-cost internet-service provider sponsored by Comcast

With support from the state, Forest Park High School administrators helped launch the program in 10 other schools. They say while Forest Park has advantages, such as high-quality IT coursework, the refurbishment program can be replicated in classrooms and in extracurricular programs in schools around the country.

Forest Park students, meanwhile, are already thinking of ways to make that happen more easily. "We need to come up with a training brochure," said Stallknecht. "It is not that complicated. It is more about training someone to teach it." He suggested that as long as a school can hire someone who knows about computers and knows how to teach, it could run the program. Used computers are easy to find.

With this in mind, the possibilities for teaching technology and bridging the digital divide seem increasingly infinite.

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School Leadership

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- How to make one-to-one computing a success
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- Illinois district helps others save money through the cloud
- How to engage parents more effectively in their children's schools
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Class assignment: Reinvent the high school

Philadelphia program empowers students with authentic, project-based curriculum

From wire service reports

High school feels different in the big white mansion at the edge of the Navy Yard in Philadelphia—no desks in rows. No 47-minute class periods. No warnings to remove the hat, put the cell phone away, take the exam seriously.

Instead, small groups of students are designing their own workshop space. They're drawing up more efficient bus routes for the Philadelphia School District. Their teachers act as mentors, sounding boards, not lecturers.

The premise? American high schools are broken.

The solutions? The founders of the Sustainability Workshop are trying to find them.

The workshop is an alternative senior-year project built on the lessons of the West Philadelphia High after-school program whose members have been building hybrid cars and winning important competitions for more than a decade.

Its founders—four teacher friends who worked at West—want to turn the workshop into a full-fledged school, under the district or a charter, by 2013.

"The indicators tell us [the traditional high school] model isn't working," Simon Hauger, an engineer-turned-teacher who started the hybrid team, says on a recent school day. "We have to do it differently."

That means believing students can do real, important work, Hauger says. It means delivering a challenging curriculum built on student interests through hands-on projects. It means fostering strong relationships that form the underpinnings of everything.

Three months in, the school has garnered national buzz and attracted more than $500,000 in private

funding from the Barra Foundation, the Greater Philadelphia Innovation Cluster, and others.

Deep thinkers are already gushing over the workshop.

"I want to be down there all the time—to learn myself," says Andrew Zwicker of the Princeton Physics Plasma Laboratory.

"It is so clearly the future of education," says Zwicker, who is also associate director of education and workforce development for the innovation cluster. "Or at least it should be."

Perhaps more important, the 28 students who took a leap of faith three months ago—by leaving their neighborhood high schools to try a new kind of education—are excited, too.

Angelina Rementer wasn't an A student at Furness High. She had little time for science or math and hated getting up in the morning.

The workshop is different, she says.

"It's a new way of learning," says Rementer. "This place makes you want to come to school."

It's a sunny Thursday, and five students are

grouped around a long wooden conference table in Quarters A, the historic Navy Yard mansion that houses the workshop. The morning's task? Figuring out how to make the workshop space more energy-efficient.

"We want to do hydrogen-cell energy," says July Hoo, "but to do that, we need a solar panel, and we'll put it on the shed."

Hauger, one of two full-time teachers, pokes his head into the room.

"We're making progress, Mr. Hauger," Brandon Cuthbert says.

Michael Clapper, the other full-time workshop teacher, wanders in a few minutes later. How's it going? he asks. What are your ideas? What are the tools we need to get our project done?

"We're not having that garbage-eating robot, right? That's off the table?" Clapper jokes.

There are groans and laughs. Matthew Riggan, another founder and now a volunteer at the school, enters. He likes the solar-panel idea but wants to know: "Did you talk about how to make it more efficient?"

The founders' aim is to turn the students' hypotheticals into reality. Experts will be consulted. Architectural plans will be drawn up. A structure will be erected.

There may be no Algebra 2 or English 4 at the workshop, but students learn the essential skills they need from those courses—solving simultaneous equations, interpreting complicated texts. It works for seniors now, the founders say, and it could work for all high schoolers.

The students all remain enrolled at their home schools—Furness, South Philadelphia, and West Philadelphia—but attend no classes there. They are eligible to participate in sports and clubs there, and many do.

The district has agreed to grant students course credits equivalent to those they would receive at their neighborhood schools.

Students had to apply for admission to the workshop, and serious problems with attendance or behavior would have disqualified them. Even so, their academic skills are "all over the place," Riggan says.

Work matters at the school. Attendance is noted. (It's up over attendance at the comprehensive high schools the students come from, the founders say.)

But the vibe is loose, with a lot of give and take. When the students are unruly, there is no threat of detention.

"If you don't sit down, I'm going to start singing country-western songs," Clapper says.

They sit down, and the class dissolves in laughter at the well-worn joke from the teacher who often addresses them as "family."

Students can grab a snack from the workshop kitchen and eat it during class, and no one is breathing down their necks to turn in homework.

"We have more freedom," student Trang Dang says. "We have some control. Nobody's telling you what to do. You have to figure it out yourself."

The workshop's opening day was Sept. 6, but in a way, the school was born nine years ago, over dinner in Chinatown.

Talk at the friends' gatherings often turned to how exhausting teaching was—not just the hard work, but the exercise of trading on their relationships with students to persuade them to learn things the adults didn't actually believe were useful.

("When's the last time you actually used the quadratic formula?" Hauger often asks.)

But on that night, conversation turned to a hypothetical school. What would it look like, they asked one another, if they started with a clean slate? What

would you want kids to know and be able to do after four years?

Clapper, who like Riggan and Downey holds a doctorate in education, quit a tenure-track position at St. Joseph's University to find out.

"I've been waiting my whole life for an opportunity like this," he says. "Now when they ask, 'Why are we doing this?' there's always a real answer. We spend our time on authentic tasks."

It's still exhausting. Clapper and Hauger are not just teachers, but principals, college counselors, lunch ladies, fundraisers, and everything in between.

Though everyone agrees the year is going well, there are still challenges. Workshop students generally knew how to get good grades at their old schools, but that hasn't always translated.

"How do you push to deep understanding?" Hauger asks. "That's really hard for some of them."

Clapper wants to talk to the students.

Security guards have complained to him that workshop kids were disregarding directions, darting across the street to catch a bus.

"How are we going to address this situation?" Clapper asks.

The students brainstorm: Tell SEPTA to run the shuttle more. End class early so students can have plenty of time to walk to the bus.

"I'm hearing a lot about SEPTA and SEPTA's troubles. I'm wondering how we could take responsibility and fix this as a community," Clapper says.

Hauger speaks up.

"You have an opportunity to change people's minds about how high school kids are in Philly," he says. "We are in conversations with adults all the time where we say, 'No, we know what they can do.' When a couple people are ignoring adults, that hurts all of us."

There's no formal student code of conduct at the workshop. Instead, the students came up with eight words, the qualities they want to be known for: intelligent, responsible, resilient, observant, innovative, respectful, humble, and motivated.

Students won't get in trouble for texting when they are supposed to be working on a financial plan for their project. But a teacher—or a classmate—might ask: If your group is having a conversation and you're texting, are you being respectful?

That might sound idealistic, but it works, student Jocamari Nunez says.

"Here, we really are all about the eight words," she says.

What the workshop has built wouldn't work in a 1,000-student high school, its founders believe. Maybe, they say, the answer is several campuses, 200 to 300 students each, sharing services but maintaining separate identities.

"I think what is scalable about what we do is the fundamental set of ideas," Riggan says. "Do real work, solve real problems. Trust kids to make good choices. Let them learn from failure. If we're serious about schools helping to change some of these kids' lives, we have to have these conversations."

How to make one-to-one computing a success

eSN Twitter chat explores the need for sound planning, professional development

From staff reports

What are the keys to success in rolling out a one-to-one computing program in schools? "Before you look for keys, you need to have a car," tweeted Sam Morris, education solutions manager for Lenovo. In this case, the car is a sound plan for what you're trying to accomplish by giving every student a computing device.

"I think it's important that you define the goals for 1:1 early in the process of establishing the initiative," Morris explained.

Morris was leading a Feb. 21 Twitter chat hour on one-to-one computing along with eSchool News Editor-in-Chief Dennis Pierce. The conversation, which took place entirely on the micro-blogging service Twitter, explored strategies for making one-to-one computing work effectively in schools.

During the hour-long chat, readers were encouraged to submit questions and weigh in with responses of their own. The discussion ranged from whether "bring your own device" (BYOD) programs were a good idea, to whether laptops or handheld devices were more effective. It also touched on how to ensure effective teaching and learning with mobile technology.

Reader @vANguyenC17 asked if the trend among schools was to let students bring their own devices. "We're seeing BYOD taking off in schools," Pierce tweeted, referring to this recent eSchool News story: http://t.co/tJCvCMQq.

Morris, who oversaw a one-to-one tablet computing program as the instructional technology director for Cary Academy in North Carolina before joining Lenovo, added: "I certainly think there is a lot of

conversation around BYOD … but these introduce challenges as well." He explained: "I think you need to define the common technology needs and goals and determine if BYOD can meet those needs."

A key to making BYOD programs work is to "make sure [your] tech infrastructure supports all platforms," @vANguyenC17 noted.

"The biggest concern I have [with BYOD] is ensuring equitable access. We exacerbate the gap when we don't manage BYOD well," tweeted Deb Socia.

"I agree completely that BYOD can increase the digital gap," Morris responded. "Or it can force all users to the lowest common denominator."

"Good point," tweeted Pierce. "Schools should have devices for kids who don't have their own... and use web resources that aren't platform dependent."

"Kids who BYOD also have them to use at home. This would seem to be a distinct advantage over those who use the schools," wrote @Lucasn_19.

"Yes. We should be enabling access to technology and resources beyond the classrooms," Morris

replied.

"What differences, if any, do you see between mobile-based 1:1 and full laptop-based 1:1?" asked Chris Dede, Timothy Worth Professor of Learning Technologies at Harvard University's Graduate School of Education.

"I am concerned about limiting students with mobile devices, [especially with subjects like] programming, robotics, interactive math," Morris wrote.

"We have 1st hand experience with 1:1 comparing 1 year of laptop (Mac) and 1 year of iPads," tweeted @vANguyenC17. "All three 3rd grade teachers strongly favor going back to Macbooks."

"Interesting," Pierce responded. "Was that [because] they had more capabilities?"

"Laptops allow much more productivity and creating; iPads are limited in apps' ability to create, limited features in Word," @vANguyenC17 explained.

"The device should match the needs of the students," Socia tweeted. "Laptops work well for many, tablets better for some." She explained that for students with disabilities, tablets might be preferable.

"Yes—the device should be paired with the learning outcomes," Morris replied.

"I worry educators are buying low-end devices without realizing how much they cannot do, like most of what I develop," Dede noted.

Besides having a sound plan—one that puts the desired learning outcomes first, and uses these to define the technology that will be used—@HatchEarlyChild asked what the most important factor was for ensuring success with one-to-one computing.

"Teaching practices [are] most important, I'd say," Pierce responded, pointing to research (http://t.co/WBgZZyC1) suggesting that one-to-one computing programs are only as effective as their teachers.

"Significant, ongoing [professional development] is necessary, but not just around tech," Morris agreed. "Early PD should focus on transforming learning." He added: "Just as with our kids, the PD learning should be differentiated, collaborative, authentic, and not just skills [-based]."

To follow the chat thread, and keep the discussion going, search for posts with the hashtag #esnedchat on Twitter.

Four keys to creating successful eLearning programs

Experts outline key considerations for school leaders

By Laura Devaney, Managing Editor

It's no secret that online and blended learning are picking up momentum nationwide—and during a recent International Association for K-12 Online Learning (iNACOL) webinar, experts offered advice

for school leaders who hope to begin their own online or blended learning programs.

While many use the terms interchangeably, online learning and blended learning differ slightly, said webinar moderator Butch Gemin of the Evergreen Education Group, which publishes iNACOL's annual "Keeping Pace with Online Learning" report.

Online learning is teacher-led instruction delivered primarily via the internet, and it includes software to provide a structured learning environment. Teachers and students are separated by geography.

Blended learning occurs any time a student learns in part in a supervised brick-and-mortar place, away from home, and at least in part through online delivery, with some element of student control over time, place, path, and/or pace.

Many school districts begin with a pilot online or blended learning program but run into challenges when they try to scale up the program, said Evergreen Education's Chris Rapp, who works with schools around the country as they start or expand online learning programs.

"You have to know where you want to go if you're going to get there," he said. Rapp outlined four key program components for education leaders to consider.

Content

Creators of online or blended learning programs should know their educational goals, program, structure, and course content before they begin, Rapp said.

Knowing what grade levels will be served and whether courses will be full-time or supplemental, spread over a traditional calendar year or follow a nontraditional calendar, and let students learn at their own pace or follow a cohort-based pace are all important considerations.

"Understanding that really helps you choose your content," he said.

Content can consist of core courses, electives, career and technical education, and more, and it can be created or licensed. Leaders should consider their staff expertise and the resources they already have in place if they want to build their own content.

Open educational resources are another potential content source, but Rapp cautioned that it often can take time for teachers and administrators to find and evaluate this content. Ensuring that content is aligned with the Common Core State Standards is important as well.

Teaching

"Regardless of the medium … the teacher is always the most important person—the person who has the most significant impact on the success of the student," Rapp said, adding that a teacher's importance is the same in online and blended learning as it is in a brick-and-mortar setting. "It's important that we consider that a given in this process."

Targeting teachers who are ready to jump into using the new set of tools that online learning requires is the best way to go, he said.

iNACOL's National Standards for Quality Online Teaching (see http://www.inacol.org) can help organizers of online and blended learning programs get started, and these standards also can be modified for local use.

Program creators should consider a number of questions, including whether they will hire teachers or use existing teachers and how they will prepare those teachers, whether teachers will be full- or part-time, and whether there are any contractual issues to consider.

And all parties involved should "avoid the myth that any classroom teacher is qualified to teach online," Rapp said. Many teachers are asked to teach online with little to no preparation or support.

"Good teaching is good teaching, but this is a different set of tools, and teachers need to know how to use those tools and how to use proper techniques to really engage students," he added.

Professional development is key to this consideration, and first-time online teachers should enroll in a rigorous summer program to prepare themselves. Organizing professional development by discipline has advantages, and having experienced online teachers mentor new online teachers also is a wise idea.

Many online teachers say that even if they have several years of classroom experience, their first year of teaching online is much like their first year of classroom teaching, because they find they need new and different classroom management and communication skills.

"Regardless of the content, the quality of the teaching is going to make the course or program successful," said Justin Schmitt, principal of Southwest Colorado eSchool. Schmitt's school is a newly formed online middle and high school run through a board of cooperative educational services that formed when nine districts banded together to create an online school in the region.

It's important to know when, or during what time, students access their courses, because that's when online teachers should be available to their students, Schmitt said. In his previous experience as an online teacher, Schmitt used as instant messaging application to communicate with students, and he said they were very comfortable approaching him in that manner.

Not all online or blended learning students have parents at home to supervise them, and the Southwest Colorado eSchool has built local support for students by opening two administrative offices where students can come for help. Someone from the school also will meet students at libraries or learning centers to offer academic advising, tutoring, and other help.

Technology

"Technology should be in service of educational goals," Rapp said. "You want to make sure you're working hand-in-hand with your technologists to make sure they're supporting you in the right way."

Interoperability is a major concern, and program leaders should make sure that whatever technologies they purchase will work well together in a seamless

manner before investing money and time.

Total cost of ownership is another important consideration, and this should include the cost required to run a technology, as well as the staff time required—and not just the cost of the technology itself.

Other critical technology decisions that leaders of online or blended learning programs will encounter include:

- Learning management system: Consider instructional features and review the system carefully, because once a system has been purchased and implemented, it is extremely difficult to change.
- Student information system: "The last thing you want to do, especially as your program grows, is to have teachers enter grade data twice, or have it be a challenge for you or your teachers to understand where students are from an achievement standpoint at any given time," Rapp said.
- Internet connectivity: Before scaling an online or blended learning program, make sure the program has the capacity to support a greater number of students accessing resources at the same time, to avoid network crashes. Additionally, not all students might have internet access at home—so you must create a plan to service those students.

Other technology considerations include web conferencing tools, end-user devices, technology staff, trouble tickets, and mobile learning.

One big decision most online and blended learning programs will face is whether to provide computers and internet stipends to students, Schmitt said. Schmitt's school operates on too small a scale to provide such resources this year, but he said the program has plans to expand to that sort of service eventually.

In the meantime, Southwest Colorado eSchool's brick-and-mortar offices have computers that students can come and use if necessary.

The school also requires that students pass an introduction to online learning course.

"Just like teachers, students have a learning curve in becoming an online student," Schmitt said. The course teaches students how to use the different technologies involved in the program, among other things. If students do not pass the course, they are not admitted to the program.

Operations

Creating or expanding online and blended learning programs requires strategic planning with stakeholders.

It can be difficult to find time to communicate with all parties involved, Rapp said, but it is important—otherwise, program leaders might have to backtrack and work to build support for their program.

Students, teachers, parents, building-level administrators, the school board, community members, and the business community all play a role.

"Change is hard for folks, and making sure that you can help them understand the path you're taking" is important, he noted.

Budgets, especially in today's economy, are a touchy subject. Rapp suggested that program leaders and administrators view online and blended learning budgets on a three-year basis. Money might be tough to come by initially, and the program might lose money in its first year, because the program is likely to be small. But by its third year, enrollment likely will be up, and the program might become self-sustaining.

"Losing a bit of money in Year One and gaining a bit of money in Year Three is a good way to look at

it," Rapp said.

Schmitt noted that support services for students are important as well, and the Southwest Colorado eSchool assigns each student an academic adviser who helps the student monitor progress and will provide counseling when necessary.

The school's academic probation intervention program places tighter restrictions on students who are failing two or more courses to ensure that the flexibility associated with online and blended learning is not detrimental to the student's success.

Illinois district helps others save money through the cloud

From wire service reports

A growing "cloud" means a brighter future for many Illinois school districts, and Bloomington District 87 is leading the way.

Recently, some of the brightest minds in technology were in California's Silicon Valley to discuss the best policies and practices in cloud computing for state and local government. Among them was District 87 Technology Director Jim Peterson.

He's accustomed to being on the cutting edge. The district's IlliniCloud (http://www.illinicloud.org), which he helped create, has been featured in magazines; its home base visited by state and federal school officials and business leaders; and its creators invited to spots across the nation to share their expertise.

The reason: IlliniCloud, which provides access to virtual services, online storage, and high-speed network conductivity, has found solutions that work for school districts—and saves them money.

Each school that joins IlliniCloud can potentially reduce its spending on information technology by 30 to 50 percent, Peterson estimates. Already, 200 school districts in the state use the service.

"Bloomington's efforts allow other districts to put money into instruction instead of infrastructure," said State Superintendent of Education Chris Koch during a recent tour of the IlliniCloud data center held in a locked, climate-controlled room in Bloomington High School's basement.

When all school districts buy hardware and back-up services, and develop new programs for the latest state requirements such as teacher evaluations, it makes sense to share resources, Koch said.

For years, cooperative buying of paper supplies, diesel gas for buses, and even sporting facilities has helped school districts cut costs. IlliniCloud performs a similar function in regards to technology. Every school district has to create report cards, keep tests scores, maintain lunch and student attendance records, and myriad other functions.

"We're all doing the same things," said Peterson.

IlliniCloud, launched almost three years ago, was created by Peterson and District 87 systems administrator Jason Radford with help from others in educational technology. Now, it is getting national attention as they develop the technology further—with support from the state board of education, prestigious companies, and others, including the Carnegie and Gates foundations. The state board's contribution of $5 million helped make it a reality.

IlliniCloud provides three main services:

- Disaster recovery: In a situation like the May 2011 tornado in Joplin, Mo., having computer file storage off-site is an insurance policy.
- Infrastructure service: With off-site equipment,

districts don't have to worry about maintaining or purchasing servers.

- Software as a service: The cloud provides opportunities for online lectures and content, as well as data analysis programs to help students.

"That's the promise of the [IlliniCloud]," Peterson said. "You can write it once and use it everywhere."

The most popular service to date is disaster recovery. "It helps people sleep at night," he said. To that end, the system has three data centers—in Bloomington, DeKalb, and Belleville (all about 100 miles apart) for added security in case of a natural disaster.

Jim Henehan, technology coordinator at Bloomington's Central Catholic High School, said before signing onto IlliniCloud in June, his backup system was to burn DVDs and take them home.

"It updates automatically," he said of IlliniCloud.

Brian Engle, executive director of educational technology at Glenview School District in northern Illinois, sees the advantages, too. "We chose it because it has the capabilities we were looking for at a dramatically reduced price," he said.

As a pilot project, the service is free to any of Illinois' 869 school districts. Eventually, there will be a fee, but at a rate much lower than a commercial company would charge, said officials.

The TechAmerica Foundation's State and Local Government Cloud Commission conference in February included the state of California's chief information officer, mayors, and business leaders, along with representatives of 38 top companies. The focus was on delivering better services to governments and citizens—but at a savings to taxpayers.

While some groups talked about plans for using cloud technology, Peterson was on the "It's the Real Deal" panel, talking about how cloud services are working now. "There is no other statewide community cloud in the nation," he said, noting that IlliniCloud is a state-of-the art system that rivals what top companies are doing. "These are the things the big boys use."

How to engage parents more effectively in their children's schools

By Nora Carr, APR

Parenting is the toughest and most important role most adults will ever have. Yet, far too many feel ill equipped to handle the job. Others are simply too busy making ends meet, or so overwhelmed by life that parenting simply takes a back seat to more pressing concerns.

As someone raised in a "survival of the fittest" family, with few rules, multiple crises, and modest expectations, I can relate to other parents who feel inept when confronted by the litany of things educators expect parents to know and do.

It's as if teachers and other suspiciously together parents have a secret codebook that tells them how to handle every situation and explains educational mysteries. Surely all parents are not born knowing why it's important to read to infants, even though they are clearly not interested in books—or that teenagers who seem to hate your very presence really covet more time with caring, competent adults.

Telling parents like me that we need to "support the educational process at home," or that you want to "partner with me" in addressing school concerns about my beloved child, is like waving a red flag in front of a bull. I might not know what to do with my child, but I sure recognize condescension when I hear it.

To help parents feel more confident in interacting with school personnel, and to bridge the knowing-doing gap, organizations like GreatSchools Inc. and companies like Houghton Mifflin Harcourt (HMH) are teaming up with schools and districts to offer free, online learning opportunities for their families.

GreatSchools (http://www.greatschools.org), a national nonprofit headquartered in San Francisco, is partnering with Miami Dade Public Schools, Hillsborough County, Fla., Public Schools, Denver Public Schools, and Los Angeles Unified School District, among others, in leveraging digital media for parents as part of its College Bound online learning program.

Easy to log onto and use, College Bound helps unpack the middle-class codebook for families, starting in kindergarten and continuing through fifth grade. The goal is to build

parent knowledge and skills that foster greater student success.

Designed with low-income families in mind but suitable for all parents, the program combines short lessons with an online community and personalized coaching—all in English or Spanish.

By combining short videos, animation, parent-friendly text, social media, and interactive activi-

ties, the program builds parent confidence and shows them how to support learning at home and at school in meaningful and constructive ways.

Because parents can log in 24-7 from home, work, church or synagogue, the library, or while "on the go" using smart phones and other mobile devices, they can take advantage of the learning opportunities when it is most convenient for them.

The program's flexibility allows parents to skip around the various units, exploring content that interests them and skipping over content that doesn't meet their needs. Parents can work online with their children, in small group settings at schools or community locations, or by themselves. Parents also can get tips and suggestions from GreatSchools' online experts, or tap into other parents nationwide for advice.

Similarly, HMH has teamed up with Miami-Dade County Schools and North Carolina's Guilford County Schools to make its digital academic content and interactive learning games and tools accessible at home as well as at school.

Guilford County currently has more than 2,000 parents using the online system, which includes academic content from preschool through grade eight in reading, mathematics, and science. (To explore the system yourself, go to http://www.gcsnc.com, click on the "Parents" tab, then go to "Guilford Parent Academy.")

Thanks to the online content, which is provided free to parents, families can research high-quality web sources through netTrekker, dissect a frog online through Science Builder, or check their understanding of algebraic concepts and equations.

Community tutors and mentors working with Guilford County students at public libraries, after-school clubs, and nonprofit organizations also can access the content, which reinforces the knowledge and skills students learn in class.

In addition, parents can access award-winning digital video content on a wide range of social-emotional issues, from parenting toddlers to understanding stress and depression in teens. Produced by Active Parenting and Connect with Kids, these digital programs are also broadcast on Guilford County's cable television channel, GCTV-2.

With more than 50 research studies showing a link between parent engagement in learning and student success, such digital initiatives seek to remove common barriers, such as distrust of school officials, language differences, and lack of time.

Just as students often learn best from other students, parents often learn the most from other parents, which is why the most powerful programs leverage digital media to show real parents struggling with—and overcoming—real issues.

Simply posting great content online isn't enough, however. Typically, parents have to hear about these new resources from a friend or other trusted source before they'll take the time to log on; others will need a note from a teacher, or personal, hands-on experience with the new tools before feeling comfortable enough to fly solo.

As with any other innovation, educators need a plan that will bring parents through all the various stages outlined in the diffusion process, moving from initial awareness and interest to evaluation, trial, and adoption.

Because mass media and information distribution work best at raising awareness and generating interest in a new idea, service, or product, it's OK to start with fliers, letters, website announcements, and other typical tools. To move from interest to action, however, parents probably will need some face time and one-on-one encouragement.

This is where community partners and other

trusted messengers come into play. When parents get to try out new tools in a safe and comfortable environment, such as their church, temple, synagogue, community center, or public library, they're more likely to engage.

As they experience success online, motivation—and learning—builds. Soon, parents are able to work with their children and their children's teachers with greater confidence, laying the foundation for a true partnership built on mutual respect.

Award-winning eSN columnist Nora Carr is the director of staff for North Carolina's Guilford County Schools.

Supporting continuous improvement with data

By Shelly Nelson

Difficult. Clunky. Frustrating. Those were three words often used by administrators, teachers, and staff to describe our previous data warehouse. Because the system was complicated, people didn't use it. Instead, student achievement data was stored in disparate locations all over the school district.

Our goal in Wayzata Public Schools was to get our data into one place. But more important, we wanted to make it easy to view, understand, and act upon that data. We also wanted to make it easy for our teachers to review and compare different types of student data—from national and state assessments to district benchmarks and formative assessments—to see how they tie together, and then use this data to inform their instruction.

Toward that end, our district purchased the web-based Performance Matters assessment and data management system in 2010. We now use the system in every school, across all grade levels, to correlate and analyze performance data from multiple sources. On one screen, we can easily compare "lagging indicators," which include historical data such as state test scores, to "leading indicators," which include current data such as local assessments. With this information, we can evaluate student progress toward our state standards and analyze student growth over time.

Today, we have a whole continuum of information in the Performance Matters system, from our locally developed common assessments, to the Northwest Evaluation Association Measures of Academic Progress assessments, to our state assessments, to national assessments like the ACT and SAT.

Having the ability to look at several data points in one place makes it easier to make decisions about interventions and extensions to help each student excel. Using the system's interactive dashboards, we can slice and dice data to analyze student performance, and we can instantly disaggregate data for any student or group. We can also drill down and access more detailed information related to the data on the screen. The system's color-coded reports make it easy to understand the data and to determine where we need to take action to improve student learning.

For example, last school year, our executive director of teaching and learning, Jill Johnson, visited a middle school and sat in on a few classes while the teachers taught students about inferences. Based on the lagging data they had on their students, the teachers were pretty confident that, after the first lesson, about 80 to 90 percent of students would understand the concept. But when they assessed students with student response systems, they saw that

only about a third of students "got it." Using that data, the teachers regrouped and tackled the concept again the next day. They tested students again and the proficiency level jumped to around 90 percent.

That experience demonstrated that we can look at lagging data to get a sense of how our students will perform, but we also have to look at current data to help drive our instruction.

Having the ability to immediately view student achievement data also helps with the development of our common assessments. For instance, if we see students struggled with a particular question, we can tell pretty quickly whether it was a good challenging question or a bad question that needs to be rewritten.

Since 2010, our assessment and data management system has become an important part of our continuous improvement model. It helps us make sure people have the information they need to make informed decisions and that this becomes part of their daily practice.

With the ability to access students' historical performance on state tests and current progress on local assessments, we have the actionable information we need to improve teaching and learning from the individual student level to the district level. Even teachers in our high-performing schools and classes continually review their data to identify which areas they need to focus on and which strands they can improve. And, if there's one thing we've learned, there's always room for improvement.

Shelly Nelson is the director of curriculum and instruction for Wayzata Public Schools. Wayzata Public Schools serves the cities of Corcoran, Maple Grove, Medicine Lake, Medina, Minnetonka, Orono, Plymouth, and Wayzata in Minnesota.

eSchools of the Month

- Kentucky district's ed-tech advice: Involve all stakeholders in planning
- Technology broadens students' learning opportunities at South Johnston High School
- Virginia high school uses technology to increase learning time, boost graduation rates
- Personalized instruction provides HOPE to Colorado students

Kentucky district's ed-tech advice: Involve all stakeholders in planning

Fort Thomas Independent Schools is our 'eSchool District of the Month' for February

From staff reports

Fort Thomas Independent Schools in Kentucky has made it a priority to improve building security and efficiency, as well as student engagement and achievement, through the judicious use of technology.

This district of 2,600 students ensures adequate time for teacher professional development so they learn to become coaches and facilitators of student learning rather than simply lecturing all day, and full wireless coverage and a "bring your own device" pilot project have helped educators leverage technology's power to enhance instruction.

The district's focus on ed-tech accessibility has helped it become a leader in the state of Kentucky and nationwide, with 94 percent of its students from the Class of 2010 going on to college.

For these reasons, we've chosen Fort Thomas Independent Schools as our "eSchool District of the Month" for January. Here, Diana M. McGhee, the district's director of technology and information, describes some of its ed-tech accomplishments and its keys to success.

*(**Editor's note:** To nominate your school or district for our "eSchool of the Month" feature, and to read about past winners, go to http://www.eschool-news.com/eschool-of-the-month.)*

How do you use technology to advance student learning?

The vision of the Fort Thomas Independent Schools is to create a technological environment that will enable all students to meet state-mandated goals and objectives, to expand upon the accepted

curriculum, and to allow students to enrich their educational experiences. To that end, we begin technology instruction in kindergarten and increase time and skills as the students age. Each elementary school uses Renaissance Place, Successmaker, Everyday Math, and other software programs. All schools use Encyclopedia Britannica and Follett's Destiny Library Management program.

Have you noticed an increase in student performance and/or motivation as a result of this technology use?

When students are actively engaged in their learning, motivation does increase. We have increased our use of mobile computing and have found that student motivation has increased as well.

How do you use technology to streamline school administration and aid in decision-making? What tangible benefits have resulted?

The Fort Thomas Independent Schools expects its teachers to become effective users of technology in order to provide a learning environment that is innovative, creative, and user-friendly. Teachers should function as coaches, mentors, information managers, and, in general, as facilitators of knowledge. Teachers should have the knowledge and skills to integrate these technologies in a manner that will address students' specific needs and learning styles. We require all teachers to have web pages and use eMail and other technology programs. We have just recently taken our professional development program online, and that program has matured through this school year.

Installing computerized HVAC systems in new buildings has resulted in more efficient air systems. Installing key card locks in new buildings has resulted in better access for all stakeholders.

How have you financed your technology initiatives—through grants? eRate funds? Local funds? Corporate partnerships? Or some combination of these techniques?

Most of our technology expenditures come from local funds. Our state education department does provide matching funds twice a year to help supplant our local expenditures. Our district also participates in the eRate program, but we are only eligible for telecommunication reimbursement at the 41-percent level. We have an active Education Foundation that provides teacher and school grants to help offset other prohibitive costs.

What initiative are you most proud of, and why?

Making wireless technology a priority in every building allows us to provide a way for students and faculty to bring their own devices to school to learn or instruct in the best way possible. Right now, we provide a limited "bring your own device" option for students and faculty. Our plan is to expand that project in the next couple of years.

What have been your biggest ed-tech challenges, and why? How have you overcome those challenges?

Time is and always will be the biggest challenge in implementing any type of new program. Finding time for professional development opportunities that reach all of our participants is difficult. Our technology department offers weekly after-school technology sessions to help combat the professional development problem, and we also plan our summer professional development opportunities around topics that will benefit the largest number of people.

What's your best or most useful ed-tech advice for your colleagues?

Ask to be involved in decision-making procedures from all different types of stakeholders: teachers, students, administrators and parents.

Technology broadens students' learning opportunities at South Johnston High School

From staff reports

South Johnston High School in North Carolina's Johnston County Schools recently started a one-to-one laptop program for freshmen, which has extended their learning beyond the traditional school day, and has overcome the challenge of an older building to deliver wireless internet access throughout the school.

Students are taking more Advanced Placement classes online, taking advantage of opportunities that didn't exist before—and school leaders have saved money by moving to online assessments.

For these reasons and others, we've chosen South Johnston High School as our "eSchool of the Month" for March. Here, school technology facilitator Bennett Jones describes some of the school's ed-tech accomplishments and its keys to success.

*(**Editor's note:** To nominate your school or district for our "eSchool of the Month" feature, and to read about past winners, go to: http://www.eschool-news.com/eschool-of-the-month.)*

How do you use technology to advance student learning?

This year, we implemented our Freshman Academy, a one-to-one laptop initiative where we distributed laptops to our more than 300 freshmen. We also have gone completely wireless, allowing our freshmen to use the laptops throughout the campus and to be able to use them at home, where many of our students do not have computers. Furthermore, we have purchased and installed 13 SMART Boards, bringing our total in the school to 19. Finally, we have been able to purchase 25 iPads to

create a lab where students and teachers can use apps and other programs to enhance learning, especially for our exceptional children's department.

Have you noticed an increase in student performance and/or motivation as a result?

Absolutely. Our school is relatively old (built in 1969), and up until just a couple of years ago, there was barely a working computer in each classroom. Now, as a result of our dedication to technology and electronic instruction, our student morale and performance have increased. In fact, we were the only high school in our district to be named a North Carolina School of Distinction by achieving high growth, and test scores in all but one area increased last year. Our dropout rate is down, and we had more than a 100-percent growth in the number of students taking online courses.

How do you use technology to streamline school administration and aid in decision-making?

We use GoogleDocs for record keeping in teacher learning communities and during our intervention period that we have every day. All of our administrators are equipped with iPads to assist in quick fact-checking and to use the online observation system. Our teachers are receiving laptops for use during faculty meetings, which will enable them to enter input in GoogleDocs in real time to share ideas and make comments. Finally, we have been able to create videos using Discovery Education

streaming and Windows Movie Maker to share with our middle schools and other departments in the district.

Have you realized an increase in efficiency, a savings in administrative costs, or some other tangible benefits as a result of this technology use?

We were the only high school in our district to be recognized as a School of Distinction by earning high growth. We had more Advanced Placement (AP) students than ever this past year as a result of the online AP courses offered through North Carolina Virtual Public School. Through this technology-enabled instruction, our students were able to take courses that we simply could not offer at our school because of staffing and cost restraints. This was made possible by the restructuring of an older computer lab into an online class learning center. We have also saved thousands of dollars in paper and copying costs by posting announcements on a shared server and via closed-circuit television throughout the campus. Finally, we have saved money by being able to offer online tests and examinations rather than spending on paper and printing materials.

How have you financed your ed-tech initiatives?

Our administration, and especially our principal Eddie Price, has been very aggressive in trying to obtain as much funding as possible for our school. For example, he has secured grants from local companies and from civic groups like the Golden Leaf Foundation, which has provided funds specifically for technology use. Additionally, our principal has been able to acquire local funds from our school district and has written numerous grants from charitable organization such as the United Way, which have helped us to be able to purchase technology equipment at a fractional cost—including laptops, desktops, and monitors.

What ed-tech initiative are you most proud of, and why?

The implementation of the one-to-one laptop initiative for the Freshman Academy is one of our biggest accomplishments. It has had significant obstacles to overcome—including compatibility issues, collection and distribution procedures, software and firewall issues, and implementing new methods of instruction for our teachers. However, now it is proving to be extremely rewarding for our

students, who are excited about learning and using this technology not only in class, but to research and work outside of the classroom setting as well.

What have been your biggest ed-tech challenges? How have you overcome these?

The biggest challenges have focused around integrating the technology into an old school building that was not designed or built for computers and the associated wiring. We have had to install access points seemingly in every room across the campus to have complete coverage for wireless devices. We still have problems with our school server not being fast enough to handle all of the data being transmitted on it. And finally, getting teachers—who in some cases are not very tech-savvy—to use all of the new and exciting resources that are now available to them has been a challenge. We have overcome these challenges by having a great support system from the central office and technology services department and by having frequent Professional Learning Community meetings. We also hold staff development training sessions where teachers can share best practices and teaching methods that use our available technologies.

What's your best ed-tech advice for your colleagues?

To try, try, and try. Most who are skeptical about

the advancements in technology and all of the useful ways it can be used in today's classroom might simply refuse to step outside of their comfort zone and try a new method of teaching a concept. What I have found is that if teachers will simply experiment and try the new software, or the new equipment, they will find that not only can their jobs become easier, but more exciting as well. That can create a wonderful new classroom experience for their students to learn the material presented.

I also have a wonderful principal who is fully aware of and completely supports the role of technology in the schools, and advocates for the creation of an atmosphere where we can teach our students to not only be a part of the 21st century, but to thrive in the ever-changing world.

Virginia high school uses technology to increase learning time, boost graduation rates

From staff reports

T.C. Williams High School, in Virginia's Alexandria City Public Schools (ACPS), uses technology to create online and blended-learning environments that provide extra support to students who need it. Two of the school's primary goals are to extend the amount of learning time and ensure that more students graduate—and early results from these programs are encouraging.

For these reasons, we've chosen T.C. Williams as our "eSchool of the Month" for April. Here, Mary Fluharty, the school's online learning coordinator, describes some of her school's accomplishments—and the challenges it overcame in the process.

*(**Editor's note**: To nominate your school or district for our "eSchool of the Month" feature, and to read about past winners, go to: http://www.eschool-news.com/eschool-of-the-month.)*

How do you use technology to advance student learning?

As our school goes through the transformation process, we have become recommitted to engaging students through the integration of technology to increase and sustain student learning. In our 3,000-student high school, we have approximately 10 percent of the student population taking courses online using K12/Aventa and 100 percent of the students learning in a blended learning environment via Blackboard.

Online courses have been integrated into the school day for some students and are helping to meet some of the primary goals of the T.C. Transformation project: to extend learning time and to increase graduation rates. In addition to using Blackboard, our classroom teachers use DyKnow software to manage and monitor student laptop use, SMART Sync to engage students and increase data-driven instruction, and BrainFuse online tutoring that gives students access to a live tutor 24-7 via an online chatroom, to name just a few.

Grant monies were used to roll out the ACPS Academic Access resource that connects students and families to the tools they need to help their students succeed. Academic Access can be used to retrieve course content, grades, assignments, and

online tutoring. Students and parents can also view real-time grades, schedules, and attendance data—all designed to increase engagement in academic and school life.

How do you use technology to streamline school administration and aid in decision-making?

T.C. Williams administrators use iPads to collect data on curriculum implementation during walk-throughs and for formal observations. They use Google Docs to collaborate and to collect and analyze data using Google forms. They use Blackboard surveys and discussion boards to reach the staff and students to ask for feedback and suggestions on how systemic improvements can be made. Administrators also use the Blackboard Journal feature a for creating professional learning plans. All this is done to meet our goal of improving instruction and to build relationships with staff and students.

What tangible benefits have you seen as a result of this technology use?

One example of how T.C. Williams has used online courses to result in tangible benefits was to condense the Night School courses that were not filled and to collapse them into four content-specific classrooms with students taking courses online. Students have the benefit of a content-specific teacher as well as an online teacher, and they are working in a self-paced, competency-based course to recover the credit necessary for them to graduate on time.

In addition, we now have the ability to run all of our testing online in a small testing window. This allows for a greater number of instructional days and fewer testing days. The use of an online test delivery system also allows for us to obtain faster results, providing time for re-teaching opportunities that give students the time to retake tests successfully.

How have you financed your technology initiatives—through grants? eRate funds? Local funds? Corporate partnerships? Or some combination of these techniques?

Our school has financed its technology initiatives using all of the above. We have corporate partnerships with Verizon, local funding has played an important role, and E2T2 grant monies were awarded that allowed us to provide additional technologies to some of our neediest students and to further level the playing field for our scholars.

What ed-tech initiative are you most proud of, and why?

As the online learning coordinator, I am personally most proud of a project we did last year during the 2010-11 school year and are expanding again this year. We took a group of 20 students who were seniors and had failed the first semester of geometry, were in danger of failing the second semester, and as a result would not have graduated. We put them into a self-paced online credit recovery course in one classroom, with a highly qualified geometry teacher to support them as well as their online teacher. Seventeen of those students went on to graduate on time.

This year, we have expanded this program by implementing it again for our seniors but also for our Algebra 1 students at the ninth grade campus. Statistics show that 90 percent of students who pass Algebra 1 in ninth grade go on to graduate on time. We are using online learning to help those students stay on track with their credits and learning.

What have been your biggest challenges? How have you overcome them?

I think our biggest challenge has been administrative support and buy in. If administrators don't require teachers to integrate technology on some level with consistency, then technology initiatives will often falter. To overcome this challenge, we have had to do some detailed data mining to show the benefits of true technology integration, not just technology for technology's sake, and to have some candid conversations about where we feel our school has the potential to go.

What's your best ed-tech advice for colleagues?

My best advice is to remember to keep the educational goals in mind and figure out the technology that will support these learning goals, instead of trying to fit the technology in to where it might not belong.

For more information about the ACPS Online Learning Program, see

http://www.acps.k12.va.us/technology/olp.

Personalized instruction provides HOPE to Colorado students

HOPE Online Learning Academy Co-Op is our 'eSchool of the Month' for May

From staff reports

HOPE Online Learning Academy Co-Op in Colorado's Douglas County has used a blend of online and face-to-face learning to deliver highly individualized instruction to students, many of whom entered the school at risk of failing. The school's data-driven approach allows teachers to target instruction to meet each student's unique needs. This research-based method has helped lower disciplinary problems while increasing student performance on state assessments.

For these reasons, we've chosen HOPE Online Learning Academy Co-Op as our "eSchool of the Month" for May. Here, Heather O'Mara, HOPE's chief executive director, reveals some of the school's successes and key practices.

*(**Editor's note:** To nominate your school or district for our "eSchool of the Month" feature, and to read about past winners, go to: http://www.eschoolnews.com/eschool-of-the-month.)*

How does your school use technology to advance student learning?

HOPE Online Learning Academy Co-Op (HOPE) is a public, free, nonprofit K-12 charter school that uses an online curriculum, supported by face-to-face instruction, to increase mastery and learning outcomes for our students. HOPE's use of technology supports, but does not supplant, high-quality instruction by teachers. At HOPE, technology is a tool to enable individualized learning plans and teaching. By incorporating technology-based curriculum and assessments, teacher instruction is targeted to improve each student's performance.

HOPE's use of technology allows teachers to identify the proficiency of each student by grade and subject. From that initial assessment, an individual learning plan is designed to put the student on track for success. The online curriculum benchmarks the progress students make with their plans so that a teacher may easily monitor students' progress and adjust their learning plans to suit student abilities.

In grades K-12, we use CompassLearning's Odyssey curriculum, as well as A+ curriculum from American Education Corp. We have seen great success with this research-based curriculum that incorporates a high level of interactivity, audio and video, colorful animation, and engaging graphics. Our rigorous curriculum meets both state and federal standards. Additionally, we incorporate several supplemental programs, including My Reading Coach, Reading Plus, Lexia, Rosetta Stone, and Math HELP to increase student comprehension. Formative and summative assessments such as

DIBELS, Acuity, and Accuplacer are used to target instruction to each student's specific needs.

In the summer of 2011, HOPE's student services team began to use GoogleDocs to review student discipline and attendance issues prior to enrollment. This practice led to faster response times and increased efficiency across the student services and admissions departments during a busy enrollment season.

Have you noticed an increase in student performance and/or motivation as a result of this technology use?

Given lessons at the appropriate skill level, students are able to understand and complete their lessons, thereby gaining confidence and motivation to continue learning. The self-paced, mastery-focused curriculum at HOPE has a noticeable impact on our students, especially those students who enroll for at least two consecutive years. Our data show that students who are enrolled for one year or more in HOPE increase their Colorado Student Assessment Program scores in reading (+6.5 percent), writing (+3.2 percent), and math (+6.5 percent).

Additionally, by using engaging technology, we have increased the percentage of students who re-enroll from 51 percent in the 2010-11 school year to 70 percent in the 2011-12 school year. This is especially notable because our student body tends to be a highly mobile, at-risk, low-income, minority population. For example, 49 percent of second through fifth graders have been in three or more schools in the past three years, at least 63 percent qualify for free lunch, and only 27 percent are grade-level proficient upon enrollment. With re-enrollment numbers trending upward, we hope to see continued gains among our students' state assessment scores.

Over the past three years, HOPE also has seen a decrease in the number of behavior incidents. At the elementary level, incidents have decreased from 46 in 2009-10, to 24 in 2010-11, to 14 in 2011-12. This positive trend is also reflected at the high school level. Incidents have decreased from 135 to 109 from 2009-10 to 2011-12. This trend is attributable to our use of Moodle software, which trains HOPE teachers and staff about student behavior and strategic techniques for encouraging improved student behavior.

How do you use technology to streamline school administration and aid in decision-making?

With formative and summative assessment databases, as well as SPSS data mining software, our instructional team, teachers, and Learning Center staff are able to monitor student progress and achievement on a weekly, and even daily, basis. Collectively, these systems let staff evaluate student progress at the school, classroom, student subgroup, and individual student levels.

Data analysis is applied daily to address individual students' learning needs. Historically, this monitoring has let us adjust students' daily schedules. During our earliest years, students spent the majority of their time learning with the online curriculum. Now, using data provide d by all of our curriculums, learning programs, and assessments, we have discovered that a tiered approach to online and offline lessons works best. Younger students benefit most when the online curriculum is coupled with additional time spent with face-to-face group and one-on-one instruction. As students advance into higher grades, their need for the face-to-face group instruction decreases, and they're able to be successful engaging with the online curriculum for longer periods of time, supplementing it with one-on-one, face-to-face support.

HOPE Learning Centers are operated by our approximately 50 partners, all of which are community-based nonprofit organizations committed to education and our students. Learning Centers provide a facility that students attend daily to access their online curriculum and receive face-to-face support from licensed teachers and experienced mentors. Learning Centers are located in students' neighborhoods and give students a safe and nurturing environment for learning.

How have you financed your technology initiatives?

As a public school, HOPE receives more than 95 percent of its funding from the state of Colorado. Other funds are obtained by applying for grants. In 2010-11, HOPE received $38,000 in eRate funding. Our eRate funds supported our telecommunications expenses, including smart phones to keep our teachers and technology experts connected and alert to the needs of students.

What initiative are you most proud of, and why?

We are most proud of launching the very first hybrid K-12 school. HOPE's at-risk student population has benefitted from a blended learning model that combines the support of face-to-face instruction and a self-paced, technology-based curriculum. The proudest moments are seeing students who did not believe they could do well in school learn to believe in themselves and attain educational success, in large part owing to their ability to move at their own pace. We have graduated more than 600 students, many of whom were at risk of dropping out or never imagined being able to earn their high school diploma.

What have been your biggest ed-tech challenges, and how have you overcome these?

One of our largest challenges was overcoming our students' lack of computer and internet access at home, which made the integration of technology into our classrooms (Learning Centers) all the more important. As we integrated technology into our classrooms, we made sure that the technology we chose fit our multi-grade classroom model. HOPE is dedicated to keeping classes small to make sure each student receives individualized help. HOPE students in the same classroom might be working at different levels in different subjects or might be at various points in the same lesson, but without the right technology, keeping track of the progress of each student in a class could be overwhelming. A professional development program was created at HOPE to address how best to manage the capabilities of classroom technology, as well as share best practices among instructors.

What's your best advice for colleagues?

The use of technology in education supports, but does not supplant, high-quality instruction by teachers. Improving student performance is the goal of teacher instruction that incorporates technology-based curriculum, robust assessments, and data management and analysis systems. The ability to read and analyze data will help any educator or administrator understand the effectiveness of any technology and its impact on student performance