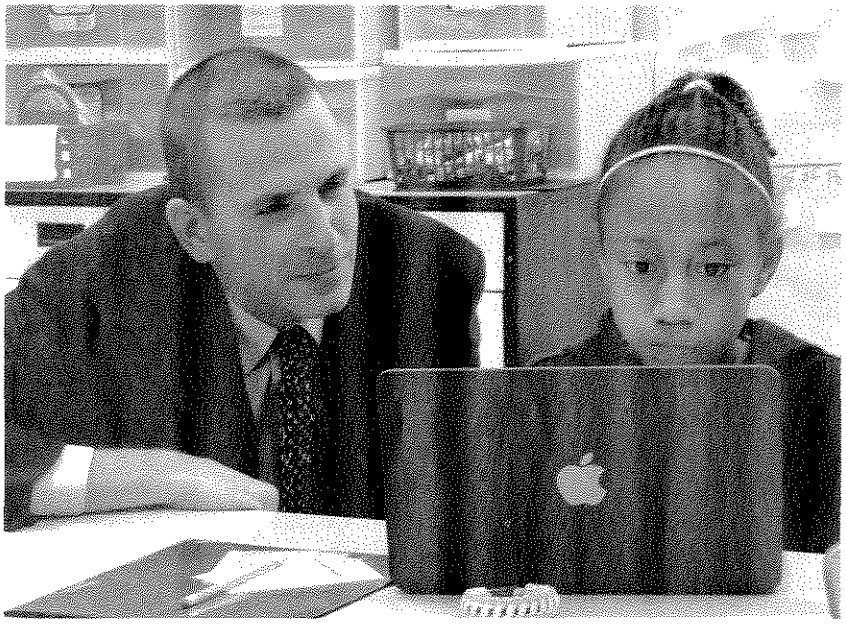
District CIO

Scott Smith, Chief Technology Officer, Mooresville (N.C.) Graded School District

Success Breeds Success



Jada Steele, a fifth grade student who recently moved to the district, shows CTO Scott Smith how quickly she has adapted to having a laptop for the first time.

SCOTT SMITH ONCE LED EFFORTS for North Carolina's technology educators, when he served as president of the N.C. Technology in Education Society (NCTIES), the state's affiliate of the International Society for Technology in Education. Now, he is chief technology officer for the Mooresville (N.C.) Graded School District—a suburban town located 20 miles north of Charlotte. It's one of the only public school districts in the country to issue laptops to every student in grades 3-12.

This "digital conversion" has seen outstanding results, including decreased dropouts and suspensions, increased attendance, and higher scores on end-of-course and end-of-grade tests. The U.S. Department of Education uses Mooresville as a prime example of districts doing it right. The district is used to the attention; it has a monthly visiting day that includes 50 to 60 educators from across the nation.

He also serves as an ISTE affiliate representative for NCTIES.

DA: You joined the district in 2008, the beginning of the digital initiative.

Smith: I've been here a little over a year, less than Superintendent Mark Edwards. He set the vision and decided that this is what we were going to do. I got here just in time to help do it.

Describe what's unique about being a CTO in Mooresville?

Smith: I'm the technology guy, but I do probably as much curriculum and instruction-type work as I do technology. I really think that's important, because the students are the reason we're here, and curriculum and instruction is first and foremost. The technology is then just to support that. I really see my role as a curriculum leader first and a technology leader second.

We have an executive director of secondary education, and then we have a director of elementary education. We work very closely together, especially given the fact that we're in a digital environment.

I understand that you have a background in teaching?

Smith: My background is high school math and physics, and then my master's is in instructional technology. I also have a doctorate in curriculum instruction.

The kids in Mooresville are probably working totally differently than anywhere that you've worked before.

Smith: Absolutely. It's much different when you walk into a classroom and 30 kids open a textbook and all the information they have is what's right there bound in front of them, versus when 30 kids come in, open a laptop, and have a window to the world of information.

Here's where my bias in my curriculum instruction side kicks in. Teachers can't teach the same way they used to. You can't manage a class and get kids to think critically and creatively and to think about collaboration if you don't embrace the tools that they have at their fingertips. They're becoming facilitators of instruction.

How have you created these facilitators of instruction?

Smith: Part of my role on the curriculum side is to work with our curriculum director, our facilitators, our principals and our teachers about what that looks like and, then, how we evaluate it. Part of my job is doing classroom walkthroughs. Not many tech directors do that. We're a 21st-century district, and we have the digital tools and resources; we need to be using them to the best of our ability. Part of my job is to help teachers and administrators move into that environment. It's a process, and I'm certainly no expert on it. But I know enough to say, "Why don't you think about doing it this way?" or "That was a great example of using a discussion forum to have students give feedback. We need to share that with other folks."

I typically do the walkthroughs with

the executive director of curriculum so that we can compare notes, because he looks at it from a different eye than I do. We always give the schools feedback on what we've seen, and what the outstanding works were, and where areas of improvement might be.

What's Mooresville's main source of professional development?

Smith: Each other. When we started, we had some outside help. But we figured out really quickly that nobody was doing what we needed, so we started doing our own. That's one of the major roles of our tech facilitators—professional development.

Most of the time, they are in the hand-holding mode. They go in with a certain teacher, and they help that teacher create a lesson or a unit that utilizes the tools and resources available. In addition, our school system and our school board have been very attentive to the fact of our teachers being trained, so we actually have 10 early release days built into our school calendar. When I started, we only had six.

Another thing is what we call a summer institute. It's voluntary, but teachers can come in for two days in the summer. We try to design it in ways that meet their needs. That's different for different teachers and different grade levels. They get a small stipend, and we don't require them to come, but they show up.

Do they not have a lot more pride, though, in the fact that they own what they are teaching?

Smith: Absolutely. You know, success breeds success, and people want to do better.

The blogosphere is still buzzing about the Apple iBooks and textbooks going online, and comments have been made about how these initiatives are not necessarily reforming the way curriculum is delivered.

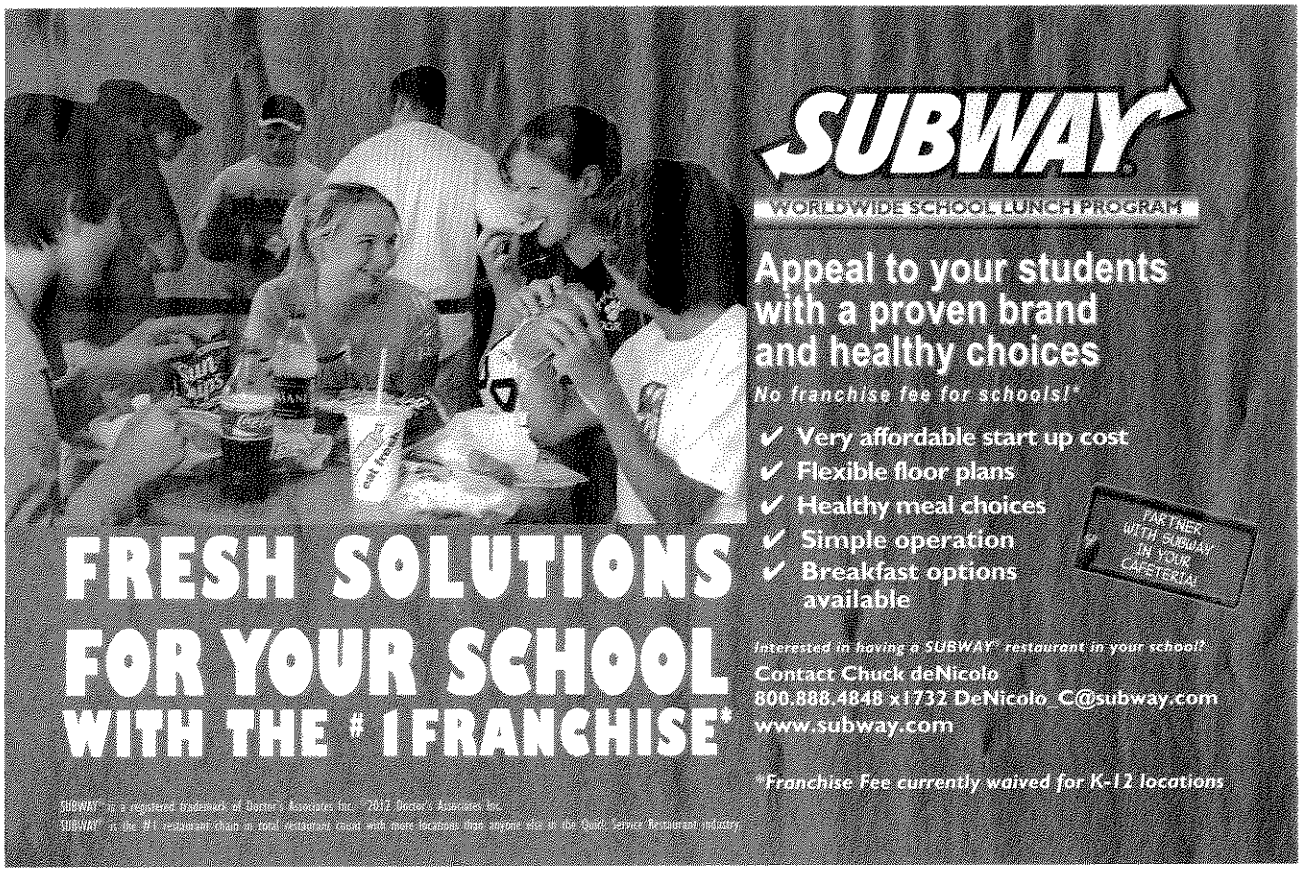
Smith: Yes. That's a small part of it. In Mooresville, we haven't purchased a textbook in over four years. The one exception is high school AP classes, but we don't have a choice in that one. That's what the College Board says.

I do believe that the homegrown stuff is good. We use a lot of supplemental resources; some we pay for, and some are free online. But things like Discovery Education or iCurio, which is the new product by netTrekker—things like these are good resources that we know have been vetted and applied to the standard course of study.

But then, honestly, part of the transformation for us was teachers going through the process of rewriting their lessons to meet the digital needs of our kids and our environment.

I think there's inherent value in that. Somebody else can do it for you and you can grab it, but really, going through that thought process of changing your own teaching strategies in your own environment is much better.

I think any one of our teachers would tell you that they are a better teacher today than they were four years ago. But it's also been the hardest thing that I think they've ever done. For me as a CTO, it's been the hardest thing I've ever done. ▶



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How else have you used technology to move the district forward in this digital teaching and learning environment?

Smith: The technology gives us the ability to do ongoing assessments and comparative analysis. With the technology that we have now, we can do weekly and quarterly assessments, and we can compare data, which can be tied to a standard, a goal and an objective.

Our teacher leaders in the schools have become masters at dealing with data. For us, it's a K12 initiative. You can go into a second-grade class, and a teacher is going to know which students are weak in what areas and what we're doing to address that.

We don't reteach the whole class, because we're able to pinpoint which kids need remediation, or acceleration, for that matter. With the technology and the data that we have now, it's almost like every student in Mooresville has his or her own individual education plan.

Can you describe the learning analytics at the district?

Smith: We use EVAAS, which is a product by SAS. EVAAS gives us predictive analysis on how students are projected to do on state standardized tests based on their history. So that's one thing we use on the front end. Then we use Scantron Achievement Series online. Since each student has his or her own computer, we can do this.

I guarantee you can walk into one of our classrooms and ask kids how they are doing and how well prepared they are for their end-of-course or end-of-grade test, and they can tell you the areas that they need to work on because they've seen the data. The data is posted on the walls in the classrooms—not by their names, but by their student numbers. It's in graphs and charts, so every student knows. It's total transparency.

Do you regularly update your infrastructure, or are you set because you know what the capacity is at this point?

Smith: When we first started, we had a pilot on carts. We had Wireless G technology for our network and figured out that that wasn't going to do it, so we went to Wireless N technology. That has served us well at our one-to-one schools.

In terms of bandwidth, I have a different philosophy than most people do. I tell people it's like that movie Field of Dreams—if you build it, they'll come. The digital natives of today don't care whether it's a full-motion video, or a song on iTunes, or an email. They could care less how much bandwidth it is. They just want it to work. It's my job to make sure that it works.

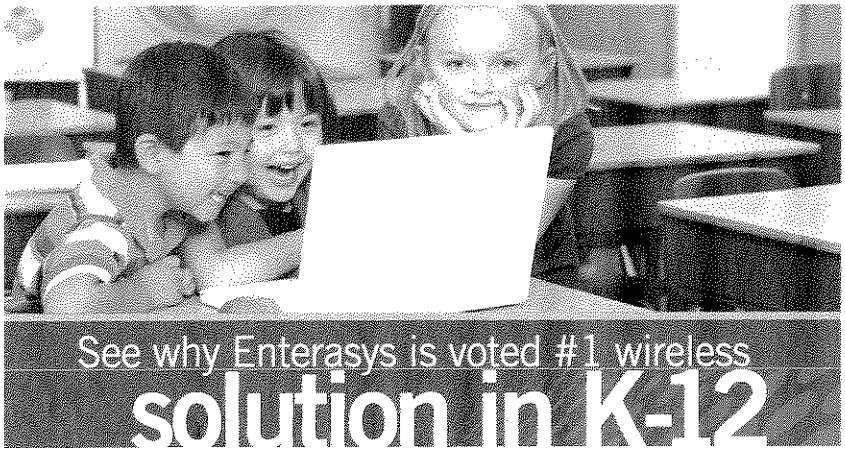
I've got gigabit fiber between all my schools, and then we've got a 250 meg pipe to the Internet. Those are things I monitor to see if we need to upgrade. Right now, we've been serviced well by what we have. I'm sure that will change over time.

Do you upgrade every machine at the same time, and how often do you update the machines?

Smith: We debated that one back and forth. I said that for simplicity and other reasons, I would rather bite the bullet on the front end. That's a huge undertaking, but we made it work.

This summer we were packing up over 4,000 white unibody machines that were going back—we lease our machines—and then I was receiving 4,000 new machines. I had 8,000 computers on pallets. Just the logistical nightmare of that was interesting, to say the least. We're in our fourth year now, and we're on our third generation of machine. When we first started, we had a couple hundred of the original white MacBooks, and then we upgraded fairly quickly to the white unibody machines. This year we upgraded to the MacBook Airs. Our plan is to keep these for a while; I don't want to do any more upgrades right now (laughs). —*Judy Faust Hartnett*

www.DistrictAdministration.com
Read about Scott Smith's technology team.



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