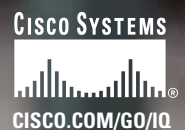


Your Business Just Got Smarter
FIRST QUARTER 2006

Weathering the Storm

PREPAREDNESS
PLANNING IMPROVES
BUSINESS CONTINUITY

LINDA ROMANO,
NURSES PRN



STUDENTS AT ST. JOSEPH'S
ACADEMY, BATON ROUGE





Connected Learning

IN CLASSROOMS
AROUND THE WORLD,
EDUCATORS
AND STUDENTS
EMBRACE A FUTURE
ARRIVING NOW.

VISIT **ST. JOSEPH'S ACADEMY** for Girls in Baton Rouge, Louisiana, and you'll hear a sound that is becoming more and more familiar in classrooms: the clicking of fingers on laptop keyboards. But it's more than that. It's the sound of education changing.

In Baton Rouge and around the world, many school networks now use live video to escort students on virtual trips across town and over oceans. Media centers help children learn the basics of reading, writing, and mathematics. Students take notes on laptops, file homework assignments by e-mail, collaborate on electronic slide presentations, challenge and correct teachers with Internet research, and actually watch video of physics experiments rather than reading about them in textbooks.

Of course, people learned very well for a long time with pencil and paper, and recent history shows that if technology isn't intelligently deployed, it may sit unused. To take full advantage of the benefits of technology, schools must do the following:

- Connect all their school buildings to a network and provide access to critical information.

JACKSON HILL

By G. Patrick Pawling

- Implement network-based applications to improve administrative efficiency.
- Prioritize teacher proficiency and productivity.
- Create a student-centered learning environment to achieve academic excellence.

On the administrative side, more schools are keeping records electronically, resulting in greater efficiency and productivity. With systems that route calls over the Internet, phone bills are dropping. New software eases the often-vexing intricacies of special-education record keeping. Electronic student attendance systems ensure accuracy and accountability. E-mail, blogs, instant messaging, and chat sessions encourage more frequent interaction between students, teachers, administrators, and parents.

There's evidence that it's working. These new tools appear to lead to improvements in standardized test scores, regardless of the economic situation of the school district, according to the Washington, D.C.-based Consortium for School Networking (CoSN), which advocates for the effective use of technology in primary and secondary schools. While that's due in part to how well students "engage" when they use video and other tools, it may also result from the way technology can help teachers develop professionally. Increased use of technology in the classroom may even lead to improved attendance and reduced dropout rates, according to CoSN.

That's not to say it's a simple equation. Having a wireless-



IN BRIEF

GOALS: Engage students. Employ the advantages of technology in education as they've been deployed in business.

STRATEGIES: Connect all school buildings. Deploy network-based applications to improve administrative efficiency. Prioritize teacher proficiency. Create a student-centered learning environment.

RESULTS: Education becomes a deeper, more collaborative process. Students are drawn in. Standardized test scores go up, absenteeism decreases. Administrative processes become more efficient.

enabled (Wi-Fi) laptop in front of you during physics class can be either a great advantage or a major distraction.

ST. JOSEPH'S ACADEMY LAPTOPS INSTEAD OF TEXTBOOKS

"I wouldn't be telling the truth if I said I have stayed on task every time," says Jessica Allain, a 17-year-old senior at St. Joseph's Academy, where every student and faculty member has a laptop and the entire campus is connected with a wireless network. But she has quickly recognized that her laptop is a great tool to help her learn.

"In classes like physics, we have no need for a textbook because we use a physics Web site that has articles and video clips that make the material more realistic," she says. "In other classes, the laptop makes simple tasks easier by letting

JANE METCALF, DIRECTOR OF IT,
ST. JOSEPH'S ACADEMY



JOHN RICHARDSON,
ST. JOSEPH'S ACADEMY
IS TEAM AND TEACHER



you type notes or make charts to organize information.”

Allain's experience illustrates a choice her school's administrators made when they first introduced this level of technology to the campus. They had to decide how much freedom the students should have. Their answer? A lot, because that's what life will be like. But the school also decided to prepare its teachers first, because kids, well, they have a tendency to be kids.

“Teachers have to be trained to deal with these new tools,” says John Richardson, IS implementation director and teacher at St. Joseph's Academy. “Part of it is how to manage the classroom when every kid has a connection to the outside world. I know this: If the kid's smiling, it's not because of my lecture. So I walk around behind them to see what's going on.”

Some teachers issue “freeze” commands during a lesson, which means students are not allowed to touch their laptops until further notice. Others teach from the back of the room so they can see the students' screens.

Says Jane Metcalf, the school's director of information technology: “The girls are responsible for their learning and their behavior, and they are given a lot of freedom. But they also have the responsibility to adhere to school technology polices and to participate in technical problem resolution with their laptops.”

St. Joe's teachers also use Webcasts and blogs. Students e-mail instructors with questions about homework. If a student is too ill to attend classes, she can access her assignments and class notes from home using her laptop. The school has even set up a relationship with a school in Mexico for students in its advanced Spanish classes. The

students in Baton Rouge will be using videoconferencing to work on their language skills with students who speak Spanish as their primary language.

Administratively, the school's network supports class scheduling, parents' access to student grades, online shopping for school merchandise, billing, and student enrollment. As a result, the need for clerical support has been reduced, saving time and money.

Interestingly, St. Joe's decided not to formally teach “technology,” per se, but instead to integrate technology into standard lessons. There are no “How to Create a PowerPoint Presentation” classes, for example. Students learn their technology skills in the context of their normal coursework. They also learn to manage and fix their computers. This approach has produced an interesting benefit.

“They are absolutely fearless, and I think dealing with the technology has fostered that,” says Richardson. “The way they are able to stand in front of a group of adults while they're handling a PowerPoint presentation, it's just amazing.”

BIRDVILLE INDEPENDENT SCHOOL DISTRICT TEXAS-SIZE AMBITIONS

The administration of Birdville Independent School District (ISD) believes that the district's new network—capable of carrying voice, video, and data—will create a platform for a transformation of the educational process.

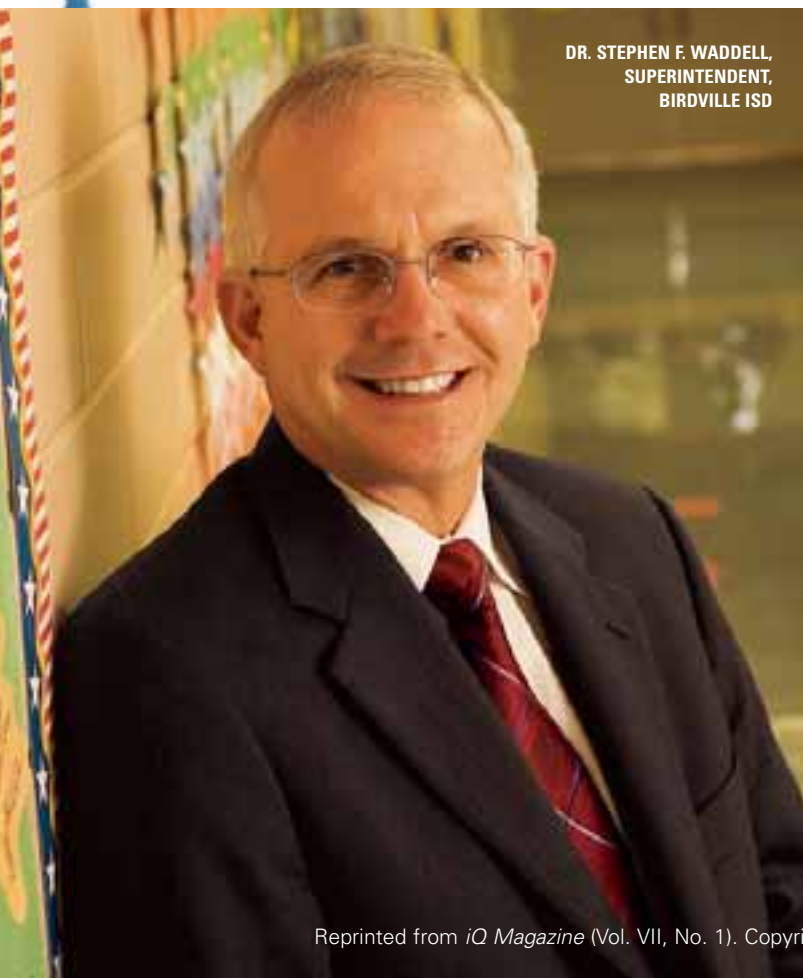
Comprised of parts of seven cities near Fort Worth, Texas, Birdville includes approximately 1,500 teachers, 1,100 staff members, and 22,000 students in 32 schools. Like districts everywhere, Birdville is striving for excellence while facing tight budgets and the added challenge of economically



THIRD-GRADE TEACHER
HILDA VALENCIA AND
STUDENT, BIRDVILLE ISD



STUDENTS IN BIRDVILLE
ISD COMBINE COMPUTERS
WITH TEXTBOOKS.



DR. STEPHEN F. WADDELL,
SUPERINTENDENT,
BIRDVILLE ISD

disadvantaged students. The answer, says Superintendent Dr. Stephen F. Waddell, is to completely rework the schools' IT infrastructure to take advantage of new tools to help students and improve administrative efficiency.

Once the new network is in place, the district will have the following technologies and benefits:

- IP telephony will provide cost savings and better productivity for staff by routing calls over the Internet.
- IP videoconferencing will allow virtual field trips for students and easier, faster training for teachers.
- Wireless connectivity will permit interaction between students and teachers anywhere, anytime.
- Internet-based video will replace messy and complicated film-based media.
- Internet-based video monitoring will improve physical security.

"I've seen data that says in just a few years our kids are exposed to more information than somebody in the Renaissance era would have been in their entire life," Waddell says. "We have to give our students the means to use that knowledge."

To Waddell, that involves creating a true collaborative learning community: a way to use the collective intelligence of students, parents, the community, administrators, and teachers to supercharge the learning process.

"We will have media centers in every classroom, where

TADD MYERS

teachers can use voice, data, and video; the information will flow in all directions,” he says. “Nobody works in one direction anymore. That’s what we get the most excited about. That’s why we use the phrase ‘learning community.’ It’s not just a simple matter of giving information to kids. When the kids are more adept with the tools of learning than the teachers, the rules have to change. The kids are contributors now and so are the teachers. I view this as being nothing less than transformational.”

Though Birdville has only partially completed its network upgrade, many new technology tools are already in use and showing benefits. Broadband allows students to go on virtual field trips to museums across town and thousands of miles away. They’ve even seen open-heart surgeries via video feed.

“The kids are engaged and excited about learning. It makes all the difference in the world,” says Julie Wallace, the district’s executive director of technology. “In the old days, kids would just ‘sit and get.’ Now they *do* the research. They go further and come up with conclusions. They work together as teams. When you have collaboration you come up with all kinds of ideas. Technology enables you to learn at a much higher level.”

The technology also enables parents to communicate more effectively with teachers and administrators. “I have instant access to my child’s grades, teachers, principal—and I use it all the time,” says Wallace. “It’s a complete partnership with the people who are teaching your child.”

Technology will also help the district benchmark its performance. “We have to have data to hold people accountable,” Wallace says. “We have to continue to ask ourselves, ‘What is the risk of not knowing [how well teachers and

TECH TERMS DEFINED

BLOG: A frequently updated Web-based journal. In education, teachers may publish their own blogs, with students and others adding their opinions and comments.


WI-FI: A standardized way for computers to share information without wires, allowing students to connect to the Internet with laptops no matter where they are in the school.

administrators are doing their jobs]?’ Until the last few years, schools haven’t had the technology to do this.”

THE PROPER APPLICATION OF TECHNOLOGY

“I’ve seen campuses where equipment goes unused,” says Warren Arbogast, founder and president of Washington, D.C.-based Boulder Management Group, LLC, which advises schools on technology. “In many institutions, the decisions to stock classrooms with equipment are made with frighteningly little faculty input.”

A better strategy, he says, is to focus first on subject material and student needs, then show teachers how technology can augment the lessons. “The results are like magic,” he says.

For proof, just listen in at schools like St. Joseph’s—to the excited voices, and the sound of education evolving. 

G. PATRICK PAWLING WENT TO SCHOOL WHEN ENHANCED COMMUNICATION CONSISTED OF TELEPHONE CALLS FROM THE VICE PRINCIPAL TO HIS PARENTS.

NEXT STEPS

To learn more about how technology can make a difference in education, visit cisco.com/go/iq-edu and cisco.com/go/iq-ccedu.

FROM CISCO

FROM THE DESTRUCTION OF HURRICANE KATRINA, NEW HOPE

In the Gulf Coast region of the United States, the devastation left by Hurricane Katrina is slowly being replaced by hope. Central to that hope is the belief that ruined schools will be rebuilt and be better than ever.

One of the most vital elements in improving schools, whether rural or urban, rich or poor, is the smart use of technology and all the learning tools and efficiencies it enables. Cisco Systems believes so strongly in the part technology can play in the improvement of schools that it recently announced a \$40 million, three-year initiative in the

Gulf Coast region to help with the rebuilding activities.

Called 21S because it will serve as a blueprint for 21st-century schools, the initiative will directly impact the Gulf Coast—and will also serve as an example of how technology can improve education around the country. Cisco’s idea is to forge a coalition of public, private, and nonprofit organizations to provide a holistic, rather than piecemeal, approach to building a 21st-century educational program that works.

The \$40 million that Cisco will provide in the form of cash, products, and human

resources will be used in the efforts to rebuild, improve, and expand learning opportunities for students in selected schools in Mississippi. These improvements will include educational technology, online curriculum materials, and professional development for staff.

“This initiative is about empowering our children to participate and thrive in the 21st-century economy. It’s time for America to lead again, and it’s time for local schools to lead—with the Gulf Coast schools as our catalyst,” says John Chambers, Cisco Systems president and CEO.—G.P.P.