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Being a leader and innovator is not an easy feat, especially in the field of education. Programs are constantly under scrutiny, and funding is often reduced or eliminated. Legislation is always being updated to address accountability and set expectations for learning institutions. It takes true talent to rise to the level of leader and innovator in education today. Each year, we receive nominations for the Top 30 Technologists,

Transformers and Trailblazers, a program that exemplifies leadership and innovation in the field of education. This year, I am happy to introduce you to 30 individuals who had the vision and tenacity to make a difference in their respective institutions and ultimately rethink education.

Changing culture and practice in schools can be challenging, especially in large districts. Nine of

our Top 30 award winners are taking on transformation at scale in their school districts. In this issue, you will read about leaders including Amy E. Cashwell, Ira David Socol, Stacey Gonzales, Marlon J. Styles Jr. and Frances Marie Gipson, who have taken different approaches to integrate rich digital tools into learning.

Higher education is well represented in this year's Top 30 list, with four of our award winners leading nationally recognized work in community colleges. Richie Crim, Carla Streff and Chuck Chrisman redefined IT and established models for other community colleges to replicate. On the instructional side, Andrea Milligan supports faculty through instructional technology.

Twelve of our Top 30 award winners represent a wide variety of universities from public to private, on the ground and online, and they have each pushed the limits in maximizing how technology can impact not only student experience and learning, but also improving faculty and staff efficiencies. You'll enjoy reading about the impact their work has had on their respective campuses.

Finally, we have three award winners whose work supports school districts. You will learn about Evan Marwell's work at EducationSuperHighway and several school board association leaders who are supporting members in their states.

Each of our Top 30 award winners represents years of dedication to an idea that eventually became a standard of practice thanks to their vision. I hope reading their stories is as inspirational to you as it was to me. Enjoy!

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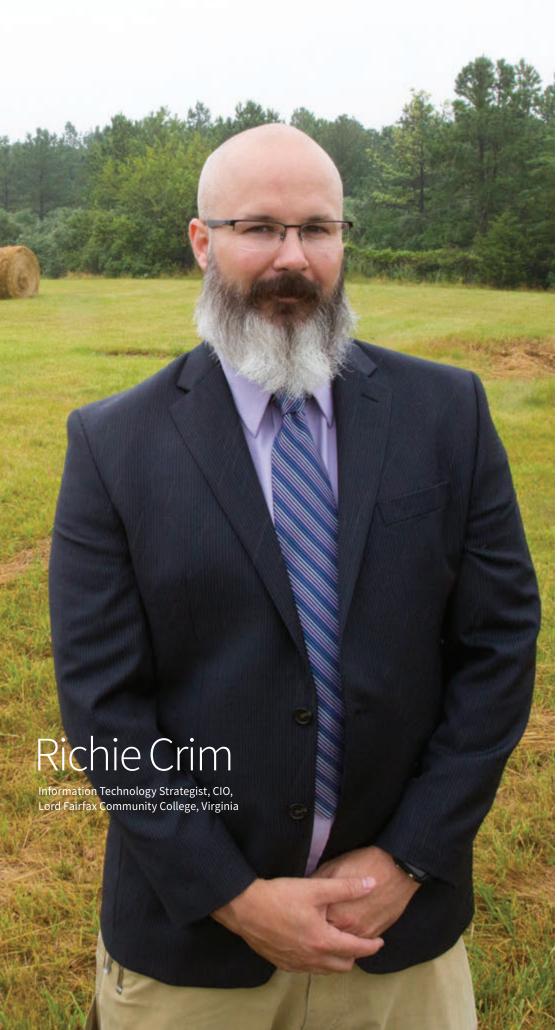
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ichie Crim says he has a fix for much of what ails higher ed. Looking to take a tech-centric approach to pedagogy? Stop paying for stuff you can get for free.

"The problem in higher ed is we want to do a lot with just a little money. We need software to do all these different things, and so we pay for a lot of expensive tools when there is a lot of open source stuff out there that the student could go home and download at no cost," he said.

Think about it. A teacher puts together a whiz-bang program using Adobe Photoshop and other name-brand tools. "But the student does not have the money to buy the product, so they learn it in class and now they cannot go home and use it," he said.

To attack the problem, Crim has built a massive database of free and open source tools and software products. He's cataloged over 80 so far, and hopes to get 101 tools in the inventory. There are capture and edit tools for audio and video, productivity tools, social media management software, and a range of other products, all free for the asking. "Before this, there was no one place to find all these resources," he said. "Now I get calls monthly from people who have heard my presentation and want to learn more."

All this is a long way from where Crim started 10 years ago, when he joined the team as director of tech services — basically the help desk guy. His office still handles paper shredder jams, but his work today goes well beyond the nuts and bolts.

"People hear 'IT' and they cringe. They think it's about compliance requirements and telling them all the things they can't do," he said. "Being at the table in bigger meetings, I am able to provide something greater not just in terms of IT, but in terms of higher ed." - ADAM STONE



hen Scott E. Shiffer came to Criswell in 2012, the school had no online degrees. While he says he wasn't sure where to start, he did have a vision. Now, the school not only has two online degrees, but is also teaching policies and professional development specific to online courses.

Thanks to Shiffer, professors at the Dallas campus attend online course development training that includes online pedagogy before they teach the course. "I wanted teachers to

know how to modify what they're doing in the classroom to best serve online students," he said. For example, they could make handouts more detailed, ask them to turn in assignments more frequently and pose questions that require students to evaluate something they learned.

Through policies, Shiffer designed standards and structure to help ensure that students thrive in online courses. Once the course is live, faculty are required to respond to student emails or queries within 48 hours and must commit to grading assignments within one week. This is done with

the goal that students should feel like they're in continuous communication with their professors. Online class sizes are also limited to 25 students.

Looking ahead, Shiffer is preparing to take the Christian college's chapel classes online too. Students on campus are required to attend chapel, and Shiffer wants to make sure distance students feel as much a part of the campus community as possible.

"My overall approach to technology is that we don't want to be the last group of people using a certain technological tool, because then you're left behind," said Shiffer. "At the same time, I don't want our school to be the guinea pig for every new thing out there. We ask ourselves, 'Will this be one more thing faculty and students have to learn or will this enhance learning?"

- JENNIFER SNELLING

Dr. Scott E. Shiffer

Senior Director of Information, Criswell College, Texas





Dr. Tammy Grissom

Executive Director, Tennessee School Boards Association

ammy Grissom identified a problem. There was no place for Tennessee teachers to go to find high-quality digital content aligned to standards. With help from Apple, Grissom created an alliance between the Tennessee Educational Technology Association, Tennessee Organization of School Superintendents and the Tennessee Public Education Foundation to develop the Tennessee Digital Resources Library.

"I'm such a digital immigrant, and here I am leading this," she said. "I just had the vision, but it doesn't mean I know how to do everything. Everyone has a place and is responsible for something."

The project took a year and a half to launch, identify resources and enlist at least three teachers per subject in 14 of Tennessee's high school courses. While the participants were all experts in their subject area, not all were digital curriculum specialists. Several Apple representatives helped them search for high-quality digital content. After being vetted, the resources went live as iTunes U courses.

Grissom understands that teachers have many demands on their time, so she enlisted the help of the American Public Education Foundation to provide stipends for the teachers who participated on their own personal time.

Phase two of the project has already begun and includes a partnership with the Tennessee Book Company and Thrivist. The partnership will provide a free resource section for all teachers, as well as a digital learning platform

available for districts to purchase. Through the learning management platform that Thrivist developed, teachers can access both digital and print resources for their classroom. "Just to say you have a computer in the classroom does not make your classroom better," said Grissom. "Teachers have to know how to use the digital materials to help their kids succeed. We're hoping this will help teachers streamline the process and allow a more diverse offering for personalized learning, as well as help our districts make the shift to digital." - JENNIFER SNELLING centerdigitaled.com 7



Demetrios Roubos

Assistant Director of Information Security, Adjunct Faculty in Computer Science and Information Systems, Stockton University, New Jersey



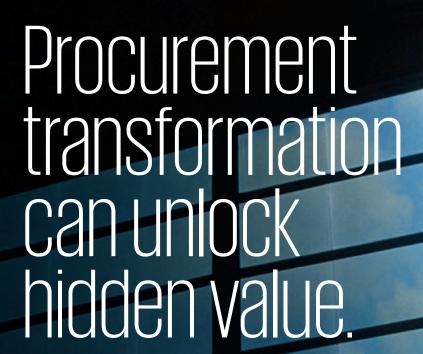
t may seem strange that an information security officer started out as a hacker, but Demetrios Roubos calls himself a high school hacker, and he even won a science fair doing just that. Roubos described his job as particularly interesting at the higher ed level because researchers want access to information, but the university also needs to protect individual property as well as confidential personal information.

Balancing the two requires agility. "Stockton has a history of innovation and a management team that has embraced it," said Roubos. "Our leadership is open to adopting change, promoting innovation and taking risks. I've been very fortunate to operate in an environment that's so open and agile."

Roubos promotes creativity and innovation in Stockton's Information Security division, as well as with students across campus. He takes on student interns to work in cybersecurity during the summer and holds "build your own PC" events, which draw kids from outside the computer science program.

He also developed StockHack, a 24-hour team competition for students who are asked to either solve a problem or create an original project. In addition, Roubos serves as program administrator for the Computer Science Teachers of America competition, a technology problem-solving event for local high school students.

"I try to instill in students that technology is so broad and so pervasive, they can find a career doing anything they want," he said. "You can be an artist, you can do motion capture, log analysis, there's a lot out there within the technology. StockHack goes beyond problem-solving and looks to creativity by asking students to go broad instead of going deep." - JENNIFER SNELLING



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The rules are simple: Don't do anything on the computer that you would be embarrassed about if someone else saw it. "Now go create a game in Scratch, and if you don't know Scratch, go find someone who does," he said. "We want technology to be a

Q&A: Harnessing the Benefits of the Cloud to Advance Higher Education

Higher education is changing. Many of today's students and their parents seek a quantifiable return on investment for years of study. Faculty face renewed performance scrutiny, while competing schools use social media to actively recruit top performers. Research institutions have a seemingly limitless appetite for computing power, storage, processing speed and other technology resources to conduct their work. Against this backdrop lies the expectation of an always-on digital environment that supports online learning, mobile apps, and modern HR and finance systems.

In this Q&A, Oracle public sector higher education leader Pat Mungovan discusses how Oracle helps educational institutions evaluate their current and future technology investments to reap the cost savings and flexibility of the cloud.



Patrick Mungovan
Group Vice President,
U.S. Higher Education,
Oracle Public Sector

How can Oracle help institutions keep up with IT modernization and cloud adoption?

Educational institutions' IT infrastructures often have a combination of on-premises data center solutions, private cloud solutions and one-off public cloud solutions - all with little data security governance or oversight. This piecemeal approach does not allow institutions to take advantage of the cost savings and benefits of the cloud. To help, Oracle offers a comprehensive and fully integrated stack of cloud applications and platform services with features designed to address the unique security and compliance needs of higher educational institutions. Through our extensive partner network, we can help institutions migrate to the cloud and develop a holistic approach to modernizing all aspects of the enterprise, including back-office functions.

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More than one-quarter of all higher education students are now enrolled in at least one online course. The cloud can help eliminate both virtual and physical barriers to access, delivery and collaboration so students can succeed with online learning. For academic research, the cloud provides access to extraordinary scale and compute capabilities, and enables global collaboration.

Oracle also serves a philanthropic role encompassing every level of learning. The Oracle Education Foundation engages employees as volunteer high school STEM coaches; Oracle Academy advances computer science globally to more than 3.1 million students in 110 countries; and Oracle Labs invests in research at universities, labs and research organizations worldwide.

How can institutions start theircloud migration strategy?

We encourage all customers and partners to first evaluate the sustainability, security and performance of their enterprise technology investments. They then should leverage the latest technologies for advancements on campus and virtually, while optimizing the longevity of their investments. There are many paths to the cloud, but Oracle is one of the few technology companies able to address all of them.

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Desiree H. Alexander

Regional Director of North Louisiana, Associated Professional Educators of Louisiana

> riving across her region of Louisiana, Desiree Alexander speaks with passion about her job. Two years ago, Alexander realized that, despite spending 40-plus hours working in education technology each week, she still jumped at the chance to help when teachers asked for it. "My heart lies with making sure that teachers

know the reasoning behind why they want those 30 Chromebooks and ensuring they have the knowledge and skills to use [technology] effectively," she said. Her Instructional Technology department is about more than just fixing computers, she explained. It's about teaching teachers. Since 2015, Alexander has worked as both an instructional technology supervisor for Louisiana's Caddo Parish Public Schools and program manager for Advance Innovative Education Statewide. Alexander has managed all of these posts while starting her own ed tech consulting business, Educator Alexander Consulting.

Alexander's accomplishments include creating and leading the Technology Leaders Council along with teaching after-school technology sessions on Google tools that schools can use. This year, she was selected to be a PBS Learning Media Digital Innovator for Louisiana.

Under her leadership, Caddo Parish implemented G Suite from Google, with Alexander training all the individuals at the district's 63 schools. She also implemented the Ed Tech Checkup program that got the department into schools and classrooms, resulting in increased professional development opportunities.

"An educator should still be the facilitator in the classroom. Technology is not a replacement tool for doing what we've always done," she said. "Technology's purpose is to enhance, not replace."

In addition to consulting, Alexander is starting a new job at the nonprofit Associated Professional Educators of Louisiana where she will train teachers all over the state on how to use technology to enhance learning.

"I'm excited because this job will let me build relationships," she said. "The teachers who come back to me and say, 'We implemented this today and our students are already in love with it' - those comments feed my soul because I know I'm doing something right." - Jennifer snelling



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Tim Hardison

MATCH Program Director, East Carolina University and MATCH Wellness, North Carolina

cience teacher Tim Hardin jokes that he was late for a school meeting and found himself elected head of school improvement. His low-performing school was in a district with the lowest life expectancy in North Carolina. Diabetes was 80 percent above the state average, and 60 percent of adults were obese. Hardin, who was a physiology wellness researcher before becoming a teacher, knew that students couldn't learn if they weren't healthy.

Hardison developed MATCH, a middle school health program that is now in 46 schools and supported by the Blue Cross Blue Shield of North Carolina. Delivered through a Web-based management system, MATCH uses technology to encourage middle schoolers to make healthier choices. Schools submit a baseline data of heights and weights. Through an online behavioral survey, the program monitors sleeping, eating and technology usage.

As a teacher himself, he knew that if a curriculum didn't make a teacher's job easier, it wouldn't be implemented. That's why all of the training happens in webinars and video tutorials. The survey portion also includes questions to identify kids who are being bullied, which has revealed that 40 percent of kids experience bullying in some form.

Middle school is a key time to reach kids when they are starting to make decisions independent of their parents. Through gamification, leader boards and trophy cases, kids in the seventh grade can be easily motivated. When students put that 75 cents in the machine, do they get a soda and blow 200 calories or go home and drink a glass of water?

The effectiveness of utilizing technology is that it takes a powerful program and makes it scalable. "When you're trying to head off an epidemic like obesity, schools are the place we need to intervene," Hardison said. "There are 52 million kids in public schools, and we feed them. You have to use technology to scale out, hit kids at all levels and hit home with every kid." - JENNIFER SNELLING



ertain people are able to tackle just about any challenge put before them. Some call it a "can-do" attitude. Chuck Chrisman might call it a regular day. With more than 20 years of experience leading innovative IT services projects at Southeastern Community College (SCC), located in West Burlington, Iowa, he has been influential in elevating tools, technologies and infrastructure to better serve students and faculty.



In his current role at SCC, Chrisman oversees all aspects of distance learning, instructional technology, information technology and institutional research. He also provides technical oversight for the Iowa Community College Online Consortium (ICCOC), which shares online courses, staff and resources among seven participating colleges. He has led technology design planning and strategies for infrastructure projects connected to SCC's Building the Dream Initiative, including a collaboration classroom designed to help students with group work and presentations through wireless and LCD projection technologies.

Chrisman is currently supporting the development of a new STEM room in the college's Hall of Sciences. The room will enable hands-on collaboration among students with Microsoft Surface Hub and/or Google JamBoards and bring outside experts into the classroom through video conferencing. He also hopes to mix in additional virtual reality technology.

While he is recognized on campus as a driving force in keeping SCC on the cutting edge, Chrisman notes that his work is meaningful because of the people he serves. "I never went to a community college, but [when I began at SCC], I started to experience how a community college helps students in their area," he said. "You see a lot of people who need help, and it's very fulfilling to be able to help them. I fell in love with community college, specifically this one."

 $-\, {\sf JULIA\,McCANDLESS}$



Linda Ashida

District Teaching and Learning Facilitator, High School District 214, Illinois



The next three years were the most energizing of her career, Ashida said. Her school was awarded an iPad pilot, and she became a learner right along with her students. When she couldn't figure out how to convert a webpage to a PDF, one of the quietest students in class raised her hand and, using an Apple TV, showed her and the class how to do it.

"It struck me how everyone together — whether in the classroom, school or district — we're all teachers, learners and we can all be leaders.



especially in this environment where new stuff keeps coming."

That is the philosophy she's taken into her current job as the district's teaching and learning facilitator. Ashida helped create a collaborative atmosphere at Elk Grove High School in Illinois called the Peer Observation Group, a non-evaluative observation program among teaching teams. The Group led to the Collab Lab, where teachers and students come to collaborate on projects, discuss what they've learned from each other and hold teacher-led professional learning days. All of this is curated and shared across the district through social media.

"Imagine possibilities," Ashida advises teachers. "Be willing to step out of your comfort zone, take risks and fail forward. Connect with others and share your story. In so doing, you will learn, discover, innovate and build community in ways beyond what you imagine possible." - JENNIFER SNELLING

"Be willing to step out of your comfort zone, take risks and fail forward."



Ronald M. Bergmann

Vice President of Technology and CIO, Lehman College/City University of New York

THE REAL POWER behind technology is its ability to influence the public good, Ronald M. Bergmann said. "Students are going to be critical to guide us in the future of democracy and address the inequities of our society," he said. "The story of Lehman and CUNY students is a story of immigrants. Here, they are able to obtain an education and join the middle class. CUNY is a vehicle of unward mobility."

Bergmann was instrumental in creating the Bronx Information
Portal, the first project of its kind to map the locations where student interns and faculty serve within the surrounding community. The project provided a visual picture of Lehman College's more than 138,000 hours of service for annual social work opportunities in the community.

Bergmann and his team were awarded the CUNY 2016 Excellence in Technology award for innovation after speeding up formerly manual business processes through automation.

Bergmann has also played a leading role in immersing CUNY students in the latest technology, including the Virtual Reality Training Academy

theater and communication — to needed for the work place of the "Bronx is an urban lab for our students," Bergmann said. "Through centerdigitaled.com 17





Jacob Bates

Techrangers Team Lead, University of Central Florida

JACOB BATES knows a thing or two about driving technology innovation in higher education. He helps students and faculty work together to develop online student success tools, some of which have been adopted by institutions around the world.

During his undergraduate studies at the University of Central Florida (UCF), Bates was a new media developer for the university. He graduated in 2006, but five years later, he returned to his roots at UCF, this time as the Techrangers team lead who could help students gain real-world development experience. "My educational experience was really awesome, and I wanted to give back to the UCF community a bit and push them forward," he said.

One of the ways Bates is giving back is through leading development of

the Universal Design Online Content Inspection Tool (UDOIT) that's designed for the Canvas learning management system by Instructure. With this tool, instructors scan their online course content for accessibility issues that prevent students with disabilities from accessing their courses. Then they fix the issues quickly. Since UCF has about 1,000 online instructors who use the tool, it has helped improve accessibility for about 5,000 courses and saved time in identifying and remediating issues.

But it's not just UCF that's benefiting. About 50 institutions worldwide have adopted the tool. "It's really surprising," Bates said. "We thought this would be useful for a few people and knew it would be useful for us, but the amount of community support and usage is overwhelming."

Since its initial launch in 2015, Bates has gathered feedback from faculty and administrators and will continue to make adjustments to improve the tool.

Projects like this also serve to highlight the important role that technology has in online learning and student success, Bates said. "At UCF specifically, technology development has been our way to scale because we only have so much space and money," he said. - JULIA MCCANDLESS







he first year of college isn't always a fun time of exploration. For many students, it's incredibly overwhelming, expensive and time consuming - causing nearly half of students to drop out. That's why Matthew J. Belanger is creating tools and technology to improve first-year student success at Southern New Hampshire University's College of Online and Continuing Education.

Belanger leads teams in efforts to integrate data and technology tools so they can understand the biggest challenges online students face in their first year. "Part of it is knowing who your student audience is," he said. "We primarily serve adult learners, and the vast majority are working parents. Many have been to two or three institutions before."

With that in mind, Belanger developed assessments during enrollment to identify challenges like the kind of support students have at home and their level of time management skills. Advisers and faculty then use that data to determine the best ways to help students be successful throughout the first year.

Belanger has also launched an academic support center that serves approximately 60,000 students per year, and has reconceptualized the general education curriculum to focus more on adult learners. He also serves on the first-year experience steering committee where he examines predictive analytics opportunities, readiness assessments and other data-related opportunities to give faculty and advisers insightful data so they can boost student outcomes.

The data-driven projects have clearly paid off, increasing early student success in certain high-risk courses by 20 percent and overall first-year success by 7 percent under his leadership. "You get to see students who are graduating and you're hearing their stories about how you're changing their lives," Belanger said. "It's been very rewarding to see how these projects have increased their academic success." – Julia McCandless







Keeta Holmes

Director, Faculty Development, Center for Teaching and Learning, University of Missouri — St. Louis

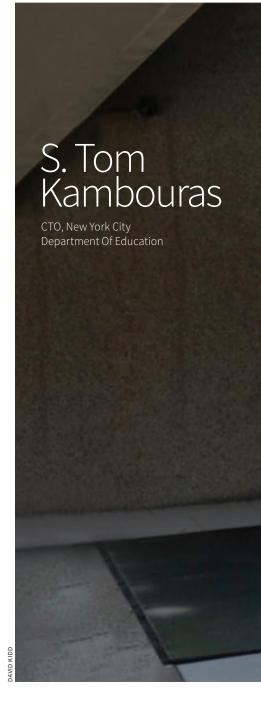
LIKE MANY SCHOOLS, the University of Missouri has an everincreasing number of students enrolled in fully online courses. Keeta Holmes remembers one such student from a nursing course. Using VoiceThread, the student participated in a collaborative slideshow discussion about a patient case study. Her voice shaking with emotion, the student shared her recommendations about what the medical team might have done differently. Holmes said VoiceThread allowed this student and her classmates to engage and share what they've learned in ways they couldn't otherwise.

"We might not have understood the depth of her connection to the activity in a regular discussion board," Holmes said. "It is hard to imagine the educational environment without technology. Not only has it expanded access to education, it creates opportunities for communication and collaboration outside the typical walls of a classroom."



For Holmes, technology is a door that brings faculty in to talk about teaching and learning. She designed and developed a popular nine-week course design program, Online in 9, to help faculty design online courses. Since the program began, nearly 400 faculty have participated. Holmes also reshaped the Focus on Teaching and Technology Conference, increasing conference participants by 57 percent since 2011. She attracted presenters and attendees from all over the world, and made the conference both mobile and digital.

"Educators may initially be curious about a tool, but the part I love is that it gives us the opportunity to reflect on what we're doing, why we're doing it and how we can improve the student experience," Holmes said. "Most importantly, technology allows students to be more active in the learning process and gives them myriad platforms to connect with experts, content, tools and community." - Jennifer snelling



ith assessment and instruction moving increasingly online, S. Tom Kambouras is responsible for making sure the New York City Department of Education has the bandwidth and infrastructure to meet those needs. In other words, he gives educators peace of mind so they can use the tools they need to do their job more effectively.





That has meant changing the technology department from a reactive to a proactive organization. Under Kambouras' guidance and nine years of stewardship, the department has improved interconnectivity monitoring on the department's network of 1,300 school buildings that serve 1.1 million students. "Sometimes we know a problem before the school knows about it," he

said. "So the downtime is minimal."

Kambouras believes technology leaders should be involved in the planning stages of digital initiatives rather than after the fact and asks that his office staff be able to participate during those stages. He has also negotiated better pricing for the district's software purchases. "We like to be contributors, collaborators and partners," he said. "That vision

needs to be a partnership, facilitated and planned with our partners, and IT should be a partner at the table."

It's just as important to ensure that technology is ready to go in the classroom. It has to be easy, quick to use and dependable. "Teachers have to have confidence in the product we provide, from devices to interconnectivity."

- JENNIFER SNELLING



Amy E. Cashwell, Ed.D.

Chief Academic Officer, Virginia Beach City Public Schools

AMY E. CASHWELL HAS taken a structural approach to energizing ed tech for the city's 69,000 students. She oversees the Office of Instructional Technology, which until recently was housed in the Department of Technology. But that was the wrong place for it.

"They deal with infrastructure, networking, all the nuts and bolts of technology," she said. "There isn't a synergy between the technology folks and the people who work in the classroom. People would call because their computers didn't work, because the network was down. Especially

as the number of devices has increased rapidly, it has been hard to maintain the instructional focus."

Today, Instructional Technology is housed in the Department of Teaching and Learning, a jurisdictional shift that has made a world of difference. "We have the same team of individuals, but we have really worked to redefine their roles to focus on how they can be coaches to teachers, how they can model best practices in order to activate teachers' excitement," she said.

Rather than serving as just the IT squad, the Instructional Technology team today is able to focus its attention more squarely on instruction. That means helping students become critical thinkers and problem solvers who are globally competitive.

The reinvigorated approach to ed tech has allowed Cashwell to make other changes too. Recently, for example, she helped launch a digital anchor school program, inviting several schools to act as laboratories for tech-centric instruction that includes testing a variety of different devices.

"These lessons eventually will shape the rollout of technology across the entire division," she said. - ADAM STONE





Andrea Milligan

Director of the Center for Teaching, Learning and Innovation, North Shore Community College, Massachusetts



At North Shore Community College, located in Danvers, Mass., Milligan helps approximately 160 full-time faculty and hundreds of adjunct faculty try innovative pedagogies so they can create more engaging and interactive learning experiences with their students. As part of her role, she implemented a professional development day where faculty can share and learn about valuable tools and resources. She also leads a two-day Faculty Instructional Technology Summer Institute where faculty learn about how instructional technology can impact teaching and learning. What's more, she implemented an advisory council to advise staff on current



initiatives aligned with faculty needs.

Beyond professional development, Milligan has also been instrumental in supporting student needs on campus. Case in point: The Affordable@NSCC project focuses on implementing open education and library resources to make things like textbooks more accessible and affordable for students. So far, these open education resources have saved students more than \$100,000, and are expected to increase savings even more in the future.

Milligan is proud of the positive impact that her team has had on faculty, staff and students, and she recognizes the crucial role that technology plays in education today. "When used thoughtfully and implemented around accomplishing pedagogical goals and learning objectives, educational technology and instructional technologies can enhance the student learning experience," she said. "For me, it's a possibility."

- JULIA McCANDLESS



Dr. Stacey Gonzales

Director of Curriculum and Instruction, Consolidated High School District 230, Illinois



"It was a huge undertaking," she said. "We had three separate districts with three different cultures, different teachers unions, different individuals with their own visions and viewpoints. Teachers believe they are going to lose their jobs, that the whole point is to get rid of teachers, but that is the exact opposite of what we wanted. This was all about supporting our teachers, our curriculum, our rigor."

To overcome resistance, she arranged for weekly leadership calls among the eLo organizers, set rigorous schedules and held people accountable. For a year and a half, she pressed hard to hire a coordinator who could synchronize the districts' efforts. "The coordinator was key. We had six high schools and there had to be someone who could work with all those guidance departments and work with all those teachers," she said.

In her new position as director of curriculum and instruction, she's



"My focus is to do this one teacher at a time."

bringing that same tech-centric vision to the table in her Orland Park, Ill., district, knowing full well the kind of heavy lifting that is needed to turn a school district in the direction of online and blended education. Gonzales wants to continue pushing for online options. "We are bringing blended learning, offering students opportunities for those options," she said. The effort is off to a strong start: 150 kids enrolled in the initial summer program. Within five years Gonzales wants to have available a blended learning version of every class.

"My focus is to do this one teacher at a time," she said, "Success in blended learning is not so much about the course. It's about having a teacher who is willing. That's what makes a course successful online." - ADAM STONE





ichael Nagler has launched a slew of tech initiatives.

He implemented a 1:1 iPad program that has gone district-wide in Long Island, N.Y. He has led the development of standards-based digital portfolios for all students K-7, championed interactive video lessons and pioneered the adoption of makerspaces and fabrication labs, which include 3-D printers, laser engravers and plasma cutters.

It's all in the service of a bigger vision.

"My role really is to try to envision what world kids are going to graduate into," he said. "I am not even talking about high school kids. I am picturing my youngest and where they will be in 10 years. We need a system that is nimble and flexible enough to do new initiatives well and to also prepare kids for the unexpected."

To make that vision a reality, Nagler has leaned heavily on corporate collaborators. These collaborators include the startup platform kidOYO that he helped modify and another startup called School 4 One that helped build the school district's digital portfolio. When it comes to cuttingedge ed tech, "you can put it together yourself, but it is not going to grow and scale without the expertise of these outside partners," he said. "The startups in particular are good because there is no arrogance, no sense that they made something perfect and now you have to change for them."

Startups have the flexibility a school district needs. "If we come to them and offer to help them make a better product, they are eager to hear that. They need someone to help them deliver a better product, and schools can embrace that," he said.

While the outside support is critical, the inside team ultimately gets the job done. "I went to my experts, the teachers," he said. "I didn't tell them what to do, I showed them the ideas and asked them to help create something that everyone would like." — ADAM STONE



Valarie Wilson

Executive Director, Georgia School Boards Association



Since taking on her current role about three years ago, Wilson has worked with 180 school districts across the state to provide professional development, personnel and finance training, strategic planning services, superintendent services, and policy support, among other things. One of the major ways that the Georgia School Boards Association supports districts is through a board management software solution called Simbli. According to Wilson, about 160 of the state's districts currently use the platform to manage meetings or support community engagement in their local area. "It allows them to be more effective and efficient in the work that they're doing



because it's all in one place and helps to support decisions that they make for good outcomes for students," she said.

Wilson also works with Georgia school districts to implement training and to highlight successes that districts have had with the Simbli platform as a way to share best practices. "The beauty in this is that we are helping boards understand how they can be more effective and efficient in their work," Wilson said. "It also helps them to understand how technology impacts the work that their students are doing."

One of the biggest indicators of success for Wilson is the 99 percent renewal rate of the platform and the continual growth of customers. But despite its growth, she is clear that the goal of the tool remains supporting local boards of education. "The work we continue to do is focused on making sure we are creating efficient systems that allow kids to have great outcomes," she said.

- JULIA McCANDLESS



itt Salley knows firsthand what it means to be an untraditional student. When most eighth graders were prepping for high school, he was taking his first college course. By the time he was about 18 years old, he had already earned his bachelor's degree. All of this advanced learning and achievement was made possible for Salley through online courses, inspiring a career as a leader in the development and integration of online courses across the nation.



With a doctorate in education, e-learning and teaching online, Salley has a deep understanding and passion for pedagogical models in the online classroom. He also brings real-world experience to the table, both as an online student and an online teacher. That has enabled him to drive innovative online programs at various universities, including the first fully online associate of arts degree program at Ozarks Technical Community College in Missouri, and a fully synchronous Ph.D. program in rhetoric, communication and

information design at Clemson University in South Carolina.

In his current role at Maryland University of Integrative Health, he is establishing a new center for online teaching and learning that supports faculty. "It's an opportunity to promote pedagogical innovation, learning sciences research and the best of online pedagogy not only to those online faculty, but to all faculty," Salley said. He's also actively involved in developing a pedagogical model that encompasses the university's values and goals.

For Salley, online learning is not just a way to leverage cutting-edge technology. He recognizes that it's critical to the future of education. "It is the single most powerful way to transform higher education," he said. "I think that online education compels us to discover, invent and implement innovative pedagogies that better serve students and yield better learning outcomes."

- JULIA McCANDLESS



Michael L. Mathews

CIO and Associate Vice President for Innovation and Technology, Oral Roberts University, Oklahoma





The immersive qualities of virtual reality open new opportunities for schools looking to expand their footprint. "Most places will open a campus in Saudi Arabia or Shanghai. We decided to flip the whole university, so anyone around the world can have access to education, certifications and knowledge from this one center," Mathews said.

includes eight classrooms, a recording

studio, a 700-seat performance hall and

a state-of-the-art virtual reality space.

"Augmented reality lets us deliver that knowledge without people having to sign up for a four-year degree."

Virtual and augmented reality offer more than just a new means to access information. In their essence, these technologies have the potential to re-create the higher ed experience from its very foundations, he said.

"Only 6 percent of the people in the world who could have a postsecondary degree actually have one. In America, it's 34 percent. The reason it is 6 percent is because we only package education in four-year bundles of time and money," he said.

New technologies could explode that paradigm. "Augmented reality lets us deliver that knowledge without people having to sign up for a four-year degree. Over time those people start

to believe that they are good enough and smart enough to come. It's a way in for people who are interested but unsure, and it's a way in for people who can't get a visa," he said.

Partners in the new center include **EON Reality, Carousel Industries** and TalentQuest. All have helped the school to translate conventional content into immersive experiences with measurable outcomes. "An engineering concept that used to take weeks can be explained in an hour," said Mathews. "Another professor has seen student testing points go up 5 percentage points in just one semester, and we think it will be as high as 30 percent." - ADAM STONE



Timothy P. Mottet

President, Colorado State University-Pueblo

n 2016, Timothy P. Mottet launched a new kind of classroom at Northwest Missouri State University. As provost, he envisioned a learning space alive with technology, with touchactivated whiteboards, ubiquitous laptops and pervasive power sources.

It's not just about the gadgets, but about the nature of the space itself. "When prospective students come to our campus, they should look at our physical spaces and see an institution that is serious about teaching and learning," said Mottet, who recently took on a new role as president of Colorado State University-Pueblo.

"We know that environment contributes to learning, from the colors to the furniture to the temperature to the lighting. The current literature talks about immediacy, the need to create a feeling of closeness between a teacher and a student. We want teachers to be in the middle rather than on the perimeter. That is what facilitates the conversation, and then the technology becomes the tool to further that," he said.



When it comes to rethinking the learning environment, the secret to success is to not overreach. "We're adding technology to our classrooms only at the rate that it can be supported," Mottet said. His team evaluated some promising technology that it ultimately did not adopt. "We didn't have the bandwidth, we didn't have the tech support, we didn't have the teaching and learning support to help develop the faculty. We want to get to the next level in a way that our teachers can support,

that our IT people can support. Then we will continue to add to that as new resources become available."

In his new role, Mottet said he is aiming to instill a common sense of mission across the institution. "I want this to become a 'learning institution,' where faculty and staff are all educators. It's not just the job of faculty: Everyone involved in higher education is responsible for the learning environment. We are all working to achieve learning outcomes," he said. - ADAM STONE





Ryan B. Jackson, Ed.D.

Executive Lead Principal, Mount Pleasant Arts Innovation Zone, Tennessee

van Jackson refers to his arts-driven, techcentric brainchild as a "zone," and the name seems apt. More than just a classroom, this is a campus, with some 1,200 students ranging from pre-K through high school all learning at the intersection of art and technology.

Jackson says schools need a deeper dive into art if they are going to develop whole and complete individuals. "So often we miss this pivotal rung of 'belonging,' making kids feel like they are connected to their learning environment," he said.

"The arts piece breathes life into the soul of a school, driving that sense of belonging. It also feeds esteem, getting kids to perceive themselves as good enough, creative enough. That also correlates to achievement."

With one eye toward a growing regional tech community, Jackson layers a technology component on top of this arts core. Students take on complex engineering tasks: They built an escape room with sensors integrated into the walls and designed a tiny house project. "These are realworld scenarios that turn into tangible trans-disciplinary projects," he said.

Past experience in a large inner-city school helped Jackson to formulate this particular vision of a STEMdriven pedagogy that integrates arts and creativity at a fundamental level. "I saw what these kinds of platforms could do for kids who had historically been underserved, who were beyond jaded by what public education could offer them," he said.

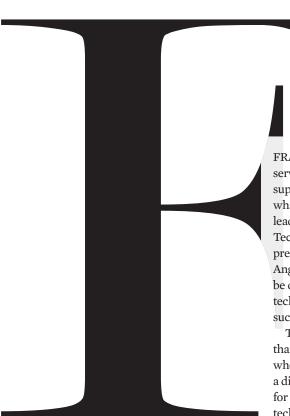
When those kids were exposed to the twin powers of technology and art, magic happened. "I saw more than education. I saw empowerment," he said. "Kids need this. They need a full, holistic approach."

Before getting into education, Jackson worked as an independent filmmaker, an experience he says gave him a profound appreciation for the value of an interdisciplinary approach. "The art director has to work with the screen writer. The director has to work with the actors," he said, "Nothing good gets done in silos." - ADAM STONE



Frances Marie Gipson, Ph.D.

Chief Academic Officer, Los Angeles Unified School District, California



FRANCES MARIE GIPSON has served as a teacher, principal and superintendent. Now she serves on what she likes to call "Team Kid." She's leading the way for the Instructional Technology Initiative Taskforce to prepare students throughout Los Angeles Unified School District to be digital learners who leverage technology to graduate and achieve success in college and careers.

The taskforce is made up of more than 60 educators and civic leaders who meet every week to develop a districtwide vision and strategy for how to provide appropriate technology to allow students and teachers to flourish. The taskforce meets with industry experts and even students to glean their perspectives on what tools are most engaging.

Among their key recommendations, the taskforce strongly supports a personalized approach that harnesses technology tools to work for each school. More than 40 practitioner schools are tracking how they're growing and learning under the new instructional technology initiative.



Gipson said 18,000 teachers learned about new resources and a learning management system in July. They have also implemented enterprise reporting systems that allow educators to track where students are on their learning pathways and ensure they have many opportunities to reach graduation.

Gipson notes that collaboration is key for the taskforce. "One of the things we've been acutely aware of is structuring ourselves for success," she said. "Every Tuesday, we have an Instructional Technology Matters meeting. We make sure we're setting the conditions for all of these opportunities to thrive.

Our strength is our sense of team around this work. We live that in our practice." – JULIA MCCANDLESS







a parent that defines her personalized approach with students and families. Four of her children are adopted from Colombia and have mental health issues, so she understands that the process of engaging with a school can be overwhelming, particularly for single-parent families. If a parent can't make it to a conference, the parent can connect with the school online.

"We celebrate parent engagement in whatever form it comes because it breeds more success in every part of life," she said. "If you've worked the night shift every night and, instead of criticizing, the school appreciates you checking in, that can be a powerful message."

MacBury and her wife started Educate4Hope, a leadership coaching program, to empower principals and district leaders. The organization also offers professional development opportunities relative to technology.

She says people often forget that teachers and administrators are learners, too. When she teaches, MacBury models what she'd like them to do in the classroom. She finds out their interests beforehand. then focuses on the strategies that they want to work on and how those are tied back to the school goals.

"I like kids. We have our own baseball team at home," she said. "As educators, we really need to expect our staff and our kids to do one thing in life — their personal best every day." - Jennifer snelling

Aarti Dhupelia

Vice President, Strategic Initiatives, National Louis University, Illinois

hen Aarti Dhupelia looked at the numbers in 2014. she was not pleased. Just 14 percent of Chicago high school freshmen went on to earn bachelors' degrees. That number has since crept up to 18 percent, "but we can all agree that is not good enough," she said.

As vice president of strategic initiatives at Chicago-based National Louis University, Dhupelia is working to improve the situation, leveraging technology to boost college enrollment, retention and completion in underserved communities.

Her initiative starts by making college affordable with a \$10,000-a-year bachelor's program. State and federal aid makes the program free for many students. Blended learning creates flexibility. Students and faculty meet face to face two full days a week, with the balance of the work completed online. The entry bar is low: just a 2.0 GPA with no SAT scores required.

"The technology is a critical piece of our model," Dhupelia said. Most students arrive less than college-ready, and adaptive courseware helps to deliver the level of personalization needed to bring them up to speed. "That means that when students



struggle with a particular piece of content, the software redirects them," she said. "If they get a quiz question wrong, it takes them back to review that part of the module."

The software likewise enables teachers to track student progress and respond to emerging needs. "They can see how much time students spend online, how many quiz questions they have attempted. If everyone understood modules one and two but struggled on module three, they can see that and plan for that in their lessons," she said.

Technology also helps keep expenses down. Using online materials in lieu of conventional textbooks keeps the cost per student to around \$45 per course.

Finally, the project relies heavily on data analytics. "We look at attendance and assignment grades weekly at the student level," Dhupelia said. "We look at data around student behavior, around social and emotional issues. We have spreadsheets to track those things every single week for every single student. The data really is the secret sauce." - ADAM STONE



Evan Marwell

Founder and CEO, EducationSuperHighway, California

IN THE PUSH to bring high-speed Internet to the classroom, Evan Marwell sees strong positive trends.

"When we started, there were just over 4 million kids in this country with access to the high-speed broadband they needed. As of last July, we were up to 35 million kids who have access in school. That is unbelievable momentum," said Marwell, the founder and CEO of the broadband advocacy group EducationSuperHighway.

By his reckoning, some 2.4 million teachers in 70,000 schools are now achieving a minimum Wi-Fi speed goal of 100 kilobytes per second per student.

Marwell's organization drew national attention to its effort through its SchoolSpeedTest. By sampling broadband access in 30 states, organizers were able to demonstrate that two-thirds of school districts in the United States - representing 40 million students — needed Internet connectivity upgrades. At least 42 governors have pledged to upgrade their infrastructure as a result.

Why make broadband a mission? As Marwell sees it, Internet access is the great leveler for education. "When you look at the teaching and learning that is being done today, if you don't



have access to quality broadband, you are clearly at a disadvantage," he said. "It brings experiences to the classroom that kids otherwise wouldn't have, and it brings all kinds of new learning modalities. This is the future of education, and if you don't have good broadband, you're going to be left behind."

The push for broadband has been successful, he said, because unlike

so many other issues and challenges in education. Internet access seems so fixable. "There are not a lot of problems that have such a finite endpoint," Marwell explained. "In this case, we didn't have to invent new technology. It was just about figuring out who needed to be upgraded and how we could get them upgraded at a price they could afford. People see that as doable." - ADAM STONE



Carla Streff

Director of Learning Technologies and Client Services, Northeast Community College, Nebraska

arla Streff understands the importance of finding and getting help as a college student. In fact, she's led the way at Northeast Community College in Norfolk, Neb., to make it as easy and accessible as possible for students to get answers and support with issues that come their way.

Launched in 2014, the college's Service Center redesigned how online and on-campus students, faculty and staff got help with questions. Instead of the traditional help desk that just covers generic issues, the new center is a one-stop shop for all questions and basic services, like checking college library books in and out.

Streff also works closely with faculty and staff across all departments to understand general questions that students have that could be more efficiently answered via the center. While some were concerned about losing face-to-face time, the consensus quickly became clear that faculty and staff were more effective and productive as a result of the Service Center.

Today, the center hires up to 12 students to work in customer service positions, with opportunities to advance to more specialized roles like technical support, network and infrastructure, or instructional video support. As a result of its success, the Service Center received an ACUTA award, and Streff won the U.S. Bank award as an outstanding

staff member, which is voted on by the candidate's college at large.

Beyond the center, Streff is also instrumental in managing all learning technologies and instructional technology initiatives, where she supports faculty with things like flipping their classroom. Ask Streff. and she's clear that one of the most rewarding aspects of her role is to

support faculty as they advance their best practices in instructional technology. "Technology is a small part of it — you have to keep up with technology," she said. "For me, it's working with faculty and seeing the results from the students. We're preparing people to get jobs and be successful and take new positions."

- JULIA McCANDLESS





Marlon J. Styles Jr.

Superintendent, Middletown City School District, Ohio

rom teachers to principals to instructional leaders, there are many ways to impact education — and Marlon J. Styles Jr. is living proof of that. Most recently serving as executive director of curriculum and instruction at Lakota School District, he used his 15 years of expertise in education to facilitate collaboration between instructional technology and curriculum departments to best support district objectives and goals for teaching and learning.

When Styles joined the eighthlargest school district in Ohio about four years ago, his goal was to support a more personalized approach to teaching. Students would have access



to various pathways designed for specialized learning, including programming, engineering and biomedicine. With the support of the Digital Learning Team, Styles worked closely with educators to integrate digital tools that matched the level of intensity needed for instruction. He also was influential in helping the district begin transitioning to a Canvas learning management system.

For Styles, instructional technology is not just about technology. It's also about finding ways to challenge and inspire students. "It is about engagement," he said. "We already had a high degree of engagement in our classrooms, but by embracing instructional technology and innovative tools, we have been able to intensify the level of engagement."

Moving forward, Styles has accepted a new role as superintendent of Middletown City School District, where he hopes to continue to support technology in education on an even larger scale. "I'm passionate about inspiring people to believe in their vision," he said. "I'll still be involved in educating kids, and I'm excited about that. I'm also looking forward to being part of the Middletown community."

- JULIA McCANDLESS

ebecca Gomez is the first to admit that she is not a "techie." She had never taught an online class before she helped launch the online master's degree program in social work at Our Lady of the Lake University, located in San Antonio, Texas. But that didn't stop her from leveraging technology to bring top-tier training and clinical field experiences to students across the nation who were seeking a meaningful career in social work.

For Gomez, an effective online program in her field connects students to faculty, staff and their peers so they can encourage each other to engage. Since social work is intrinsically linked to interpersonal skills, the program leverages key technology, like videos and VoiceThread, an app that allows students to role-play client assessments and receive direct feedback. Students also receive assignments that require them to complete supervised internships by engaging in their own community so they can better understand the challenges that their clients may experience.

That emphasis on engagement has paid off, with retention rates of 80 percent in 2016 and program growth from 29 students in 2012 to more than 800 students last year. What's more, onsite classes have now integrated many of the tools from the online course, including Blackboard and VoiceThread.

While the success of the program is clear, Gomez also appreciates the value of offering the program in the field of social work. "It's a social justice issue for our students because whether due to rural areas, military or employment, they don't have access to a degree unless it's in an online format," she said. "It's a really powerful tool to reach people where they are, which is what social work is called to do." – Julia McCandless





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