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TECH & LEARNING

IDEAS AND TOOLS FOR ED TECH LEADERS | APRIL 2019 | \$6

SAFETY FIRST

HOW NEW TECH CAN PROTECT
STUDENTS IN SCHOOL AND ONLINE

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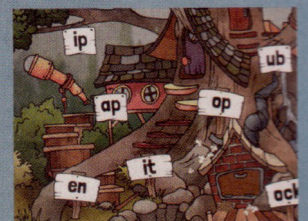


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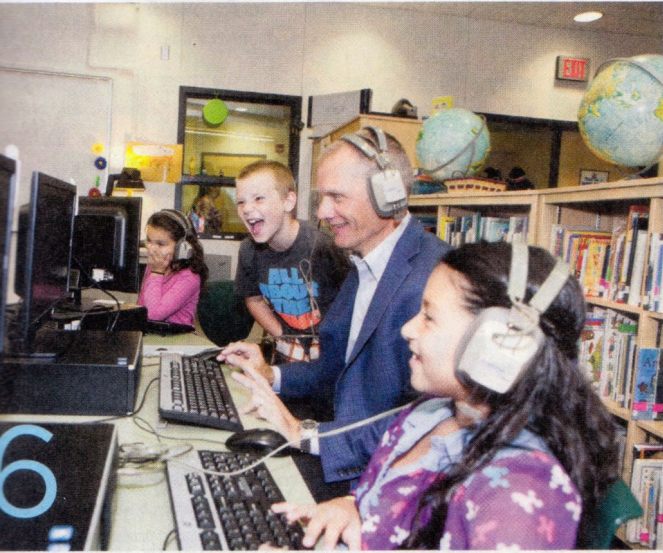
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NEXT-GEN SCHOOL SAFETY AND SECURITY

Using the Power of Technology to Protect Students

By Tara Smith

The goal hasn't changed: Student safety has always been a number-one priority. But because many of the menaces are more lethal and omnipresent than ever, safety has become an urgent and expensive challenge for K-12 schools. Next-gen school safety involves keeping everyone in school buildings physically safe, and it also means keeping them safe online. While threats from various quarters have multiplied in recent years, innovative technologies and cutting-edge solutions that can help educators keep kids safe are becoming more sophisticated and user friendly. As these case studies from districts around the country reveal, next-gen school safety is complex, nuanced, and requires a blend of technology and human wisdom. The stakes are high, and lives are being saved.

DISTRICT-SUPPLIED TOOLS = DISTRICT RESPONSIBILITY

"It's a district's responsibility to monitor and keep kids safe when they're using district-supplied digital tools—whether they're logging on at school or at home," says Christina Iremonger, Chief Digital Officer for Vancouver (WA) Public Schools (VPS). With 24,000 students and 1:1 devices for all students in grades three through 12, VPS needed a powerful and effective solution to keep students safe online and to ensure that the devices were being used as tools for learning.

"Collaboration and a flexible learning environment are very important," says Iremonger, "but with Canvas as our LMS we had no access to what students were writing on Google docs, for example, and some students were using it as a chat room." The team that Superintendent Steve Webb appointed to investigate various security solutions identified



Students at Eisenhower Elementary School enjoy learning using edtech tools with Vancouver Public Schools' Superintendent Steve Webb.

Gaggle as the best tool to meet the district's needs.

24/7 ALERTS AND SERVICES

"It's worked out really, really well," says Iremonger. "Gaggle provides 24/7 alerts and real people on the other side of the devices who are highly trained and skilled in looking at the context of potential problems. There are multiple levels of alerts, and they will email, text, or even call in the case of imminent danger. If no one responds, they will call 911 in a case of imminent danger. It's very reassuring to know that there's another person looking out for our kids, and we're not depending on an algorithm to be sophisticated enough to protect them."

The idea of being on call to respond to 24/7 alerts can seem overwhelming to school

personnel who already work long days, but VPS solved the problem by bringing on a few people on supplemental contracts to handle after-hours calls. There aren't many of these, says Iremonger, but it's critical to be able to handle them when they do come in." Local police have been 100 percent supportive, she says, and the school collaborates with local entities to provide wrap-around services as needed.

CRIES FOR HELP

Vancouver has had many incidents of students sharing inappropriate pictures, and families are always thankful to be contacted so they can work with their child. But students are also using the tool to ask for intervention. "Students know we're watching," Iremonger says, "and often we find these alerts are their

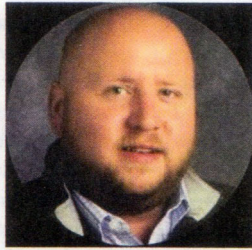
es for help.” What this means, says
 ana Selby, Career and Technical
 Education, is that “The power of
 struggle has been a sense of relief for
 me of our students.” Students know
 their drives are being monitored
 for inappropriate material and calls
 for help, and so when they use their
 school accounts to make threats of
 self-harm, or to send concerning
 emails to friends, they know the
 district will respond. “With our
 after-hours program we seldom hear
 the outcome once we’ve contacted
 the crisis team or law enforcement, but we
 have yet to receive a complaint about them
 being contacted. This tells me that families are
 thankful we’re looking out for their kids and
 appreciate that we’re willing to do this any hour
 of the day.”

COMPLETE AND CUSTOMIZABLE SOLUTION

Sioux Central (IA) Community School serves
 1,000 students, pre-K–12, in one building. The
 district is 1:1 with iPads, which students in grades
 K through 12 can take home. The student
 body is very diverse, says Director of Technology
 Rob McCartney, with a unique mix of ethnicities
 and quite a large LGBTQ community.
 While Lightspeed’s Relay satisfies the CIPA
 requirement to provide a content filter, it’s much
 more, McCartney says. “It’s a complete solution
 for internet safety for students.”

SAVING LIVES

It’s also a life saver. When Relay picked up a
 student’s search for suicide methods, the district
 was able to get the student help immediately. “It
 saved that student’s life,” McCartney says with a
 smile in his voice.
 McCartney appreciates the innovative
 features of Safety Check, which sends screenshots
 of the actual search in addition to screenshots
 every five minutes. This critical
 context helps to determine, for example, if the
 student is doing school-related research on a topic
 such as suicide or if they’re contemplating action.
 “Students need to be protected 24/7,”
 McCartney says, because they’re connected
 24/7. If they’re being bullied, for example,
 even at home they’re not away from it. Another
 product the district uses to help protect students
 is Bark. “We love it,” says McCartney. “It’s free
 for schools and scans district-owned G Suite and
 Office 365 accounts.”



Sioux Central (IA)
 Community School’s
 Director of Technology, Rob
 McCartney.

CUSTOMIZATION AND SUPPORT

Sioux City also appreciates
 Relay’s advanced reporting features
 and the ability to customize each
 student’s profile as well as to toggle
 features on or off by grade level.
 Teachers can set controls to allow
 certain sites in their classrooms. “It
 makes it easier to manage the whole
 class,” McCartney says. “Teachers
 can engage and direct students and
 focus on educating instead of walking
 around checking screens.” Parents
 can also opt in to receive weekly

reports. Some features also help to make the
 devices personal, such as the ability to block
 Facebook during school hours and then allow
 students to log on when school is over.

For all of Relay’s sophistication, “the
 implementation has been a breeze,” McCartney
 says. It’s all cloud based and is a “set it and forget
 it” solution to keep students safe. McCartney
 also appreciates that Lightspeed focuses only on
 education. “And their support is phenomenal,”
 McCartney says. “They really care.”

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

Increasing student and staff safety was a major
 focus of the 2016 school bond in Gresham-
 Barlow (OR) School District. Specifically,

the district was tasked with three tasks:
 limiting access points to school buildings,
 installing modern equipment for emergency
 communications, and installing internal
 classroom locks. “We call it improving our
 SAT score—surveillance, access control, and
 territoriality,” says director of district safety and
 security Kevin Sutherland. Crime prevention
 through environmental design, he says, requires
 the kind of data-driven, third-party assessment
 that NewDawn Security and its expert team and
 principle, Sean Spelley, provide. Sutherland
 himself brings credentials as a former Marine
 and law enforcement officer to this new position
 in the district.

After NewDawn conducted a data-supported
 assessment, Gresham-Barlow installed intrusion
 alarms, video surveillance, and district-wide
 radio communications equipment. The
 perimeters of all schools are secure, Sutherland
 says, and every classroom will be equipped
 with interior locking doors by the end of the
 school year. Through its radio enhancement,
 the district can communicate with all schools
 and departments in a moment to change from
 normal to emergency operations.

THE FORCE MULTIPLIER

All of the best tech and equipment won’t
 make a difference, however, unless the protocols
 are simple and clear enough so that everyone



Gresham-Barlow SD has installed district-wide radio communications.

NEXT-GEN SAFETY AND SECURITY



Gresham-Barlow SD has installed intrusion alarms in all buildings.

SCHOOL SAFETY Town Hall



THURSDAY
JANUARY 31, 2019
6:30 - 7:30 PM



GRESHAM CITY HALL
1533 NW Eastman
Pkwy, Gresham, OR

Gresham-Barlow SD held a successful town hall to educate stakeholders on their school safety goals.

working in a K-12 environment can implement them under stress. A comprehensive safety plan, therefore, takes into account both the physics of things (the equipment and target hardening) and the psychology (operational protocols) used by staff interfacing with technology.

All Gresham-Barlow staff receive training, as well as regular refresher training, in situational awareness, life safety, and option-based decision

making, as well as training in Standard Response Protocol (SRP) and Standard Reunification Method (SRM) from the “I Love U Guys” foundation. In addition, Gresham-Barlow has a collaborative relationship with Concordia University’s VR lab, where emergency technology is used in simulation training. Everyone, Sutherland says, is empowered to implement a “lockout, lockdown, shelter or evacuate” to respond to an emergency.

Gresham-Barlow also held a successful town hall to educate stakeholders on their school safety goals as well as a tabletop exercise for key leaders and first responders using the FBI video *The Coming Storm*.

“Tech is great,” Sutherland says, “and there are lots of collaborative tools and resources, but the force multiplier is empowering students, staff, and parents to take responsibility for their own life safety and to work together to create a safe school environment.”

For more information about how to implement an active shooter drill, go to <https://www.opb.org/radio/programs/thinkoutloud/segment/what-goes-into-planning-an-active-shooter-drill/> [Source: OPB, “What Goes into Planning an Active Shooter Drill?”]

POWER TO THE TEACHERS

One of the features that West Rusk (TX) CCISD IT co-supervisor Cody Walker appreciates most about Impero Education Pro is that it puts power in the hands of teachers. With this robust, consolidated solution, teachers can manage and

set the safety policies that work best for them and their students in real time, including the dynamic list for key-word detection.

“There’s never one single answer that works in every classroom,” Walker says, “and Impero is modular, so it’s easy to manage different students in different periods.” Teachers can see live thumbnails from selected machines, receive alerts of inappropriate activity, and address issues as they arise. Beyond security, Education Pro facilitates learning as well. Teachers can broadcast their own screen to every device in the classroom, for example, instead of a whiteboard.

With the basic training the district offers teachers, they’re able to set advanced policies. “It’s easier to learn Impero than to learn all the functions in Excel,” Walker says. Education Pro also makes it easy to manage information—so people have the data they need without being overwhelmed by what they don’t need. A lab teacher, for example, can see who logged into a lab, when, and what they did. That information can be shared and exported as needed.

Thanks to remote monitoring and screenshot reporting, the district was able to thwart plans for illegal drug deals. The proper school staff were tipped off, the situation was monitored, and screenshots gave instant proof so the situation could be dealt with swiftly and discretely.

POWER TO THE TECH DEPARTMENT

As one of two tech department employees responsible for the 22-building district with



Impero Education Pro helps students and teachers at West Rusk (TX) High School and Junior High use their devices to focus on learning.

300 students and staff, Walker is delighted to give teachers the ability to manage these devices so they don't have to call IT for every customization. He also appreciates Impero's powerful functionality for managing the district's devices. "The ability to pull inventory on a device is itself awesome," he says. These functions save lots of time, and the power management tool, which enables the district to power off machines on a schedule, also saves power and money.

"Education Pro has a whole plethora of tools that are useful for both administrators and teachers," Walker says. "There's never a dull day. We have to be general surgeons and on our toes, but we have great tools like Education Pro to help us. I can't imagine the district running efficiently without it."

TARGETED, STREAMLINED TRAINING AND ACCIDENT REPORTING

In 2015, Adams County (CO) School District 14 (Adams 14) was looking for a simple, efficient solution to maintain compliance and to help teachers and students feel safe so they could

concentrate on teaching and learning. To solve the vulnerability issues surrounding their paper-based safety management process, the district decided to implement the EmployeeSafe Suite, an online risk management and school safety solution from PublicSchoolWORKS. The solution helped the district streamline staff training, accident reporting and management, and more.

ACCIDENT MANAGEMENT

Through a link on the district's website, employees now complete an online accident report form that ensures they complete all pertinent fields. This helps eliminate the need for follow-up inquiries. Submitted reports are automatically sent to the district's insurance company and to Regina Baca, Executive Assistant to Operations, Finance & Risk, for processing. All reports are stored online, and Baca says the system has also significantly decreased the amount of time it takes to process accident reports.

24/7 TRAINING

"The suite's embedded automation features




Adams County School District 14 helps teachers and students feel safe in school so they're ready to teach and learn.

changed the way we deploy staff safety training and manage completion," says Mark Langston, Manager of Educator Effectiveness. Employees can complete the tool's online training course

N-SP80 Series SIP/ONVIF INTERCOM



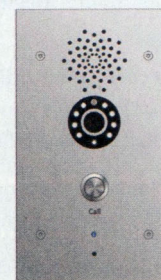
N-SP80MS1
SIP Multimedia Station

 Compatible

- Video monitoring on 7-inch 16x9 touch screen
- Handset or hands-free conversations
- Intuitive operation with programmable keys
- Compatible with Onvif protocol
- Android-based for easy, customization
- PoE or local power



www.toaelectronics.com



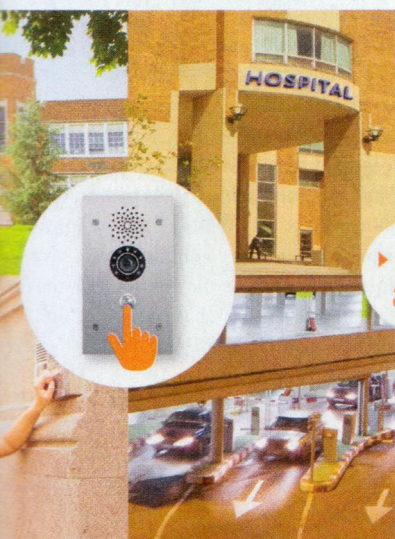
N-SP80VS1
Outdoor/Indoor
SIP Video Door Station

- Built-in AEC (Acoustic Echo Canceller) enables full-duplex communication
- Photo Sensitive Sensor detects brightness
- IR LEDs help to capture video even in dark environments
- Two control relay outputs
- Two tamper-switch inputs
- Resolution up to 1080p



N-SP80AS1
Outdoor/Indoor
SIP Audio Door Station

- Built-in AEC (Acoustic Echo Canceller) enables full-duplex communication
- Full-duplex communication
- Two control relay outputs
- Two tamper-switch inputs
- IP54-grade water/dust proof construction
- Mounts in 4-gang electrical box (YC-400)



NEXT-GEN SAFETY AND SECURITY



EmployeeSafe staff safety training has provided Adams County School District 14 teachers with more access to information about safety best practices.

whenever and wherever they want—as long as they do so before the deadline. EmployeeSafe automatically updates online training transcripts and sends supervisors a report listing employees who still have outstanding training once the deadline passes.

EmployeeSafe has also provided staff with more access to information about safety best practices. Because the training needs of classroom teachers, custodians, paraprofessionals, PE teachers, food handlers, and others are very different, the more than 500 courses in the online course catalog cover a large range of safety issues, including suicide prevention, chemical safety, bullying prevention, and more. Adams 14 has deployed dozens of additional courses to support

employees' specific job responsibilities and help ensure they're safe on the job.

"We also use the online courses as improvement or remediation tools," says Langston. He's assigned courses, for example, to employees struggling with effective communication and to those who need additional courses on developing leadership qualities and positive workplace relationships "We have a solid library of content to pull from," he says.

"Security is a 24/7 task," says Langston, "and with EmployeeSafe, access to proper training is available 24/7 as well."

INTEGRATING SYSTEMS FOR EFFICIENT COMMUNICATION

When the Walton (NY) Central School District needed to replace its PBX phone system last year, it chose a Cisco VOIP platform because its InformaCast integration would allow them to communicate with its roughly 1,200 students and 250 staff across three locations. "InformaCast provides us with a means to send emergency messages to multiple platforms and individuals with the click of a button or an automatic trigger," says Walton's director of technology and safety coordinator Rick Robinson. The district was able to incorporate existing hardware with new additions such as cameras, digital signage, Cisco VOIP phones, IP speakers, and door access control. "The most important aspect of the entire project was making sure all of our systems work

together," Robinson says. InformaCast gave the district the features needed to make sure all new systems, which weren't meant to work together, could coexist and work well together.

COMPREHENSIVE COMMUNICATION IN EVERY SITUATION

This integrated system enables the district to manage alerts for 911 calls, lockdown situations, fire alarms, and door access control.

"InformaCast allows us to track all 911 calls and distribute the information accordingly," Robinson says. "When 911 is dialed, all members of that building's first response team are immediately notified via email, text, or Cisco phone display and computer desktop popup. The message includes the name of the person who placed the call, a description of the device, as well as the time and date. This has drastically decreased our response time to incidents, as every vital member of the response team is notified at the same time of the call and location."

Similarly, the system allows them to send and receive notifications when a fire alarm is triggered. Email and text notifications are sent to members of the emergency notification squad with the date, time, and description of the emergency. Separate and distinct messages are sent to all Cisco phones, classroom desktop computers, smartboards, digital signage, and IP speakers, Robinson says.

"A hold in place, or lockdown, can be triggered by any staff member with that shortcut on their phone or by dialing code for that emergency," he says. In addition to displaying the alert on all school signs and devices, vital lockdown information is immediately emailed and texted to all members of the emergency notification team, who then contact the proper authorities.

With InformaCast's M2M feature, the district has integrated with door access control systems. Using a custom phone app, select team members can trigger lockdowns from their cell phones using two thumbs. Triggering any emergency immediately disables card access into buildings, except for members of the emergency response team and people who possess an emergency access card.

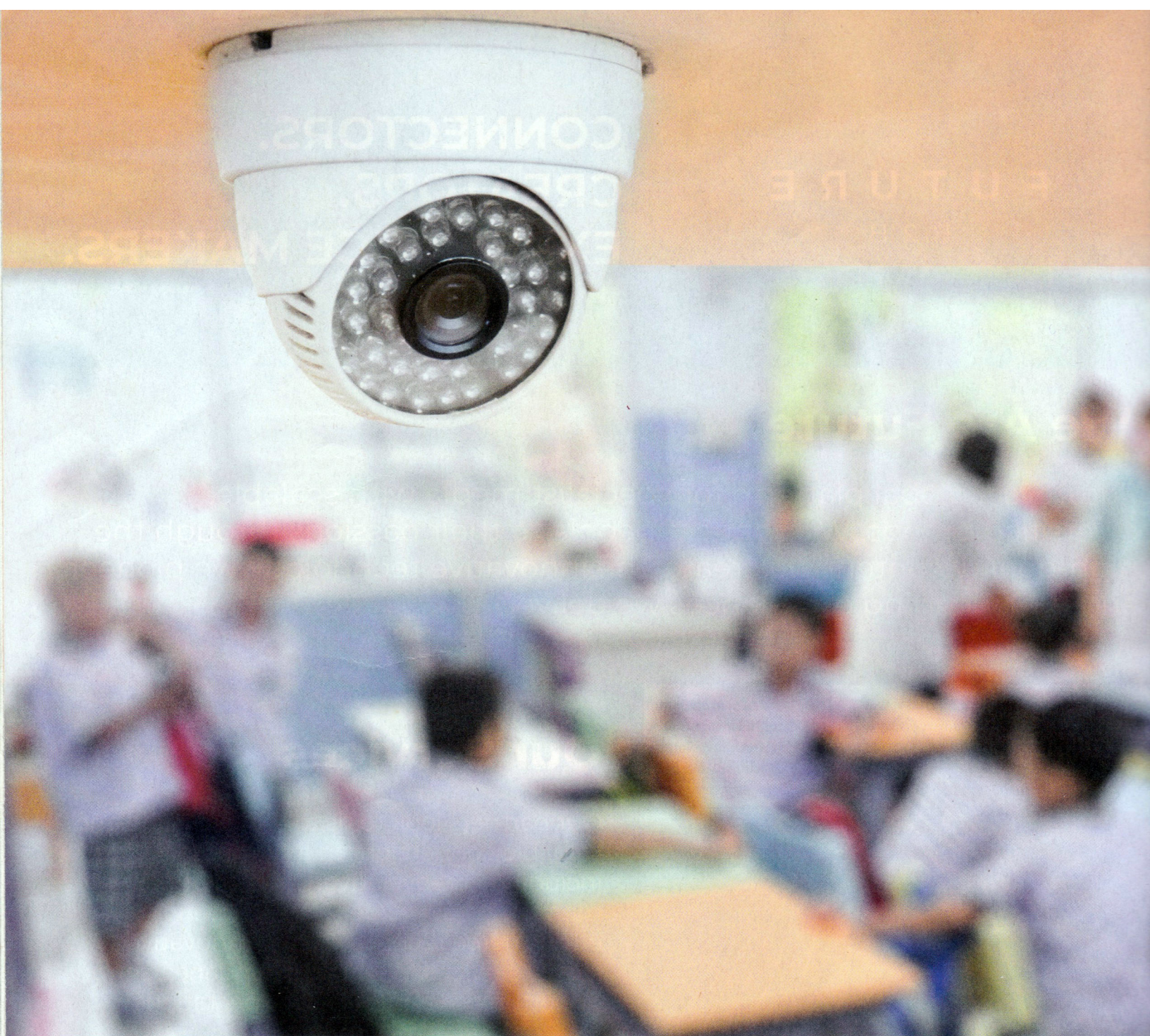
The implementation of this technology has transformed the way Walton CSD attempts to keep the community's children safe, says Robinson, and enables the district to focus on their main priority, which is providing high-quality education in a safe environment where all students can flourish and grow.

2018-19 SELF-HARM STATISTICS

Many educators report that next-gen school safety solutions are helping them to protect students from self-harm. Gaggle's new student safety report lists the following stats from the first six months of the 2018-19 school year:

- Five out of every 10,000 students threatened that they—or someone they knew—were planning a suicidal act or were engaging in self harm.
- Four out of every 10,000 students shared child pornographic content on their school account involving themselves or peers.
- One out of every 10,000 students planned a specific threat of violence toward others or their school.

Gaggle found more than 51,000 instances of questionable content over a six-month period among its 4.8 million users, and identified more than 56,000 safety issues. Though they face an enormous challenge keeping students safe, if K-12 leaders have visibility into students' online activity they can step in and take appropriate action to protect students from harming themselves or others—in some cases, preventing a situation from becoming tragic before it's too late.



KEY CHANGES TO LOOK FOR IN SCHOOL SAFETY TECHNOLOGY

Tech & Learning Leadership Summit Report

A DISTRICT-LEVEL LOOK AT INNOVATION IN K-12

Matthew X. Joseph

This past March, more than 50 education technology and curriculum leaders came together to learn, share, and make connections to support instruction in districts across the country. From Boston, Houston, Little, and everywhere in between, leaders converged in Marina Del Rey, California, to collaborate.

The *Tech & Learning* team planned a robust agenda that was a mix of content, connections, visits, learning about new products, and opportunities for district-level leaders to share their challenges and successes as they strive to improve teaching and learning. The *Tech & Learning* Summit was not just a technology event, but a leadership event.

USING TECH TO SUPPORT SOCIAL EMOTIONAL WELLNESS

Social Emotional Learning (SEL) is a growing

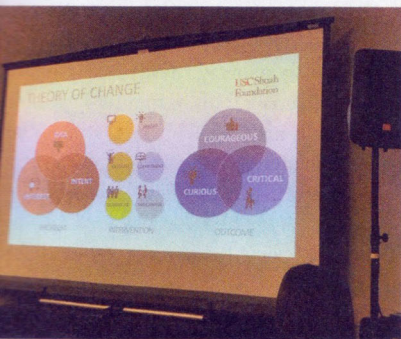


Image from Dr. Street of USC Shoah Foundation's presentation



Dr. Street shows attendee Randy Rodgers the VR experience from USC Shoah.

concern for districts across the country, and tech can be a powerful tool to support the social emotional health of students.

With this in mind, *Tech & Learning* started the Summit with a visit to Headspace (<https://my.headspace.com>), creator of the popular mindfulness app. Headspace has one mission: to improve the health and happiness of the world. And with millions of users in more than 190 countries, they are well on their way to achieving this goal.

Headspace founder Andy Puddicombe, who's in his early twenties, cut his sports

science degree short to become a Buddhist monk. Over time, he started a meditation consultancy and began working with politicians, athletes, and business leaders. Andy then met Rich Pierson, who needed help dealing with the stress of the advertising world. Before long, Andy and Rich were skill-swapping meditation for business advice. That's how Headspace was born.

Tech & Learning Summit participants heard the Headspace story, took time to experience a mindfulness exercise, and saw the inner workings of a start-up focused on design

BEYOND THE DEVICES: CHANGING PEDAGOGY POST 1:1

By Todd Dugan

For several years, the infusion of technology into education has been occurring at dizzying speed, often at a 1:1 scale. However, as anyone who has led a digital conversion knows, deploying the devices and software subscriptions is only the first step in the ultimate goal of edtech—changing the pedagogy of the classroom teacher for the better.

I speak from firsthand experience when I say that it can feel like the mission has been accomplished after the completion of the initial implementation. Given the substantial amount of community support, funding, infrastructure upgrades, and professional development required to complete the initial rollout, many schools view this feat as the endgame, rather than the beginning.

Sadly, if a fundamental shift in classroom instruction does not occur, what schools have actually accomplished is the conversion of a low-performing (or high-performing) school into a digital low-performing (or high-performing) school. If the devices are being used to run low-level apps (digital flash cards) or automated remediation programs, or worse, if they serve as \$200 note-takers, fundamental instruction has not changed. If, in the words of Wisdom Amouzou, the Executive Director of Denver's Empower Community High School, devices are being used to “kill and drill” instead of “code and create,” schools have only exacerbated the digital inequity that existed prior to their digital learning initiative.

At a recent Tech & Learning Leadership Summit, edtech leaders considered follow-up

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