



Tech Check

Are you keeping up with the latest technologies appropriate for school nutrition programs? From biometric POS systems to cell phone cameras, there are many ways you can apply technology to improve your operation.

By Patrick White

Once upon a time, technology was the exclusive domain of the “geeks”—those with PhDs in computer science who could “speak” various programming languages or rebuild a hard-drive. Computers were large and mysterious. Today, it’s a much different story. There are computer chips in coffee makers, and technology, while growing infinitely more powerful, is significantly easier to use. We’re all geeks now, to a certain extent. We no longer need to seek out cutting-edge technology—it’s become part of our everyday lives. And each of us uses technology constantly—even when we don’t realize it—for both personal and professional gain.

School nutrition operations in districts large and small are using technology to help continually improve service, performance—and bottom lines. In fact, technology is being put to good use in every key area of child nutrition programs, from sales to marketing to training to communications to behind-the-scenes business management. Here’s a look at how some districts are turning to technology in an effort to continually evolve and enhance their school nutrition programs.

THE SCIENCE OF SALES

The POS (point of sale) system was arguably the first and most prominent sophisticated technology to find its way into school nutrition. Once reserved mainly for large districts, POS systems are now nearly ubiquitous in schools of every size these days. “POS systems have really become somewhat of a commodity,” says Amy Huff, vice president of marketing for Horizon Software International (Duluth, Ga.). “Very few districts are still using paper ticket systems.”

As more tech companies have begun to offer POS systems, the features incorporated into these systems have become more powerful and all-encompassing. Instead of simply helping speed service and reduce wait time standing in line, POS systems increasingly are integrated with various other sales-related features. “Many districts start out with a POS system and then add other features,” notes Huff.

One example of such additions is reimbursable vending capability. According to Huff, from a technological standpoint, it’s really not much different than adding a sales line in the cafeteria: “Kids can go to a vending machine that’s tied into the POS system and have access to their account and purchase a reimbursable meal.” (Learning how to package meals and fill the machine is more complicated than integrating the technology into the operation’s existing system, she points out.)

Another feature that can be incorporated with some POS systems relates to free/reduced-price eligibility. The school meals operation at Guilford County (N.C.) Schools recently added a student eligibility module to its Meals Plus (Wilmington, N.C.) POS system, explains Cynthia Sevier, SNS, director of school nutrition services. “It plugs directly into our POS. We scan our applications, because we have so many—54% free/reduced-price in a district of 72,000 students—and the scanning program will qualify students and generate letters,” she explains.

Even on the serving line, the look of POS systems is changing. While PIN pads and card scanners still dominate the marketplace, some schools are turning to biometric identification systems to increase the speed—and the security—of their POS system.

“If I put \$100 in the bank, my expectation is that the bank will safeguard that money and not let anyone else access my funds. I look at it the same way when parents put \$100 on their child’s meal account. It’s my job to safeguard that money and make sure no one else has access to those funds,” says Mary Moyer, director of child nutrition at Manheim Central School District in Lancaster County, Pa. She takes this mission so seriously that three years ago, she introduced the IdentiMetrics “finger scanning” biometrics system as part of her Schoolhouse Software (Harris School Solutions, Rockland, Calif.) POS application.

“We do not use the term ‘fingerprint,’” she clarifies, adamantly. The difference is that a finger scan captures certain points on a finger and creates an algorithm associated with that student’s account. Nothing from the scan itself is saved, and the system does not capture a full fingerprint that can be reproduced. It’s an important distinction that, once explained to parents, greatly reduces any privacy concerns they might have about the technology, reports Moyer. Parents can opt out

of the system, but fewer than a dozen students at Manheim's 930-student middle school, where the system was first introduced, have chosen not to participate.

Another concern voiced about the use of this type of biometrics has centered on the possible spread of germs with students all touching the same unit with their fingers. "Well, let me just tell you how sanitary ID cards are!" Moyer counters. "Kids store them in their back pockets, in their shoes, wherever." And PIN pads also require students to touch each number, she points out.

In the end, the security benefits offered by biometrics technology have been the most important consideration. Prior to her use of biometrics, "nothing was truly secure," asserts Moyer. "It's so easy for someone to use another student's PIN or ID card. Now we can ensure security."

In the Collier County (Fla.) School District, Director of Nutrition Services Dawn Houser, SNS, is exploring use of a biometric "palm reader," which she saw showcased at a state affiliate conference. "It was developed in Japan to be used at ATM machines, and it's now being used by some hospitals to register patients," she explains. "You hold your palm about three inches away from the screen, and it registers who is using it." Because you're never actually touching the unit, there's no worry about spreading germs or the sensor being broken or dirty. "It's an interesting concept, and I'm trying to learn more about it," says Houser.

ELECTRONIC MARKETING

With growing competition for student participation and sales, the application of technology as a marketing tool is becoming almost essential. "I think there's growing recognition that if you want to communicate with your customers, you need to go where kids are—and that's in new technologies: texting, Facebook, Twitter, etc.," says child nutrition consultant Barry Sackin, SNS. Reaching students through their preferred communication tools can help school nutrition programs promote menu offerings, he points out. As a bonus, these tools often work not only to reach kids, but also their parents. "[Sweet Tweets!](#)", includes examples of how several school nutrition operations are making use of social media technologies.

Jeff Denton, child nutrition director for Oklahoma's Ponca City Public Schools, explored the idea of creating a Facebook page for his school meals program only to learn that the school district blocks all access to Facebook at school sites. "A lot of districts block that content, to keep students or staff from spending all their time on it," he explains. "I understand exactly why they do it, but it does limit us. Students can access Facebook at home, but if they're going to use that information to make buying decisions, they really need to see it during the day."

But Denton won't be deterred in his efforts to use computer technology in marketing. One school in his district is about to pilot a program in which all student work will be done on iPads, he reports. "Students will all be given iPads, and they'll carry them around. I haven't learned exactly how [the program] will work yet, but once the school year starts and I can see how it functions, I want to see if I can tap that market by blasting out our menus or specials to all the iPads," he says. Denton hopes that, because the school has issued these computers, he'll be allowed to communicate with students through this technology.

In the meantime, Denton already uses a handheld video camera to capture images of students enjoying nutritious meals in cafeterias. He plays these videos on the "digitals" (large TV-like display screens used for various messages) that are becoming commonplace in many schools. "Students love seeing each other, and it creates a really positive message for the program," he points out.

While Twitter and Facebook—and digital displays—get attention as exciting, glamorous marketing tools, even utilitarian POS systems are being used to help increase participation and revenue, says Horizon's Amy Huff. "Many districts are trying to do a better job of reaching parents in order to market their programs and boost participation. So one component of a POS system that's becoming popular is the online pre-pay system," she notes, asserting, "Parents aren't used to writing a lot of checks anymore." Not only can parents add to their child's meal account, they can learn more about the program and see exactly what their child is buying.

Online prepayment systems also can be used to help alert and remind parents when accounts are low. For example, like many other available programs, the "PAMS" (Parent Account Management System) from PCS Revenue Control Systems (Englewood Cliffs, N.J.), sends out e-mail notices to parents regarding account balances.

BUILDING A BETTER BACK-OFFICE

Account balance alerts are just one example of how some front-of-the-house POS systems have been expanded to include features that can assist with back-office program management. "With the increasing cost of food, technology is now being aimed at helping districts reduce their food costs," explains Horizon's Huff. Examples include modules for procurement and

online inventory management. In some cases, these features are closely tied to the basic POS data regarding student customers. "Directors can enter what they have in their inventory, and then populate the POS system with the items they sell. As they sell items, these can be deducted out of inventory," she explains. "Putting an inventory system in place and managing the inventory, rather than just [conducting] a physical inventory every month, really gives a director more control."

Inventory management systems can generate reports that let directors see what food is actually on-hand versus what food should be on-hand. This helps not only with improving ordering accuracy, but can bring to light such issues as theft or spoilage. "It really helps to spot problems quickly and brings down food costs," Huff says. It also makes the process faster and more efficient, saving money in labor costs that would be incurred to track the same information manually.

Guilford County's Cynthia Sevier recently added such an inventory component to her Meals Plus POS system. "It allows our managers to key in their ending inventories every month, and that information ties in with our financial package," she explains, noting that her team has discussed going a step further, to adding a perpetual inventory system that uses bar codes. "But, at this point, we just don't feel that our managers have the necessary time to be able to do that," she explains.

In Florida's Collier County School District, Dawn Houser has made the leap to a bar code inventory management system, after seeing them in action for years in supermarket settings. She took the initiative last year, testing it out at a couple sites. "We picked a large high school to try it in, because we knew they would have a wide variety of foods there," she notes.

The school nutrition staff scans the bar codes and then enters the appropriate product information—once the information is stored, it comes up automatically the next time the same bar code is scanned. "The program takes a little while to set up, but once the products are in the system, any school in the district with a scanner can use the information," Houser explains. "The beauty of the system is that you get away from operator error. I think it will really help us speed up the inventory process, and make it more accurate."

Tracking your data is a key back-of-the-house use of technology. But software also can help you take the next step with data management: analysis and application. Barry Sackin is working with School-Link Technologies (Santa Monica, Calif.), which currently is developing a system to collect, analyze and put to use all of the disparate data school districts collect. "There's just so much electronic information now in schools, and I think the next wave of technology will be aimed at helping directors use that information to make decisions, rather than just collect it," says Sackin.

In Guilford County, Cynthia Sevier has seen the benefits of integrating various technologies to produce more comprehensive data. Her department previously used a specialized program to interface with the district's general financial database. But this meant the school nutrition operation's financial information was kept separate from its POS data (student account and eligibility information, etc). Since Sevier recently has added a financial management package available from her POS provider, "that means everything will be in one program; we won't have to import the data over to a separate program," she explains.

"Now we're able to generate some great reports for me to be able to see our profit-and-loss, participation and other information [categorized] by status or grade level or school, etc.," reports an enthusiastic Sevier. "The new system lets us see meals-per-labor-hour quickly, without having to import and add data manually. Now the information is just there for us. It gives me some really good planning tools."

TEACHING TOOLS

While new technology often requires training in order to take advantage of the powerful features offered, predictably, technology also has been developed to assist in that very training. For example, Sevier's team has been experimenting with a software program that records keystrokes and the order in which steps are completed, etc., to accomplish a particular task. Then others can see these steps re-played on their own computer screens. The central office can fill out, say, a sample production record for the preparation of a menu item. Then, it can send managers in each school a copy of that process to watch as many times as needed until staff at the individual sites get the hang of it. "We have to remember that many of our staff are not used to using computers. And we've found that, with adult learners, repetition is important," explains Sevier.

Her operation also has begun using educational software from Wimba (New York City) to assist with general training in various topic areas. The online education program "allows us to create a 'classroom' and have our managers or employees log in to that 'classroom' from their schools. Then, we can conduct training from our desks using PowerPoint or the Internet," details Sevier. In addition to dramatically reducing costs related to in-person training for staff at 120 schools, "It will allow us to be more effective than gathering everyone in one room," she notes.

Sevier's team already participates in webinars conducted by SNA, the School Nutrition Foundation and other groups; these

programs have covered topics ranging from the H1N1 virus to farm-to-school projects to nutrition education. "I think there's real value in going to meetings—I don't want to eliminate those because it gives you a chance to network and learn that way," confirms Sevier. "But I think webinars are a very effective way to provide training, and I would love to see more of them offered."

ACROSS THE MILES

In Montgomery County (N.C.) Schools, Child Nutrition Director Frank Fiorella, SNS, uses community networking applications such as Sync.In to provide "real-time chat" discussions between the central office and the managers at each school. On its website, Sync.In is described as "real-time document conferencing" and "a web-based word processor." Fiorella breaks it down further: "It's sort of like a note board that everyone can see on their monitors," he explains. "I have 10 schools, so any time a question comes up, we're able to communicate with everybody in real time. If one person has a question, someone else probably has that same question, so we're able to answer it quickly for everyone."

The system also allows managers to quickly arrange to share menu items in the event one school runs out. "They even use it to track deliveries," Fiorella adds. "They'll jot a note that 'the truck just left my school, so it should be at your school next.' The managers really, really love the ability to communicate with each other instantly."

This fall, Fiorella will be trying out a free "video chat and messaging system" called TokBox. It will allow him to "meet" with managers at any time in real time—without anyone getting in a car. "We'll be able to use it within our department for trainings or quick meetings," he explains. "I had to buy small web cams for the computers at each school, but that's much cheaper and more efficient than having everyone drive a half-hour to the office and a half-hour back for a one-hour meeting. That's two hours out of their day—and after that, there's not much of a day left."

Fiorella says there are many of these kinds of free technology tools available, and all that's required is a little investment of time to figure out how they work and which ones to adopt. "A lot of these kinds of technologies are small, but it's important to embrace them and understand how technology can help us," he asserts. "Technology can help streamline our jobs and make them easier in the long run."

PHONING IT IN

Intimidated by some of these options? Well, maybe you can put a commonplace technology to better use for improved team communications. "Thanks to cell phones and texting, I don't think there's a director out there who isn't connected to their office 24-7," says Barry Sackin.

In Ponca City, for example, Jeff Denton says the district gives certain employees stipends toward the use of private cell phones, realizing how critical they are to job performance these days. "Every day I wonder how we did things before cell phones," he muses.

That lesson was especially relevant for Denton in July, when he was attending SNA's Annual National Conference in Dallas. "I was taking photos of products on the show floor [with my phone] and sending them to staff members who were on the other side of the hall," encouraging them to check out certain booths, he reports.

"And I was even sending photos back to managers at schools, asking if a particular product would help them or whether we should serve a certain food," he continues. "Between the Internet and cell phones and texting, I don't think I ever lost contact with the office back home. It's just second nature these days that technology keeps us all in touch with each other." **SN**

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Before You Adopt

While technology can help to increase efficiency and lower costs in school nutrition operations, it's important to consider ease of use of the program, as well as the technical skill sets of the staff members who will be using the system—before you sign a contract. "Because there's sometimes high turnover in this industry, districts look for systems that will be easy to train new employees in," reports Amy Huff, vice president of marketing for Horizon Software International.

Initial cost and long-term investment are other factors that can generate some resistance in

taking on new technology. Directors really need to see the ROI—return on investment—for any new technology, Huff continues. How will it help them save food and labor costs, build participation, prevent theft or meet other financial goals? “Oftentimes, the technology can be tailored to the factor that is most important to a particular district,” she notes.

According to consultant Barry Sackin, SNS, a key factor in determining whether a school nutrition operation is likely to embrace new technologies is the degree to which the director personally wants to invest the time and energy. “It’s perhaps easier for directors who have been on the job for a while; they might have a little more time to explore new uses for technology,” he explains.

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