



Security: The Biometric Alternative

Several years ago, a colleague of mine was concerned that the money in her seven-year-old son's lunch account was being used up faster than it should. After a little research, she discovered that her son was buying his lunch and then lending his ID card to another student who couldn't afford to buy lunch.

While this type of situation is not uncommon, it could have been easily prevented by proper identification of the student using the ID card.

Time constraints and a steady flow of students at lunchtime make it imperative that schools have a process that quickly and properly identifies students. How often have you seen the lunchroom line slowed because a student forgot his PIN number, lost his ID card, or had a damaged card that needed to be replaced? These scenarios are time-consuming, aggravating, and, with modern technology, highly addressable.

The Biometric Answer

Biometrics is an emerging technology that greatly simplifies the task of quickly and accurately verifying a student's identity without using a code or ID card. It does this by a process called finger-scanning. In traditional fingerprinting, a print is captured in ink and stored for future reference. With finger-scanning, a scanner captures an ink-free image of the fingerprint and then converts that image to a mathematical algorithm that can be used for identification purposes. Once the algorithm is created, the fingerprint image is deleted.

Biometric identification ensures that only the specific child putting his or her finger on the scanner can access account information. There are no more problems with forgotten or mis-

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keyed PIN numbers, and no more lost, damaged, stolen, or forgotten ID swipe cards.

The lunchroom isn't the only place biometric identification can be useful in schools. This technology can be used anywhere it may be necessary to positively identify students—on buses, in the school store, at school events, in the library, in school laboratories, or in the nurse's office.

Biometric identification can also improve school security. In addition to the obvious security of positive student identification, schools can use biometrics in various ways to heighten security. For example, schools could use a basic "one-to-many" configuration, in which a finger scan is matched against the entire database of stored ID records. This type of configuration would work well in the lunchroom. For areas that may require greater security, schools can use a "one-to-one" configuration that would require, for example, a PIN number that is confirmed by the finger scan.

Potential Drawbacks

As with most technology solutions, biometric identification systems have some potential drawbacks. One of the most obvious is cost. Scanners can cost as much as \$2,000 per unit.

But while the initial outlay may be more expensive than traditional card-swipe technology, biometric identification does away with the need for yearly card production and card replacement. In addition, the finger-scan record is usually good for three to four years, with obsolescence attributed mainly to students' physical growth. That means schools spend less time and money each year maintaining their identification system.

Another potential drawback is parental or community resistance. The idea of "Big Brother" is one that often comes up when a school considers using biometric technology. Once parents understand that the finger-scanning technology differs from fingerprinting, fear is usually dispelled. For those parents still not convinced, schools can have an opt-out policy. Most biometric identification systems also have PIN-entering or card-swipe capabilities.

A final drawback is potential system failure. While this may occur, schools already live with this possibility every day, from computers to test scanners to alarm systems. Like these electronic systems, a good biometric system includes technology support in the event of system failure.

It would seem that the benefits of security, efficiency, and affordability outweigh the drawbacks of initial cost, customer resistance, and possible system failure. What with the danger of terrorists, predators, criminals, identity thieves, and other undesirables in today's world, secure and positive identification is becoming more and more a critical issue. Biometric identification offers clearly reasonable security, and it's comforting to know that it's available right now. ■

Thomas A. Richard is a sales and marketing manager for Food Service Solutions, Inc. His e-mail address is trichard@foodserve.com.