[SCHOOL [CIO]]

IN THIS ISSUE

See what happened at the SchoolCIO Summit, where CIOs and other district leaders discussed how to become more innovative, and share their own stories with the public.

EXECUTIVE BRIEFING pg 2

Learn about a new resource to help CIOs make more informed edtech purchases, get caught up on student data privacy, and find out what's happening in the OER movement.

DATA DUMP pg 4

Find out what teachers expect from technology and get the latest statistics on PC sales in 2014.

BIG TALK

pg 6 Move Over Flair

GOING DEEP

pg 7

A report from the SchoolCIO Spring Summit

FOUR QUESTIONS FOR...

pg 15

Steve Ouellette, Director of Technology, Learning, and Innovation for Westwood (MA) Public Schools.

+ BACK OFFICE BUSINESS

pg 16

Read up on the latest statewide and district purchases from Casio, PowerSchool, Discovery Education, and others.

SCHOOL [CIO]
EXECUTIVE BRIEFING

The latest edtech news curated by SchoolCIO editor Ellen Ullman.

1 A CARMAX FOR THE EDTECH INDUSTRY?

TEC—Technology for Education Consortium is a new nonprofit that hopes to take the burden out of edtech shopping. "New York, Chicago, and Los Angeles can get good deals because of their size, but the next set of districts—Clark County, Miami-Dade—don't have the buying heft of the top three, and anyone smaller doesn't get close to those deals," says Hal Friedlander, co-founder and chief executive officer of TEC. "There are no resources to check out what others are doing, and nobody has the time or the staff to conduct that kind of research."

Friedlander (former CIO of NYC Public Schools) and Harold Levy (former chancellor of NYC Public Schools) started TEC to facilitate information exchange about pricing, contractual terms, customer satisfaction, and the research behind decisions. "If NYC reviewed six different Chromebook models, why do other districts have to reinvent the wheel?" says Friedlander. "We want to save districts hundreds of hours and a lot of money."

Friedlander compares TEC to car shopping and hopes to help CIOs make more informed purchases. His first category is iPads. "We thought we'd find a pricing discrepancy and assumed it would support our conclusion that a group buy would be advantageous. We found such a huge price discrepancy that it really angered us. We're talking with Apple and hoping to get a price reduction for districts."

The next category is Chromebooks, and TEC is looking for districts that

THE GOOD, THE BAD, AND THE UGLY

THE GOOD. In March, Washoe County (NV) School District received $67,000 in donations via DonorsChoose.org and Tesla CEO Elon Musk. The money will go toward books, art supplies, and science equipment.

THE BAD. Fresno (CA) district officials are spending $500,000 to deploy gunshot-tracking technology to help police fight gangs.

THE UGLY. Federal agents raided several private schools and edtech vendors in Ramapo (NY) last month to investigate whether the yeshivas misused E-Rate funds.

have done large deployments. After that is interactive whiteboard replacement, and then math software. If you're interested in participating, send an email to districts@techedconsortium.org.

2 THREE THINGS TO KNOW ABOUT STUDENT PRIVACY
By Brendan Desetti, director of education policy at SIIA

Over the past two years, nearly 300 bills have been introduced regarding student data privacy, which have resulted in 35 new laws, ranging in focus from vendor requirements to local education agency data practices to state database governance. Navigating through this new world of requirements, restrictions, and responsibilities is a daunting task for school districts of every size. Here are three helpful tips:

- *Transparency can ease fears.* Districts should maintain policies outlining their data-handling practices and make information easily available about the services they use. Vendors can also be expected to maintain easy-to-understand privacy policies outlining the types of data collected by their services, how data will be used, and how it may be shared.
- *Similarity in laws allows for sharing of practices.* Many of the laws passed across the country are very similar. Look to other states and districts for best practices on navigating the new laws. More than 240 service providers have also signed the Student Privacy Pledge, legally obligating them to 12 specific commitments on student privacy that align with some of the state laws. The pledge and other third-party privacy review providers (such as iKeepSafe) can be good starting points for identifying privacy-conscious services.
- *Professional development is critical.* PD should include how to speak with parents about the types of technology used in schools and why data collection is necessary—particularly for state and federal reporting purposes. Teachers should be aware of any district-required approval process before new technology can be introduced in the classroom.

3 OER IS ON THE RISE
In February, the U.S. DoE launched 14 statewide #GoOpen initiatives to help districts transition to the use of high-quality, openly-licensed educational resources (OER). States and districts were recognized at the #GoOpen Exchange, a gathering of state and district leaders, edtech innovators, and nonprofits working together to help educators transition to using OER. Several companies unveiled new platform features that allow teachers to integrate OER into their platforms and share between platforms via the Learning Registry. The 14 states are Arizona, Georgia, Indiana, Maryland, Massachusetts, Michigan, North Carolina, Oklahoma, Oregon, Rhode Island, Utah, Vermont, Virginia, and Wisconsin. More details can be found at the Office of Educational Technology.

CIO LIFE HACKS

I picked up this tip at Brainstorm in March and created a Google Doc explaining it step by step. As a GAFE administrator, you've no doubt been requested to remove someone from an email group so an invite can be sent out for a party, baby shower, etc., with the guest of honor removed so the party can be a surprise. Here's how end users can do this using Google Calendar: https://goo.gl/7V7XzU

—JAMES HATZ, TECHNOLOGY COORDINATOR, RUSH CITY (MN) SCHOOLS 139

SHARE YOUR HACKS Do you have a tech tip to share? Email Ellen Ullman at schoolcio@nbmedia.com.

TEACHERS & TECH

Here are some key findings from TES Global's second annual [Teachers & Technology Survey](#):

How teachers use tech
- **84%** to deliver whole-group instruction
- **74%** for differentiated instruction
- **70%** to communicate with parents

Tech wish lists
- **25%** want game-based technology in their classroom above any other single technology, including laptops
- **10%** want virtual or augmented reality headsets

OER or old school?
- **73%** use open resources more often than textbooks

How does tech help the most?
- **93%** time management
- **88%** ways to deliver instruction

CORPORATE IT SPENDING IN 2016

[Insight Enterprises](#) surveyed over 400 IT professionals from a wide variety of industries, including education.

48% expect their IT budget to grow at an average increase of 22% over last year

Most pressing areas in need of improvement:
- **61%** network infrastructure/moving into the cloud
- **58%** hardware and devices
- **56%** data security

Top worry:
- **69%** data privacy
- **50%** keeping IT equipment well-maintained
- **49%** improving customer experience
- **48%** monitoring budget and costs
- **37%** ability to adopt new technology

55% say the current technology at their companies is a hindrance to incorporating or adopting new technologies

PC SALES IN K-12

According to Futuresource Consulting's *Personal Computing in K-12 Education – Q4 2015 Market Track,* PC sales increased during 2015, with shipments of devices rising more than 12% globally. Global shipments reached 29.6 million units in 2015, up from 26.4 million in 2014.

Futuresource Consulting - K-12 Personal Computer Market Shipments by Operating System
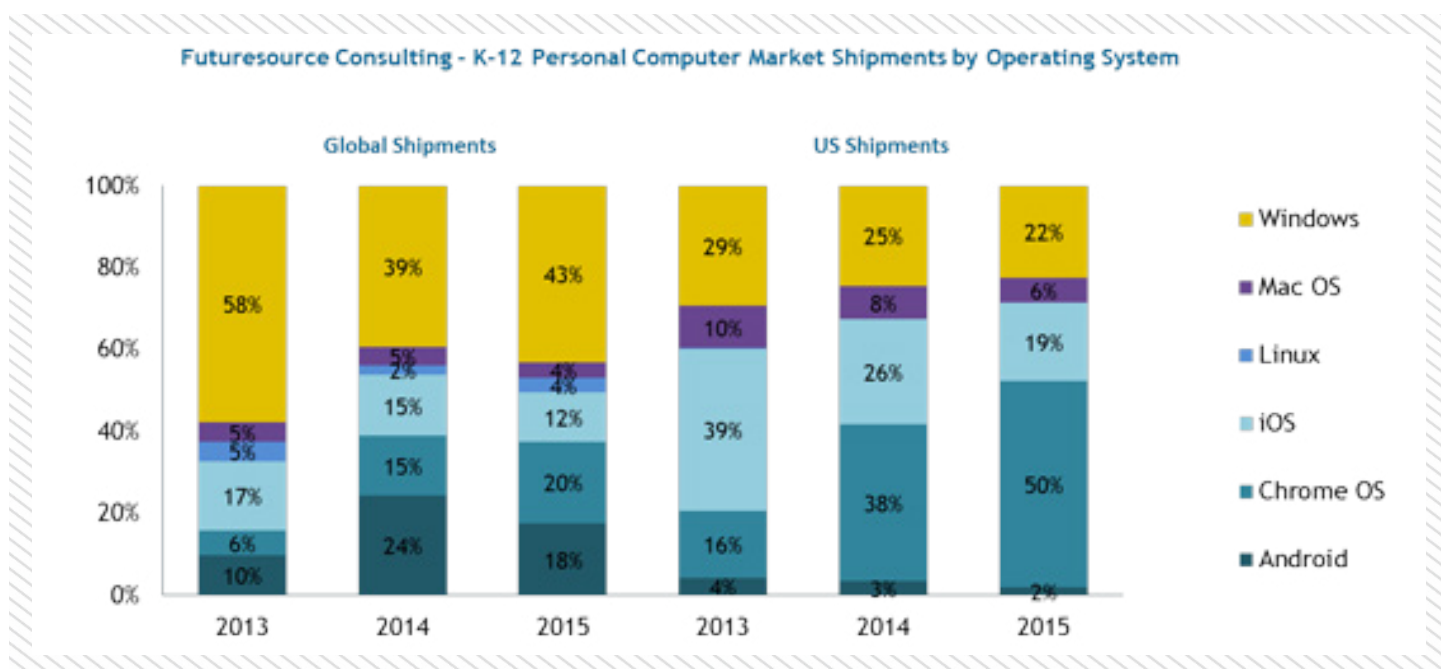
Some interesting points:

- The U.S. K-12 market remained the largest globally in 2015, with more than 10.5 million devices sold throughout the year.

- Chromebooks continued to gain significant share throughout the year, rising from 38% of device shipments during 2014 to over 50% in 2015. By the final quarter of the year, Chromebooks accounted for 56% of device shipments.

- Market growth in the U.S. is expected to slow in 2016, as most districts purchasing for online assessment will have already done so.

- Apple's global market share lost significant ground in 2015, losing 8% of share within the U.S. market alone.

TOP MOBILE COMPANIES

Technavio announced the top five leading vendors in its recent Global M-Education Market 2016-2020 report:

Move Over Flair

By Jon Castelhano, CIO Advisor

Time...

Probably the most common issue we hear about in life has to do with not having enough time for [fill in the blank]. Often the counter to that statement is that we will make time for what is important, which is true to an extent, but doesn't change the fact that in our professional lives we still must prioritize. What has been a struggle for a number of years now, from a technology integration perspective, is how we provide solid professional development that is relevant, timely, and doesn't require the traditional hour before or after school that teachers may not have time for.

Short, Meaningful PD

I like to use the average length of a YouTube video to provoke discussion on just how long someone will stay with you when you are providing PD. Depending on what day you check, the average length of the top five most popular YouTube videos varies from 2.5 minutes to 4.5 minutes. When I checked #popularonyoutube while writing this post, the longest video was 5.31 minutes and the shortest was 31 seconds. I imagine that some may say if the content is good, it doesn't matter how much time it takes to view and to some extent that may be true. However, in the hustle and bustle of the K-12 setting, moving at the pace of 140 characters at a time seems to make more sense if we want to reach a larger audience. At Apache Junction USD, we have made the conscious effort to provide PD to our teaching staff in short, meaningful bursts of content-sharing, while staying as close to the 15-minute window as possible. Bethany Ligon, our technology integration specialist, has taken this approach with our collaboration coach tips and tools videos and we are monitoring feedback on video length to see what is most effective for our staff.

Badge Up

Another area that takes time and attention is growing our professional learning networks and sharing what our teachers and administrators are doing on their campuses. Social media has obviously been a game changer in this area and blending this with the traditional walking by a classroom and seeing evidence of the great things happening has led us into the badge game. It is difficult for just one tech integration specialist to get around to every classroom and see what is happening. With a quick visit to Google Site and Forms, teachers and administrators can apply for badges, share their artifacts, display their accomplishments, and share with others how they are integrating technology in their classrooms.

Find a Way

Time doesn't have to be a monster that keeps us from growing and sharing on a professional level. If we look around and see what others are doing, share what we are doing, and are willing to try new things, great things will happen. In the words of Ian Malcolm, life finds a way.

Jon Castelhano is the director of technology for the Apache Junction (AZ) School District. He blogs at This and That.

> **TIME DOESN'T HAVE TO BE A MONSTER THAT KEEPS US FROM GROWING AND SHARING ON A PROFESSIONAL LEVEL.**
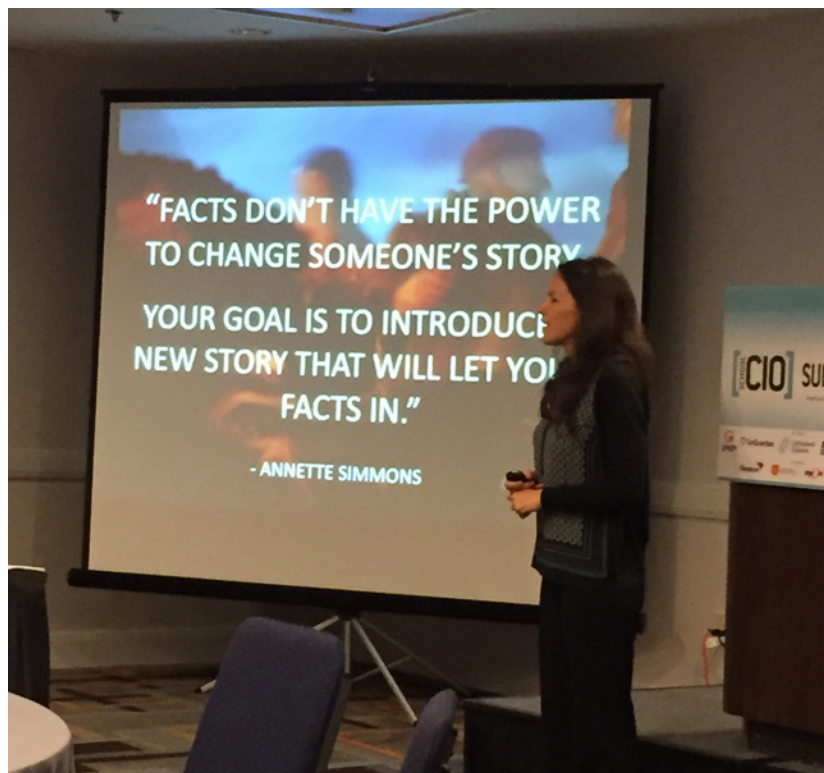
REPORT FROM THE SCHOOLCIO SPRING SUMMIT

Building a Culture of Innovation

Reporting by Kevin Hogan, Joe Kuzo, Judy Salpeter, Ellen Ullman, and Christine Weiser

n early March, a group of 50 CIOs, superintendents, and technology directors went to northern California to talk about innovation in education. In between sessions on how to use the media to deliver your message or methods of applying innovation to affect public expectations, our attendees made videos, networked, and enjoyed the beautiful scenery—inside and out—of the Skywalker Ranch @ Big Rock.

Opening Session: The Power of Story

The opening session at the School CIO Summit began with a challenge. Cara Jones, founder of Storytellers for Good, prompted attendees to play a game of telephone: share their personal story with a partner in two short minutes, listen to each other's stories, then turn to repeat their partner's story to a new partner. The exercise offered insight into the challenge of storytelling for schools and districts. First, what is your story? How do you turn your good work into a compelling narrative using a language anyone can understand? Often, we're so caught up in our "education speak" that we don't realize our audience can't translate our messages. Ask most parents if they want to "disrupt" their child's education, for example. Next, how do you tell your story? Video can be a powerful tool to do this, but only if the content is compelling. (Note: A series of talking heads is *not* compelling.) Jones's presentation, coupled with videos by children from the BayKids Studios, provided a good introduction to the Summit's theme of building a culture of innovation through compelling narratives.

"FACTS DON'T HAVE THE POWER TO CHANGE SOMEONE'S STORY.

YOUR GOAL IS TO INTRODUCE NEW STORY THAT WILL LET YOU FACTS IN."

- ANNETTE SIMMONS

Friday Morning Session: Leading Edges of Innovation

Milton Chen, Ph.D., senior fellow at the George Lucas Educational Foundation, spoke about Skywalker Ranch's history, place-based learning, and telling our stories.

He reviewed his Six Edges of Innovation in our schools:

1. **The Thinking Edge:** Changing our thoughts about teaching and learning, and selecting the best of different approaches.
2. **The Edge of Curriculum & Assessment:** Redefining what is taught and how it's assessed.
3. **The Technology Edge:** Using tech to make the learning process more visible to everyone.
4. **The Edge of Time and Place:** Allowing learning to happen 24/7/365. Example: Putting wi-fi on buses.
5. **The Co-Teaching Edge:** Expanding a teacher's role to include a whole team of educators/content experts.
6. **The Youth Edge:** Restructuring the system to accommodate today's youth, who learn in a different way. Examples: Service-learning projects done in the community; young people serving as tutors.
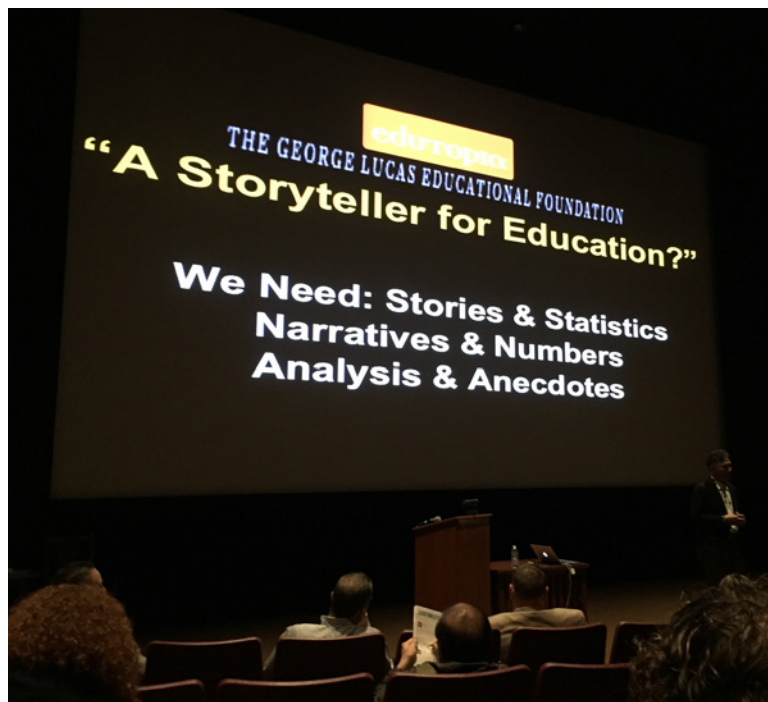
Panel discussion/Q&A

"To innovate in a public district we need a grassroots approach because of pushback when it's mandated from top-down. How do we change mindsets in adults? I've assumed that if I put the technology out there it will change teacher mindsets. That doesn't work at all. My CTO and I are now going after mindsets as separate tasks, bringing in speakers like Milton Chen, Sal Khan, and Janet Wozniak to challenge teachers to think about different ways of being."

—*Carey Matsuoka, superintendent, Milpitas (CA) Unified School District*

"We talk about being future-ready now. We're working on equity and are looking at the iPad. Many board members don't see the iPad as a communications device since it has no keyboard, but I grew up with a little brother who makes movies. We're doing blended learning and delivering professional development in a blended model."

—*Jerri Kemble, assistant superintendent, Lawrence (KS) Public Schools*

"We're trying to stay ahead of the curve. We started with Carol Dweck's book, *Mindset: The New Psychology of Success*, and are talking about that this year. Make learning visible and publish for a worldwide audience. We're getting the innovators and explorers out there and letting them lead the way."

—*Mike Kuhrt, superintendent, Wichita Falls (TX) ISD*

Supporting the Digital Classroom Ecosystem
Sponsor: Safari Montage

It's hard to believe that we're still struggling to transition to a digital school ecosystem, but it seems that the more technology evolves, the harder schools work to navigate the road from analog to digital. In this working group, school leaders shared what's worked for them.

Phil Hintz, director of technology at Gurnee (IL) School District 56, discussed his district's four-year journey to a digital curriculum that includes open education resources, teacher-designed ibooks, and a variety of Web-based resources. The administration braced itself for pushback from the teachers when it introduced this initiative, but was pleasantly surprised when that didn't happen. Hintz believes this transition was better received because the administration collaborated with its teachers from the beginning. "It still goes back to good old pedagogical lesson-planning, when converting

A snapshot from Technology Director Joel Handler's workgroup presentation, where he discussed how Hillsborough Township (NJ) Public Schools use digital resources to globalize the curriculum.

to an all-digital curriculum," he says. He hopes publishers will better support this model by "moving away from the 'consumable' model of distribution to a more subscription-based model when developing their digital versions of their curriculum or literature."

Sheryl Abshire, chief technology officer at Calcasieu Parish (LA) Public Schools, credits her district's success in moving toward a digital environment with purchasing "what is aligned to curriculum, easily accessed, relevant, and fits the district's learning goals." She also advises that districts need to show the value of their investments in digital content, and always look for cost savings.

Tony Carty, director of online learning at the Quakertown (PA) Community School District, said his district began with the question, "How do we provide parents with a one-stop hub for school and classroom information so they can be active stakeholders in the educational process?" He continued, "You can't teach an old dog new tricks, but you can teach a hungry dog new tricks. We have to make them hungry for innovation."

The app craze has made managing all of this digital candy a challenge for IT departments. Leo Brehm, the former chief technology and information officer at Newton (MA) Public Schools, says his district allows everyone in the district to have iTunes access for apps. "It took a lot of training, but helped to ensure they're downloading safe apps. [Note: His district uses Lightspeed's MDM.] We haven't had a problem after two years of giving everyone access." Brehm also advises districts to look for tools that play well together. "Always ask, 'Where are the OER resources coming from? How do they fit a certain standard?'" His district uses Safari Montage as its portal to access all digital resources. He says that looking for products that are interoperable, using standards like Learning Tools Interoperability from IMS Global, is a step in the right direction.

Leadership for Change

Sponsor: Gaggle

What does it take to be the kind of leader who guides her district into a culture of innovation? The working group in this session tackled this huge question by sharing their stories of leadership, including their struggles in that role. Communication and collaboration topped the list of tools to use to make this shift in cultural mindset.

"Communication is so important," says Cary Matsuoka, superintendent at Milpitas (CA) Unified School District. "I try to build communications not just with staff, but with parents and my board. If you don't communicate with them, they may fire torpedoes."

"We have to overcome limiting perceptions about teachers' role in schools and districts," says Julie Glazer, assistant superintendent at Summit (NJ) Public Schools. Academic coaches are a key component of this program, but Glazer recognizes that coaches are not always welcome. "We support job-embedded coaching—not 'one-and-done,' but ongoing learning. Our teachers have learned to love to have the coaches and they all want to be one." Glazer believes clear communication helped support the coaching program. The district uses Google Docs so everyone sees what they're doing. "My unions now lobby for more coaches," she adds.
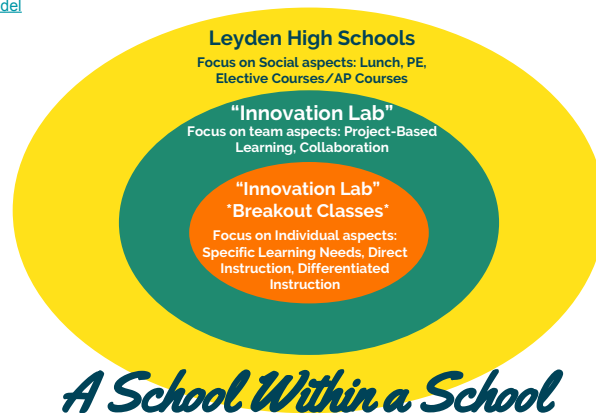
Matsuoka credits the success of his district's academic coaching program to giving more building-level control for decisions. "Move the money to the site and let principals choose the coaches." He also encourages more empowerment for teachers. "When teachers create it, they own it."

Scot Graden, superintendent of Saline (MI) Area Schools, agrees: "I have learned that my job is to create and foster the conditions that allow the organization to accept and embrace change," he says. "My ideas are less important than the way I support others' ideas that are consistent with our shared vision. Accepting failure forward and high levels of trust are key conditions."

Wichita Falls ISD (TX) superintendent, Mike Kuhrt, says his district also supports leaders at all levels. "We have a structured program to grow our own leaders from within, that allows staff to participate in a yearlong leadership cohort. We have changed from a 'why' mindset to a 'why not' mindset and are encouraging creative efforts and then celebrating and replicating those successes. All of this is guided by two main objectives: to make learning visible and to publish for a worldwide audience."

At Leyden (IL) High School District 212, administrators are working to change cultural mindset with an "innovation incubator" program that uses design thinking to foster a culture of innovation. Mikkel Storaasli, assistant superintendent for curriculum and instruction, says the district began this program by creating a "dream team" of about ten teachers from across the district, and then giving this team near-complete freedom to create a new professional learning community, separate from their departments. The goal of the program, which is still in the early stages, is to develop a "school within a school" model that can be replicated at scale (see illustration).

Current Model

Leyden High Schools
Focus on Social aspects: Lunch, PE, Elective Courses/AP Courses

"Innovation Lab"
Focus on team aspects: Project-Based Learning, Collaboration

"Innovation Lab" "Breakout Classes"
Focus on Individual aspects: Specific Learning Needs, Direct Instruction, Differentiated Instruction

A School Within a School

The Home-School Connection

*Sponsor: **Securly***

How are you involving parents in their children's education, enabling 24/7 learning, and building community awareness and support? In this working group, participants shared how they are reaching out to their families, communities, and the world.

Green Bay (WI) Area Public Schools, which has 40 schools and a 60 percent free/reduced lunch population, wanted to bring the Internet to students who don't have access at home, says Diane Doersch, chief technology and information officer. "We selected Kajeet [a Mi-FI mobile hotspot] because we wanted something filtered and traditional mobile hot spots did not easily provide that," says Doersch. The district liked that it could pay for a large amount of data at one time and replenish if and when needed. In two years, they've gone from 100 Kajeet devices to 350. "We've spent about $60,000 for data and we haven't run out yet," says Doersh.

Ten years ago, Miami-Dade County (FL) Public Schools created a Parent Portal to get information to parents. According to Jorge Fernandez, executive director, parents log in to see grades, report cards, and bus information. They can also access electronic textbooks and replenish lunch money. An important lesson the tech staff learned was that they needed to provide support from 6:00 pm to 8:00 pm. Last year, in response to the mobile lifestyle, the district launched a mobile app. "Since the start of this year, we've created a mobile app for every one of our 345 schools," says Fernandez.

Roland Rios, director of technology, Fort Sam Houston (TX) ISD, has a unique challenge. His district is part of a military institution and his students move, on average, six to nine times between kindergarten and 12th grade. About one-third of the parents are deployed, so the district does everything it can to keep them involved. "We exist to serve the military child, so we must have Web presence," says Rios. In addition to maintaining a robust Web site, the district has Facebook, Twitter, and Instagram accounts. They also use The Cube—which Rios loves because it's free—to stream everything from talent shows to class presentations. To loop in parents for

parent-teacher conferences, meetings with counselors, and special ed sessions, they use Skype, Google Hangouts, or whatever else makes sense. "We try as much as possible to let our parents be a part of what's happening. One student shares essays with her dad via Google Docs and her dad makes comments on them," says Rios.

To help principals at Eanes (TX) ISD develop strong communications with their students' families, Carl Hooker, director of innovation and digital learning, developed a step-by-step instruction guide to using social media. He gave principals monthly deadlines, and now every school has its own Facebook, Instagram, and Twitter account. Among Hooker's tips: Act like a corporate reporter by crafting your story and using various media, be consistent, and don't just share the good stuff. Above all, be honest.

Seeing Results
Sponsor: Go Guardian

Schools across the country share similar challenges when asked to show metrics of progress related to technology use and student learning. During this working group, district leaders shared how they track progress and present data to stakeholders in a meaningful and concise way.

Kyle Berger, chief technology officer for Duncanville (TX) ISD, talked about how his district gathers data, beginning with baseline surveys of students and staff, followed by annual surveys to gauge progress. Duncanville ISD uses drill-down reports from different data sources, layering them on a single dashboard to see correlations between scores on local and state assessments, usage levels of various applications, and SAMR data showing teachers' levels of integration. "The key is to inspect what you expect," says Berger. In Duncanville that involves instructional technology walkthroughs to focus on ways technology is being used in classrooms, monthly data reviews, and focus groups and forums to discuss progress toward reaching common goals.
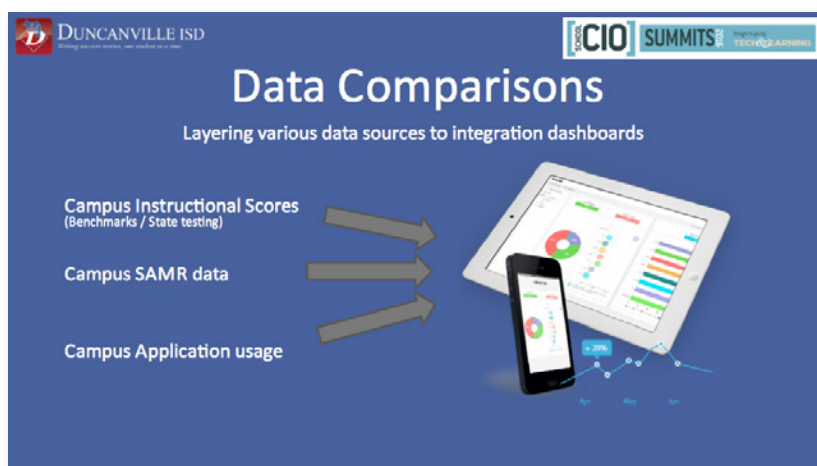
Erica Hartman, supervisor of technology integration for the Morris (NJ) School District, talked about her district's five-year-old 1:1 Chromebook initiative and about moving to an environment in which technology is seamless. The district is building a digital architecture consisting of teacher-created units and playlists, online adaptive content, formative assessment platforms, and a student navigator to show results in real time. The following metrics are among those that will be used to measure success:

- Higher PARCC scores
- More students in AP classes
- Increased graduation and decreased absentee rates
- Closing of the achievement gap for all of the above measures
- Data from the state's Digital Learning Index
- Student progress on ISTE's digital literacy standards.

In Hampton Township (PA) School District, teachers and administrators work collaboratively to understand student data, including analyzing high-stakes tests to better understand what's being measured and developing formative and performance-based assessments. "We need assessments that allow students to demonstrate knowledge and understanding, not just short-term memory," says technology director Ed McKaveney. Teachers plan and teach in pairs, focusing on designing daily "exit tickets" and using the data from those mini-assessments to steer future lessons. They also develop performance-based assessments such as an air traffic control simulation that challenges students to apply trigonometry and other mathematical thinking to real-world problems. The district hosts a technology carnival and other community events to give community members a window into what and how students are learning; in addition, students present to the school board once a month.

Innovating with Technology

Sponsor: Lightspeed Systems

The idea of innovation in public education is a nice one—schools being free to improvise and improve upon district tech initiatives. But how does that work in the day-to-day realities of managing dozens, sometimes hundreds, of classrooms? Leaders from districts around the country shared how they make it happen.

First, Jerry Crisci, director of instructional technology and innovation and co-director for The Center for Innovation for Scarsdale (NY) Public Schools, talked about how the culture of innovation must be present at all levels, from classroom teacher to superintendent, and how it can be accomplished through a combination of site visits, speakers, and project grants.

Andrew Swickheimer, director of technology at Noblesville (IN) Schools, talked about putting the burden of innovation on the students and quoted author Will Richardson: "What Innovation in Schools should be: using new methods, ideas, or products to shift agency for learning to the learner." Swickheimer went through a number of examples of students creating their own experiences and quoted teachers on the effectiveness of what he described as passion-based learning: "The lesson expanded beyond the walls of the classroom, exceeded the lesson in genetics, and taught students the gift of working hard and giving back to the community. Not once did a student ask if this project was for a grade." Interestingly, while technology was present in the background, pedagogy was at the forefront.

Randy Rodgers, director of digital learning services for Seguin (TX) ISD, described his strategy as "Hit & Run Innovation"—finding moments of inspiration that could be injected into daily curriculum through afterschool programs, summer camps, and special events, as well as electives, the creation of makerspaces, and the inclusion of librarians.

Finally, Stosh Morency, chief information and digital strategy officer at Kent (WA) School District, discussed the district's annual Technology Expo, which showcases how students gain college and career skills through classroom projects using technology tools. At the event, students and teachers demonstrate technology in use, speak about what they have learned, and ask attendees to get involved. Attendees get to experience Kent School District technology integration by solving a problem, completing a task, or building a device with student presenters. The event also highlights local businesses and organizations that support the use of technology in education. These business sponsors and exhibitors help demonstrate the connection between classrooms and careers. More than 4,200 people attended the 2016 Technology Expo.

SCHOOLCIO

SCHOOLCIO SPRING SUMMIT
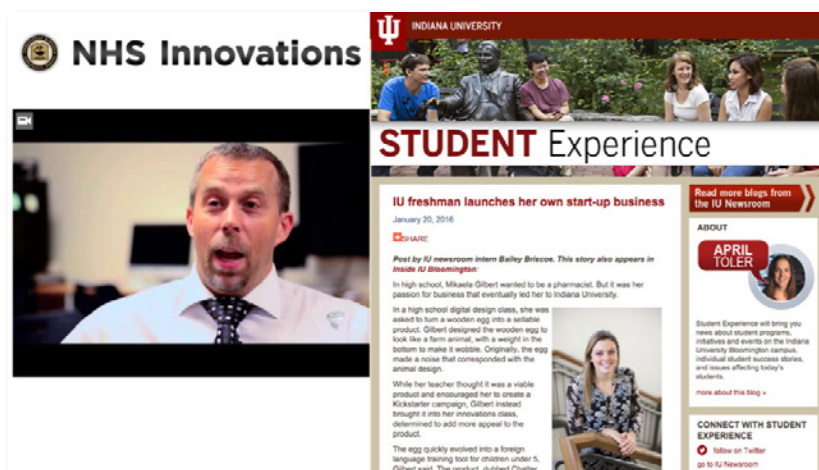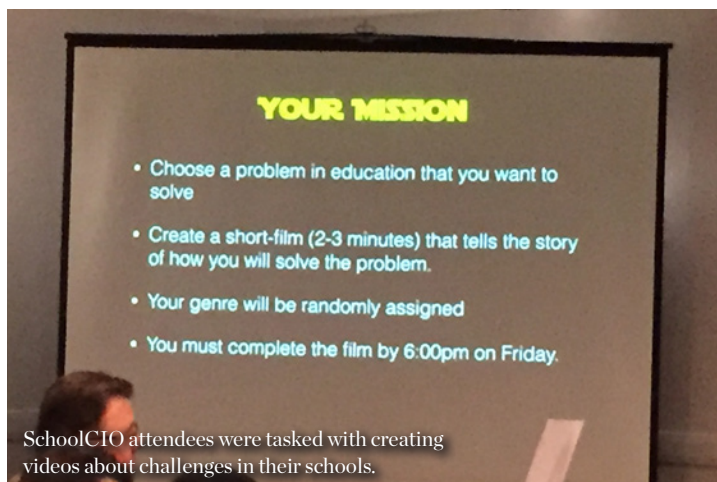
SchoolCIO attendees were tasked with creating videos about challenges in their schools.

Ateendees broke out into workgroups that addressed a variety of important topics.

Erica Hartman brainstorms with a colleague.

Phil Hintz gets ready for battle.

Tony Carty tells his story.

Attendees gather around the Yoga statue at Skywalker Ranch.

Steve Ouellette

Director of Technology, Learning, and Innovation for Westwood (MA) Public Schools

1 CIO: Describe the technology in your district.

SO: We're a 3,200-student district that is 1:1 in grades 8 through 12, with plans to expand to grade 7 next year (and grades 3 through 6 by 2018). We've chosen the Google Chromebook, which works seamlessly with our Google Apps platform. Grades 2 through 6 use carts that contain a combination of Chromebooks and MacBooks. Our K and grade 1 classrooms each have five iPads (seven by next year). We also have digital cameras, audio and video equipment, probes, etc. available to support teaching and learning, as well as dedicated computer labs and ancillary equipment for graphic design, computer science, video production, and foreign language.

2 CIO: How has technology impacted teaching and learning?

SO: We've identified eight areas [where] we feel technology—specifically our 1:1 program—has impacted teaching and learning: productivity and organization; availability of online textbooks/resources; spontaneity; college/career expectations; shift from teacher-centered to student-centered [learning]; authentic learning experiences; personalized learning (blended learning);

and inevitability/readiness of staff and students. Google Apps has made it infinitely easier to store, locate, and share resources. Many of our teachers have adopted Google Classroom, where assignments are managed, discussions take place, and important information is stored.

Students are learning how to use computers for professional productivity, not just entertainment. We've invested in a number of instructional technology coaches to work with teachers to meaningfully incorporate technology in their teaching. As a result, the capacity of our staff to embrace technology has increased significantly—they are not only ready; they are eager.

3 CIO: What about technology most excites you?

SO: I continue to be amazed at the power of the Internet and the opportunities it provides to promote an incredibly different learning environment. We recently had a visit from the Google Expeditions program where students were transformed, virtually and in 3D, to such places as the coral reefs, the North Pole, and the Brazilian rainforests, just to name a few. I can't even imagine what it would have been like to be a student with access to these types of resources.

4 CIO: Any favorite books, Web sites, or apps to recommend to your colleagues?

SO: It's been out for several years now, but I love the book *Disrupting Education,* by Clayton Christensen. As a former math teacher, I love Desmos and Geogebra. The repository of great activities on the Geogebra Web site is extensive and they recently added an LMS-type platform that allows for a more seamless experience for students.

When the York County (VA) School Division needed to replace its aging fleet of 830 classroom projectors, it turned to **Casio** (www.casio.com). More than half of the projectors were at the end of their life cycle, and the district wanted to buy projectors with a 16:10 aspect ratio, a native resolution of 1280 x 800, and at least 3000 lumens brightness. James McCann, assistant supervisor of computer maintenance, discovered Casio's Signature Series projector, which uses hybrid laser and LED technology instead of a projection lamp. Before Casio, the district spent around $30,000 each year on replacement bulbs, plus another $11,000 for dust filters. The Casio projectors completely eliminated this expense, since their maintenance-free hybrid light source has an expected 20,000-hour lifespan. "When you calculate the impact of downtime to the client, cost of consumables, time to service, and future reliability, the choice is obvious," says McCann.

Manor (TX) Independent School District is using **Nepris** (nepris.com), a cloud-based platform that connects teachers with experts and working professionals for online live interactions with students. During a pilot test last year, teachers overwhelmingly commended Nepris for how it opened doors and brought exciting live conversations and virtual tours of faraway workspaces to their students. Teachers can request a virtual session with professionals, researchers, experts, and companies to bring abstract topics to life, to mentor students on projects, or to evaluate student work. "Our students are able to experience the world outside Manor ISD," says Angela Matthews, chief technology officer. "The students, whether in first grade or seniors in high school, are able to see the connection of what they learn in the classroom to real-world experiences. Having professionals interact directly with the students makes the curriculum come to life."

Perrysburg (OH) Schools recently replaced its student information system (SIS) with **PowerSchool** (www.powerschool.com). The new SIS will increase district efficiency, improve data accuracy, and make it easier for families to view student progress at all levels in the district's learning management system. "We were looking for a solution that would seamlessly integrate with many of the platforms we currently use, such as IEP Anywhere and Schoology, and one that would offer a simplified scheduling process," says Joe Sarnes, technology integration specialist. In addition, PowerSchool will allow Perrysburg families the ability to monitor student proficiency on standards and receive immediate alerts specific to their child through innovative tools.

Cypress-Fairbanks Independent School District (CFISD) is deploying a private optical network leveraging high-capacity networking solutions from **Phonoscope LIGHTWAVE** (www.pslightwave.com), a leading private fiber optic network service provider, and **Ciena** (www.ciena.com). With approximately 114,000 students and 14,000 staff across more than 100 campuses and service centers, CFISD plans to use this robust fiber optic

network to improve access to Web-based educational resources while enhancing learning and collaboration. The Ciena-powered 100G network will enable the district to support the growing adoption of mobile devices among students. Thanks to CFISD's Bring Your Own Technology (BYOT) policy, the district expects it will need to support up to three devices for each student, teacher, and staff member. "Our mission is to maximize every student's potential through rigorous and relevant learning experiences by preparing students to be 21st-century global learners. The Phonoscope LIGHTWAVE and Ciena solution provides the scalability and security we need to support these innovative programs that facilitate new types of classroom instruction, while also managing our mission-critical data and enabling future growth," says chief technology officer, Frankie Jackson.

Newtown (CT) Public Schools has implemented a new state-of-the-art safety and bullying reporting app called **Anonymous Alerts** (www.anonymousalerts. com). The app allows students, parents, and other school personnel to maintain confidentiality while calling attention to situations like bullying, safety concerns, student depression, drug and alcohol issues, family problems, or other situations that may warrant immediate attention by school officials. "As part of our continuing efforts to improve the safety and security of students and staff, we are excited to launch Anonymous Alerts," says Dr. Joseph V. Erardi, Jr., superintendent. "All reports remain anonymous, although submitters have the option to reveal their identity if they prefer to have a personal and private discussion with the school administrator." To use this app, students, parents, or other school personnel download it and enter a username and password supplied by their schools.

In order to build challenging, problem-based learning environments district-wide that help support students' college and career readiness, Maury County (TN) Public Schools has partnered with **Discovery Education** (www.discoveryeducation.com), which will provide educators with access to dynamic digital content from Discovery Education Streaming Plus. To help develop a culture of problem-based learning, more than 100 teachers and administrators will participate in the PBL Champion Leader Corps, an initiative powered by Discovery Education's Professional Development Services. "The combination of dynamic digital content and professional development provided by Discovery Education bolsters our efforts to provide all students the instruction, tools, and problem-based learning environment they need for success beyond the classroom," says Dr. Chris Marczak, director of schools.

Aldeane Comito Ries Elementary School in southwest Las Vegas (NV) is using **MobyMax** (www.mobymax. com) to deliver blended learning for all students. "MobyMax sets up personal learning paths for each student and helps them fill any gaps that might be missing," says Janice Heffernan, a blended learning strategist for the school. According to Heffernan, the administration decided to take the school in a different direction to address the learning needs of all students. With the right tools in place to establish blended learning at Ries Elementary School, Heffernan said that students are taking charge of their own learning and are learning at an accelerated pace. "Students are now becoming aware of their own learning. They're seeing where they are and they're understanding what they need to do in order to improve."