

FALL / WINTER 2019

# USC Rossier

MAGAZINE



**T E C H N O L O G Y**  
Education Powers Up

# A Second Century of Education Innovation

THE PAST YEAR has been one of the most significant in the long history of USC. We opened a new chapter with the arrival of Carol Folt, the university's 12th president. And we celebrated 100 years of USC Rossier.

To these momentous events I have added one more. This year marks my 20th and last year as dean. I gave considerable thought to pursuing a fifth term but ultimately decided the time was right—for me and the school I love—to lay the groundwork for a new phase.

In June 2020 I will join Rossier's senior research faculty, where I will pursue studies close to my heart. You have my promise that as the faculty search committee looks for my successor, I will work as hard as ever to maintain Rossier's place in the vanguard of U.S. graduate schools of education.

As you'll see in this issue, exciting advances are coming from researchers like Mary Helen Immordino-Yang, who is studying the brain dynamics of great teachers, and Zoë Blumberg Corwin, who is aiming to increase college success through video gaming. Another notable project is EdVentures, an ed-tech incubator based at Rossier's Center for Engineering in Education.

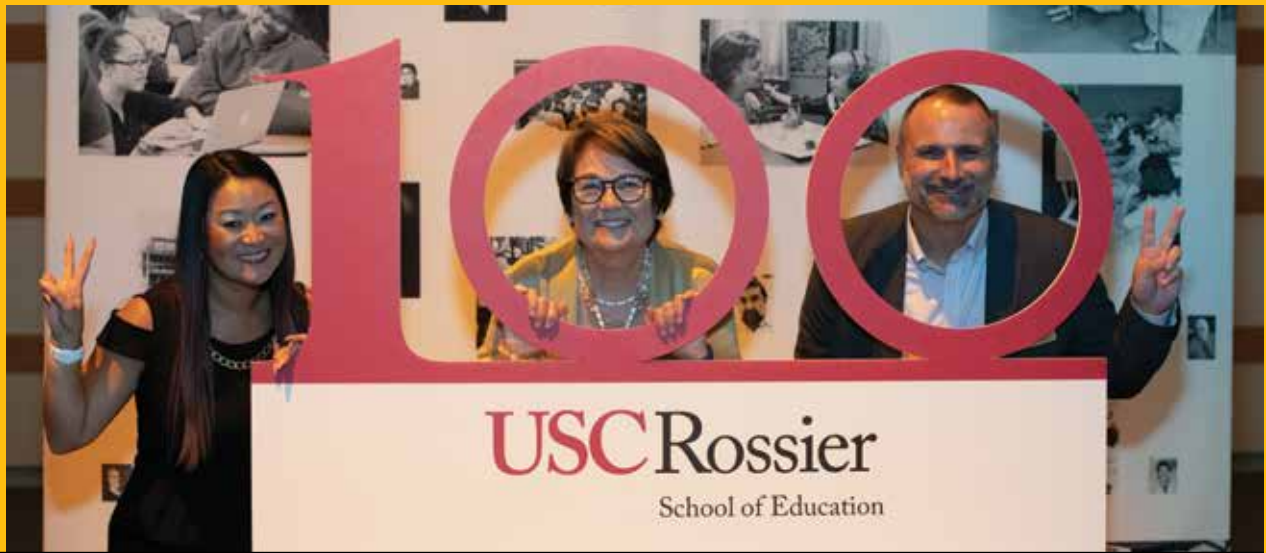
Judging from these efforts, I'm confident that innovation, entrepreneurialism and a commitment to advancing educational equity will remain hallmarks of Rossier well into the next 100 years.

Fight On!



KAREN SYMMS GALLAGHER PHD

Emery Stoops and Joyce King Stoops Dean, USC Rossier School of Education



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LYDIA DANILLER

“My USC Rossier degree is the foundation for what I’m doing now,” says Anna Huerta '09 ME '10, a lead commercial game designer at Zynga. “Using games as a tool to motivate in healthy ways is important to me.”

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Cover design by  
Megan Arch and  
Ross Brenneman



# Celebrating the Past, Transforming the Future



Students, staff, faculty and friends came together to celebrate the capstone event of USC Rossier's Centennial Celebration on Aug. 24 at the Skirball Cultural Center in Los Angeles. The interactive exhibits highlighted not only impactful moments and people from the school's history, but also the current work and experts who will transform education in the next century. **R**



Professor Mary Helen Immordino-Yang

# SCHOOL OF THOUGHT

Studying the implicit processes—inside and out—  
that make educators great

by Elaine Woo  
photography by Stephanie Yantz

**EXEMPLARY TEACHING** is often described as an art, but is there science behind it, too?

A research team led by a USC Rossier professor is aiming to provide some answers.

Mary Helen Immordino-Yang, whose research at the USC Brain and Creativity Institute blends psychology, neuroscience and education, is known internationally for her research on the critical role that emotion plays in learning. Now she is extending her inquiry to teaching, with a study on how highly effective teachers think about their students and what brain dynamics are activated when they are reflecting on their students' work.

"We're trying to understand the kinds of practices and thought patterns effective teachers engage in that promote intellectual and personal development in their students," Immordino-Yang explains. She hopes the study will shed light on the "deep cognitive, emotional and social work" that she believes undergirds the most potent secondary teaching, "that goes far beyond simply understanding your content and being able to manage your classroom effectively."

To that end, she is leading a research team that is tracking 40 teachers from Artesia High School in the ABC Unified School District and Intellectual Virtues Academy, a Long Beach

public charter school serving middle and high school students.

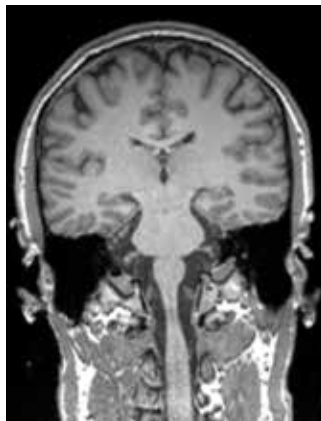
The two-year study, funded with a \$300,000 grant from the John Templeton Foundation, involves classroom observation and collecting physiological and psychological data from the teachers. Over the summer, the first set of 15 teachers participated in interviews and underwent brain scans at the USC Brain and Creativity Institute, where Immordino-Yang is a faculty member.

"Great teaching is not just about the things you do, the words you say," says Xiaofei Yang, a senior research associate in Immordino-Yang's lab, who, along with USC Rossier educational psychology doctoral student Christina Krone, is helping to conduct the study.

"We think great teachers have a mindset that distinguishes them," Yang, who is not related to Immordino-Yang, continues. "It might be

something they can articulate. But it might also involve implicit processes that they might not be aware of. If we can better understand these, then perhaps we can target them in teacher education programs and professional development."

The study is focusing on secondary teachers because Immordino-Yang sees a pressing need to design developmentally appropriate schooling for adolescents.



Teacher Jonathan Le Shana's brain scan.



# MR. LE SHANA



**THE PLAN**

**World History**

1. Identify the main ideas
2. How do they relate to the world?
3. How do they relate to the United States?
4. How do they relate to the world today?
5. How do they relate to the world in the future?

**CIVICS**

1. What is Civics?
2. Why is it important?
3. How do we practice it?



“This study was motivational,” says participant Jonathan Le Shana. “It was nice to have researchers come in and say, ‘We care about teachers and we want to do this study, because we think you are a huge building block in the success of our students.’”





“Through their work, mentoring and friendship, Antonio and Hanna Damasio have taught me many things, most especially to leverage the power of science as a tool for exploring and ameliorating the human condition,” says Mary Helen Immordino-Yang. “What better lens through which to study teachers, whose work is dedicated to raising our youngest citizens?”

“Most research on how teaching practices impact development and learning focuses on younger children,” she says. “However, it is now clear that adolescence is a second period of intensive brain development, and that targeted interventions and educational opportunities at this age can give youths a second chance to rework the brain networks that undergird thinking. This can make a huge difference to adolescents’ transition into higher education and to their well-being as adults.”

What qualities define the best secondary teachers has long been a matter of debate. Subject-matter mastery and the ability to command a classroom are considered essential by most experts, along with knowledge of fields such as child development and learning theory. Many other researchers put personality and character front and center. Immordino-Yang, who believes that young people’s social-emotional and scholarly capacities are “co-dependent,” is unique in her use of interdisciplinary interview, classroom observation and neuroscience studies to better understand great teaching.

A former seventh-grade teacher, she came to USC in 2006 as a postdoctoral fellow at the Brain and Creativity Institute and quickly began making inroads with research on the neurobiology of “social emotion” and its impact on adolescent learning. Emotions such as compassion and admiration, she wrote in her 2015 book, *Emotions, Learning, and the Brain: Exploring the Educational Implications of Affective Neuroscience*, “form a critical piece of how, what, when and why people think, remember

and learn.” Or, as the title of her widely cited 2007 paper, co-written with BCI director and Dornsife Professor of Neuroscience Antonio Damasio, put it, “We Feel, Therefore We Learn.”

“Mary Helen is a pioneer in the field of education, having combined traditional studies in education with neuroscience,” says Damasio. “Her approach to the study of teachers reflects the novelty of her perspectives.”

The research on teachers grew out of a project to evaluate the effectiveness of the curriculum at Intellectual Virtues Academy, which is dedicated to building students’ intellectual character, including traits such as curiosity, wonder, open-mindedness and creativity. A core tenet of the school is that intellectual growth is most likely to occur in the context of trusting relationships with teachers who model those habits of mind.

“When you take seriously the concept of teaching for character, you are taking seriously the agency and importance of the student,” says James McGrath, principal of Intellectual Virtues Academy High School. “The best way for the student to feel that is to have genuine, caring relationships with teachers.”

Intellectual Virtues Academy’s 100 high school students are predominantly Latino and Black. Most students come from low-income backgrounds, and about 50 percent enter the school reading far below their grade level. Despite these challenges, the school has scored above the national average on standardized tests of math, reading and critical thinking for three consecutive years, McGrath says.

These results suggest the effectiveness of

a model that considers the student-teacher relationship as crucial as a rigorous curriculum and high standards. And it made Intellectual Virtues' middle and high school teachers attractive candidates for the study.

"There is something really important about the social component of teaching, fostering relationships with students and communicating that you believe that they can be successful," says Krone, a former high school science teacher, who is overseeing the fieldwork.

In later phases of the study, the researchers hope to build "dynamic systems models of the ways in which students and teachers are

loved, cared about in the classroom. That's important for any human anywhere, but it's especially important for students from difficult backgrounds—low-income or with experiences of violence—of which we have many."

Like Bagheri, he was eager to join the study, despite the pressure of having five researchers watching his every move during a civics class last spring. They fitted him with a microphone and trained a camera on him. Because they also are investigating how challenging situations may inhibit good teaching, they strapped a device on his wrist to capture stress responses. He had one piece of equipment of his own: a lightsaber he

**"We're trying to understand the kinds of practices and thought patterns effective teachers engage in that promote intellectual and personal development in their students."**

**—Mary Helen Immordino-Yang**

engaging with one another," Immordino-Yang says, "and establishing a culture of learning that sets the stage for deep engagement with ideas and ultimately for brain development."

The 40 participants in the current study are all classroom veterans who were identified as excellent teachers by school leaders. One of them is Amelia Bagheri, who teaches chemistry and physics at Artesia High, a 2013 California Distinguished School in Lakewood with a predominantly Latino enrollment.

"My secret," she says, "is convincing kids at the beginning of the year that they know me. I tell about my favorite things. I get them to tell me their favorite things. I try to learn their names super fast. And I try to give a lot of positive attention because I want them to trust me."

Jonathan Le Shana, who teaches social studies at Artesia High, agrees that the classroom environment created by the teacher is crucial.

"Most of my energy on a daily basis goes into providing that good environment," he says. "That means that students feel comfortable,

used as a pointer during an outer space-themed trivia game designed to help his students review for an exam.

When his principal invited teachers to participate in the study, Le Shana immediately sent him an enthusiastic text. "I said I'd love to do this. I love that they are focusing on the neurological responses of teachers. And I'd never had my brain scanned and thought it would be a neat opportunity to do that."

After completing the classroom observation, the researchers invite teachers to the lab, where their responses to various stimuli are recorded. In one activity the participants view videos of other teachers demonstrating teaching strategies, such as how to encourage class participation, and are asked to evaluate whether the methods shown are having an impact on learning and why.

In another exercise they are asked to grade their students' papers and reflect on each pupil's work while undergoing brain scans in the MRI machine. The researchers theorize that distinctive patterns of neural activity will appear when effective teachers are thinking



“The greater mission of the study is to rethink how we are preparing teachers for the classroom and how we are talking about the work of teaching in a larger sense,” says doctoral student Christina Krone (left), with Professor Mary Helen Immordino-Yang and senior research associate Xiaofei Yang. “What we know about good teaching is still an open question, but what is gaining traction is that relationships are super important.”

deeply about how to support their students’ development.

“We want to see if there are differences in brain dynamics when they are engaging with their students’ work,” Yang says. “We think that for great teachers the task [of grading] is not just about the work in front of you, whether it’s right or wrong, but about the history of the student, how they performed the entire semester and what to do to help that student in the future. Our idea is that great teachers engage with the broader personhood of a student more than other teachers do, and tailor their feedback accordingly.”

Paul Burns, who teaches science to seventh- and eighth-graders at Intellectual Virtues Academy Middle School, agrees that engaging with students is essential.

“For so many years I was told: ‘You’re weird. Why do you spend so much time connecting with the kids? You should just tell them what’s right and what’s wrong,’” he says. “But I feel so much for them; it makes me weepy sometimes, connecting with them. If a student is struggling, I will stop the whole class and say, ‘Let’s struggle together and get it.’ It’s about growth and love. And I think they feel it.

“So, to have a scientist come in and say, ‘Let’s

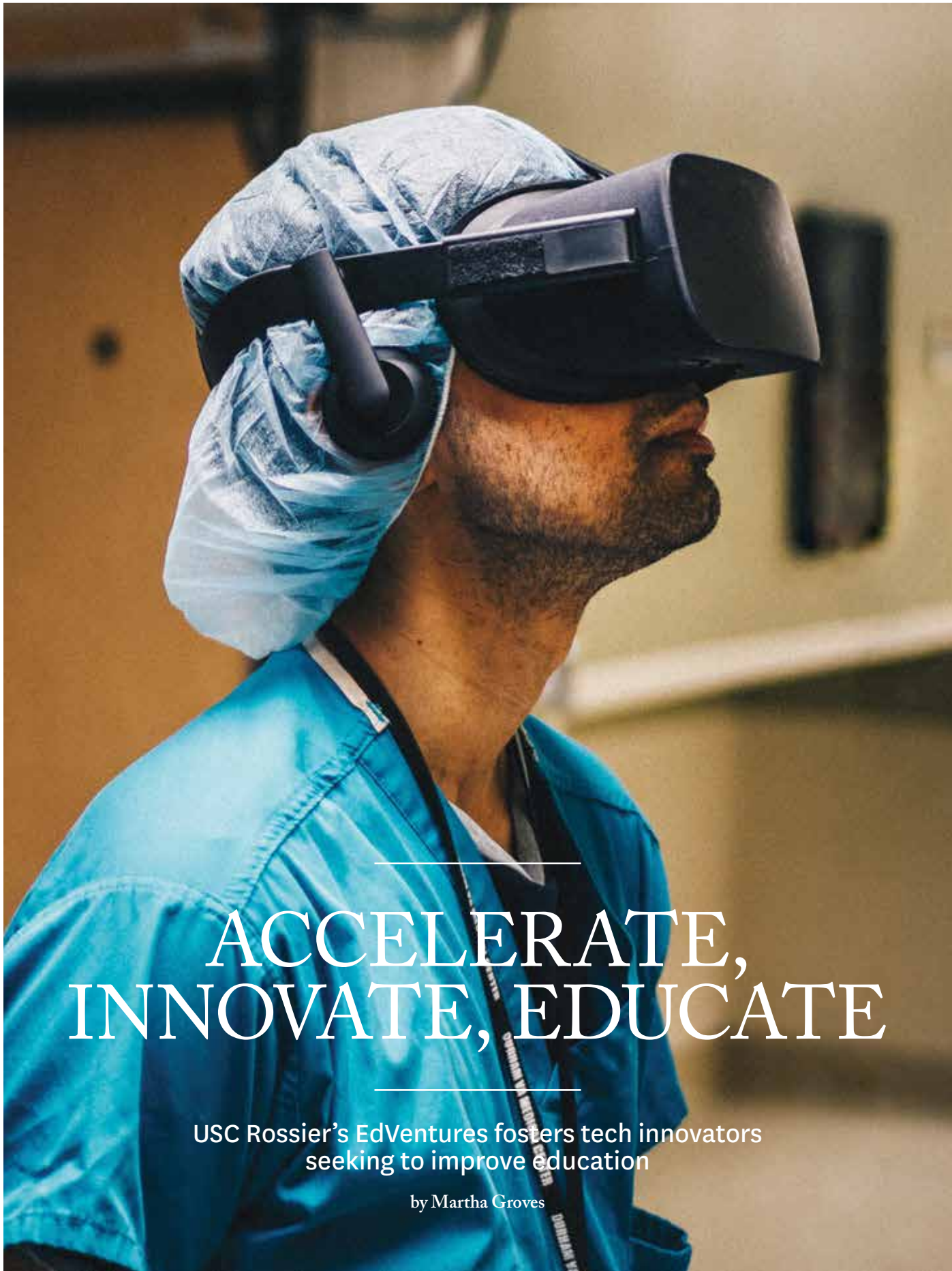
see exactly what it takes for a person’s brain and body to be a great teacher,’” Burns adds, “feels so validating.”

Ultimately, the researchers want to use their findings about the social, emotional and cognitive work of great teaching to improve secondary education. Immordino-Yang is working with Linda Darling-Hammond, president of the California State Board of Education, to translate the new science into policy aimed at wide-scale change.

“Everybody understands that preschool teachers need to be able to engage with the kids socially and emotionally,” Immordino-Yang says, “because if you didn’t it would be a disaster, right?”

“But we expect high school kids to compensate somehow when their teachers are not engaged with them, even though the high school years are another period of profound social, emotional and brain development. We neglect that opportunity in the way we design high schools and train high school teachers.

“We’d like to understand the range of ways really effective teachers engage with young people so that we can learn from one another and so we can start to build a science of secondary teaching as a profession.” **R**



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# ACCELERATE, INNOVATE, EDUCATE

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USC Rossier's EdVentures fosters tech innovators  
seeking to improve education

by Martha Groves

## IMAGINE A MEDICAL RESIDENT

in Maine watching a Hollywood-quality video featuring a surgical oncologist in California who has performed a complicated cancer procedure and provided narration explaining it.

Or picture learning via virtual reality how to order food or conduct business in parts of the world where Mandarin Chinese is the primary language.

Or visualize a music teacher who can keep tabs on students' practice sessions via a smartphone or a math teacher whose students can use an app that eliminates the need for high-end calculators.

These are just a few of the ideas that USC's Rossier School of Education and its Center for Engineering in Education (CEE) are nurturing in their new EdVentures, a recently formed incubator and accelerator for education-technology initiatives that is already making an international impact.

**EDUCATION, DONE WELL,** empowers individuals with the knowledge and skills they need to thrive in the modern economy. Yet, according to a 2017 study by the U.N. Educational, Scientific and Cultural Organization, about 262 million children and youth are not in school. Meanwhile, a report by Humanium, an international organization dedicated to stopping violations of children's rights, concluded that 759 million adults around the world are illiterate.

Hoping to improve the outlook for potentially millions of eager learners, Doug Lynch, a USC Rossier senior fellow who specializes in education innovation, and Dean Kline, a Pennsylvania- and L.A.-based venture capitalist, joined forces to develop EdVentures within CEE. The center is co-directed by USC Rossier and USC Viterbi School of Engineering professors Anthony B. Maddox and John Brooks Slaughter.

"We know that when education is done correctly, it is a perfect good," Lynch says. "It impacts individuals, communities, countries, real estate prices. People live longer."

Rather than make a big bet on a single promising company, USC Rossier's CEE is "placing lots of small bets to develop innovative leaders and solutions and send them out to the world," Lynch says.



Jihye Shin MBA '14 and Brian Conyer MBA '17 (above), the co-founders of GIBLIB, known as the "Netflix of medical education" (opposite page).

In November, USC Rossier and CEE announced the selection of the first cohort of 16 startups, including operations in Mexico, Indonesia, Taipei and Rwanda. Some of the ventures rely on artificial intelligence, virtual reality and augmented reality.

In keeping with USC Rossier's and CEE's mission of equity, EdVentures is focusing on ventures started by women and people of color.

"We're tackling the tip of the iceberg when it comes to what it takes to educate human beings—thousands upon thousands of things are needed to support this effort," Maddox says. "It's like taking a jar and putting marbles in and pouring sand in to fill the spaces between the marbles. Small companies can fill those spaces, and EdVentures is supporting these creators of small companies."

EdVentures assists the fledgling companies through mentoring, workshops, business-plan competitions and introductions to potential investors, clients and partners. And, for the most part, the EdVentures mentors work virtually with the startup founders.

"Everybody gets a personalized curriculum," Lynch says of the entrepreneurs in the first cohort. "Depending on who you are as a company, you're going to need different things. If you're an educator, you might need more mentoring on financing and engineering. If you're an engineer, you might need help



“We have designed a radically different model that is affordable, market-relevant and effectively prepares students to drive innovation,” says Elizabeth Dearborn Hughes, CEO/co-founder of the Akilah Institute.

on pedagogy.”

**LIKE MANY OF HIS FELLOW** EdVentures entrepreneurs, Daniel Haiem, 25, a passionate “math geek” and AP physics teacher who graduated from UCLA in 2015, was inspired to address educational inequity. The seed was planted for ClassCalc, his app, when Haiem as a ninth-grader was forced to pay \$140 for his first handheld calculator.

“I couldn’t use the calculator built into my iPhone,” says Haiem, “because the teachers didn’t want us using our iPhones.

Ten years later, as a teacher, I saw many students struggling to afford the same calculator, which had barely improved.”

Using ClassCalc, teachers can lock students into the app, enabling them to use their smartphones as graphing and scientific calculators. The app prevents cheating; if students drop off the app, the teacher is notified.

“We’re looking at the big play: unlocking mobile access to education in the classroom,” says Todd Mackey, ClassCalc president and chief operating officer.

The company is offering free trials

and pilot programs, and it encourages any interested teachers to visit the company website for more information. For schools in economically challenged neighborhoods that are spending substantially more than \$100 per calculator for students, the app promises huge savings.

“EdVentures was an excellent resource to help us navigate the vast landscape of education technology,” says Haiem, who lives with his parents because “any money I had was invested in ClassCalc.”

Another entrepreneur, Estella Chen ME '08 EdD '17, runs her startup, MandarinX, from an office in Taipei. She started the massive open online courses (MOOC) in 2015, in partnership with edX (a learning platform founded by Harvard and MIT), after raising \$500,000. The course immediately attracted 47,000 students in 202 countries.

Chen, 39, was born in Taiwan but as a child attended school off and on in Los Angeles because her parents wanted her to be exposed to Western ways.

She is capitalizing on a global interest in Mandarin Chinese, the language spoken by more people on Earth than any other.

“Mandarin is now taking the floor,” she says. “People all want to learn, but the structure is too difficult.”

MandarinX videos, which feature Chen instructing clients in basic Mandarin, Mandarin for tourists and visiting business people, and other fundamentals, has found a way to make the language accessible to more learners.

Along the way, Chen says, she has encountered her share of challenges and discrimination. It’s made it clear how much of a need there is for an incubator like EdVentures, with the resources to support women and people of color through many of the challenges a flawed world presents.

“I’m not a quitter,” Chen says. “If people say, ‘You can’t do this,’ it makes me want to do it more.”

Also making the global rounds to raise cash is Elizabeth Dearborn Hughes, the chief executive and co-founder of the Akilah Institute, the only college for women in Rwanda. Akilah, which opened in Kigali, Rwanda, in 2010, prepares students to become leaders and entrepreneurs in the East African economy.

With EdVentures’ help, Hughes is now,

from her Hong Kong base of operations, starting Davis College, a proposed global network of campuses aimed at offering affordable, competency-based degrees to a million female and male students in Africa and Asia by 2030.

“EdVentures was extremely helpful for us in the midst of this crucial transition phase,” says Hughes, 34. “Doug, Dean and Anthony provided so much wisdom and insight and coached me through a lot of strategic questions and decisions. They introduced us to education investors and funders.

“Entrepreneurship can be really lonely,” she adds, “and it’s always so helpful to

connect with others who are going through the same challenges.”

**FOR EDVENTURES** and its entrepreneurs, challenges abound, with fundraising, reorienting of business strategies and demonstrating results at the top of the list.

EdVentures has financial support from foundations and private entities, including the Northrop Grumman Foundation, Navitas Ventures, Michelson 20MM Foundation, Bisk Ventures and Blackstone LaunchPad USC. USC’s Marshall School of Business is also backing EdVentures, which is seen as part of a campuswide



## SONG OF SUCCESS

**THE YOUNGEST ENTREPRENEUR** in the first EdVentures cohort is Ocean Salazar-Ferrer, 18, a USC sophomore who founded Studioso. It’s a mobile app that connects music teachers and students, allowing them to share assignments and track practices and progress in real time.

Salazar-Ferrer, who was born outside Paris to an American Vietnamese mother and a French father, started playing the violin around age 3. One lesson he has learned as an entrepreneur is that the best ideas result from identifying a problem and devising a solution.

“Music students spend the majority of time with their instruments at home, without instruction or guidance,” he says. “Most students feel lost and get frustrated because they’re not making the progress they want to. The goal of Studioso is to allow students to practice more efficiently.”

Students would be able to use the app for free, but schools or teachers would pay in price tiers. Based in Minneapolis–St. Paul, Studioso has six pilot schools in Minnesota with 1,500 users and is raising funding to move operations to Los Angeles.

The company previously won \$10,000 by competing in the MN Cup, a public-private partnership supporting Minnesota’s entrepreneurs, but, otherwise, Salazar-Ferrer has used his own funds to bootstrap the company.

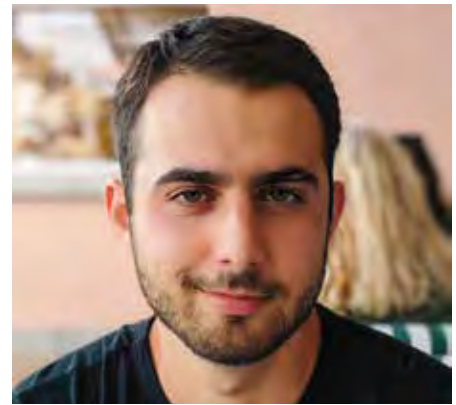
“Music is a universal language communicating emotion and beauty. Furthermore, music education has proven to improve student brain development, engagement and test scores,” he says. “However, the dropout rate in music education is still very high, about 50 percent after two years. Studioso addresses this by increasing student engagement and decreasing practice frustration, all while improving the lives of teachers.”



“I believe if you learn a language from a human being, it lasts longer,” says Estella Chen ME '08 EdD '17, founder and CEO of MandarinX.



Daniel Haiem's ClassCalc app allows smartphones to stand in for pricey graphing and scientific calculators, addressing an educational inequality.



“entrepreneurial ecosystem.”

That said, whereas most accelerators charge startups \$100,000 to \$150,000 to participate, EdVentures charges nothing. And, at least for now, EdVentures is taking no equity stake in any of the companies, another trait that differentiates it from peers.

One of EdVentures' most promising ventures is GIBLIB, which co-founder and chief executive Brian Conyer MBA '17 runs from a WeWork office in downtown Los Angeles. (He commutes via scooter, carrying Henry, his Maltese Yorkie, in a backpack.)

Dubbed the “Netflix of medical education,” GIBLIB creates and distributes videos of physicians performing surgeries and giving medical talks. Each doctor provides expert narration, talking about the patient's condition and history. Subscribers pay \$50 a month or \$468 annually.

“Our subscribers can learn from the very best doctors streamed on demand or in virtual reality,” says Conyer, 35.

He runs the business with co-founder

Jihye Shin MBA '14, 35, whom he met at USC and who had worked at Paramount Pictures.

Conyer, who quit his job selling medical devices, envisioned applying best practices of creating and distributing content from entertainment to the medical education sector.

The company is filming surgical procedures in every specialty in ultra-high-definition and 360 virtual reality because, Conyer says, “we know that every medical student and nursing student will wear a VR headset as part of his or her training, and we want to make sure it's GIBLIB's content they're consuming.”

Medical professionals eager to keep pace with surgical developments have responded in strong numbers to GIBLIB's offerings, Conyer says. Individual doctors comprise the biggest subscriber base.

“If you think about physicians, they're out practicing in the real world,” Conyer says. “To get up to speed on new techniques, they have to go to conferences or visit other

doctors. Ours is a modern approach to keeping them up to date in a pragmatic way.”

The company also plans to build the largest library of medical lectures in the world. It releases new content every week from partners such as Mayo Clinic.

Unlike many of the other startups, GIBLIB has serious funding behind it.

“We've raised about \$2.5 million to date,” Conyer says, from investors including Mayo, Michelson 20MM, the Venture Reality Fund, the USC Venture Fund, Wavemaker 360, and Strong Ventures.

As EdVentures' founders begin to think about identifying their next cohort, Conyer reflects on the help he and his partner received.

“Dean and Doug have been outstanding mentors,” he says. “We've been through other incubators, but what shines the most about this one is they care most about the personal relationship and genuinely want to help.”

Says Lynch of the first cohort: “We are their teachers for life.” **R**



# Sweet Sixteen

In November 2018, EdVentures unveiled its first cohort of 16 innovative startups

## Akilah

[akilahinstitute.org](http://akilahinstitute.org)

Opened in 2010, the Akilah Institute prepares women to become leaders and entrepreneurs. With EdVentures' help, Akilah's founder is now launching a global network of campuses to offer affordable, competency-based degrees to a million female and male students in Africa and Asia by 2030.

## Ampligence

[blog.ampligence.com](http://blog.ampligence.com)

This L.A.-based company offers 4G communication tech that provides real-time, step-by-step math instruction from a fully automated "math expert," courtesy of artificial intelligence.

## APollo1

[apoll01.com](http://apoll01.com)

This San Francisco-based company provides a tool that allows students (and faculty) to build profiles and establish reputations, while helping each person to navigate and engage with various communities, schools, departments, classes and working teams.

## CollegeBacker

[collegebacker.com](http://collegebacker.com)

CollegeBacker, based in San Francisco, bills itself as the easiest way to save for college with help from family and friends.

## ClassCalc

[classcalc.com](http://classcalc.com)

This L.A.-based safe-for-tests calculator app is the future of educational math support.



## GIBLIB

[giblib.com](http://giblib.com)

This L.A.-based company creates and curates high-quality educational videos featuring expert physicians speaking about patients and performing procedures.

## EasyTeach LMS

[cliffmichaels.com/product/lms](http://cliffmichaels.com/product/lms)

This customizable WordPress plug-in, offered by a Los Angeles company, helps to create and provide online courses.

## Equally

[equal.ly](http://equal.ly)

This San Francisco-based company's DaVinci Club AR is an augmented reality game that entertains children while encouraging physical activity and exploration.

## Immerse

[immerse.online](http://immerse.online)

Based in Irvine, this is the first virtual reality and 3-D ecosystem that invites users to practice the language they seek to learn in real-life locations with qualified teachers.

## Intervene

[intervene.io](http://intervene.io)

This data-driven adaptive intervention software, developed by a Houston-based engineer, helps low-performing students.

## LoanBuddy

[loanbuddy.us](http://loanbuddy.us)

This analysis software from an L.A.-based company is a tool for financial advisers seeking to help clients manage student loan debt.

## MandarinX

[edx.org/school/mandarinx](http://edx.org/school/mandarinx)

This Taipei-based startup, in partnership with edX, offers massive open online courses (MOOCs) to learners of Mandarin Chinese.

## OctagonEDU

[octagonedu.com](http://octagonedu.com)

Based in Bandung, Indonesia, this company offers an app using augmented reality to help young students learn the STEM subjects.

## Reto

[retoenarm.com](http://retoenarm.com)

This adaptive digital test-preparation platform, based in Mexico City, focuses on medical education in Latin America.

## Studioso

[studiosoapp.com](http://studiosoapp.com)

This Minnesota-based company links music teachers and students so that they can coordinate practice sessions and instruction.

## Ucroe

[campus.app](http://campus.app)

With headquarters in Denver and Melbourne, Australia, this company offers a modern student portal that connects "everyone and everything" at a university.



# SEEING HIGHER ED IN COLOR

How the online tool PRISM is making higher ed professionals of color more visible and connected

by Mark Carpowich



**IT HAPPENED YEARS AGO**, but for Wilmon Christian, director of PRISM and the National Equity Network, it still feels like yesterday.

He and several colleagues were in the midst of a national campus-climate project, and had arranged interviews with various administrators and students regarding employment in higher education. But it was a woman who didn't have an appointment that impacted him the most.

"She just found us," he says. "She was a woman of color, and she came to tell her story about how badly she'd been mistreated at her particular institution, and how she felt that her options were limited. I think about that woman every time I am working on PRISM."

Created by Christian and his colleagues a year ago and housed in the USC Race and Equity Center, PRISM is an online tool aimed at leveling the playing field for higher education employment so that people of color, who have traditionally been underrepresented in faculty and senior administration positions, have a new way to be considered for jobs.

PRISM has long been a vision of Shaun R. Harper, the founder and executive director of the Race and Equity Center as well as USC Rossier's Clifford and Betty Allen Professor in Urban Leadership.

"I often was called to do work with colleges and universities around diversity issues," he says. "Quite consistently, I would hear excuses like, 'Our faculty lacks diversity because we just can't find any highly qualified candidates anywhere.' The more I heard it, the more frustrated I became, because I knew, with some strategy and intentionality, that search committees, HR professionals, deans, provosts and others could find highly qualified people of color. They just needed to put more effort into looking for them."

PRISM helps make that effort less taxing, bridging the gap between institutions and candidates so that people of color become more visible to recruiters at colleges and universities. Similar to career platforms like LinkedIn, PRISM posts openings in addition to allowing job seekers to set up profiles for free. That way, users can search for vacancies and also network with peers.

Employers in higher education are required to pay a subscription fee, which



CHARLES H.F. DAVIS III

Shaun R. Harper (above) and Charles H.F. Davis III, Brandi Junious and Wilmon Christian (left) are helping to power the new tool PRISM.

gives them access to a trove of potential applicants and strategies to recruit them. Among the early subscribers are Compton College and the University of Colorado Boulder.


"We are helping folks think through things like: How does your search process look? How do you write your job descriptions? Where are you looking for candidates? How do you determine what verifies them as qualifiable?" says Charles H.F. Davis III, the Race and Equity Center's chief strategy officer.

The Center also works with subscribing institutions on budgetary issues, ensuring that their initial investment in PRISM is sustainable. It's one of many ways that the USC Rossier School of Education is an ideal home base for PRISM, since their goals align so well, according to Center finance manager Brandi Junious.

"I really like that part of USC Rossier's mission is to interrogate systems of power," she says. "That's what we're doing here with PRISM: We're interrogating the systems of power at universities that make these

hiring decisions that advance certain groups of people and disadvantage others. And we call it out: We say, that's not OK, it's not equitable, it's not right. And if your excuse is that you don't know how to make it right, let us show you how to do that through PRISM."

Though currently focused strictly on the higher education workspace, PRISM's founders are considering the possibility of making the tool available to a broader range of employers. For now, however, the program will remain grounded in its quest to help advance people of color in the academic realm. Its creators appreciate the role USC has played in getting PRISM off the ground (the university has a lifetime free subscription) and want to replicate this supportive relationship far beyond Southern California.

"PRISM is intended to be a resource that benefits the nation," says Harper. "The response to it has been absolutely incredible. PRISM is going to change the face of higher education in the U.S. I'm certain of it." 



# GAME ON

To boost the number of low-income and first-gen students attending college, researcher Zoë Corwin unlocks the power of play

by Diane Krieger  
photography by Stephanie Yantz

**FREQUENT FLYER MILES**, customer loyalty benefits—reward programs work.

So why not use rewards to help first-generation students as they transition to college?

That's the question USC Rossier Associate Research Professor Zoë Blumberg Corwin is exploring with Charge On!, a web-based incentive program she and her research team debuted last fall at California State University Dominguez Hills (CSUDH) in partnership with the nonprofit Get Schooled.

First-year students earn digital badges by completing online tasks—like watching a video about peer mentoring services, reading an article on scholarship opportunities or taking a quiz on remedies for a failing course grade. Badges yield reward points, which are redeemed for prizes.

A third of CSUDH first-year students joined the Charge On! campaign, and retention for this group was significantly better than the class average, which typically sees about 20 percent of students leave school before their second year.

Improving college access and success is Corwin's passion. She directs the Digital Equity in Education project for the Pullias Center for Higher Education and has collaborated with USC game designers to build video games where teenagers fight aliens and, by osmosis, learn how to weigh decisions about choosing and affording the right college.

In another outside-the-box project funded by the Tony Hawk Foundation, Corwin is immersing herself in skateboarding culture, aggregating data that might be of interest to college recruiters and skateboarding nonprofits. Because skateboarding isn't a recognized high school sport, these resilient risk-takers are largely overlooked in college admissions, she explains. As skateboarding joins the pantheon of Olympic sports in 2020, she expects things to change.

"That's been my life's work," she says. "How do you create more equitable pathways to and through college?"

**WORKING CLOSELY** with Pullias Center founding director William G. Tierney, Corwin has been innovating in college access and success spaces in order to give underserved youths a leg up in the admissions process. Their approach was to steep students in "college knowledge" through gameplay.

Starting in 2011, the project rolled out a suite of strategy-building games in partnership with Tracy Fullerton and her Game Innovation Lab team, based in USC's School of Cinematic Arts.

The first was a role-playing card game for three or four players. In Application Crunch, high schoolers must juggle academics, extracurriculars, part-time jobs and community service while competing for scholarships and college admission. The game has been used in hundreds of classrooms across the country and is now in its second printing.

Next came Mission: Admission, a web-based adaptation of the card game. More than 30,000 teens have engaged with it since 2015.

Also in 2015, the project team created Graduate Strike Force, a fantasy-based adventure game that helps players sort through financial-aid options and choose the right college for their needs and priorities.

A fourth game, Future Bound, was created that same year to get middle schoolers thinking ahead about choices that will impact college-readiness and career options down the road. To support classroom gameplay, teachers can download a modular curriculum created by Corwin's team.

These projects were funded for more than \$3 million by the USC Office of the Provost, the Bill & Melinda Gates Foundation, the Rosalinde and Arthur Gilbert Foundation, TG, and a grant from the U.S. Department of Education's Institute for Education Sciences.

Corwin rates her own prior knowledge of game design and technology as "quite low," but working with USC game designers, she quickly learned the ropes.

Rule No. 1, they told her: "It has to be fun and focused." They also explained the game needs to resonate with the audience.

So Corwin and the game designers worked closely with students from James A. Foshay and Manual Arts high schools to create and test out the games to make sure they achieved their goals and held players' interest.

But does in-game college knowledge translate to real-world action? To find out, Corwin and Tierney secured a \$3.2 million U.S. Department of Education "First-in-the-World Program" grant and thus launched the Mission: Admission Challenge in collaboration with Get Schooled. The effort has

## EXPLORE MORE

### TRY THE WHOLE SUITE OF USC ROSSIER COLLEGE-ACCESS GAMES

[pullias.usc.edu/digitalequity/games-tools](http://pullias.usc.edu/digitalequity/games-tools)

### REQUEST A SET OF APPLICATION CRUNCH

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### EXPLORE CHARGE ON!

[getschooled.com/toroschargeon](http://getschooled.com/toroschargeon)

### DOWNLOAD OTHER PULLIAS CENTER RESOURCES

[pullias.usc.edu/digitalequity/resources](http://pullias.usc.edu/digitalequity/resources)

### SURF THE SKATEBOARDING STUDY

[pullias.usc.edu/skate](http://pullias.usc.edu/skate)



“Ensuring access to high-quality college guidance is a critical equity issue,” says Zoë Corwin, pictured with colleagues Constanza Astiazaran, Christine Rocha and María Romero-Morales. “We’re working closely with students and practitioners to develop digital tools that address that challenge.”

reached low-income students across 72 California high schools since 2015, boosted by a robust incentives program on the Get Schooled platform; for example, a celebrity principal-for-the-day contest brought Disney star Keke Palmer to the school with the highest 2016 participation rate.

The result: These 72 schools, compared with control groups, saw a 5 percent bump in FAFSA applications and a 4 percent uptick in college enrollments.


**IN 2018, CORWIN’S GROUP** received a \$300,000 grant from the ECMC Foundation to adapt the Mission: Admission Challenge to help improve first-year persistence rates at CSUDH. About a third of the first-year cohort opted to engage with the

web tools and texting platform. Early findings show improvements in that cohort’s GPAs, fall units completed and spring semester enrollment.

This type and scope of research connected to the projects is unprecedented in the college-access field: Corwin and her research partners have spent countless hours observing students playing their college-access games. They have conducted hundreds of post-game interviews, analyzed randomized controlled trial data to detect changes in California schools’ college outcomes and pored over reams of back-end data to parse in-game behavior.

Next up, Corwin hopes to work with Get Schooled to scale the project to high schools across the United States and dramatically increase its presence in postsecondary institutions.

To be sure, games aren’t a panacea for transmitting college knowledge, and gamified social-media incentives won’t tear down the significant systemic barriers low-income students face en route to college.

That said, “I love the fact that we can have an impact on schools,” Corwin says. “We are committed to working closely with practitioners and students, to being self-critical and nimble enough to improve. That’s really exciting.” 



# College Locksmith

Growing up with a brilliant brother who struggled to learn in traditional school environments shaped Zoë Corwin's worldview from an early age. So did her family's immigrant experience.

**BEFORE ZOË CORWIN WAS BORN**, her South African parents left for England, repelled by their homeland's apartheid regime. Her father, an engineer, settled the family in Creton, a quaint British hamlet north of Cambridge. But Corwin's younger brother had multiple learning disabilities, and local authorities were not supportive of his needs. So the family moved to Santa Barbara, Calif., when Corwin was 10. (Her brother went on to study medicine and earn a PhD in biophysics. Today, he conducts research on infectious diseases at UC San Francisco.)

Corwin studied sociology at UCLA, and was recruited out of college to teach Spanish and global studies at the progressive Santa Barbara Middle School, where she had been a student a decade earlier. After four years, Corwin longed for a more diverse classroom.

With her husband, fellow educator Danny, she moved back to L.A. in 1998, and she started teaching Spanish at multiracial Pacific Palisades High. Almost immediately, she noticed an unsettling pattern: While her Spanish 1 classes were fully integrated, her honors and AP classes were filled exclusively by White and Asian kids.

"That didn't sit well with me," she says. "I felt compelled to go back to school and study issues of race, gender and equity, which is why I came to do my

PhD at USC in sociology."

She was mentored by William G. Tierney, Wilbur-Kieffer Professor of Higher Education in the USC Rossier School of Education, who brought her into the Pullias Center as a research assistant in 2001. She's been there ever since.

Concern for inequities in access to high-quality educational opportunities is the central theme in all of Corwin's work. With USC Rossier colleague Eugenia Mora-Flores and two friends, she co-founded the social-justice themed New Los Angeles Charter Middle School in 2007. Located in midtown, the school expanded last year with an elementary-level campus in Baldwin Hills.

At USC, meanwhile, Corwin partnered with Professors George Sanchez and Wendy Smith as well as mentee and former foster youth Jasmine Torres '14 to launch Trojan Guardian Scholars, a support program for USC students who have previously been in foster care. Among its signature achievements are on-campus housing and holiday dinners for students facing housing instability, including former homeless teens, wards of the court and emancipated minors.

Corwin's dissertation focused on the university experiences of youth in foster care. Statistically, despite high college aspirations among the vast majority of youth with experiences in foster care, only


3 percent graduate from college. To better understand that data point, she followed six promising, college-bound foster youth through their senior year of high school and first year of higher education.

The results were "mixed," she says. "They continued to move a lot. Lack of stability really plagued them."

One of the most influential people in Corwin's research circle is Jasmin Iraheta, a young woman who partnered with her on a yearlong study about college guidance, and whose world Corwin captured in a 2009 essay, "The Paper Trail of Lily Salazar."

After earning her PhD, Corwin stayed on as a postdoc, and in 2013, she joined Rossier's research faculty. Corwin has given more than 100 conference presentations, co-edited three books and co-authored 17 monographs and 23 journal articles.

She teaches a course on applied educational ethnography in USC Rossier's PASA program. It's the interaction with students, teachers, counselors and education policymakers—and translating the Pullias Center's robust research findings into practitioner-friendly materials—that she finds truly exhilarating.

"I am so fortunate that the work I do is not confined to writing," she says. "I bring my experience as a teacher and student-advocate to all facets of my role at USC." 

# LEARNING 2.0

Online schools offer an intriguing option for many students

by Jamie Wetherbe  
art by Christiane Moore





**THIS APRIL**, *The New York Times* requested comments from students age 13 and older on a story about the controversies that ensued when two Kansas high schools rolled out a web-based curriculum by Summit Learning, a Silicon Valley (and Facebook-backed) platform. While many commenters raised concerns about this more personalized, tech-rooted approach to education, others saw much potential.

“Everyone has the right to receive a proper and beneficial education. With that being said, the way you receive it should be your choice,” wrote Sloane F., a high school student in Wilmington, N.C. “I believe online learning can be beneficial, but only if it works for you.”

And it can—according to educators working at cyber high, middle and elementary schools—for students with a variety of needs.

“I knew a student with severe anxiety, to the point she just wasn’t going to school,” says Doug Bourget MAT ’14, former principal of Maine Connections Academy, a cyber charter school serving students in grades 7–12. “She needed to be at this little spot by her radiator where she felt comfortable. Bringing the classroom to her was a game-changer.”

Through online tools created to mirror real-life interactions, along with therapy and other support, the student gradually grew less anxious and eventually was able to see people face to face.

“It changed her life,” says Bourget. “Twenty years ago, she maybe would have just dropped out.”

### **Logging On to Learn**

Students and their families choose to pursue a more tech-based education over the traditional classroom for many reasons. Perhaps a student is an elite-level athlete in training or a working actor; perhaps the student has a health issue or has faced bullying. Sometimes, too, students just perform better in an online environment and prefer it.

“Some people think struggling through school is unavoidable, but there are different schooling options where kids can thrive,” says Dustin O’Malley EdD ’12, principal of Tustin Connect, an online K–12 school for students in Orange County, Calif. “So many of our students’ parents tell us they wish they’d had this

option when they were in school.”

Founded five years ago, Tustin Connect offers its 200 full-time students a “blended” learning environment, allowing for routine face-to-face time with teachers and classmates at the school’s campus.

“Kids have their own personalized assignments, along with the opportunity to work with teachers and peers in groups,” O’Malley explains. “Students really enjoy the social interaction with their peers and the chance to work one-on-one with their teachers.”

His interest in online education stemmed from his own experiences as a student.

“I found myself often uninterested or restricted in a traditional educational setting,” O’Malley says. “Many students just need something more personalized.”

Newer technology has made this personalization and flexibility in curriculum more possible.

“Independent study has been around for years, but it has traditionally been mostly textbook- and packet-based,” O’Malley says. “Teachers now have access to great tools to really gauge student learning, and the opportunity for immediate feedback is huge in terms of learning and motivation.”

This high-tech approach, where students develop real-world skills and have the ability to work and learn both remotely and on site, has another positive effect.

“Overall, I think technology makes



“I learned a lot of valuable lessons from the online environment, and I feel better equipped to help students who need flexibility,” says Doug Bourget MAT ’14, a principal who recently switched from an online to a brick-and-mortar school. “I feel more attuned to students who feel that the traditional model doesn’t work for them.”

the connection between school and work a little bit clearer,” Bourget says. “An office can have a meeting where employees attend virtually from around the world; at an online school, teachers can have a presentation and students from all over can raise their hands and ask questions using things like microphones and cameras.”

Bourget experienced this firsthand as a USC Rossier student.

“I was teaching in South Korea while taking classes at USC with people spread out across the U.S. and around the world,” he says. “In spite of location, you could hold a class and have small-group discussions at one time. It was cool to be able to do that.”

### High-Tech Obstacles

From Wi-Fi connection troubles to students sneaking on social media, incorporating technology into the classroom isn’t without challenges—and it isn’t for everyone.

“Some kids assume online learning is easier, and it’s not,” says O’Malley. “Doing any kind of online or blended learning requires a lot of self-discipline, accountability and organization; some students struggle with that.”

Additionally, technology can lead to more isolation.

“Our blended environment helps solve this problem,” O’Malley says. “But some students can still feel withdrawn and would be better suited in a more structured traditional classroom.”

Another challenge that comes with technology is how it’s packaged and sold to educators.

“You can’t just give someone a program or a tool and they’re going to learn—it’s really easy to waste your money buying technology and not implementing it well,” Bourget says. “You have to really think about how you’re going to budget the time and resources to execute it successfully.”

### An Overall Evolution

Technology continues to transform the role of educators, often making teaching simultaneously more gratifying and complex.

“With so much access to information at every student’s fingertips, teachers aren’t really the holders of knowledge in the way it seemed in the past,” O’Malley says. “I don’t see that as a negative—good teaching



starts with having a connection with your student, whether it’s in person or over email or a video chat. There’s power in a student feeling they’re cared about.”

Teachers have also become instrumental in showing students how to use technology responsibly, especially with an increased dependence on smartphones becoming a universal trend across generations.

“With all this technology in our pockets, it’s very easy for anyone—teacher or student—to engage in inappropriate behavior or even just get distracted,” Bourget says. “I think it’s invaluable for all of us to learn and model how and when to use technology.”

O’Malley also looks forward to seeing how technology will enhance and improve education in the future at Tustin Connect and across the board.

“Educational technology has plenty of room for further innovation and improvement, but I think we’re going in the right direction,” he says. “Artificial intelligence has so much potential—imagine a brilliant, personalized virtual tutor that can assess a student’s precise academic level, and then dynamically adapt the curriculum to optimize and accelerate learning. I think that’s where we’re going, and it’s thrilling.”

Technology also has the capacity to break down barriers and give more students access to education, including unique schedules that allow students to work or care for family members during the day.

“In addition to personalizing the curriculum itself, if we keep an open mind, we can really personalize to the needs of the community,” says Bourget. “The No. 1 thing is to empower people who don’t have great access to education. It’s exactly what the USC Rossier mission says: to achieve educational equity for all.” **R**



“My experience in USC Rossier’s program equipped me with strong research and analysis tools,” says Dustin O’Malley EdD ’12. “It has helped me evaluate programs and identify which models would be effective for my students.”

# Keeping Ed Tech in Perspective

A Q&A with Patricia Burch,  
USC Rossier associate professor



STEPHANIE YANTZ

## WHAT IS THE STATE OF ED TECH?

The advantages are many. As I and others have argued through empirical research, realizing these advantages turns on classroom teachers, on strong curriculum and the capacity for powerful instruction.

## WHAT SHOULD WE BE AWARE OF?

The deeper social isolation technology may be engendering for students and for us all. As tech connects, it also creates a reason for us to eschew meaningful interaction. We also run the risk of replacing the principles of democratic schooling with a kind of “technocentrism”—a blind faith in the inherent good of technology without careful reflection about things such as the privacy and rights it can endanger, the jobs that might be displaced, the institutionalized racism it might be reproducing.

## WHY SHOULD WE MAINTAIN A HEALTHY SKEPTICISM ABOUT TECH?

Technology has long been marketed as doing absolutely everything, but it’s important to challenge false or unsupported claims because money spent on technology is money not spent on something else, possibly a phenomenal classroom teacher. In fact, a recent study suggests much of the tech purchased for classrooms ultimately goes unused.

## BEFORE BUYING NEW TECH, WHAT SHOULD SCHOOLS ASK THEMSELVES?

Where does the tech already purchased stand now? Too often, economic privilege becomes a gateway to better tech, better bandwidth and technological capital. Like other forms of capital (social, human, financial), tech capital doesn’t necessarily disrupt inequalities. It may reproduce them.

## WHAT ARE VENDORS’ RESPONSIBILITIES?

A significant responsibility for accountability to the democratic purposes of schools. It’s not acceptable to have teachers bear the burden of differentiating or supplementing curriculum so that it meets the needs of racially, culturally and linguistically diverse classrooms. Businesses must also play a role in redistributing resources so that tech addresses rather than reproduces opportunity gaps.

## WHAT OTHER QUESTIONS EXIST?

Who decides what tech will be bought? Who owns the data? What processes are in place to ensure that those who historically have been disadvantaged by schools have access to the best tech? I hope that USC Rossier will lead the search for the answers. **R**

**MORE IN HER OWN WORDS** ► [rsoe.in/BurchQA](https://rsoe.in/BurchQA) and [rsoe.in/BurchPDK](https://rsoe.in/BurchPDK)



STEPHANIE YANTZ



# My Tech-Enabled Education

*I'm proof of how students and teachers with special needs benefit from technology*

by Jorge Camacho MAT '20

**I AM PURSUING MY SECONDARY MATH** teacher credentials via USC Rossier online. I love anime, chess and teaching myself how to play the piano. On a side note, I am also legally blind and deaf, and technology has been a big help for me on my journey.

I have Usher's syndrome, which affects both hearing and vision. Growing up, no one knew that I had these issues—my doctors thought I was mentally disabled. I was transferred back and forth from mainstream to special-needs schools. It wasn't until I was 8 years old that one special-needs teacher realized I couldn't communicate the way other kids did because I was hearing impaired. I could not hear clearly; therefore, I could not communicate clearly.

When I got a hearing aid, my oral communication improved drastically, but it was challenging since I then had to learn to communicate at home in Spanish and at school in English. I had also been so isolated, communication-wise, that I didn't know what many basic words even were, like "music" or "video games" or "college."

At 19, I was diagnosed with retinitis pigmentosa, a genetic disorder that involves the breakdown and loss of cells in the retina. I didn't think much of it until I was a college student at UC Santa Cruz and the reality kicked in. My vision worsened, and I kept bumping into people and things and falling over. I was afraid to leave my room and became really depressed.

Even so, I always had a gift for math, and I had

some wonderful teachers who went the extra mile to meet me where I was. I decided I wanted to be a math teacher myself and to construct a better pedagogy for students who face challenges and disabilities the way I have.

As an online USC Rossier student, I know firsthand what a challenge any classroom can be. Even with a hearing aid, I sometimes find it difficult to hear if a classmate asks a question, so I make use of closed captioning. California's Department of Rehabilitation was able to provide me with several devices, including a voice recorder with a camera that will transmit the video into a tablet or computer so I can zoom in on any text the professors write.

Technology has been so helpful, but there are issues, too—connectivity problems, or dead batteries, or the size of the frames I have to look at to read. I'm also colorblind, and my screen filters out blue light, so there was a moment when I missed instructions that appeared in certain colored pop-up boxes.

My life, thus far, has been challenging, and I know it will continue to be challenging, but I'm excited by my accomplishments. In my own teaching career, I'll be using technology—some of which doesn't even exist yet—to create lessons that best fit my students and to construct a room environment where they feel safe and empowered to be and do their best. Hopefully, by sharing my identity, my struggles and my successes, it will demonstrate to my students that limitations do not necessarily lead to failure. **R**

# CREATE TECH TIVITY

Meet four alumni who embody USC Rossier  
plugged-in savvy

by Michael Agresta



STEPHANIE YANTZ

## Downloading Calm



**RECENTLY, J.B. BUNYI MFT '16** faced a common situation for a school therapist trainee: A young client was extremely anxious but could not be motivated to learn more about deep breathing and guided meditation.

“I felt those skills would really help him relax,” Bunyi says. “But like so many other kids, he felt he’d tried those in the past and they’d never worked.”

Not long after that conversation, Bunyi was shopping at Best Buy and walked past a display of cheap virtual reality headsets. He wondered if, by adding a cutting-edge graphical interface to his guided meditation sessions, he might be able to get the young client interested in trying meditation again.

“I figured, if I thought this was cool, maybe the kid would, too,” Bunyi says.

Bunyi was surprised by just how well the VR headset worked in practice. With his client wearing the headset, Bunyi led a guided meditation verbally, using his own script—while the child was

treated to a visual 3-D tour of an otherworldly landscape, provided by a commercially available relaxation app. Afterward, “you could notice, his body had relaxed, and his voice and posture,” Bunyi says. “He jogged back to his class. He kind of skipped.”

Bunyi is also at work on an app called Fubelo, which aims to disrupt the functional behavior analysis (FBA), a write-up used by mental health professionals to paint a picture of why a student is exhibiting certain behaviors. The FBA often draws its data from just one episode or encounter, while Fubelo would create a more well-rounded picture by allowing input from teachers, parents and administrators.

Bunyi recently started a position as a digital mental health specialist at UC Irvine and PsyberGuide.org, a project of One Mind, where he’ll be helping to research, vet and review mental health apps to inform and empower consumers.

“I find it very exciting,” he says, “the hope that tech can bring to the field, in terms of accessibility and lessening stigma.” **R**

# Mobile Teacher

**KATHERINE GUEVARA HAS WORKED,** volunteered and traveled in 70 countries but somehow keeps finding her way back to USC, where she's earned a BA '02, an MS '04 and a DPPD '15, and is an instructional designer at the USC Center for Excellence in Teaching as well as an assistant adjunct faculty member in the MAT-TESOL program.

Experiencing firsthand teachers' need and desire for professional development, Guevara has made it her mission to help provide resources and training for and by teachers in developing countries and regions around the globe—what she prefers to call the “majority world.”

“If tech could be used for teaching English, then what about for training teachers? I realized the power of simple, ubiquitous technology: teachers' phones,” she explains. “A solution for when training wasn't available at all, or it was not accessible, or it was offered by someone who might have inappropriate context.”

With help from students in Jeffrey Miller's capstone undergraduate computer science class at USC, Guevara has built an app called Mobile Teacher ([mobileteacher.org](http://mobileteacher.org)) to provide a global platform for teachers to share successful strategies.

Videos on Mobile Teacher, which is designed to work offline for educators who have irregular access to the internet, are created by users themselves.

“What would a foreign expert know about teaching without electricity in a



STEPHANIE YANTZ

cinderblock, open-space classroom with 100 students?” she asks. “Probably not much. But a local teacher working in that reality might have a great idea and should be recognized for that expertise.”

Launched this year, Mobile Teacher already features submissions from teachers in Peru, Mauritius, Kazakhstan, Nepal and Algeria.

This summer, Guevara was selected to lead a Mobile Teacher project in Ecuador with grant funding from the U.S. Department of State English Language Fellow Program. She helped get the app off the ground in remote Afro-Ecuadorian, Quechua-speaking and Galapagos Islands locales before returning to USC. **R**

# Experience Meets Innovation

**WHEN IT COMES TO ORGANIZATIONAL CHANGE** and innovation, leveraging technology and using storytelling to close the gap can go a long way.

Just ask Marina Theodotou EdD '18, learning support faculty at the Defense Acquisition University (DAU), a U.S. Department of Defense (DoD) institution.

Recently, she led an enterprisewide pilot testing an artificial intelligence/adaptive learning technology against a more traditional, PowerPoint-based learning module.

“The control group couldn’t remember what they’d learned. They were just clicking through,” she says. “The test group using the AI-powered module engaged better and retained knowledge longer.”

Another culture-change project Theodotou has spearheaded uses the ancient art of storytelling: TEDxDAU, the first TEDx initiative at DAU.

Coordinating 12 experts from across the DoD and industry, Theodotou oversaw training for a speaker boot camp, where participants harnessed the power of technology to best deliver their presentations as inspirational and engaging storytelling.

“Implementing change in learning requires knowledge, motivation and the organizational infrastructure to explore both cutting-edge technologies like artificial intelligence as well as century-old traditions like storytelling,” Theodotou says. “By complementing our critical thinking and creativity through old analog skills with the new exponential digital capabilities, we reveal our decisive edge.” 





# The Rules of the Game

## ANNA HUERTA '09 ME '10 GREW UP ON VIDEO GAMES.

Computer and console games were how she bonded with her four brothers, how she mastered basic knowledge areas as a kid and even how she studied in high school.

“I’d take AP classes,” she remembers, “and I’d look for games to practice what I learned, so I could recall the information better.”

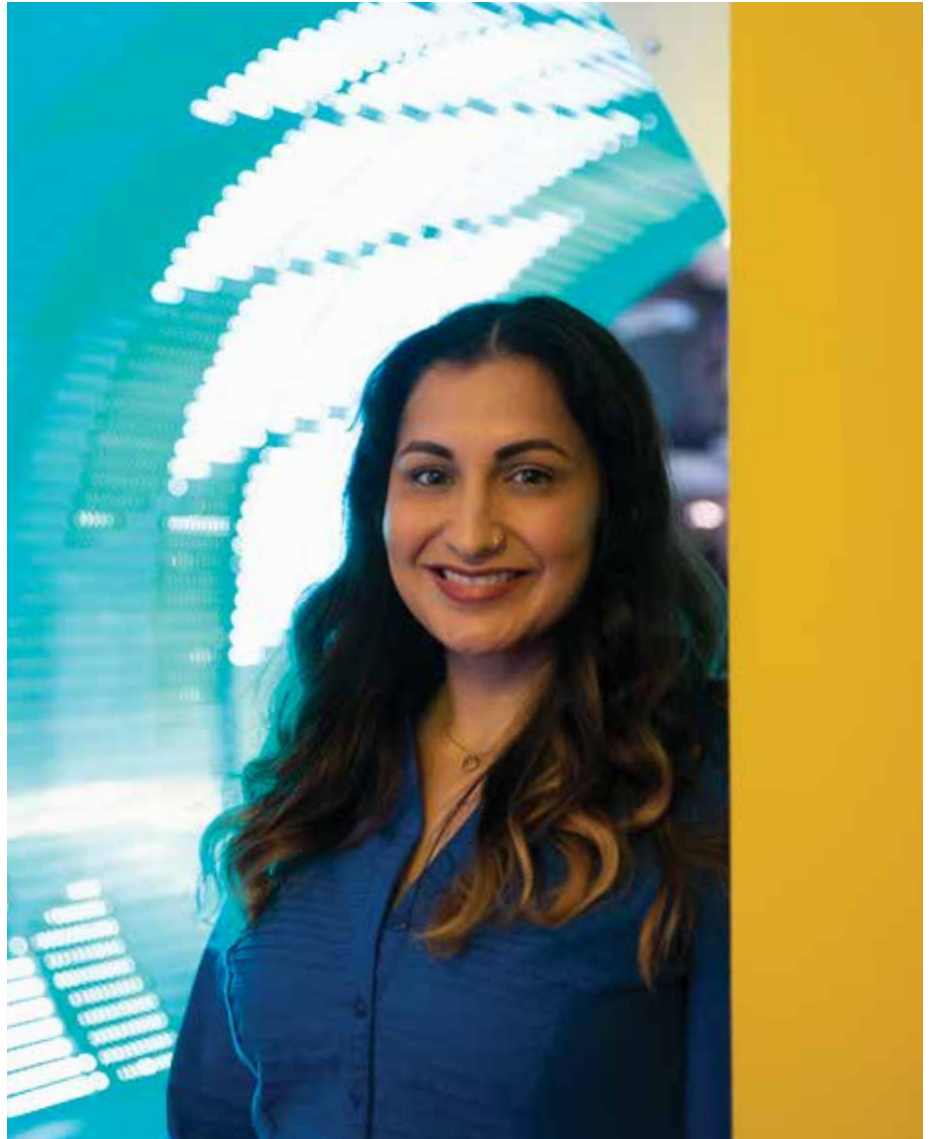
When she went to college, Huerta was accepted into the first-ever Interactive Media & Games Division freshman class at USC. She interned with the Institute of Creative Technologies, helping explore the implementation of virtual and augmented reality environments in occupational therapy for war veterans afflicted with post-traumatic stress. She also designed a therapy project called Breath, a game that helped players complete their post-operation exercises by syncing their breathing velocity to the movements of an on-screen flying phoenix avatar.

Later, at USC Rossier, she studied psychology and instructional design, the key concepts of which, she says, “match up one-to-one” with the world of user experience design.

“That degree is the foundation for what I’m doing now,” Huerta says. “The program taught me how to do human-centered design.”

Today, Huerta is a lead commercial game designer at Zynga, where she focuses on the link between gaming and learning.

Zynga is perhaps best known for FarmVille, a blockbuster game made



LYDIA DANILLER

popular on Facebook about a decade ago. To date, more than 1 billion people have played Zynga’s games, including CSR Racing 2, Empires & Puzzles, Merge Dragons! and Words with Friends.

These days, Huerta’s big project is working on Zynga Poker. Her role is to manage their creative team and help develop new feature offerings through human-centered design.

Huerta would like to see more education and psychology degree-holders in the video game industry. She thinks it might help companies, currently dominated by MBA-holders, build better games.

“People don’t consider education degrees in terms of tech,” she says. “I wish they did. The bottom line of an MBA is money. For education and psychology, the bottom line is people.” **R**

# WIRED FOR DEFENSE

The importance of cybersecurity for school districts

by Jonathan Riggs  
art by Jessica Swaysland



**ON MAY 7**, hackers held the city of Baltimore hostage in a vicious cyberattack. They infected the city’s servers with a new form of malware called RobbinHood and demanded a ransom of about \$76,000—or Baltimore’s data would be lost forever.

Ultimately, the city opted not to pay the ransom. According to *The Baltimore Sun*, officials project they will spend about \$10 million in recovery efforts by the end of the year, compounded by an additional \$8.2 million in lost or delayed revenue—not to mention the millions of people affected, inconvenienced or worse.

Baltimore isn’t the first U.S. city to weather this type of threat—Atlanta suffered a similar attack in 2018—and it won’t be the last.

“But cities aren’t the only highly vulnerable targets to be found by would-be attackers,” writes Sean Gallagher, IT and national security editor of *Ars Technica*. “There are hundreds of thousands of internet-connected Windows systems in the United States that still appear to be vulnerable ...

and hundreds of them—if not thousands—are servers in use at U.S. public school systems.”

In fact, as reported by writer Benjamin Herold in *Education Week*: “Districts around the county have fallen victim to phishing scams, hacks, ransomware attacks and missteps by their own staff and students. The fallout has included millions of lost taxpayer dollars, tens of thousands of teachers and children who have had their personal data compromised, and an erosion of public trust.”

Every school has student data that can be stolen, files that can be corrupted, and networks and data systems that can be held for ransom. Therefore, it is vital for educational organizations, whether they own their own network infrastructures or not, to protect themselves as much as possible.

Experts say schools and districts need to proactively teach students and staff to be good digital citizens, to guard their online privacy and security and to be knowledgeable about hardware, software and personnel-based defense systems.

The best weapon in this fight is information and a strong support network. Hopefully, with a broader group working to support each other, academic professionals can build a future where technology enhances the educational experience, while keeping all of its users safe. **R**



# Best Practices for Educational Institutions

## NETWORK SECURITY

### External

Networks should be protected through a systematic integration of appliances, tools, services and practices. From the outside, a district should actively block access to and from countries that produce high levels of fraudulent activity.

### Internal

Network account management should be automated and integrated with HR/personnel employee onboarding management systems. Student access should be handled in a similar manner. No pre-shared or open guest access should be allowed.

## MONITORING

Simply put, all activity should be subject to monitoring.

### Student Networks

Communication within a student network should be strictly limited to domain-to-domain traffic only. All other traffic should be blocked except for the staff administrative domain, which allows for a safe environment for students and teachers to communicate.

## HARDWARE

### Client Access

Networks should require a minimum specification for a device to obtain access.

## Security Updates

District-owned devices should be maintained at the highest levels of validated security/operating system updates.

## Internet of Things (IoT)

Strict protocols and policies should be utilized to evaluate the proper integration of each IoT device within a network using factors such as data collection and compliance with current child privacy policy acts.



## END-USER PROTOCOLS

### Passwords

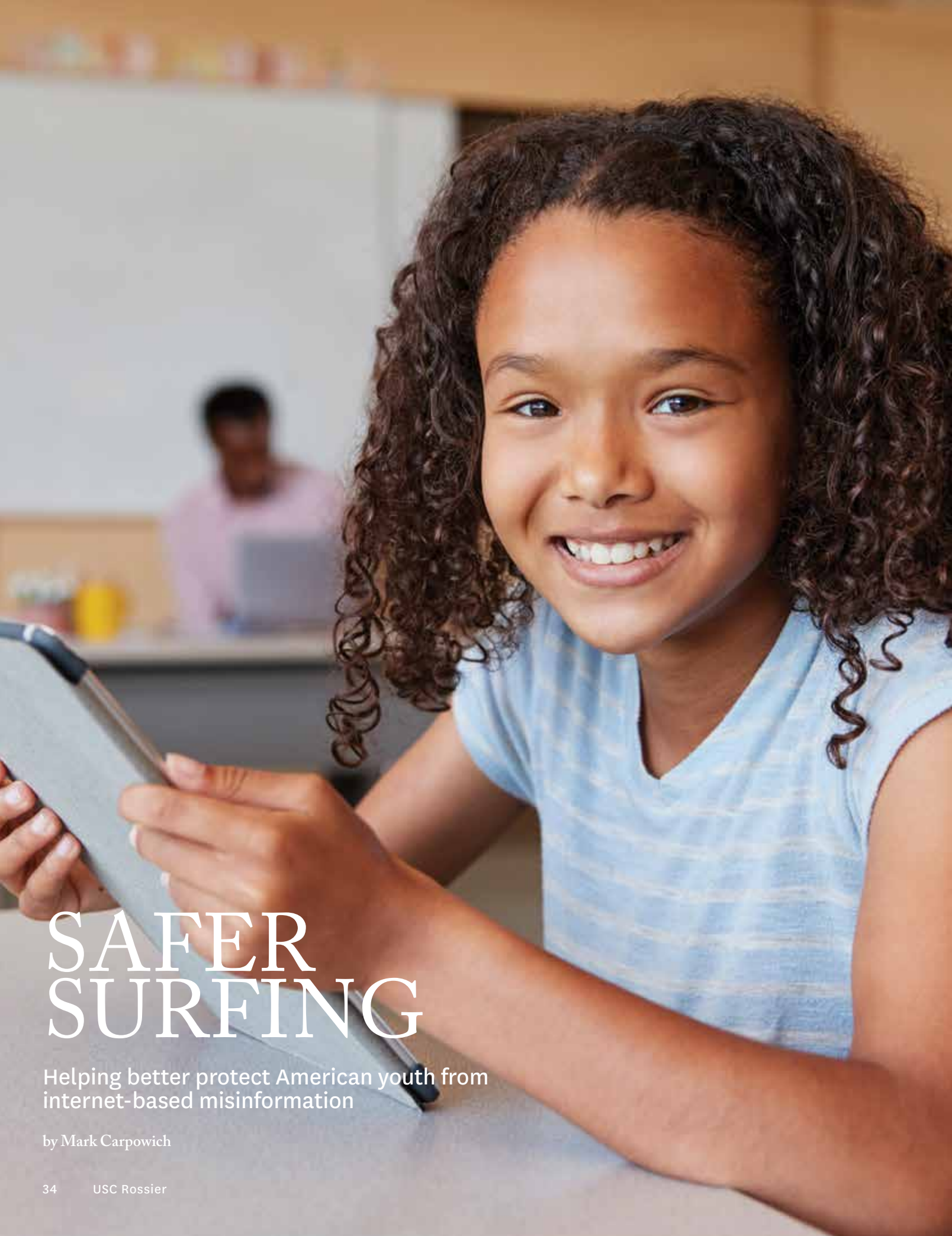
Districts should also use a password change and retention policy. This policy includes password requirements involving length, complexity and acceptable types of letter combinations.

### Sharing

Passwords should not be shared; no one should log on to the network for anyone else.

### Group Emails

Access to “all”-type group emails (i.e., all staff, all teachers, etc.) should be limited to designated individuals only, and all one-way group communication should be sent via BCC.



# SAFER SURFING

Helping better protect American youth from internet-based misinformation

by Mark Carpowich



Brendesha Tynes, USC Rossier associate professor of education and psychology

**AMONG THE MOST SHOCKING** findings from the investigation into Russian meddling in the 2016 presidential election: Foreign operatives created dozens of bogus yet influential social media accounts aimed directly at Black people. They also targeted White conservatives in an effort to sow racial division. Worse, historians say it was not the first time Russians have successfully shaped their propaganda in racial terms.

Brendesha Tynes, however, hopes it will be the last.

“Russia had and continues to deploy an army of people—a literal army—using strategies to target Black folks and conservatives,” she says. “The way that we’ve taught media literacy up to now has been inadequate, and that’s how the Russians were so effective in their efforts to interfere in our election.”

An associate professor of education and psychology at USC Rossier, Tynes is working on ways to better prepare American adolescents and emerging adults to process

messages they see on social media and other online spaces. In particular, funded by a \$1 million Lyle Spencer Research Award to Transform Education from the Spencer Foundation, she will conduct the first national study of adolescents’ critical media literacy needs and skills.

“We’re trying to get a sense of the shifting nature of the race-related messages, including misinformation, adolescents are exposed to on a range of platforms leading up to the 2020 election,” she says. “It’s an initial survey to understand where they’re getting the most race-related messages, where they have the most challenges (and at what age) in terms of being able to figure out what’s legitimate, and whether they are able to critique the messages.”

It is this ability to critique, analyze and process online content that most concerns Tynes. Much of this, she believes, can be addressed in the classroom, with teachers creating assignments geared toward helping

students to critically read online material. But she believes being able to do so will require extensive training for educators along with a level of cultural competence that is not typically cultivated in teacher training programs.

To address this gap, Tynes is developing an app that she says will be useful in helping students evaluate the race-related material they encounter online. The app, CRITmetric, will be a cutting-edge, forward-looking technology that will also be shaped by a look backward at U.S. race relations.

“The historical component is central to being able to critique race-related messages online,” Tynes said. “And that’s where I think a lot of programs that are in schools now fall short. Kids learn false information about American history. So I think they need a program that helps them put the messages that they’re getting in historical and contemporary context.” **R**

# AERA President-Elect



**THE AMERICAN EDUCATIONAL RESEARCH ASSOCIATION (AERA)**, the largest professional education research organization in the country, with more than 25,000 members, has a new president-elect: Shaun R. Harper, the Clifford and Betty Allen Chair in Urban Leadership at the USC Rossier School of Education and executive director of the USC Race and Equity Center.

Harper, who begins his term in April 2020, is the second USC Rossier professor to be elected AERA president; William G. Tierney, the Wilbur-Kieffer Professor of Higher Education at USC Rossier, held the position in 2012–13.

This July, Harper received news of another honor. He became the second person to receive Indiana University's Bicentennial Medal, honoring those whose personal, professional, artistic and philanthropic efforts have broadened the reach of that institution around the state, nation and world. **R**

—ROSS BRENNEMAN

## CELEBRATING STUDENTS

**PARENTS, TEACHERS AND BOOSTERS** cheered the 72 members of the first graduating class of East College Prep on June 9.

"We're here to celebrate the Class of 2019—our first babies," said Drew Goltermann, the school's founding principal.

East College Prep is the second of five high schools founded by USC Rossier and operated by Ednovate. The school's doors opened in 2015, but construction at the permanent site on North Mission Road began only this past February, with the ribbon-cutting still to come early next year.

Each member of East College Prep's first graduating class received an admissions offer from at least one four-year college—matching the record set by Ednovate sister school USC Hybrid High.

"In a city where only 50 percent of high schoolers are even eligible for college applications, you proved that your ZIP code does



not determine your destiny," Goltermann said. "You have set a precedent for the Spartans that will come after you. You have modeled for your community what success looks like." **R**

—DIANE KRIEGER



Storytelling's role in furthering educational equity was the theme of USC Rossier's Center EDGE's second L.A. Educational Exchange, which united creatives and educators alike, including (from left) Lizabeth Fogel, Center EDGE managing director; Reginald Hudlin, screenwriter, director and producer; Amy Ephron, novelist, screenwriter, journalist and film producer; Alan Arkatov, Center EDGE founding director; Jim Berk, chairman and CEO of Goodman Media Partners; Justin Springer, producer; Mauricio Mota, producer and entrepreneur; USC Rossier Dean Karen Symms Gallagher; and Lin Oliver, writer, producer and entrepreneur. **R**

# TO BOLDLY GO

A USC Rossier discussion with education innovator Sal Khan



BRIAN MORRI

**THE DAY AFTER** giving USC Rossier’s commencement address, Sal Khan, founder and CEO of Khan Academy, returned to campus to participate in a discussion following the second annual L.A. Education Exchange, hosted by USC Rossier and the Center for Engagement-Driven Global Education (EDGE).

“Earlier today we brought together a small working group of passionate advocates and decision-makers from the education, entertainment and policy spaces for a productive discussion of the ways storytelling can affect social change,” said Karen Symms Gallagher, the Emery Stoops and Joyce King Stoops Dean of USC Rossier. “We are so pleased to continue this discussion with Sal Khan.”

“If we’re thinking about anybody who has used technology to disrupt, transform and improve teaching outcomes, it’s Sal Khan,” said Alan Arkatov, Center EDGE founding director and USC Rossier’s Katzman/Ernst Chair for Education, Entrepreneurship and Innovation. “I hope that we’ll all be thinking about his work as it relates to ours.”

Some highlights from Khan:

“One of the biggest bets that society has ever made was coincident with the Industrial Revolution: free mass public education. I suspect if we didn’t make that massive—and utopian—bet 200 years ago, that we would not have had the 20th century that we did.

“As we go into this third Industrial

Revolution, I think we have to educate ourselves out of it. We need an inverted labor pyramid where almost anyone can operate it at the top in the creative class and be entrepreneurs and explorers.”

“With the Industrial Revolution, you have this factory model where students have to move in lockstep, but it’s inevitable that some students will have gaps. But the whole class has to move on, and eventually those gaps accumulate until you hit a wall. People think they can’t do things—they don’t think they have a math brain, for example—but it’s really just these gaps, which you can address.”

“I always did like looking at *Star Trek* from an economics point of view, because economics is the study of how do you allocate resources that are scarce. In the *Star Trek* universe, things are not seemingly scarce: There’s a replicator if you need a cup of coffee; there are resources, and in that world everyone is a researcher, teacher, explorer and artist. Why shouldn’t that be the case for us, too, if we are no longer in a scarcity world?

“In a lot of ways, we’re getting faster to that *Star Trek* reality with technology, but it doesn’t feel that our social fabric is keeping pace. I view this as the epicenter of what schools of education like USC Rossier are trying to understand: How do we prepare humanity for being able to navigate the world the right way?” **R**



## Human(e) Nature

**AS A YOUNG GIRL**, I was empowered when I was on the trail with my dad; my courage grew as I climbed summits; I felt the rush of adrenaline when I explored waterfalls and caves.

When I was an LAUSD science educator, I was dissatisfied with the slim amount of real science education in our public schools and its lack of connection to the real world. I fought hard to bring our fourth-graders true outdoor science experiences. Today, I focus on helping teachers empower their students and themselves.

Inspired by the mentorship I received at USC Rossier, especially from Professors Sandra Kaplan and Margo Pensavalle, in a strong student-centered and constructivist foundation, I wrote *50 Hikes with Kids: California* (as well as *50 Hikes with Kids: Oregon & Washington*), infused with child-forward language, maps and scavenger hunts.

I’m passionate about ensuring all children get the chance to experience the Joshua trees, the sand dunes of the Mojave, the banana slugs on the redwoods and the rush of the Pacific Ocean waves. I promote engaging students and teachers with technology, but believe in a happy medium, like using phones for maps, recording bird calls and taking photos on the trail—but remember to disconnect, too!

These books are just one way we can be co-adventurers with our children, and I thank USC Rossier for giving me such a strong foundation in how children learn. **R**

—WENDY GORTON ’06

# LIVING HISTORY

**ON AUG. 24, ROSSIER CELEBRATED** the culminating event in the yearlong Centennial with about 300 guests at the Skirball Cultural Center. The event featured a museum-style exhibit, including five timeline walls calling out impactful moments and people in the school's first century, three video stations broadcasting faculty and alumni stories, and a display highlighting USC Rossier's 10 research centers and their work, which will continue to transform education into the future.

"I'm confident that preparing educators for careers of impact will be a hallmark of USC Rossier for decades to come," said Dean Karen Symms Gallagher. "If we remain open to change—and willing to address the complex challenges of life and learning as they unfold in the communities beyond our gates—Rossier will have much to celebrate in its second century. Fight On!" **R**



STEPHANIE YANTZ

Dean Karen Symms Gallagher (center) with the USC Rossier Centennial honorees: Greg Franklin '83 EdD '97 on behalf of DSAG; Noor Menai, president and CEO of CTBC Bank USA, on behalf of Chairman Morris Li; doctoral student Dieuwertje "D.J." Kast BS '11 MS '11 MAT '14; Diontrely Thompson EdD '18; Carol Fox MS '62; and 2U CEO/co-founder Christopher "Chip" Paucek.

Dean Karen Symms Gallagher, Associate Professor Alan Green and USC President Carol Folt welcomed Rossier faculty and staff to the new academic year at the annual Fall Kick-Off.



JOSHUA J. KRAUSE / 211 PHOTOGRAPHY




# Arctic Educator



**AS A HIGH SCHOOL BIOLOGY, CHEMISTRY AND ESL SCIENCE TEACHER**, I think a lot about how people interact with the natural world. When I was selected for the Grosvenor Teacher Fellowship through National Geographic and Lindblad Expeditions, I was so excited to travel on an Arctic expedition to Greenland, Iceland and Svalbard—and to share the experience with my students back in Washington, D.C.

Kayaking through glaciers, hiking along cascading waterfalls and seeing polar bears with my own eyes gave me a new sense of urgency to preserve our gorgeous, delicate world. On a tiny, remote volcanic island, I saw a roll of plastic packing tape washed up on the sand. It struck me that someplace so remote was being impacted by the everyday lives of people thousands of miles away, without them even realizing it! It made me think about the importance of emphasizing environmental education in my science classes.

One of my goals was to create a Google map for my students, where they could click different regions of the world to see how climate change is impacting the area. The expedition gave me the chance to network with people from around the globe so I could better create a well-rounded picture, where my students could learn about scientific data sets as well as how climate change affects us all.

I highly recommend National Geographic's Educator Certification Program to my fellow USC Rossier alumni. The certification program is free, and available online to formal and informal K–12 educators in every subject area. It aligns beautifully with Rossier's core values, encouraging students—and educators—to be curious, creative changemakers in their communities.  —LAURA CHASE MAT '15

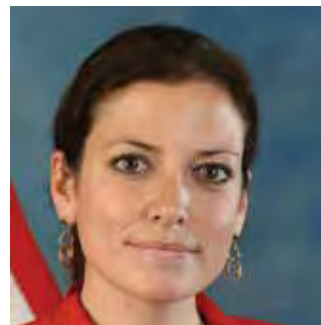
## WELCOME NEW USC ROSSIER FACULTY



**Adrian Donato**  
Assistant (Teaching) Professor  
of Education



**Adrian Huerta**  
Assistant Professor of Education



**Jennifer Phillips**  
Assistant (Teaching) Professor  
of Education



**Maia Hoskin**  
Assistant Professor of Clinical  
Education



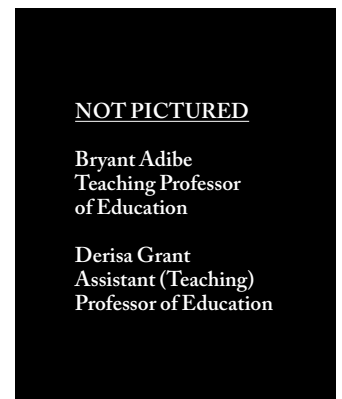
**Courtney Malloy**  
Teaching Professor of Education



**David Cash**  
Executive in Residence



**Nasser Cortez**  
Assistant Professor of Clinical  
Education



### NOT PICTURED

**Bryant Adibe**  
Teaching Professor  
of Education

**Derisa Grant**  
Assistant (Teaching)  
Professor of Education



# HEART OF A LEADER

His leadership emphasizes technical prowess and compassion

**E**quity and inclusion have always been paramount to Merrill Irving Jr. EdD '07, who leads Hennepin Technical College (HTC).

“Although I am the president, I am no different than our students. I was born to teenage parents and raised by a single mother who worked 12-hour shifts,” he says.

“I am proudest when I see our students’ lives changed through the educational opportunities they receive from attending HTC—we have a 99 percent placement rate in their field of study.”

Ultimately, Irving finds, the value of technical education is best measured in the professional and personal success of his students.

## WHAT IS THE MAKEUP OF THE HTC STUDENT BODY?

As the largest technical college in the state of Minnesota, HTC ranked 29th nationally for granting associate degrees for women and minorities in engineering technologies and engineering. Sixty-two percent of our students come from underrepresented populations, 44 percent are students of color and two-thirds are also working while completing their education.

## HOW DOES TECH INFORM THE HTC EXPERIENCE?

We raise more than a million dollars in leveraged equipment to advance the work of our students using technology each year. We’ve also embarked upon professional development activities to increase the quality of pedagogy, curriculum and learning opportunities through online education. Technology rebalances the opportunity for students of diverse backgrounds to achieve and advance, and it is helping us transform education to be more readily available for students.

## WHAT CHALLENGES EXIST WITH TECH AND EDUCATION?

Affordability and access. As funding gets cut from governmental entities, it increases the financial hardship that students have to carry. Also, while technology can assist in our efforts around diversity, equity and inclusion, we know students do not reach our campus in an equitable manner. They may not have access to the internet in their homes or they may lack the time and resources to learn new technology because they’re working multiple jobs or caring for children. It is our responsibility to support students and to be knowledgeable about their challenges. We must meet our students where they are.

## HOW HAS EDUCATION CHANGED OVER YOUR CAREER?

Twenty-five years ago, most colleges and universities did not have to provide active shooter training; we didn’t have to worry about the safety of our students due to a terrorist threat. Today, safety is a priority and includes continuous professional development, training and readiness. The other big change is that student debt has exceeded credit card debt to threaten our country’s financial future. Our efforts to increase access and affordability are critical to the sustainability of higher education.

## WHAT INFORMS YOUR PRESIDENTIAL PHILOSOPHY?

Accept who you are, especially the things that set you apart. I am the first president within the Minnesota State Colleges and Universities system to benefit from marriage equity. My spouse is of Cuban descent, and he is the first in his family to be born in the U.S. Many people would describe me as a nontraditional president: I take selfies with my students; I meet with them monthly to listen to their issues and concerns; I cheer them on daily. Remaining authentic and sticking to my values—trust, honesty and integrity—are the foundation of my life and career, and I hope by example to inspire my students to do the same. **R**

**WHAT INSPIRED YOU TO EXPLORE ED TECH?**

After I graduated from college, I worked in the tech field. When I became math coach at LAUSD, this became a vehicle for me to show more veteran teachers the power of using tech tools to support them in differentiating instruction, challenging gifted learners and representing abstract concepts. At USC Rossier, I was blessed to work with Robert Rueda, who inspired me to become a voice and a coach for my students who are working in urban schools, managing families and are second-career professionals, just like I was.

**HOW HAS ED TECH CHANGED OVER THE YEARS?**

When I first started teaching, technology did not have today’s functionality or accessibility: With Web 2.0, students can demonstrate what they know and share their thinking with a global audience via screencasting. With 3-D printing, students can design innovative models and create a physical product. With virtual reality, students can have new experiences and travel without leaving the classroom. All of this matters when it comes to education, especially for kids who are disadvantaged.

**WHAT ARE A FEW CRUCIAL TECH INNOVATIONS?**

There are a plethora, such as using Flip Grid with students for video-based responses to questions or having students create a podcast. For math problem-solving, integrating a 3 Acts Math Task or using Desmos can transform student learning into active problem-solving and critical thinking. The biggest innovation is the ability to put tech in the hands of students. As teachers, we need to use it to create personalized learning for all learners.

**HOW DO YOU TEACH TEACHERS TO USE TECHNOLOGY?**

I meet them where they are at. For example, a school reached out for support with their physical education classrooms, which are large and have students of various abilities. I taught the teachers how to create QR codes and screencast so that the students can rotate to stations and practice a specific skill, which they can then demonstrate with video. Technology that promotes 21st-century skills and creates novel experiences are essential. If students are just staring at a screen and solving assessment questions, you are wasting instructional time.

**WHAT PROMPTED YOU TO WRITE YOUR NEW BOOK, *TEACHING OUTSIDE THE BOX*?**

I wanted to fill the gap between math pedagogy, content knowledge and technology integration, so I focused on instructional practices in math—Daily Routines, Open-Ended Tasks, Project-Based Learning, and Problem-Based Learning—and how tech can be used intentionally across each. Moreover, the book supports real inclusion by making content and pedagogy accessible for all students, and has a ton of resources and examples that teachers can use in their classroom the next day. **R**



# THE WIRED PROFESSOR

She uses tech to revolutionize teaching and learning

**N**

ational University Associate Professor Patricia Dickenson EdD '09 literally wrote the book on how to use tech to teach math: *Teaching Outside the Box: Technology-Infused Math Instruction*.

The former LAUSD teacher also launched Teacher Prep Tech ([teacherpreptech.com](http://teacherpreptech.com)) to maximize outreach and augment her book.

“I see the future of education technology as being a blend of self-directed learning and maker-space labs that have students working collaboratively and problem-solving within a global community,” she says, “but this will hinge upon teacher preparation and comfort with using it in the classroom.”



JOSH KRAUSE

# Giving Back With a Smile

Announcing the David and Carol Powell Endowed Scholarship Funds

by Jonathan Riggs

**EVEN THOUGH HE HAD NEVER STEPPED FOOT ON THE CAMPUS** or even been to the city before, in 1961, David Powell DDS '68 MS '71 moved to Los Angeles from Utah to attend USC on a full-tuition merit scholarship.

It changed his life—so much so that his Trojan pride informed his profession: In addition to his private practice, he taught at the USC Ostrow School of Dentistry and the USC Pediatric Dental Residency program at Children's Hospital for more than 25 years. He also made a special point to get his master's from USC Rossier, to better help educate his young patients.

When he looks back at his distinguished career as a longtime pediatric dentist and educator, David Powell is most grateful for the little things, like a card he's held on to for years.

"Merry Christmas, Dr. Powell. You have totally changed my nervousness into happiness when going to the dentist," 10-year-old Sami (dotted with a heart) West wrote. "P.S. I CAN EAT AN APPLE NOW!!!"

Those seemingly small moments of connection and kindness, especially with young people, have always meant everything to him and his wife, Carol. That's why they have made a \$1.5 million estate gift in addition to a \$250,000 bequest intention to endow two named scholarship funds, one for undergraduates and one for USC Rossier graduate students.

Helping people has been a way of life for them both: David met Carol, a physical therapist, when they both were doing rounds at Orthopedic Hospital downtown. Not only are they celebrating their 38th anniversary this year, but they share a commitment to giving back to USC and its students.

"We learned long ago that you get more from giving than receiving," Carol says. "We want to do our part to make people happy."

"We aren't looking for attention or recognition; we just want to give back," David adds. "We love USC. It gave me the opportunity to get an education, and we wanted to be able to do something to allow students to have the same opportunity." **R**

# THANK YOU!

“In middle school, I was lucky to have one teacher see the potential in me—a student from South Central L.A.—and invest a lot of time and money to help me get to college. Today, education is my calling because I want to be that same type of educator and illuminator for other students.”

—Saianna Smith ME '19



BRIAN MORRI

As part of the McMorrow Neighborhood Academic Initiative, Smith works with students participating in Professor Sandra Kaplan's Discovery Project.

Support USC Rossier students: [rossier.usc.edu/giving](https://rossier.usc.edu/giving)

# USC Rossier

School of Education

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Los Angeles, CA 90089-0031

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University of  
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California



Teacher Amelia Bagheri participated in a study on teachers conducted by Professor Mary Helen Immordino-Yang. Read more on pg. 4.