

EDITOR'S LETTER

A MESSAGE FROM THF FUTURE

The future ain't what it used to be! Goodbye 2017, hello 2018! The learning landscape is shifting. The seismic activity isn't a mystery. There are obvious recent forces at work—sure, technology, but people are making it happen. We'll share here some numbers, highlights, and future glimpses. One obvious change is to EdTech Digest. For the past eight years, we've brought you cool tools, interviews and trends, which we'll

continue to do. But in our quest to excel, we got a message from the future. It's a message that will manifest itself in countless ways as we unveil and share it well into the 2020s. With a fresh look, a lot of help, and too much coffee—we're even more excited than ever to recognize, acknowledge and celebrate the innovators, leaders and trendsetters who are shaking things up, making things move, and creating a future worth living in. To care deeply about others—that human element to edtech —is just a hint of things to come. There's much more to learn as the year unfolds! -VR

+TOP 100 INFLUENCERS in edtech -FIND OUT WHY page 49



STATE OF EDTECH

2017-2018:THE MINDS BEHIND WHAT'S NOW & WHAT'S NEXT

EDITOR-IN-CHIEF Victor Rivero **LEAD AUTHOR** Mark Gura



Mark Gura

Mark taught at New York City public schools in East Harlem for two decades. He spent five years as a curriculum developer for the central office and was eventually tapped to be the New York City Department of Education's director of the Office of Instructional Technology, assisting over 1,700 schools serving 1.1 million students in America's largest school system.



Victor Rivero

Victor tells the story of 21st-century education transformation. He has toured the country with the Bill and Melinda Gates Foundation; contributed to various education and technology pubs, and provided editorial support to the Consortium for School Networking. He oversees The EdTech Awards, the annual recognition program featuring edtech's best and brightest.



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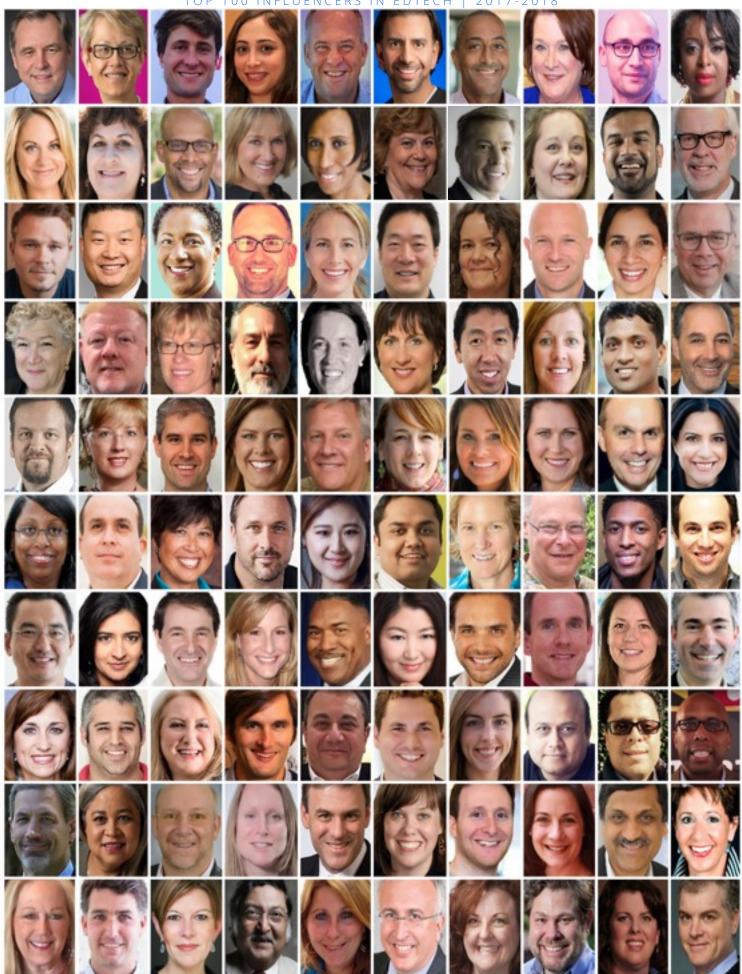
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in this report:

INCREDIBLE!

After an explosive-growth phase, with edtech we've succeeded in opening the door to a much-needed renaissance in education.

NUMBERS -

02

EDITOR'S LETTER
TOP 100 INFLUENCERS IN EDTECH
EDITORIAL TEAM

06

NUMBERS TELLING THE STORY OF 21ST-CENTURY EDUCATION TRANSFORMATION



Former New Jersey school district administrator, tech teacher, spent over two decades speaking about BYOD, Web policies, social media and connected educators: **Sandra Paul**, Instructional Technologist // PAGE 58

There are plenty of numbers in edtech, but what do they all add up to? Here are a few dozen that have caught our attention; scan the list to see what numbers catch yours.

11

STATE OF EDTECH: THE BIG SHIFT

14

3 MAJOR EDTECH STATUS MARKERS & THEIR DATA POINTS

16

THE BIG PICTURE: MAPPING THE CURRENT STATE OF THE FIELD

HIGHLIGHTS 4

19

HIGHLIGHTS A BRIEF TOUR OF NOTEWORTHY NEWS, DEALS, TRENDS, AND PEOPLE IN EDUCATION & TECHNOLOGY



He's heading up an investment team eager to support a new wave of innovation across the education spectrum: **Tory Patterson**, Managing Partner, Owl Ventures // PAGE 59

We're shining a spotlight on the people behind the tools, schools, leaders, and all things edtech—people who lift others up and push education forward. We hope to inspire you to keep learning—and leading!

20

EDTECH LEADERS WEIGH IN ON THE STATE OF EDUCATION, TECH'S ROLE IN IT, & WHAT'S AHEAD

32

SEISMIC ACTIVITY: DEALS,
ANNOUNCEMENTS, HAPPENINGS, &
LANDSCAPE MAKEOVERS

35

CATALYSTS, CHANGE AGENTS & FORCES OF NATURE: IMPACTFUL PEOPLE, ORGANIZATIONS, & RESOURCES

39

10 GREAT RESOURCES & THE ORGANIZATIONS BEHIND THEM

41

8 EDTECH TRENDS YOU NEED TO KNOW ABOUT

NEXT UP?

The future of education is yours to create. How will you build it. What will you do?

MORE HIGHLIGHTS —

TOP 100 **INFLUENCERS IN EDTECH**The minds behind what's now
and what's next. // PAGE 49



She's lit up the Green Bay Area School District with a lot of hard work, collaboration, and purposeful leadership: **Diane Doersch** // PAGE 55

"I agree with the movement toward technology, but I do not agree with neglecting to reform education holistically." — Alex Witkowski // PAGE 21



Ffounded a company nearly three decades ago that changed classrooms forever; now she's working on something new:

Nancy Knowlton // PAGE 50

"With technology playing such an important role in the world, we need to teach the students how to correctly use it and be productive while using it."

— Angela Pelfrey // PAGE 22



The former instructional technologist applies her hardwon knowledge leading the Center for Digital Education: **Kecia Ray** // PAGE 59

FUTURE

60

FUTURE **PROJECTIONS**, **PREDICTIONS**, **TRENDS**, **ANALYSIS**



A revered educator, a key player at companies, an astute policy leader, and an implementation pioneer overseeing decades of change in education and technology:

Mark Weston // PAGE 54

The future is a funny place. It never really arrives, because we're always right here in the present. But if you lay a careful trail now, and specialize in strategically making moments of magic, we'll have a better one!

61

THE FUTURE: ARE WE 'GOOD TO GO'? FIVE DEVELOPMENTS

64

THE FUTURE: GOOD NEWS FOR EDUCATION

+ PLUS

67 EDTECH1000:
COMPANIES TRANSFORMING EDUCATION

10 COMPANIES TO WATCH - AND WHY

74 THE EDTECH AWARDS

75 SUPPORTING THE REPORT



NUMBERS TELLING THE STORY OF 21ST-CENTURY EDUCATION TRANSFORMATION

STATE OF EDTECH: THE BIG SHIFT

3 MAJOR EDTECH STATUS MARKERS & THEIR DATA POINTS

THE BIG PICTURE: MAPPING THE CURRENT STATE OF THE FIELD

MILLION STUDENTS STILL lack broadband for digital learning; 9400 schools do not have the bandwidth they need.

SOURCE: https://www.educationsuperhighway.org/

YEARS COSN (THE Consortium for School Networking, the premier professional association for school system technology leaders) has been providing leaders with the management, community building, and advocacy tools they need to succeed. Represents over 13 million students in school districts nationwide and continues to grow as a powerful and influential voice in K-12 education.

SOURCE: http://cosn.org/about-cosn

TRILLION DOLLARS. THE global education market estimated to be nearly \$7 trillion and global adoption of edtech is also on the rise.

SOURCE: National Center for Education Statistics

BILLION DOLLARS. "In 2017, global investments made to learning technology companies reached over 9.52 billion, up a massive 30% from the previous record set in 2016 (\$7.33 billion) and up over \$46 from the \$6.54 billion (a record at the time) reached in 2015."

PERCENT. "GLOBALLY, OVER 37.8 billion has been invested in educational technology companies between 1997 and 2017 and a striking 62% of that was invested in just the last three years between 2015 and 2017."

SOURCE FOR THE ABOVE 2: Metaari

MILLION DOLLARS IN EverFi total funding to date from Jeff Bezos and others; a company in the broad online learning category.

SOURCE: https://www.cbinsights.com/research/ed-tech-startup-market-map/

MILLION DOLLARS FOR HotChalk from McGraw-Hill Ventures, NBC News; another company in the broad online learning category.

SOURCE: https://www.cbinsights.com/research/ed-tech-startup-market-map/

BILLION LEARNERS. "THE education market is undergoing a massive digital revolution that is impacting the 1.5 billion learners worldwide."

SOURCE: Tom Costin, Partner at Owl Ventures

BILLION DOLLARS ACROSS 126 deals "After a lull in 2016, venture activity for U.S.-based edtech startups in 2017 saw a resurgence of investment capital. So far this year, these companies raised over \$1.2 billion across 126 deals." SOURCE: https://www.edsurge.com/news/2017-12-19-fewer-deals-more-money-u-s-edtech-funding-rebounds-with-1-2-billion-in-2017

BILLION DOLLARS. TEC has reported that school districts could save more than \$3 billion if vendors charged customers at consistent, transparent rates. SOURCE: https://edtechdigest.com/2017/05/26/wheres-my-billion-dollars/

BILLION DOLLARS VALUATION for Udacity, provides online coding courses.

BILLION DOLLARS VALUATION for Age of Learning, offers an online education platform for children.

MILLION DOLLARS VALUATION for udemy, a provider of online courses taught by expert instructors.

MILLION DOLLARS VALUATION forHotChalk, they offer software in connection with online degree programs.

MILLION DOLLAR VALUATION for duoLingo, the company provides a language-learning platform.

SOURCE FOR ABOVE 5 NUMBERS: https://pitchbook.com/news/articles/a-second-wind-vc-investment-in-edtech-is-rising-again-datagraphic

15,000

TEAMS BUILDING THE future of education; estimated \$50B+ invested in 15,000+ EdTech teams from 50+ countries around the world.

SOURCE: Global EdTech Landscape 3.0 https://blog.navitasventures.com/global-edtech-landscape-3-0-15-000-teams-building-the-future-of-education-7cda8633c0ed

50.7

MILLION. IN FALL 2017, about 50.7 million students will attend public elementary and secondary schools. Of these, 35.6 million will be in prekindergarten through grade 8 and 15.1 million will be in grades 9 through 12. An additional 5.2 million students are expected to attend private elementary and secondary schools.

SOURCE: https://nces.ed.gov/fastfacts/display.asp?id=372

21

MILLION STUDENTS. U.S. College enrollment is falling. For years, America's college campuses swelled with more and more students. But enrollment peaked in 2010 at just over 21 million students. Attendance has dropped every year since.

SOURCE: http://money.cnn.com/2016/05/20/news/economy/college-enrollment-down/index.html

30

PERCENT BROADBAND ADOPTION in schools, 2013.

94

PERCENT BROADBAND ADOPTION in schools, 2017.

SOURCE FOR ABOVE 2 NUMBERS: https://www.educationsuperhighway.org/challenge/

PERCENT, NEARLY, OF U.S. Schools had purchased connected-devices (laptops, tablets) for student use in 2016.

SOURCE: FutureSource Consulting

MILLION DOLLARS. MORE big news for edtech: <u>Owl Ventures</u> has \$185 Million in fresh capital for edtech startups, the largest edtech fund to date. SOURCE: https://edtechdigest.com/2017/10/23/trends-owl-swoops-in-with-185m/

PERCENT OF STUDENTS surveyed found that digital learning tools helped them retain new concepts, and more than half thought it helped them better understand concepts they didn't know.

SOURCE: https://edtechdigest.com/2017/11/03/trends-2017-digital-study-trends/

PERCENT. ISDI DIGITAL University, an in-person and online graduate school in Silicon Valley offering a Master's degree in Internet Business, surveyed over 100 companies and found that 56 percent of talent professionals across the United States find it increasingly difficult to find digital talent.

SOURCE: https://edtechdigest.com/2017/06/29/trends-shift-to-a-digital-workforce/

BILLION DOLLARS. THE schools and libraries universal service support program, commonly known as the E-rate program, helps schools and libraries to obtain affordable broadband. Discounts for support depend on the level of poverty and whether the school or library is located in an urban or rural area. The discounts range from 20 percent to 90 percent of the costs of eligible services. E-rate program funding is based on demand up to an annual Commission-established cap of \$3.9 billion.

SOURCE: https://www.fcc.gov/general/e-rate-schools-libraries-usf-program

34,700 £

ATTENDEES FROM AROUND the world with 850 leading education technology companies exhibiting, the BETT show (British Educational Training and Technology Show, London) is the world's largest edtech conference.

SOURCE: BETT

1985 soi

YEAR OF THE first BETT show, held in London.

SOURCE: Wikipedia

12

YEARS AGO THAT Ken Robinson's TED Talk, "Do Schools Kill Creativity?" appeared on YouTube, since that time garnering more than 49 million views.

SOURCE: TED.com

22

PERCENT OF KIDS aged six to nine own a cell phone and this rises to 84 percent of kids aged 15 to 18.

SOURCE: Pew Research

PERCENT. THE NUMBER of schools with 1:1 student to device ratios rose 10 percent

from the previous year to more than 50 percent of schools. At this rate, more than 60 percent of schools will have implemented 1:1 technology programs in 2018. SOURCE: 2016 report from Front Row Education PERCENT DROP. "BETWEEN 2011-2017, the average cost of student devices dropped 55%. Since the start of laptops in classrooms in 1996, device costs have dropped 80%. Between 2013-2016, the cost of bandwidth has dropped 70%" (p. 3). **SOURCE: Project Red** BILLION DOLLARS. THE market for virtual reality is expected to reach \$12.1 billion in 2018. In addition to entertainment, research and engineering, it's making its way into classrooms, too. SOURCE: Statista. DOLLARS. TOTAL FUNDING to date (1.8 Billion dollars) for Florida-based Magic Leap, 1,887,50 a company developing a proprietary wearable technology that enables users to interact with digital devices in a completely visually cinematic way. SOURCE: Crunchbase BILLION DOLLARS. AMOUNT of venture capital invested in edtech, 2017 SOURCE: http://funding.hackeducation.com/ MILLION MILLENNIALS. THE largest cohort size in history, and likely the most studied generation to date. A wired, connected world is all that Millennials have ever known. Born: 1980-1999. Age: 19-38 SOURCE: U.S. Chamber of Commerce YEARS OLD. THAT'S how old Facebook is. Founded in February 2004 in Cambridge, Mass. YEARS OLD. HOW old Google is. The company that now calls the 13-year old Googleplex home was founded September 14, 1998 in Menlo Park, Calif. YEARS OLD. Apple predates the entire Millennial Generation. The trendsetting company was founded April 1, 1976 in Cupertino, Calif. YEARS OLD. AMERICA'S oldest and first public school was founded in 1635, started in a teacher's home, and is Boston Latin, part of Boston Public Schools. YEARS OLD. The age of ancient Mesopotamian cuneiform tablets (cuneus means 'wedge', like the shape of the characters on them). They came complete with stylus and lasted long enough for us to know about them. YEARS OLD. APPROXIMATE age, electronic tablet. However, Alan Kay described something like it 50 years ago, demonstrating that the future is invented.

THE BIG SHIFT

Telling the story of 21st-century education transformation, especially these last few years.

By MARK GURA

"The conversation has shifted from whether technology should be used in learning to how it can improve learning to ensure that all students have access to high-quality educational experiences."

SOURCE: Reimagining the Role of Technology in **Education**: 2017 National Education Technology Plan Update, Office of Education Technology, U.S. Department of Education

The quote above offers a good starting point for serious consideration into the current state of edtech.

Embracing this 'given', what follows is our perspective on the shape of the field, developments to come, and the trajectory of the path forward.

It's been a long journey.

At first, a few teachers here and there began to experiment with computers in the classroom.



baseline

technology

connected

devices in the

hands of all

students.

implementation as

having personal,

With the release of the accessible IBM PC (short for Personal Computer—what a concept!) and the user-friendly Apple IIe, though, classroom technology escaped the 'weird science' realm of teacher geeks and settled comfortably into the hands of more presentable looking, yet forward-thinking educators who simply wanted to engage in a bit of intelligent revolution.

Thus, we can date *educational* technology, or "edtech", the broad-based application of the power of computers across the curriculum, to the early 1980s almost four decades ago!

Importantly, too, a vital market was established, one driven by competition for the hearts and minds of schools and those who live and learn and grow within them.

Fast forward to 2018.

Where We Are Today

In contrast to the field's beginnings, schools today increasingly see baseline technology implementation as having personal, connected devices in the hands of all students.

And it's a universally shared vision that's rapidly become the common classroom reality, one that establishes a powerful starting point from which our students can discover themselves, their world, and how to prosper in it.

From July of this past year:

98% of schools had one or more computers in the

> classroom with reporting they

nearly 60% In contrast to the had laptops field's beginnings, available for students. schools today "...edtech is now increasingly see

mainstream. It's integrated into everything we do and the way young people interact with their world. Ask students to copy an assignment from the board and they'll take a picture and post it into a class group chat. Most educators are themselves lifelong learners and have adapted well. Edtech companies still hold an outdated stereotype of educators as change resistant. This is rubbish; they're just time-pressed. 2018 predictions include adaptive technologies, AI, big data, learning analytics, improved infrastructure and greater emphasis on STEM."

—Natalie Nezhati, EdTech Specialist, London, U.K.

Technology contributes to education in numerous ways; it:

- Makes teaching and learning more effective
- Makes the administrative chores associated with running schools and managing classes

easier and more efficient

- Offers *more* (content, opportunities to connect with peer learners and colleagues, tools and resources and varieties of activities and experiences)

It also:

- Establishes more relevance for activities
- Offers opportunities for deeper learning as students reflect and make important connections and communicate what they discover and learn.

In short, edtech provides a rich body of practices and resources directed at improving and enhancing the many things that comprise education.

But looking beyond this, it becomes clear that the greatest implications of edtech go far beyond mere *improvements* and *enhancements* to long established *ways* and *means*.

With much in the way of growing pains behind it, edtech stands ready to go the rest of the distance of fully transforming education.

which they'll apply their education.

The fleld of education has

challenges of the present and the future in

Technology is
currently, actively
making education not
only more successful
at what it's always
been—but
empowering it to
become what it's
always wanted to be.
We find ourselves at
the doorstep of a
powerful
transformation of
the field of
education.

The fleld of education has long held understandings of such up-to-the-moment practices, quested after, holy-grail methods to foster the very best in learning.

Many of these, though, while they may have existed as vision, have proven to be elusive in actual implementation.

Practices like

and

- -Project Based Learning,-Personalized Instruction,
- -Authentic Learning Activities

have not been sufficiently accessible and practical to become part of the instructional program experienced by the majority of students.

Hey, Watch This

Edtech has consistently changed that; and now, as approaches like *Global*

Student Collaboration and Digital Portfolios are facilitated by practices like Flipped Instruction and resource types like social networking supporting Learning Management Systems, they represent low-hanging fruit waiting to be taken by educators who are aware of their power and relevance.

Next Phase

The next phase must be to move beyond finally making goals from a previous era work effectively and efficiently; it must literally be the re-invention of the educational experience we offer learners—the young in particular, but learners of all ages—so that it is fully in sync with the needs and

So, Where Are We?

The state of edtech?

Technology (or more accurately, the people behind the most recent wave of technologies) is currently, actively making education not only more successful at what it's always been—but empowering it to become what it's always wanted to be.

We find ourselves at the doorstep of a powerful transformation of the field of education.

What follows is our (the bright-ish minds behind EdTech Digest) report on how all of this is showing up in our world.

And because we know enough to know that we're just not enough—we've gathered a lot of other minds and points of view together so as to create the maximum 'glow factor' possible, that we might illuminate, enlighten, and possibly shine a way through to see where we are—and where we could be headed in the not-too-distant future.

3 MAJOR EDTECH STATUS MARKERS & THEIR DATA POINTS

Getting a snapshot view of where we're at, at the moment—is a square-one item that'll benefit from the application of some numbers.

Here are a few prominent navigational markers in plain view—along with some of the numbers that define them.

1 st

MARKER: A major portion of schools have in place, currently, significant capacity to deliver technology-supported education and are moving toward deepening that commitment and shift toward a digital platform for teaching and learning as the dominant one.

DATA POINTS:

Percent of schools that have a wireless network

54.2%

Percent of schools that have laptops available

59.7%

Percent of schools that have high speed internet

84.3%

Percent of schools that have one or more computers in the classroom

98%

Percent of teachers that use the internet for instruction

77%

SOURCE: Statistic Brain; research conducted: July 3, 2017

2_{nd}

MARKER: While the threshold for technology saturation in our nation's schools is less than total, major portions are sufficiently equipped so that the field has moved significantly beyond the need to inform and inspire itself by highlighting 'pockets of early adopters', a practice that was necessary in earlier phases of the evolution of edtech.

Currently, there are sufficiently large bodies of classrooms, schools, and districts actively engaged in technology use—that envisioning and preparing for even broader mass adoptions, and resulting instructional programs supported by them, is possible—and increasingly easy.

DATA POINT:

"Chromebooks make up half of US classroom devices sold. Every school day

30,000

new Chromebooks are activated in schools."

source: https://www.cnbc.com/2015/12/03/googles-chromebooks-make-up-half-of-us-classroom-devices.html

3rd

MARKER: For virtually every function performed by schools, there are practical technologies available to reestablish its impact on students and providing them an effective and, now, inspiring learning experience. Educators have developed a culture and body of approaches to adopt and adapt cutting-edge technologies for implementation in our schools.

DATA POINT:

Public schools now spend over

\$3 billion

per year on digital educational content as of 2017. **source:** Education Week

DATA POINT:

Virtual reality & augmented reality are set to make a

significant impact in higher education in 2017.

source: Gartner

DATA POINT:

85%

of teachers believe virtual reality will have a positive effect on their students.

source: EdTech Magazine

*(Above taken from https://blog.capterra.com/15-important-education-statistics-and-facts-you-should-know/)

THE BIG PICTURE

"Arriving at one goal is the starting point to another."

—John Dewey

Please join us as we invest some processing capacity in mapping the current state of the field.

Let's take a look at some of the major landmarks that have presented themselves and contributed to determining our path recently.

Seeing the big picture is a crucial jumping off point for traveling to Education's Next Phase.

So, let's pull off the road for an important moment to catch our breath and admire the view from a scenic overlook with some prominent features of the landscape spread out before us.

It's a good thing to do before putting our review fully into gear; it will give us an important understanding of the terrain and various routes to our destination, the very best education possible.

Importantly, let's get a view of the road ahead, with an eye on what's coming up next so that we can prepare for it and perhaps brace ourselves.

Taking inventory of indicators of education's transformation by technology is an ongoing effort for some of us, and throughout the year we

Global State of

Digital Learning

In an October 16, 2017 post in

and our colleague publications reported some

here are a few important examples.

developments of Brobdingnagian proportions -

EdTech Digest titled guest columnist Dylan Rodgers, Editor-in-Chief of The Schoology Exchange, reported that with each passing year, technology continues to push the boundaries of what's possible in teaching and learning.

So much so, that it's getting harder to find schools that haven't adopted at least some form of digital learning—blended learning, flipped learning, personalized learning, and/or other strategies that rely on digital tools to enhance the learning experience—into their classrooms.

Schoology had recently conducted the study— <u>The</u> <u>Global State of Digital Learning</u> —which encompassed 2,846 education professionals across 89 countries

worldwide. The goal? To shed light on the current state of digital learning in K-12 education.

Among the findings:

LMS and Positive Effects: Of the nearly 3,000 education professionals who took the survey, 46%

Taking inventory of indicators of education's transformation by technology is an ongoing effort for some of us, and throughout the year we and our colleague publications reported on some developments of Brobdingnagian proportions—here are a few important examples.

said they have an LMS. Of respondents who noted that students at their institution are "very engaged," 89% said an LMS is in use most days, if not every day, of the week. This may indicate that careful and consistent LMS use can lead to the highest rates of student engagement.

Mobile Device Use is Becoming More Prevalent: Nearly 80% of schools and districts use them at least monthly, with nearly 50% reporting using mobile devices daily.

Most Common Instructional Strategies and Practices: Digital learning takes many forms—gamification, flipped learning, etc.—but which instructional strategies are practiced most? Differentiated learning leads the pack (75%), with blending learning (54%) and individualized learning also vying for top spots (45%).

And as for which instructional strategy was considered the most effective?

Respondents answered blended learning, followed by differentiated learning, and then personalized learning.

Earlier this year (January 17, 2017), in the post titled "Trends | State of the States: Making Progress" EdTech Digest reported on the release by EducationSuperHighway, a leading non-profit focused on upgrading internet access in every public school classroom in America, of their second annual "State of the States" report on the state of broadband connectivity in the nation's K-12 public schools.

That report details an additional 10.4 million students having the minimum connectivity they need to take advantage of technology in the classroom and as a result, 88 percent of school districts nationally meeting the minimum connectivity goals.

The report is based on an analysis of 2016 FCC Erate data representing 10,499 school districts, 73,000 schools, and more than 38 million students. (To access the full State of the States report, visit the **source**: http://stateofthestates.educationsuperhighway.org/.)

This progress means many of America's schools are nearing the connectivity levels of top performing schools across the globe, giving our students the tools they need to prepare for and compete for 21st-century jobs.

In just a few years, the U.S. has taken significant steps to decrease its digital learning disadvantage and is now implementing innovative education technology in more classrooms than ever before. 42 governors have committed to upgrading their schools for the 21st century, including seven of the eight newly-elected governors.

EdWeek, in its piece, "Young Children's Mobile Use Has Tripled Since 2013, Survey Finds"

(October 19, 2017), reported that "The vast majority of U.S. families now have a mobile device, like a smartphone or tablet, and young children are spending more time using their devices than ever before...

...Of all families surveyed, 98 percent have a mobile device in the home and 95 percent have a smartphone. The amount of time that the children studied spend engaging with screen media on mobile devices has tripled since 2013..."

SOURCE: Above results are from Common Sense Media's <u>third</u> <u>nationally representative survey</u> of media use among children ages 8 and younger.

In "Survey: Daily classroom edtech use on the rise" eSchool News reported (October 4th,

2017) "Sixty-three percent of K-12 educators use edtech in their classrooms each day–an increase from the 55 percent reporting the same in 2016, according to an <u>annual survey from the College of Education at the University of Phoenix.</u>
Laptops are most commonly used (86 percent), while other technologies include educational apps (58 percent), 3D printers (21 percent), and social media (41 percent, up from 32 percent in 2016).

continued next page >>

Seventy-one percent of teachers said they allow students to research subjects via the internet; 66 percent use games and simulations to help with learning; 49 percent use webbased tools to help students improve writing and comprehension skills; 37 percent let students use video to produce their own content; and 20 percent use clickers to keep students engaged. Interestingly, 63 percent of the more than 1,000 surveyed teachers also said edtech helps to create a more interactive learning experience, while 25 percent said they still feel intimidated by students' knowledge and use of technology.

SOURCE: https://www.eschoolnews.com/2017/10/04/survey-

classroom-edtech-rise/

In its piece "The Business of Ed-Tech: 2017 **So Far"** (July 1, 2017) Hack Education reported "...The amount of money invested in education technology companies is up from this time last year and up from this time in 2015 as well. (And 2015 was a record-setting year for ed-tech investment.)"

SOURCE:: http://hackeducation.com/2017/07/01/business-of-ed-tech

On Jul 24, 2017 EdSurge published "Fueled by Big Rounds, US Edtech Funding Surges to \$887M in First Half of 2017", reporting,

"...After a dip in dealflow and venture capital to U.S. edtech companies last year, the dollars returned with a fury during the first six months of 2017. According to our tally, there were 58 U.S. deals that totalled more than \$887 million through June of this year.

This means that halfway through 2017, the funding for U.S. edtech startups is already at 88 percent of the total in 2016 (which was \$1 billion).

SOURCE: https://www.edsurge.com/news/2017-07-24-fueled-by-bigrounds-edtech-funding-surges-to-887m-in-first-half-of-2017



In his address to participants at the 38th annual Future of Education Technology Conference held this year in Orlando, bestselling author, TED speaker, and education and creativity expert Sir Ken Robinson referenced three massive amounts of money:

Billion. Size of the NFL

Billion. U.S. domestic cinema box office

Billion. Education and testing support industry in the U.S. (2013 numbers)

His point: we're not lacking in resources to improve education, we're simply directing our efforts toward something that isn't working.

Robinson suggested that a groundswell, fromthe-bottom-up shift is poised to put pressure on top-level leadership and pull off the kind of change that education so desperately needs.

Such a 'revolution' might eschew conformity and standarization for a creative, collaborative approach valuing individuals—allowing for customized, personally meaningful education localized to the needs of any one particular community. //

HIGHIGHTS

EDTECH LEADERS WEIGH IN ON THE STATE OF EDUCATION, TECH'S ROLE & WHAT'S AHEAD

SEISMIC ACTIVITY: DEALS, ANNOUNCEMENTS, HAPPENINGS, & LANDSCAPE MAKEOVERS

CATALYSTS, CHANGE AGENTS & FORCES OF NATURE: IMPACTFUL PEOPLE, ORGANIZATIONS & RESOURCES

10 GREAT RESOURCES & THE ORGANIZATIONS BEHIND THEM

8 EDTECH TRENDS YOU NEED TO KNOW ABOUT

TOP 100 INFLUENCERS IN EDTECH

STATE OF EDTECH

LEADING VOICES —

Weighing in on the state of education, technology's role, and what's ahead.

By VICTOR RIVERO

We asked teachers,

technologists, CEOs, founders, investors, students, parents, policymakers, and edtech leaders to register their thoughts on these questions:

- What is the state of education these days?
- What is technology's role in education?
- What's just ahead?

The issues and challenges they face, as well as the insights they provide in tackling such points —offer a glimpse into some of the realities that make up the current state of edtech.

Have a look for yourself at the rich variety of viewpoints that follow.

What can *you* do to:

- stay informed,
- · participate, and
- take action

in creating the future of edtech in *your* sphere of influence?

Computer pioneer Alan Kay once said, "The best way to predict the future is to invent it."

Have fun inventing!



"Education is in an identity crisis. I'm a former high school educator turned edtech professional, and I left

teaching in large part because schools pressure teachers to use technology to deliver tired pedagogy in a shiny new package. I agree with the movement toward technology, but I do not agree with neglecting to reform education holistically. Technology needs to change the way students interact with information. I'm actually okay with educators who choose not to leverage technology, but I'm not okay with technology simply adding another step to traditional pedagogy. We use Chromebooks to administer the same tests we always administered. We collect cell phones as students walk in the room. Many educators want technology to make their lives easier, but fail to see how they can make students' lives easier, as well."

—Alex Witkowski // Community Manager, Course Hero



"Some institutions lag behind but edtech is now mainstream. It's integrated into everything we do and

the way young people interact with their world. Ask students to copy an assignment from the board and they'll take a picture and post it into a class group chat. Most educators are themselves lifelong learners and have adapted well. Edtech companies still hold an outdated stereotype of educators as change resistant. This is

rubbish; they're just time-pressed. 2018 predictions include adaptive technologies, AI, big data, learning analytics, improved infrastructure and greater emphasis on STEM."

—Natalie Nezhati // Edtech marketer/ journalist/qualified educator, Edtech Content



"CIOs are more challenged than ever to keep up with the changing needs of education. New

technologies are pushing the envelope on how education is being delivered and taxing not only IT's capacity but also existing skillsets. CIOs will look for ways to free resources to focus on pushing education forward rather than keeping the lights on. They'll do this by focusing on the right work not all work, delivering new services more efficiently (via projects), outsourcing security, sharing resources between campuses, automating operational work, improving self-service and moving infrastructure to the cloud. CIOs will need to spend more in the short run to change but then shift that increased spending into edtech to stay on top of the wave."

—Andrew Graf // CPO, TeamDynamix

"College and career readiness needs attention—and so does teacher PD!" -Srikar Dronam // Hobsons, Inc.

"Districts will increasingly start to look holistically at the student experience to better understand student engagement and its impact on student achievement. This will include

examining how students learn in today's classrooms, hour by hour and week over week. By better understanding the student experience, districts will have the insights needed to implement digital tools that address students' needs." —Christine Zanchi // Director of Student Innovation, Curriculum Associates



"Amid the growing scrutiny about the amount of time students spend taking assessments, districts

will begin to step back and focus on rationalizing and streamlining assessments. This will lead to the implementation of multi-purpose assessment tools that provide educators with the range of critical data they need to individualize instruction and in turn improve student achievement."

—Katie Nicholson // Senior VP of Digital Product, Curriculum Associates



"We see a lot of positive progress in the usage of technology in education. One area that still needs sufficient

attention is training students how to use the internet to their advantage in college admissions and finding jobs. Training students to use the internet for their benefit will help prevent undesired online behaviors and will augment equal opportunities. Technology's role in life and education is growing exponentially. Everyone is Googled, and online recruiting is replacing the role of resumes. Admissions officers and employers use the internet to learn

more about candidates, and students need to be taught essential 21st century skills of how to present themselves online, create a good digital footprint, and network with influencers to enjoy better opportunities."

—Naomi Ben-Shahar // Creative Director, Social Assurity



"It's exciting! There is so much opportunity to leverage technology in the classroom to help students excel and

learn. I recently attended four edtech conferences and am astounded by the fun, innovative and interactive programs that are available as tools to enhance and improve learning. Thinking back to my days in the school computer lab with only The Oregon Trail and floppy disks and my days teaching with an overhead projector, we have come a long way with digital learning. The biggest challenge I have heard from educators across the U.S. is how to keep students on-task when using technology in the classroom. Classroom management software is key to keeping students focused and safe by giving educators the tools to easily monitor and modify behavior."

—Angie S. Amburgey // Marketing Manager, Netop Vision

"The state of education is in a tough spot right now with the testing mandates. There is not much consistency throughout the country. With technology playing such an important role in the world, we need to teach the students how to correctly use it and be productive while using it.

There are many apps and websites that can be used to benefit everybody when it comes to education."

—Angela Pelfrey // 5th Grade Science Teacher, Duval County Public Schools

"It seems like everything is technology based in education or heading that way. It does worry me a little. I have kids that are already behind, and yes we are trying to do this to reach them at their level and excite them with new ideas. But I feel they are losing face time with their physical teachers in the room."

-Andrea Barrett // Teacher, ZCMS



"In the future, as more and more edtech solutions are developed, the amount of available

data will only continue to grow. And yet, from classrooms to legislative settings, educators continue to struggle to effectively analyze data and make conclusions to drive data-driven decisions. Edtech companies need to listen to and learn from these pain points – on all levels – to make sure we are truly serving the communities we are creating products for."

—Oliver Wreford // Chief Strategy Officer, EdTech Holdings (SchoolMint + Hero K12)

"Education is difficult due to budget cuts and lack of resources. Technology has become the forefront, but the lack of rules and structure of how to use it gets lost. Students are learning the technology, but losing the basic foundations for reading and writing."

-Nikki Tarver // ED Specialist, BPJH

"The state of education is changing daily. Public school systems, private schools, charter schools, homeschooling and even virtual learning are taking over the worlds education systems. Today, parents and students drive their own education and its tailored to the child and families needs. I think it is good and a bad thing all at the same time. What children are learning across all types of education should be the same. How they learn can be different. However, there needs to be some consistency on what they learn in each grade level across educational systems. Technology plays a huge role in all forms of education. It's used daily for everything from research, educational learning aids in the classroom, textbooks and even assessments. Without technology the education system would still be back in the dark ages. I look forward to all the educational systems coming together to aid in helping all children become successful in all their educational endeavors."

—a Homeroom Hero participant



"Flexibility and personalization continue to drive innovation in educational technology.

Just-in-time interactions between the learner and content, learner and learner, and learner and instructor (or coach) are supported by the ubiquity of smartphone technology, permitting learners to manage there own learning on their own terms from anywhere and at any time. Mobility, along with synchronous and asynchronous

communications tools, will inform emerging highly flexible delivery models in the immediate future."

—Bill Knapp // Chief Learning Resources Officer, Lakeland Community College



"Right now, the state of education is all over the place as we struggle to analyze why all of the reforms imposed upon

us have not and are not working. Teacher leadership, mindfulness, and collaboration are now seen as keys to turning the educational ship around. Technology's role is varied, but one of the greatest benefits is that it is bringing educators together from around the globe. Just ahead, companies like Bloomz, Google, and Khan Academy will continue to learn how to harness the power of collaboration to customize education for individual settings."

—Ge-Anne Bolhuis // Instructional

"Education has become very quantitative. Too much focus is

Technology Specialist, Cartersville H.S.

quantitative. Too much focus is put on test scores and student growth statistics. Education should be more about discovery. Technology is a tool that can be used to aide in that discovery. By using technology, students have the ability to explore the world, learn to write code, create their own unique content, and maybe even develop the next great innovation. With the strides that have been made in virtual reality, it's not too long before students will be able to put on a VR headset and land on Plymouth Rock, explore the digestive system, or join Harry Potter on an

adventure. The key is to allow students the opportunity to try, fail, and try again."

—Greg Baker // District Library Media Specialist, Zion Central Middle School

"Public education seems to be at a crossroads, or in a crisis, policy wise. Technology is helping grab the attention of digitally saturated students who have a hard time paying attention to anything not on their smart phone screen."

—James Harris // Teacher, ISHS, SBC Unified School District

The state of education as of now is a complicated one. On one hand, it is amazing that our kids have access and can view 1,000 year old ancient Sanskrit writings, but on the flip side, cannot read or write in cursive. The pendulum of education and technology seems to swing too far to the East and then too far to the West. I'm looking forward to starting to see a consistency between the two begin to form!"

—**Chelsea Ramirez** // PBIS P.F., ISHS, SBCUSD



"Edtech is in a state of accelerated innovation. This is due, in part, to a long overdue blurring of boundaries between

technology and curriculum.
Improvements in technology now
permit instructional designers to
develop modern, immersive resources
tightly aligned with one of all teachers'
highest priorities: teaching the
curriculum. We call this combination of
great digital content, customized to
teacher's curricular needs, High Quality

Digital Content. Curricular needs include customizable pathways that engage a diverse array of learners. For example, educators are using High Quality Digital Content specifically developed for diverse student audiences to improve educational equity. Taken together, custom digital content in the hands of progressive educators will help us solve persistent challenges and leads me to believe the best is yet to come."

—Marty Creel // Chief Academic Officer / Vice President, Curriculum & Instruction, Discovery Education

"We need help; technology can help to push us forward. Just ahead is a world of diversity—we must be ready for it."
—Luquanda Hawkins // Math Teacher, Indian Springs High School, San Bernardino Unified School District

"Technology serves to lighten teacher workloads, expedite information to students, and allows for differentiation in curriculum.

—Mark Collins // Teacher, Bastrop ISD, CCMS

"Technology is crucial in education today. We must be prepared to teach technological skills and engage our students with available technology. I teach my kindergarteners how to log on to a variety of programs that are used in my classroom. Throughout their elementary schools education they will be learning how to use a variety of websites for educational purposes. Technology helps better manage centers because students are engaged with read along DVD books that are skill

level appropriate, on mini individualized DVD players. DVDs are also great for indoor recess with the kindergarteners. Students are able to work on computers with customized assignments on i-ready while I am working with small groups of students. While I do not have a document camera or a Promethean board I have participated in workshops where I have seen their benefits. I would love to be able to have them in my classroom. I teach also Coding Club at my school with 4th and 5th graders. I am always talking to them about the importance of coding and the future of technology in our society.

—Carol Uriarte // Kindergarten Teacher, Watkins Elementary, Broward Schools

"Edtech is a link between the old and new as we strive to innovate in education. With the rapidly advancing technological climate and the need for skills that are ever-changing, technology must be a key lever for student success.

—Renee DiBiasio // Changing Needs, CSA



"I feel that
technology is
currently used in
classrooms in such a
way that does not

serve a purpose that could not be met by pencil and paper."

-Katarina Juarez // Lawndale H.S.

"Schools have been and are continuing to get creative with communication and collaboration. In general this applies to work in the classroom: tools and approaches geared towards collaborative learning and

student-centered learning models. But we're also seeing this outside the classroom and around the school. Administration is similarly focused on new and innovative ways to communicate and collaborate with parents, teachers and the community. Through new websites, mobile apps and full service classroom programs. At TeacherLists, we're seeing this quite a bit with our schools and through our partnerships with companies like Blackboard and SchoolInfoApp. Through strategic edtech partnerships schools are getting providers to work in union to develop solutions to school problems. As an example - here at TeacherLists through our partnership with Blackboard schools we are able to make our underlying platform and data available to their schools and parents. Parents can visit their school website, find what their children need for school and order it in just a few minutes at one of our retail parents. It seems like a small part of what schools do, but it is an example of how by leveraging technology partnerships schools can make it easier for teachers, parents and the community to come together around student success.

—Mary Richman // Program Manager,
TeacherLists

"It would be great to see students create products. Give students the opportunity to turn state standards into products that they would market for their target audience. The product could be books, apps, T-shirts, marketable board games, test prep material, etc. They would test it out on classmates or

virally and make adjustments based upon incoming data. It would flip the class; they will become experts on the standards because their work would be active learning, while also teaching them entrepreneurial skills. I am specifically looking at those older students who struggle with reading. The middle and high schools students that easily slipped through the dyslexic gap. If they could learn through an Orton-Gillingham method (I could experiment with how long it take for older students to master the phonological concepts) in turn the students must make learning more effective for others by brainstorming ways to create better standard based products." —Darlene Bacon // Teacher, Public School



"Instructional design is one of the most complex, dynamic and underrated activities in the design space, and

perhaps the most critically needed technology in education today. After leveraging design science and systems thinking for 17 years, EduChange believes that Sustainable Open Educational Resources (SOER) will greatly improve the quality of digital curricula. Learning-centered, comprehensive, coherent instruction will never be accomplished by teacher assembly of disparate digital artifacts, including lessons. SOER makes collaborative roles explicit, permits ongoing, systematic revision, and supports reasonable teacher development through incremental changes over time. EduChange delivers a secondary STEM program driven by

authentic global contexts, ensconced in an evolving content ecosystem, and mapped to our current understanding of how people actually learn. We integrate and track 485+ teaching and learning variables."

-Catherine Saldutti // President and Founder, EduChange, Inc.



"Education is putting far more emphasis on learning outcomes than ever before. The challenge, as a result, is

to help students learn, apply and retain information in more meaningful ways. Thankfully, technology-enabled learning is connecting students with content on a deeper level. Such models as competency-based and adaptive learning have increased personalization within education, and game-based learning is taking it even a step further. As academic games evolve in sophistication, there is a real opportunity to move past the memorization and regurgitation behaviors that have plagued us for years. Gaming technologies empower students be more active and engaged participants in the learning process. Not only do games make learning more fun, but research shows they can produce a measurable increase in aptitude and performance."

-André Thomas // CEO, Triseum



"Personalized **learning is** one of the hottest trends in edtech today, but true personalized learning is

more than just technology, it's the entire

student experience driven by the unique style and qualities of the teacher that has this technology at their fingertips. As edtech companies improve upon immersive and interactive experiences for students, the opportunities to find high-quality lessons and deliver a richer more fruitful learning experience to students are countless. Everything from bite-sized supplementary learning materials all the way up to robust lessons and interactive assessments are now readily available on one of the many teacher resource sites such as Wisewire.com."

-Nanda Krish // CEO. Wisewire

"Technology has become more relevant in the classroom over the past decade, and this trend is only going to continue. The next breakthrough of technology in education will be virtual reality, allowing students to experience things never possible in only a textbook. VR allows students who study remotely or abroad to feel as though they aren't missing out on any experiences, bringing people together from across the globe (or even across town). Virtual reality is a tool that can take you anywhere, and the potential for what this can do in the classroom is extraordinary, allowing students to be interactive and making learning more fun. As VR becomes more popular and more content is available, this will be the biggest game changer the classroom has seen in years."

-Dave Hodgson // Sales and Distribution Director, Zeiss Multimedia



"K-12 school districts are finding it unexpectedly prohibitive to change student information

systems (SISes), the databases at the heart of their districts, once they've invested in one. It's technically hard to swap SISes, data loss is likely and it can be a long, expensive process. In search of better user experiences, many districts are turning to standalone learning platforms with modern interfaces that interface with their SIS. These platforms can extend the investment a district has made in its existing SIS, even if it's an on-premises system. Students, teachers, parents and administration users get modern, compelling, feature-rich user experiences that work great on web browsers and mobile devices. At the same time, the legacy SIS remains as the district's system of record for rostering, classes, attendance, grades, discipline data and all other data currently captured and reported against in the SIS."

—Dallas Kachan // VP Marketing, Edsby

"Teachers are using tech more. Baby Boomers are retiring in greater numbers now so the younger generation of teachers is more tech savvy. They have an expectation of edtech as central to their teaching processes but they also understand that technology is always in flux. They are comfortable with that. At Turnitin, we're trying to eliminate the achievement gap so that all students are successful. Technology makes that possible because it is a 1:many solution yet still able to recognize and support

individual needs. There is a high volume of "churn" and experimentation at the moment. No one knows what is going to end up actually working but the anchor companies are better able to deal with this churn, in part because they have a deeper understanding of education and a more concrete vision about what drives achievement."

—Sean Tupa // Education Program Manager, Turnitin



"Technology's role is to connect people and bring down geographic barriers. We will see more edtech that opens

up opportunities so that the global classroom is, in fact, a global classroom. The global classroom of yesterday meant merely exploring other cultures and/or countries. Today's global classroom puts students into DIRECT contact with other locations, people, businesses, classrooms, and environments and these direct interactions are meaningfully tied into learning outcomes such as career paths or applied projects."

—Sabari Raja // Co-founder & CEO, Nepris



"The state of education today varies widely throughout the country and this is a concerning fact. The

opportunities afforded by learning should not be dependent on where a student attends school. While technology use in education will not fix these issues, leveraging technology tools and resources for instruction can help address inequalities and enhance future possibilities."

—Tonya Ellis // Instructional
Technology Coordinator, Jefferson City
Public Schools



"While data systems abound in K-12 education, a critical area is often missing from the data mix:

school climate and culture data. In a 2016 research report, "The State of Climate & Culture Initiatives in America's Schools," more than 90 percent of educators surveyed believe that addressing students' behavior is critical to increasing outcomes. Yet, few reported having technology systems in place to consistently collect and use behavior data as evidence to support decisions. In 2017-2018, educational leaders are recognizing that tracking and managing climate and culture data is now a "must-have" edtech capability. With this data, districts and schools can improve student learning and achievement, reduce discipline referrals and suspensions, increase teacher satisfaction, and positively impact many other areas as well."

—Jennifer Medbery // Founder and Chief Product Officer, Kickboard



"A key challenge in education used to be getting real-time data. Thanks to the proliferation of

technology, K-12 districts now have an abundance of data on student growth

and educator development to inform decisions at every level. That data, however, is often siloed into disparate systems, which means that educators aren't getting the whole story about what their data means or what they can do to improve. That's why, in 2018, edtech is about creating connections. With integrated, multi-dimensional, connected views of students' growth and educators' growth, districts can see how each impacts the other. They can gain deeper insights into the relationship between educator effectiveness and student learning, and immediately act on that data to improve student performance and build educator capacity."

—**Jeanette Haren** // Chief Product Officer and Co-Founder, Performance Matters



"Increased competition is forcing many colleges and universities to take a deeper look at how

they're attracting students and supporting students through to graduation. While institutions are realizing the value of analytics solutions to engage and retain students, they still face significant challenges: integration of various data sources, interpreting the data, and most importantly, defining and implementing strategies to do something with those data-driven insights. While significant in its own right, data alone isn't the answer; rather the more measurable impact surfaces in how data empowers an institution to understand students as individuals. By giving educators the

opportunity to leverage those insights through a scalable technology solution, they can implement personalized engagement strategies that drive superior outcomes and student success."

—Matthew Schnittman // President & CEO, Helix Education



"From AirBnB to Uber, the technologies we love have built a sharing economy on a global scale, and broken down

barriers we never thought possible. We're starting to see the culture of sharing in edtech as well, powered by open technologies that foster collaboration and bring enhanced learning opportunities. After all, isn't a large part of learning the acquisition of knowledge and skills willingly shared by others? As technologies become more standards-based and play better with each other, they'll become easier to use —a factor heavily favored by educators —thus increasing learner engagement and boosting achievement. That's the future of edtech: opening the doors to a shared knowledge economy that powers life-long learning for all." —Marc Oswald // Co-Founder & CEO, Open Assessment Technologies

"Historically, K-12 schools have been judged primarily on academic progress. Social and emotional learning (SEL) programs, when used at all, were considered "extras." But this mindset is shifting due to the growing body of research demonstrating that social and emotional competence is critical to students' success in school. Technology

tools are being developed to help schools gather social and emotional data to better serve students and track progress of the schools' SEL programs. The Every Student Succeeds Act (ESSA) has also opened the door for the consideration of non-academic achievement measures in school and in state accountability systems. This combination of factors will prompt more schools to adopt social and emotional curriculum and assessments and make SEL a core part of what they teach students."

—Paul LeBuffe // VP Research & Development, Aperture Education

"Higher education institutions rely on assessment data more today than ever before. It informs everything they do - from creating enrollment policies to seeking accreditation. Therefore, they must adopt technology that helps them easily acquire, manage, analyze and store that data. Technology is evolving to meet this growing need. Systems being developed allow instructors to create and administer online assessments as well as use high-speed scanners if they are still using paper-based tests. In the near future we should expect to see more universities adopt cloud-based solutions that provide a way to see the resulting data immediately, and then analyze it so data can be used to inform instruction. These solutions must also integrate easily with the institution's other systems and be versatile."

—Brian Apperson // Vice President of Higher Education, Apperson



"The state of education is an opportunity that needs to be acted upon. The science of how students

and adults learn is evolving, and we have new tools to implement new learning experiences. The world is changing faster than we're changing our schools. We need to – as educators, as policy makers, and as community members – actively try to remove the barriers that historically have stymied the efforts of classroom teachers to innovate practice and deliver the best learning opportunities to the students they serve."

-Adam Geller // Founder & CEO, Edthena



"So often students attend high school based on where they live, not on what they want to study. However,

edtech is helping to change this. Online courses allow students to curate their own personalized learning paths based on their interests and academic goals. Students can take advanced courses that many traditional schools do not offer due to lack of student interest or capacity. Or if college isn't an immediate post-graduation goal, students can take online courses to explore specific career interests, develop necessary foundational skills and, in many cases, prepare to take industry-recognized professional certifications. With a blended approach of online and in-person classes, students can take college classes on campus or pursue apprenticeships or other valuable experience."

—Kim McClelland // Executive Director/ Principal, New Summit Charter Academy



"There is a growing emphasis on getting students ready for college and career and making education

meaningful. That means adding relevance to learning and bringing reallife opportunities to the students such as internships and service learning where students get out among people and find ways to place what they are learning into context. At intelliVOL, we also find that applications are working together more and that educators need this interaction to be seamless. Educators will drive the industry to make more products work together, to have single sign-on and data sharing while still maintaining privacy protocols to protect student data." -Michele Pitman // Founder & CEO, intelliVOL



"We see education shifting not completely away from technology, but more towards blended and hybrid

models including hands-on experiences, the use of virtual and physical manipulatives, and mathematical discourse. Our technology, however, has evolved that it can marry these experiences with technology so that the teacher can continue to individualize his or her lessons, facilitate instruction, and use formative assessment in an effective manner. As an example of that, ORIGO still employs hands-on learning and promotes the use of strategies for students, but we have enabled our Slatecast features so the teacher can

monitor and direct students individually or in groups. We'll see more of this in learning such as giving students models to work with that can transfer into an interactive tech activity encouraging discussion and application."

—Kim Sadler // National Marketing Manager, ORIGO Education

"The rise in 1:1 device policies, BYOD programs and similar initiatives has led to students having more and more access to internet resources. This access creates amazing new ways to deliver content and engage students, but it also provides challenges to districts that are mandated to keep students safe. Students engage in unsafe online activity such as sexting, cyberbullying or researching dangerous content whether linked to drugs, self-harm, weapons or something equally worrying. Schools must identify this behavior in order to address these incidents appropriately. Internet monitoring software, which is used to track what students do on the school network, is continuing to get more sophisticated enabling school staff to identify risks early, intervene and promote good digital citizenship amongst students."

—Sam Pemberton // CEO, Impero Software

"One thing is constant about edtech – it is perpetually on the cusp of delivering richer experiences for children and teachers. I increasingly see a quicker embrace of new technologies for the benefit of teaching and learning. And the pace is becoming faster. Less than 20 years ago we were

pioneering computer adaptive assessments, and today we're studying how the most advanced technologies — like augmented reality, conversational computing, the maker bot movement, and AI — can be used to make learning more individualized and engaging for each student. As a researcher, I can tell you that the work is fascinating. Implementing technology that complements and enhances how young minds develop is incredibly rewarding." — Mike Nesterak // VP, Advanced Research & Development, NWEA

"Edtech as it relates to assessment is in a great period of transformation; we're seeing a growing understanding of how it can provide educators with tools, data, and information that enables them to address increasingly diverse individual student needs. It can enhance their ability to make learning relevant and agile through student-centered systems and strategies. And it can emphasize not only what to learn, but how to learn, so that students own their learning and feel empowered to create their future. That said, we must remember that while technology plays a pivotal role in the future of education, it is a means, not an end. We should never confuse the tools with the destination."

—Jason Mendenhall // Senior VP, Strategic Solutions, NWEA

"Schools are gaining momentum in adopting cloud-based digital curriculum products, while pushing print matter aside. Improvements in infrastructure and product design and delivery are finally making it possible to adopt digital solutions at scale. Schools are now demanding products that are fully digital, instead of choosing print-based products that simply have some digital components. Although many new edtech products are being brought to market, many will fail as educators are becoming more discriminating in evaluating products to ensure that they closely align to their standards and assessments. Technology's role in education will continue to grow at a fast pace, but the teacher will still remain at the center of the learning experience for some time to come."

—Vernon Johnson, Ed.D. // President & CEO, STEMscopes by Accelerate Learning



"With expanding school choice options, districts across the country are facing increased competition

for student enrollment. Many districts, and even cities, are responding to this change by offering more school options that better cover a broader array of student needs and interests. These expanded options require a new approach to school marketing and to managing the enrollment process to improve the experience for parents and staff. An automated enrollment experience is helping an increasing number of districts market their school options, provide families with easier access to comparative school information, establish a better match with their ideal school choice, and a more intuitive way to complete the endto-end enrollment process. Staff can

also better monitor enrollment trends and act on them in a timely manner." -Jinal Jhaveri // Founder & CEO, SchoolMint

"My first experience with technology in the classroom was in 1998 when I had a superintendent approach me at CompUSA wanting to establish a 1:1 program for his 6th graders. Fast forward to today, 1:1 is more common and we now have an extensive and overwhelming selection of tools/ programs for educators to choose from. Technology is replacing textbooks and is producing a rich interactive learning experience. It aids teachers by producing data allowing them to teach more effectively which in turn yields personalized learning experiences with positive learning outcomes for each and every student. I anticipate students falling in love with learning as it will become more engaging thanks to their teachers using technology as a tool to support their practice."

-Paulette Donnellon // Board Member, San Diego County Office of Education



"While progress has been made, the state of edtech isn't reflective of the potential in the space. There are

certainly great companies working to improve our classrooms and building strong businesses in the process. Still, I believe that the false notion that "edtech is a harder space to build a business in than other sectors" diminishes entrepreneurial innovation and venture capital support. We at Nearpod, along

with other companies, are proving this to be false, and I look forward to more innovation in the space in coming years there's much work to do!"

-Guido Kovalskys // CEO & Co-Founder, Nearpod



"In 2018, learning content is easier to access than ever. Edtech is helping to democratize education

by delivering high quality resources that can be easily accessed and curated (and are often available for free). The future of edtech will be in finding new ways to recognize the knowledge and skills learners are acquiring in this knowledge economy, to create credentialing ecosystems that are open and flexible, portable and personalized, and recognized globally by education and industry sectors alike. This new recognition of skills--not degrees or seat time--will fundamentally change the way we deliver education, and will allow the system to accommodate the massive influx of formal learners, currently projected to be 1 billion by 2020." —Patrick Brothers // CEO, Navitas

Ventures "In 2018, edtech leaders are removing

traditional barriers to learning engagement for administrators, students, educators, and parents. As institutions are faced with mounting pressures to demonstrate increasing levels of accountability to the public and students, they're embracing a deeper consideration for individual learning experiences and outcomes when they

utilize technology to serve their stakeholders. Edtech requires a true strategy to achieve this at scale – not just a collection of tools and technology. We're seeing an increasing volume of examples of education 'transformation' fueled by the early successes of innovators and pioneers around analytics, gaming, proficiency-based programs, and more. As data flows more freely between apps, and platforms are easier than ever to use, it has never been a more opportune time to reach every learner."

-Ken Chapman // VP Market Research, D2L



"Districts are still struggling with outmoded technology that creates drag on their productivity and

prevents them from transitioning to progressive education practices (widely recognized as superior ways of teaching today's students). As a result, many school and district leaders are exploring changes to their core infrastructure, including SIS, LMS and assessment software. Districts are seeking tools that meet the needs of their teachers today while empowering them to incorporate innovative teaching and learning as they move forward along a continuum from traditional schooling to mastery-based, personalized education. This sea change has already begun and will continue over the next 5-7 years. Alma enables schools to navigate this transition effectively and with minimal pain.

—Andrew Herman // CEO & Co-Founder, Alma

"Huge role."

-Steve Clarence // VP, Swivl

"I find education slow to adapt technology. We're going through a change in culture."

—Gordon Jang // Educational Technologist, University of the Fraser Valley

"Mobile technology is paramount to today's education scheme. Both teachers and students rely on technology to complete assignments and stay connected. Chromebooks, laptops, tablets and smartphones are now ubiquitous in today's K-12 classrooms. However, there are still limited funds allotted for tech purchases so teachers often have to be creative and resourceful in how they implement technology in the classroom. Looking ahead 5-10 years classrooms will be more streamlined, efficient and productive as technology in the classroom supports classwork, collaboration in the classroom and communication. Administrators will be more aware of complete roll out requirements. Looking ahead 10-20 years we may start seeing more immersive technology such as AR and VR tested, vetted and used effectively in the classroom."

—Jon Roepke // Director of Product Management, Belkin



"We're anticipating an increased amount of options available for educators due to the pervasiveness of best-

in-class partnerships across the industry.

For many years, education technology companies worked in silos, and we've noticed that in order to be truly successful at helping educators improve student outcomes, we need to work together to provide open ecosystems that offer a 360-degree view of student performance. These open, flexible environments give teachers access to the key insights they need to provide a personalized learning experience for every student—bringing together assessment, instruction and learning analytics to drive student growth. Continued collaboration among best-inclass education technology companies will help empower teachers to truly do what they do best—create energizing learning experiences in the classroom." -Sally Searby // Vice President of Strategic Partnerships, Renaissance



"Digitalization is everywhere but we need to work hard to make it happen in education widely enough

and so that it is of high quality. Different schools and different countries are on a different level on this. Not only technology but also change management is needed."

—**Johanna Kartila-Malmivaara** // CEO, Cuppla Technology

"Perhaps the most important understanding today, and for future prediction, is that edtech is leverage of our humans when done right. It can replace function, and so it does replace the traditional teacher pedagogy. This is, most fundamentally, the transformation of learning. It is changing every level of

education from the Feds to school districts, to IT departments to classroom management. Technology—the devices and the software—is replacing functions of teaching, but not the functions that make people relevant everywhere and always. In fact, a keener focus on teacher "human-ness" is the new trend to watch for in the industry. That is what leaders are going to be looking for and what teachers will be expected to deliver to truly support our children as they grow into the leaders of tomorrow. 88% of schools and districts according to our 2017 Digital Curriculum Strategy Survey will be buying more digital resources in 2018, estimated to amount to an uptick of \$800 million in the K-12 market which will total \$9.7 billion. Meanwhile, consumers will be spending over \$15 billion on direct purchase of digital learning of all kinds. We are in a critical moment for schools to level up to consumer-grade expectations of user interface and user experience—the good stuff, and not the ol' talking head video and PDF. Learning Counsel also sees digital security is a very important area for schools to grow their maturity based on data to be released in early 2018."

-LeiLani Cauthen // CEO & Publisher, Learning Counsel; Founder of KnowStory.com

"Formative assessments are a

common tool teachers use to check for understanding of important concepts, and to help the teacher figure out what to review or teach in a new way to increase student understanding. The most helpful methods of formative assessment are those that are easy to implement but still provide the information teachers need

about whether their students have met their learning targets. Verbal questions that require simple student responses are easy but may not provide enough information, especially when it comes to students who may not understand, and thus are reluctant to respond. Because formative assessment directly informs instruction, it should be incorporated on a regular, if not daily, basis. With a tool like pivotEd, the quality questions are designed to provide the answers the teacher needs, and because they are built right into the instruction, they are easy to implement. It's especially helpful to provide different ways for students to respond, which can help reluctant or hesitant students come out of their shell. Seeing the students' interaction with the material means educators can modify instruction almost immediately as they identify what concepts need additional clarification—and also as students themselves identify where they may need additional support. Assessment for learning can be ongoing and become an integrated part of instruction."

—Dawn Nelson // School Library Media Specialist, Oak View Elementary School, Minnesota



"The edtech industry is going through three shifts. The first, and where it started was focused on efficiency. Large education

publishers made the switch to digital textbooks. This was efficiency for them rather than any substantive benefit for the end consumer. Kids could now see the same stuff but on iPads! The second shift was to use technology to deliver a better learning outcome or improve efficacy in the classroom. Many tools have appeared that help teachers deliver curriculum and generate data to support

and measure improvement. The last shift, which is just beginning in 2017, is the move towards engagement tools that will galvanize the students (and teachers!) with an online experience that will keep them coming back and asking for more. The real holy grail for edtech success is to have a wholistic strategy that combines all three shifts. Because if you miss anyone of the three, you wont last long in the online world.

-Chris Twyman // Founder & CEO, Boomwriter Media, Inc.



"There will be no differentiation between digital citizenship and citizenship. We will be preparing

students to be good citizens in every class and every grade offline and online. A student's digital brand will become synonymous with their offline character."

-Melissa Davis // Founder & CEO, GoEnnounce

What are your thoughts on

- · the state of education,
- technology's role in it, and
- what's just ahead?

Write to us:

edtechdigest@gmail.com

SEISMIC ACTIVITY: DEALS, ANNOUNCEMENTS. **HAPPENINGS**, & LANDSCAPE MAKEOVERS

Edtech: the sweet spot convergence of education and technology, continues to grow larger, penetrating deeper into the bedrock on which schools are rooted.

At the same time, it continues to impact and redefine practices and goals for learning, giving them renewed purpose and synching them ever closer to the forces that shape our world.

Here are some notable indicators, evidence of powerful forces at work; items that caught the editors' attention and merit some focus and reflection. -MG

Among other 2017 indicators, this signals strongly the return of focus on teaching technology as part of reconceiving education in relation to the changing world of work

→ Google commits \$1 billion in grants to train U.S. workers for high-tech jobs

"The nature of work is changing on a global level at a rapid pace. Sure, it's not the first time work has been dramatically impacted by technology, but the growth of automation, robotics, Al and the like have the potential to displace jobs at an unprecedented rate. And Google will almost certainly be one of the driving forces behind that transformation.

The search giant has regularly expressed a desire to help stem some of that negative impact, and now it's putting its money where its mouth is to the tune of \$1 billion. CEO Sundar Pichai announced Grow with Google at an event earlier today in Pittsburgh, PA. Over the next five years, the initiative will commit \$1 billion to nonprofits aimed at training American workers and helping build business."

SOURCE: https://techcrunch.com/2017/10/12/google-commits-1-billion-ingrants-to-train-u-s-workers-for-high-tech-jobs/

Policy makers continue to see technology as one of the prime the sweet spots for today's students preparing themselves for successful futures

→ Congress launches annual app contest

The 2017 Congressional App Challenge kicked off last week and several Minnesota congressional offices are enthusiastically on

The app challenge was launched in 2013 as a way to coax more students into science, technology, engineering and math (STEM) skills. In 2016, more than 2,150 students from 120 districts dreamed up 650 original apps during the regional competitions.

Winners from each district have their tech on display in the Capitol and on the House.gov website for a year, as well as getting a share of \$50,000 in credits from Amazon Web

SOURCE: http://www.startribune.com/congress-launches-annual-appcontest/437402663/

Large infusions of funding for school networks, data-driven solutions, and research and development of scalable models...

→ Foundation pivots from previous priorities

"The Bill & Melinda Gates Foundation announced a new investment of \$1.7 billion for K-12 education over the next five years, with the bulk of the funding aimed at existing traditional public schools that show progress in improving educational outcomes, the development of new curricula, charter schools focused on students with special needs, and "research and development" for scalable models that could inform best practices...

"About 60 percent of the \$1.7 billion will go toward the development of new curricula and networks of schools that work together and use data to identify local problems and solutions. About 25 percent will go toward what Gates termed "big bets" that could revolutionize education through research and development in the next 10-15 years, citing it as an area severely underfunded compared to other sectors in the U.S. economy. The remaining 15 percent will be for charter schools, Gates said."

SOURCE: https://www.edweek.org/ew/articles/2017/10/19/gatesfoundation-announces-new-17b-for-k-12.html

Focus on programs that integrate STEM, computational thinking and problem solving in day to day classroom instruction

→'Ignite My Future' Aims to Change Learning

'Ignite My Future in Schools' incorporates computational thinking and problem-solving, which are used in STEM and other subjects. "Using extracurricular activities and after-school programs to pique students' interests in science, technology, engineering and math careers is a common trend. An initiative, "Ignite My Future in Schools," takes a different approach by encouraging teachers to incorporate STEM activities into their day-to-day classroom syllabi and make classes more interactive for

India-based Tata Consultancy Services (TCS) and Discovery Education recently launched the program, which aims to help students apply computational thinking and problem-solving in their work, train teachers and administrators to become wellversed in a transdisciplinary approach, and embed computational thinking into everyday disciplines, according to the program's press release. This initiative is geared toward middle schools and focuses on improving the teaching environment in public schools across the United States. Its resources are available online free of charge."

SOURCE: https://www.usnews.com/news/stem-solutions/articles/

2017-04-11/ignite-my-future-aims-to-change-stem-learning-in-public-schools

Heightened focus in sparking interest in STEM Careers, quality STEM Education for all makerbased learning, and more...

→ Recaps and Videos From the 2017 U.S. News **STEM Solutions Conference**

The brightest minds in business, academia, nonprofit and government gathered in San Diego, California, May 24 through May 26 for the 6th annual U.S. News STEM Solutions National Leadership Conference.

SOURCE: https://www.usnews.com/news/stem-solutions/articles/2017-05-27/ recaps-and-videos-from-the-2017-us-news-stem-solutions-conference

Funding and focus on practices and resources for personalized learning

→ Gates, Zuckerberg Philanthropies Team Up on Personalized Learning

"A joint \$12 million grant to support personalized learning reflects growing ties between the Bill & Melinda Gates Foundation and the Chan Zuckerberg Initiative. Read more. (Digital Education)

The grant marks the first substantive collaboration of the Bill & Melinda Gates Foundation, chaired by Microsoft founder Bill Gates, and the Chan Zuckerberg Initiative, the philanthropic and investment arm of Facebook founder Mark Zuckerberg and his wife, pediatrician Priscilla Chan.

Their joint award was given in April to New Profit, a Bostonbased "venture philanthropy" organization. New Profit will in turn provide \$1 million, plus extensive management advising, to each of seven other organizations working to promote personalized learning."

SOURCE: http://blogs.edweek.org/edweek/DigitalEducation/2017/06/ gates zuckerberg philanthropy personalized learning.html?cmp=emlenl-eu-news2-RM

Chinese company to provide AI-based, online adaptive learning resources

→ Yixue Education Raises \$41 Million:

"Shanghai-based K-12 online education company Yixue Education has raised \$41 million in an angel round led by SIG China with participation from Nokia Growth Partners, New Oriental Education & Technology and Greenwood Investment, according to China Money Network, which cited local media.

The company aims to use artificial intelligence to provide tailored educational programs for each student, which noted that Yixue has worked with SRI Lab at Stanford University to study and employ adaptive learning in its technology, reports said."

SOURCE: https://marketbrief.edweek.org/marketplace-k-12/k-12dealmaking-panorama-education-raises-16-million-explorelearning-acquires.

As districts increase focus on including SEL, they look for Curriculum, PD, and Assessment Tools

→ K-12 Interest in Social-Emotional Learning **Surges, Creating Opportunities for Companies**

Districts Are Looking for Curriculum, PD, and Assessment **Tools That Show Evidence of Success**

SOURCE: https://marketbrief.edweek.org/market-trends/k-12-interest-insocial-emotional-learning-surges-creating-opportunities-for-companies/

Funding and focus on technology to improve education by providing developing areas access to quality learning materials; training for teachers; and help for students

→ Google.org announces \$50M for education and tech

"Google.org today announced a \$50 million commitment to education nonprofits over the next two years.

It marks the largest commitment to a single topic area ever made by the organization — the philanthropic arm of Google — and reflects its focus on technology as part of the solution to poverty and inequality.

"We've seen there's a role for technology to play in creating a richer learning environment, but only if we can get all teachers and students really benefiting from it," said Brigitte Hoyer-Gosselink, education lead at the "dot org" offices in San Francisco..

The funding will be focused on three areas in which the organization believes technology can improve education in developing countries: providing access to quality learning materials; training and engaging teachers; and helping students in crisis and conflict zones."

SOURCE: https://www.devex.com/news/google-org-announces-50mfor-education-and-tech-89881

Increased reach of ISTE Standards along with tools to support the field in making effective use of them

→ BrightBytes and ISTE Announce New Tool to Help Schools and Districts Address Digital Readiness

"SAN FRANCISCO (PRWEB) November 02, 2017
The International Society for Technology in Education (ISTE) and BrightBytes, a leading K-12 learning analytics platform, today announced a new collaboration aimed at helping school and district leaders better understand and monitor progress around putting the ISTE Standards into practice.

Designed as a framework for rethinking education and empowering students to be digital learners, development of the <u>ISTE Standards</u> combined research-based, field-tested concepts, expert input, and feedback from 5,000 educators around the world. States, including Connecticut, Wisconsin, Vermont, and Michigan, and dozens of districts, are adopting the standards to guide their digital learning initiatives.

Through the collaboration, a new ISTE Standards Lens will be integrated into BrightBytes' <u>Clarity® analytics platform</u>, allowing schools, districts, and states to view their data through the framework set forth in the ISTE Standards. The BrightBytes platform is currently used in 1 in 5 schools nationwide."

SOURCE: http://www.prweb.com/releases/2017/10/prweb14854730 htm

Important step in top level acceptance for and formalization of technology across the curriculum

→ Connecticut Becomes First State to Endorse ISTE Standards

"WASHINGTON, D.C.— Oct. 18, 2017 — Today the <u>Connecticut Commission for Educational Technology</u> and the <u>International Society for Technology in Education (ISTE)</u> jointly announced that Connecticut is the first state to endorse both the ISTE Standards for Students and for Educators.

The ISTE Standards are designed to empower student voice and ensure that learning is a student-driven process. The standards work together to support learning by providing aspirational and achievable guidelines for the skills and knowledge that students, educators and leaders need. The standards provide a framework for rethinking education, adapting to a constantly changing technological landscape and preparing students to enter an increasingly global economy. The Nutmeg State's endorsement of the standards comes as the Connecticut Commission for Educational Technology announced a five-year plan that supports the effective use of technology for all learners, teachers and educational organizations in Connecticut."

SOURCE: https://www.iste.org/explore/articleDetail? articleid=1091&category=Press-Releases&article=

Another important step in the formalization of technology as a standards-based approach to educational goals, practices, and resources

→ ISTE Announces Education Organizations Earn the Distinguished Seal of Alignment

"WASHINGTON, D.C - June 5, 2017 - The <u>International Society</u> <u>for Technology in Education</u> (ISTE) today announced that <u>Level Up Village</u> and the <u>ICDL</u> Certification Program are the first two organizations to address all of the elements contained in the <u>2016 ISTE Standards for Students</u> and received the ISTE Seal of Alignment.

The <u>ISTE Seal of Alignment</u> is considered by the edtech industry and educators as the gold standard for high-quality products and services aligned to the ISTE Standards. Products and resources submitted to the ISTE Seal of Alignment program undergo a rigorous review and are evaluated based on their pedagogical value."

SOURCE: https://www.iste.org/explore/articleDetail? articleid=982&category=Press-Releases&article=

Increased scrutiny of educational resources as purchasers and providers refine offerings

→ Edtech impact guide is a resource for vendors — and school decision-makers, too

"Today's education decision-makers face many challenges when it comes to procurement, not the least of which is determining a product's effectiveness — that is to say, the likelihood that it will positively impact learning for their students. On the other side of the procurement equation, vendors face challenges around both determining the efficacy of their products and engaging in candid conversations with potential clients.

Interactions between purchasers and vendors face perennial challenges: Leaders may be wary of promises made by vendors, and vendors may feel like they are limited in their opportunities to engage with clients who actually need what they are offering. These issues are compounded for both sides by the rapid pace of technological change, which makes it difficult to quickly and reliably understand how effectively edtech products and services function in various real world contexts. No wonder procurement is such a puzzle. The new Guidelines for Conducting and Reporting EdTech Impact Research in U.S. K-12 Schools, recently published by the Educational Technology Industry Network (ETIN) and Empirical Education, help bridge this gap."

SOURCE: https://www.iste.org/explore/articleDetail? articleid=2096&category=Education-leadership&article=

CATALYSTS, CHANGE AGENTS & FORCES OF NATURE: IMPACTFUL PEOPLE, ORGANIZATIONS & RESOURCES

Who are the advance scouts, the pioneers who've identified fertile territory to explore and develop, the drummers who've loudly set in motion important vibrations, the dancers who've captured our attention and imagination?

Monitoring the educational landscape for particularly bright signs of life, here are some people and developments that have found their way to the center of EdTech Digest's radar screen.

Here are some of the resources and the people and organizations behind them that are vigorously moving our communal significance meter as they help to shape the still-glowing, new educational paradigm. —MG

People



Learner (Network) Will **Richardson and Bruce Dixon** Featured in the EdTech Digest post "Trends | The Modern Learner" Richardson's and Dixon's work effectively and elegantly crystallizes the work and thinking of progressive educators that has evolved over

Co-founders of The Modern



the past several decades. Their work features the powerful whitepaper "10 Principles for

School of Modern Learning", importantly subtitled "The Urgent Case for Reimagining Today's Schools" to be found, among other offerings, at the website of their organization, Modern Learners, "A global, trusted network of over 10,000 education leaders and teaching professionals supporting each other in fundamentally changing the practice of schools."

✓ Rallying groups of like-minded, similarly enlightened educators around a set of guiding principles will be an important next step in the evolution of educational goals and practice in age of technology.



Quizlet CEO Matt Glotzbach Interviewed by EdTech Digest editor in chief, Victor Rivero, "Practice, Master, Repeat" (posted on October 6, 2017) Quizlet CEO

Matt Glotzbach explained "It's pretty incredible to see how Quizlet has evolved, from a student-created application for studying French vocabulary to a global learning platform. Today we're much, much more than flashcards and rote memorization. Two initiatives we've launched in the past year that I'm particularly excited about are Learn, which is built on the Quizlet Learning Assistant Platform and uses machine learning to power effective student studying; and Diagrams, which allows students to see what they're learning in a whole new way. Today, we're the largest online learning platform in the U.S., and we help more than 25 million students each month practice and master whatever they are trying to learn."

✓ As we more fully enter Education's new phase, that of Student-Directed Learning, tools like Quizlet will continue to resonate and contribute the change that's happening. Part of this digital shift involves students accessing learning tools for purposes they identify and to use them where and when they feel they are advantageous.



Newsela Founder and CEO Matt Gross

The in-depth interview with Matt Gross <u>Good News for Literacy</u> <u>and Learning</u> was posted on

June 16, 2017 in EdTech Digest. Newsela publishes high-interest news and nonfiction articles daily at five levels of complexity for grades 2-12 using a proprietary, rapid textleveling process. By combining relevant and interesting nonfiction content with standardsaligned assessments, their platform gives educators a primary solution to dramatically improve students' literacy skills.

✓ Broadly providing accessible, relevant, engaging content to masses of students is one of the most transformational ways to impact today's students.



Lifelong Kindergarten: Mitch Resnick

Mitch Resnick introduces himself to the world on his website (https://web.media.mit.edu/

<u>~mres/</u>) stating "I'm the LEGO Papert Professor of Learning Research at the <u>MIT Media Lab</u>, where I lead the <u>Lifelong Kindergarten</u> research group.My group develops <u>Scratch</u>, the world's leading coding platform for kids.

He was first featured in EdTech Digest in the post "Trends: Lifelong Kindergarten", back on April 12, 2011. Persistent in his vision and his work, Resnick's insights have been high profile this year, in numerous published interviews and his 2017 book titled (what else) Lifelong Kindergarten –subtitle: "Cultivating Creativity through Projects, Passion, Peers, and Play."

✓ One of the most important movements within the field of edtech currently is teaching and learning coding and programming for students at almost all levels. Much of the groundwork for this approach was laid by the late Seymour Papert beginning with the development of the LOGO programming language back in 1967. Mitch Resnick is a former student and longtime collaborator of Papert. One outcome of this work is the ever more popular SCRATCH programming language which, as of August, 2017 had garnered the attention of more than 20,000,000 users (see: https://wiki.scratch.mit.edu/wiki/ How many people use Scratch%3F)



Sylvia Martinez

Co-author of Invent to Learn (with Gary Stager), Sylvia continues her pioneering work to spread the spirit and word of

Maker Learning. (From her website): "I try not only to capture the excitement, cool tools, and ethos of the Maker Movement, but also the opportunities to reinvent education. By combining the noble history and origins of making in the classroom, with the sharing, remix, and invention culture of today, I hope to inspire educators about possibilities that exist in every classroom, every grade, and every subject area. "

✓ Maker-based Learning, The Maker Movement, is one of the most encouraging developments in education, organically combining some of the best of 21st Century Skills and technology-supported learning, with approaches and practices to celebrate and reaffirm students' natural need to explore, discover, and invent as part of the human experience of learning.



CoFounder of Achieve 3000 Saki Dodelson - EdTech Digest Awards Program 2017 WINNER FOUNDER/CEO. Saki continues her work with Achieve 3000,

whose trend setting resource was one of the first popular applications of technology to the perennial literacy instruction dilemma of determining and providing the correct level of literacy material to present to young learners. Achieve 3000's website explains that its approach to online differentiated instruction "...engages all learners at their individual reading levels and constantly challenges them to improve their literacy skills."

✓ Providing quality "tailored to student need" differentiated materials is key to today's classrooms providing the personalized learning experience that educators have long wanted to. Achieve 3000 was one of the pioneers in putting this option within grasp of schools.



Pharrell Williams (featured in the EdTech Digest post UNPACKING EDTECH https:// edtechdigest.wordpress.com/ 2017/07/11/reflections-on-

iste-2017/) (From the post) "As everyone on the planet knows, Pharrell Williams is the composer, singer, and music video star of the Grammy Award winning song, "Happy" which coincidentally is the basis of Tuniversity's first book, "Learn Pharrell Williams' Happy A Modern Method for Writing, Recording, and <u>Producing Music"</u> — an instructional resource that uses audio, video, and technology tools (including Garage Band) to analyze the song "Happy" — helping students learn creative skills of music making and production. Apple highlighted this strongly at the 2017 ISTE Conference. This is an effort to re-establish Music (and by extension, Arts) Education as a vibrant, high-engagement, tech-driven

phenomenon. The website of Tuniversity (http://tuniversity.com/#music-education-reimagined) proudly presents the motto Music Education Reimagined alongside the photo portrait of Williams under the title text of the book."

✓ Arts Education has long been neglected in our schools. Music, a rich dimension of the human experience has long been shown to benefit students, including making their academic learning more effective. Williams' effort with Apple resource-supported Tuniversity is a significant effort to reestablish the Music as part of the educational experience of students.



Michal Borkowski EdTech Digest Awards Program 2017 FINALIST edupreneurs, startups category. Michael wrote the popular EdTech Digest post For

Edtech to Matter, Students Need to Care (October 24, 2016) - How can technological advances play a role in a student's academic journey?

From his EdTech Digest guest post: "Online learning platforms and study tools were created to benefit students, not burden them. In a society that embraces individuality and authenticity, edtech tools can only thrive when students feel connected in an authentic and organic way.

✓ Powerful and impressive as they may be, technology tools for learning still must work within the context of students growing, developing, and finding their way in a complex world. Conceiving how EdTech resources fit within the context of today's students' lives and experiences is a dimension of the big picture of its success that reflections like Michael's address for all those in the field.



Idit Harel edupreneurs, startups EdTech Digest Awards Program 2017 FINALIST edupreneurs, startups category. Featured in EdTech

Digest Editor, Victor Rivero's interview with her "Idit Harel's Global Vision for A New Generation", Harel explained "The goal of education should be to provide all students with the opportunity to achieve academic fulfillment, joy of learning new knowledge and skills, and economic success. In order to do so, our schools need to prepare them for the new global economy where computer science and utilizing computational tools fluently is the new literacy." In 2006, Harel developed Globaloria, an online learning platform oriented to K-12 curricula to teach students to design, prototype, and code educational web/mobile games and simulations with industry-standard technology as a means of learning content and creative innovation skills.

✓ While many school are just beginning the establishment of Computer Science as the basis for areas of serious study within their instructional program, Globaloria is established as an online 'go to' source for courses, curriculum, insight, and guidance. As an online entity, its reach is potentially global and unlimited.



Melinda Kolk / Student
Creativity Advocate and ____
Melinda is the owner of
Tech4Learning, producer and
provider of classroom creativity

resources, and the Editor-in-Chief of Creative Educator Magazine. She continues to be instrumental in promoting the use of digital learning resources to foster Student Creativity.

✓ Without cost, Creative Educator is available to teachers, informing them of

approaches and methods to integrate easy to use digital resources to integrate technology for the purpose of fostering student creativity within the context of required, standards-based learning across the curriculum.



Co-Inventor of Makey Makey Jay Silver - EdTech Digest
Awards Program 2017
LEADERSHIP FINALIST. Jay Silver
made a discovery when he

connected smart electronic components to a Banana. The rest is history, or at least an important and colorful part of the history of the bringing Maker Learning into the classroom. (see Jay's TED Talk 'Hack a banana, make a keyboard!' - 189,124 views on YouTube as of this writing). Jay, along with co-inventor, Eric Rosenbaum, came up with Makey Makey (https://shop.makeymakey.com/), a kit-based approach to providing "Invention Literacy" experiences for all.

✓ Maker-based Learning is transforming the school experience by re-filling crucial gaps left in the instructional program as schools moved away from commonly providing Industrial Arts programs in favor of more focus on core curriculum instruction, but leaving the students' needs for hands-on, discovery style development unfilled. Schools increasingly seek to fill this gap and can benefit from the availability of materials, like Makey Makey's, conceived and packaged to support them in this.

10 GREAT RESOURCES & THE ORGANIZATIONS BEHIND THEM

1 ClassCraft. Winner: The EdTech Awards 2017 Academic Gaming Solution.

(From the ClassCraft website): "Gamify Your Classes - Transform your classroom into an epic adventure your students play throughout the year! - Used in 20,000+ U.S. schools" More than just a game, ClassCraft utilizes the format of gaming to establish a fresh, effective context for teaching andl earning.

- **2 WeVideo** Winner: The EdTech Awards 2017 Collaboration Solution. (From the WeVido website): "WeVideo is the online video editor that makes it easy to capture, create, view and share your movies at up to 4K resolution for stunning playback anywhere. Video creation for all. Advanced video editing features made easy through a simple interface."
- **3 Soundtrap** Winner: The EdTech Awards 2017 Arts, Music, Creativity category.

(from the Soundtrap website) "Your very own online music studio where you can record your creations with your device microphone. - Explore our extensive collection of beats, loops and instruments or connect your own instruments. - Multi Device: All your projects are stored online so you can access them wherever you are. The cloud

is the limit. - Collaborate: Make music with other people in real time or share with friends.

- 4 Newseum ED Winner: The EdTech Awards 2017 Content Provider Solution. (from the Newseum Ed website) "Free learning tools on media literacy and our First Amendment freedoms. Why NewseumED We provide free quality online resources to cultivate the skills to authenticate, analyze and evaluate information from a variety of sources and to provide historical context to current events."
- 5 edWeb.net The EdTech Awards 2017 Trendsetter Finaiist. (from the edWeb website) "edWeb.net is a highly-acclaimed professional social and learning network that has become a vibrant online community for exceptional educators, decision-makers, and influencers who are on the leading edge of innovation in education. ...edWeb is a place where educators who are looking for ways to improve teaching and learning can gather and share information and ideas with peers and

thought leaders in the industry.



CREDIT: ClassCraft

6 Kids Discover Online. The EdTech Awards 2017 Trendsetter Award Finalist. (from the Kids Discover Online website) "Access Kids Discover's award-winning library of science and social studies material on any device, at any time.

For over 25 years, we've been creating beautifully crafted nonfiction products for kids. With our team of talented writers, award-winning designers and artists, and subject experts from leading institutions, we set out to build our most ambitious product to date: Kids Discover Online."

Discovery Education's Math **Techbook**

From the EdTech Digest post cooltool-discovery-educations-mathtechbook: "This is a breakthrough digital textbook that engages students with real-world problems worth solving. Using a balanced approach to instruction, Math Techbook facilitates in-depth understanding of all three pillars of rigor: conceptual understanding, procedural skill and fluency, and application. Whether every student has a device, several students share a device, or the whole class engages with an interactive whiteboard or other display, students can experience dynamic content, interactives, videos, digital tools, and game-like activities that increase their motivation to learn math."

8 ISTE Standards from the International Society for Technology in Education. ISTE released its ISTE STANDARDS FOR EDUCATORS in 2017. This document (57 pages in its hard copy form) redefines the

context of Education, opening with the section "Transforming the Digital Learning Landscape" and presenting essential shifts in thinking that underpin it. Among the big ideas shared Learning Evolution in which focus moves from Tech Skills, to Learning with Technology, to Transforming Learning with Technology and the context for

instruction moves from Teacher-Driven, to Student Centered, to Student-Driven. The document speaks of "innovations, disruption, and evolution" as ways for Educators to understand the learning landscape "



portfolio and grade book resource guaranteed to make portfolio/ authentic assessment easy. Kids share their work through a digital portfolio—one more example of how technology, the great enabler, has made a long-held goal of progressive educators, portfolio assessment, doable and within the grasp of the average teacher and class. Moving toward competency based, authentic learning... tests need to be

contextualized in a function in which they actually help learning... blurring the line between formative and summative assessment, a healthy, growth oriented goal will require looking at portfolios that present real competencies and growth as students develop them.

-MG



CREDIT: FreshGrade

8 EDTECH TRENDS YOU NEED TO KNOW ABOUT

noun: trend; 1. a general direction in which something is developing or changing.

Call them trends, perceived directions that the field is moving in; we use them to evaluate our progress, and make important decisions about steering our course, adjusting our trajectory.

Perhaps 'navigational markers' describes them better - or perhaps they're well marked onramps to important destinations we'll be arriving at soon.

With so much activity going on involving the use of technology in our schools, it's good to take a few minutes to focus on concentrations of similar activity, areas of particular focus and expected return on investment as we set the controls for the next leg of the journey. The following are areas of intense interest that showed up strongly in 2017, with every indication of defining our path through the 2018 landscape of edtech. —MG

TREND 1

>Re-invigorating Teaching

Important Truth: Teaching, the most core business of education, can't stand still. Those who teach and the platform from which they practice their art must grow and develop in relation to the ever-changing body of needs of their students.

The practice of, and platform for teaching, in fact, is expanding—getting deeper and richer constantly with new and more robust instructional resources and fresh approaches to reaching students.

Turning on those virtual 'light bulbs' over their heads reflects reconceived and reinvigorated professional development, new and exciting tools of the craft, and practices to use them in. Important evidence of this has been showing up in the news all year.

Here are a few examples of interest.

Teaching Resources. The resources available for teaching are getting richer, more effective, and greater in variety and quantity due to technology-driven development and distribution.

(Education Week - March 28, 2017) **Open Educational Resources Movement Scales Up**

"The online movement to share free educational materials is adding entire curricula to its offerings, rather than just individual lessons and units...

...a number of organizations and state and local education agencies have begun creating openly licensed resources that they say will meet schools' appetites for full platefuls of curriculum, covering entire subjects and grade levels, and not just slivers of them." SOURCE: https://www.edweek.org/ew/articles/2017/03/29/open-

educational-resources-movement-scales-up-oer.html

(Education Week - June 12, 2017) Science Learning No Longer Bound by **Limits of School Laboratories**

"Online simulations and virtual experiments are allowing students to re-create lab activities that might be too time-consuming or expensive to do in the classroom. In addition, there are hundreds of science websites that bring videos, interactive lessons, and data into classrooms, everything from NASA's offerings on weather and the Mars rover, to National Geographic's animal videos."

SOURCE: https://www.edweek.org/ew/articles/2017/06/14/sciencelearning-no-longer-bound-by-limits-of-labs.html

Professional Development & Teacher

Assessment. As the challenge of being prepared to teach increases, very fortunately, opportunities to make that possible more than keep pace. This is a great time to be grappling

with a wonderful problem to have: how to offer our young people the very best experiences to learn and grow.

(EdTech Digest June 23, 2017)

How Video-Driven PD Favors Growth over 'Gotcha!'

"Instead of having teachers 'put on a show' during classroom visits, this principal implemented a collaborative feedback system that truly improves practice... more than anything, it removes the "gotcha" piece of evaluation. I don't like that kind of atmosphere. I want to create an atmosphere where teachers want to get better at teaching, and where I can be there to help them do their best. One way I can do that is by creating a resource library of videos to showcase our teachers who are doing something really creative." SOURCE: https://edtechdigest.com/2017/06/23/how-video-driven-pd-

Fresh Practices. No surprise that our times demand different types of activities for learners. Ours is a technology/media shaped world and learning to take one's place in it requires that learning experiences reflect that.

(pbs - Jun 6, 2017)

favors-growth-over-gotcha/

How media literacy can help students discern fake news

"Recognizing bias in news stories is one form of media literacy. Spotting when the news is totally fabricated is something else entirely. How can teachers help students tell fact from media fiction? Educators and media literacy advocates in Washington state are working together with legislators to address the problem."

SOURCE: https://www.pbs.org/newshour/show/media-literacy-canhelp-students-discern-fake-news

(EdSurge - Feb 7, 2017)

Beyond the Hype: 5 Ways to Think About Virtual and Augmented Reality in Schools

"Virtual and augmented reality are described as the 3rd media wave, following the web browser and the mobile phone. Others are calling it a break from the information age and dive into the experience age. Regardless of how it is defined, it's an emerging, young space... the physical nature of VR allows teachers to

move beyond thinking about a new way of storytelling to exploring new ways of being."

SOURCE: https://www.edsurge.com/news/2017-02-07-beyond-the-<u>hype-5-ways-to-think-about-virtual-and-augmented-reality-in-schools</u>

(HJnews - April 8, 2017)

Environmental educators share citizen science tools at annual conference

"... environmental educators took to a small park along the Little Logan River and started collecting data and observations of their own with the smartphone app iNaturalist.

With iNaturalist, a free app, anyone can take a picture of a living thing, enter some basic data, like "Pine Tree" or "Beetle" and then someone with knowledge on the subject can identify the specimen..."

SOURCE: https://news.hjnews.com/allaccess/environmentaleducators-share-citizen-science-tools-at-annual-conference/ article_00148546-5e47-5cfd-bd20-c8c068960283.html

TREND 2

>A.I. Transforms the Horizon of **Educational Possibilities**

The progression should have been obvious, as should have been its application to education.

First, computers emerged satisfying our hunger for a way to handle more and more detail-oriented grunt work, and to handle it ever more quickly.

Next, we set before these artificial brains the task of learning.

Finally, we have them learning how learners learn and using that knowledge to teach.

How this will all shake out remains to be seen. Will the machines we've designed and imbued with artificial intelligence help us teach ourselves?

Will they free us up to teach our students the things they can't, transforming teachers into the expert educators who have the luxury of focusing on teaching Higher Order Thinking Skills, self reflection, and the skills of Creativity and *Innovation?*

Since the field's very beginning, edtech enthusiasts have deflected sci-fi fueled, Luddite warnings about computers replacing teachers.

We've assured ourselves that to the contrary, technology will be applied to helping improve the education that schools provide.

This narrative has never been more needed and never rung more true.

Indications are that we are at the threshold of a far better brand of education now that A.I.informed, Digital Teaching Partners are beginning to show up where education happens.

Expect great things to come!

(BBC - December 14, 2016) Could robots be marking your homework?

"Artificial intelligence has become an increasingly big issue for education - not least because many tech companies and publishers are circling around the huge commercial opportunities...

... Georgia Tech, a university in Atlanta in the US, deployed a teaching assistant called Jill Watson for one of its postgraduate courses... Jill Watson was really a robot, who helped students and answered their questions in an online forum, without revealing her cyber-identity. The only thing that students noticed was that Jill Watson answered questions and provided feedback much more quickly than other teaching assistants."

SOURCE: http://www.bbc.com/news/business-38289079

(EdWeek - September 26, 2017) How 'Intelligent' Tutors Could Transform Teaching

"Intelligent-tutoring systems like ALEKS (for Assessment and LEarning in Knowledge Spaces), Cognitive Tutor, and a new program in development by IBM's Watson initiative are starting to expand in K-12 education..." SOURCE: https://www.edweek.org/ew/articles/2017/09/27/how-

intelligent-tutors-could-transform-teaching.html

(The Next Web - March 13, 2017) **How Artificial Intelligence enhances education**

"Artificial Intelligence has proven its role as a game changing factor in an increasing number of fields, causing transformations unimaginable in the past. It's now showing glimmers of how it might forever change the learning process, one of the oldest skills that mankind has mastered.

... Machine Learning algorithms, programs that glean patterns from data and provide insights and suggestions, help teachers to find gaps in their teachings and point to where students are struggling with subject matter."

SOURCE: https://thenextweb.com/artificial-intelligence/2017/03/13/ how-artificial-intelligence-enhances-education/#.tnw_czpDuaBY

TREND 3

>Student Creativity

Student Creativity represents a major, nextstep frontier.

While much is said about Student Creativity from time to time, the Education Sector has yet to fully embrace fostering creativity as a learning goal and to make it a prominent part of the instructional program.

Recent months have marked a renewed focus on this area, one that will prove crucial in the challenge-filled future, as today's students graduate and tackle problems like saving the environment, inventing one's own career, global health crises, and complex financial issues.

Traditionally, creativity was the province of the special few.

Our tech-defined world though, has become one with a need for all people to be familiar with the phenomenon of creativity and to be creative in their learning and working, in fact throughout their lives.

(THE Journal - 07/16/13)

Teachers: Technology Encourages Student Creativity, Makes Teaching Writing Easier

"A new survey of teachers from the <u>Pew Research</u> <u>Center's Internet & American Life Project</u> found that most teachers involved in the survey consider technology beneficial to writing in several ways, including creativity and personal expression (78 percent), collaboration (79 percent), and the ability to share their work with a wider audience (96 percent)." **SOURCE:** https://thejournal.com/articles/2013/07/16/teachers-technology-encourages-student-creativity-makes-teaching-writing-easier.asp

(eSchool News - October 2nd, 2017) 3 ways to strategically incorporate creativity in schools

"How do you weave creativity into the fabric of school curriculum? School leaders are tasked with this expectation in order to prepare our students for the demands of 21st century workforce skills. But how can this be accomplished?...

..Technology adds to this professional learning method as webinars and twitter chats are organized around the topic of teaching creativity..."

SOURCE: https://www.eschoolnews.com/2017/10/02/incorporate-creativity-schools/

(Ed Week TEACHER - September 20, 2017) Educators Should Steal Google's Secret About Creativity

"Google founders Sergey Brin and Larry Page aren't shy about sharing the secret of how they came up with new products like Gmail and Google News: They allowed the company's engineers to be creative. To be exact, they allowed their engineers to spend 20 percent of their work time on their own innovative passion projects... What if our K-12 schools believed in students the same way that Google believes ..."

SOURCE: https://www.edweek.org/tm/articles/2017/09/20/educators-should-steal-googles-secret-about-creativity.html

TREND 4

➤ Career & Technical Education for the 21st Century

Recently, educators have begun to take ownership of that huge elephant in the room, the rapidly changing nature of work and the need to change the educational experience given to students to prepare them for it.

One crucial determinant of success is the skill set that workers show up with.

This shift has been foreshadowed for years, with some educators taking it to heart.

Now, however, there are sufficient breadcrumbs of irrefutable evidence for us to see an institutional change in the making that demand our attention:

- 1) technology represents both a cause of the change and the solution to coping with it.
- 2) 21st Century Learning is a body of bulls-eye targets that educators can take aim at as they plot new curricula for the evolving world.

All successful workers in the world that is coalescing around us will need to be smart workers, adept with technology and beneficiaries of an education powered and defined by it.

(EdTechDigest - June 29, 2017) Trends | Shift to a Digital Workforce

"ISDI Digital University, an in-person and online graduate school in Silicon Valley offering a Master's degree in Internet Business, surveyed over 100 companies and found that 56 percent of talent professionals across the United States find it increasingly difficult to find digital talent. As digital transformation continues to rapidly evolve across industries, this has created an exponentially increasing digital skills gap..."

SOURCE: https://edtechdigest.com/2017/06/29/trends-shift-to-a-digital-workforce/

(Education Week - October 13, 2017) Google Announces Job-Training Program, **Grants Aimed at Future of Work**

"Google announced yesterday a multi-pronged effort to help students and workers better prepare for a rapidly changing labor market. The online-services giant launched "Grow with Google," which aims to provide training and certificates related to a variety of technical and entrepreneurial skills. The company's philanthropic arm, Google.org, will make \$1 billion in grants over the next five years to nonprofit organizations working in education, job training, and equal opportunity." SOURCE: http://blogs.edweek.org/edweek/DigitalEducation/2017/10/google_jobtraining future of work.html?cmp=eml-enl-dd-news2&M=58240740&U=626037

(Forbes - Nov 22, 2016)

21st Century Education For A 21st Century Economy

"Work based skills are changing as more and more jobs are displaced by digital technologies. Software, apps and online technology such as Uber, Airbnb, Legal Zoom and TurboTax to name a few has already had an impact on many professions. Online shopping has eliminated tens of thousands of retail store positions... If history is a reliable guide, the technologies that are eliminating one set of jobs will create others: jobs that require twenty-first century—mainly digital—skills."

SOURCE: https://www.forbes.com/sites/nicholaswyman/2016/11/22/21stcentury-education-for-a-21st-century-economy/#321168bf6cba

TREND 5

>The New (Digital) Content

Teachers assign it.

Students consume it.

it's content, instructional material, the stuff that fuels the day-in and day-out activity of learning.

Since the advent of digital content, there's been a wonderful blurring of the lines of plain old lessons and special projects—between required reading and focused researchbetween what's assigned and what's passiondriven, self-directed inquiry.

Ideally, the format that instructional content is provided in, mirrors the format that students consume content in on their own in the world they live, play, and dream in beyond school.

And why shouldn't school content be that which establishes a students' taste and expectations for content, why shouldn't it be the content that best fires their imaginations and satisfies their needs for inspiration?

(SETDA - June 2017)

Navigating the Digital Shift II: Implementing Digital Instructional Materials for Learning

"SETDA expands upon the 2015 Navigating the Digital Shift report with a focus on living and learning in the digital age. In this second publication, stakeholders will learn about states' guidance and policies around the implementation of digital instructional materials, as well as best practices..."

SOURCE: http://www.setda.org/priorities/digital-content/navigatingthe-digital-shiftii_2017/

(EdTech Digest- February 13, 2017) Cool Tool | Discovery Education's Science Techbook

"The first of Discovery Education's series of awardwinning digital textbooks that are now currently used by more than 3 million students in all 50 U.S. states and several Canadian provinces is their Science Techbook™. Originally launched in 2009, the Science Techbook utilizes an inquiry-based format built on the Engage, Explore, Explain, Elaborate, Evaluate (5E) model. It includes rich, standards-aligned content such as video, audio, text, interactives with hands-on activities, and virtual labs that help educators differentiate instruction and personalize learning..." SOURCE: https://edtechdigest.com/2017/02/13/cool-tool-discovery-

educations-science-techbook/

(EdScoop - Aug 24, 2017)

SETDA resource helps states grapple with adopting digital instructional materials

"As state and school leaders confront the growing influence of technology in education, the need for guidance continues to grow on how best to establish policies and practices for implementing digital instructional materials.

In a <u>webinar</u> Thursday, the State Educational Technology Directors Association (SETDA), along with education officials from Louisiana and California, addressed exactly that, building on recommendations from a report issued earlier this summer..."

 ${\color{red} \textbf{SOURCE:}} \ \underline{http://edscoop.com/setda-resource-helps-states-grapple-with-adopting-digital-instructional-materials}$

TREND 6

➤ Education Beyond the Cognitive Realm: Whole Child

Social and Emotional Learning, Growth Mindset, Personalized Learning, and More

Finally, with transformational digital tools and the insights how to use them broadly available, education is turning our attention to the whole student.

Here are some of the important developments in this area of focus that persistently show up where educators focus their vision and effort into providing the learning experiences that today's students truly need.

(EdTech Magazine - September 2017) Educators Use Skype to Foster Empathy Toward Other Cultures

"Videoconferencing at the K–12 level truly has the power to knock down classroom walls. From creating opportunities for students to <u>engage with experts</u> as far away as Antarctica to <u>bringing their favorite books to life</u>, teachers have embraced <u>Skype</u> as a tool to broaden their students' horizons..."

SOURCE: https://edtechmagazine.com/k12/article/2017/09/educators-use-skype-foster-empathy-toward-other-cultures

(edutopia - September 14, 2017) A Classroom Full of Risk Takers

"State teachers of the year explain how they make students feel safe enough to take risks—and then push them to do so...

...you have to fail in order to grow, and you need to do that through difficult situations. How rigorous are my classes? Do I create a safe space for everyone to speak freely? Are my students respectful to one another, and do they support each other to take risks and fail?" **SOURCE**: https://www.edutopia.org/article/classroom-full-risk-takers

(Education Week - April 12, 2017) Powering Personalized Learning in Chicago

"Reimagining learning can happen anywhere -- in an old Navy warehouse, former dental clinic, or an open field. On a recent trip to Chicago, we experienced three schools flourishing in dated buildings and custom designed spaces. All three were supported by nonprofit innovation catalyst LEAP Innovations."

SOURCE: http://blogs.edweek.org/edweek/on_innovation/2017/04/ powering_personalized_learning_in_chicago.html?cmp=eml-enl-eu-news3

(Smart Brief - April 4, 2017) Boost growth mindset with tech

"Growth mindset" is the idea that ... a person's perceived talents or academic and interpersonal skills are NOT fixed at one level, but can develop, given the right tools and effort...

...Some technology tools can help develop students' growth mindset, in subject areas where they commonly experience difficulty. There are five characteristics of the growth mindset: Challenges, Obstacles, Effort, Criticism, and Success of Others."

SOURCE: http://smartbrief.com/original/2017/04/boost-growth-mindset-tech

TREND 7

>Transformed Student Experience

What's been coming ever more sharply into focus during our experience with technology-supported education (and that period of progressive efforts that lead up to it) is that the

goal of education cannot be the student's internalization of a fixed curriculum.

Rather, it must be the student's discovery of himself as a learner, exploration of the phenomenon of learning itself, and his evolution as a self-directed, motivated, masterful learner. To that end, much was accomplished this past year.

Here are a couple of signpost indicators that came into view as we got closer to that goal.

(EdTech Digest - October 12, 2017) **In Student Hands** How technology drives personalized learning.

"Our students are now avid consumers in the business of technology. Our children just don't play video games alone. Instead, they are often playing online with other children across the country and around the world. Many of the students in our classrooms have smartphones and can access the Internet anytime and anyplace. For the first time, we are teaching children who are technology natives. As a result, we have to change how we teach in schools." SOURCE: https://edtechdigest.com/2017/10/12/in-student-hands/

(TED YouTube Channel - Sep 7, 2010) **#TEDEdChat: New experiments in self**teaching | Sugata Mitra

"Education scientist Sugata Mitra tackles one of the greatest problems of education — the best teachers and schools don't exist where they're needed most. In a series of real-life experiments, he gave kids selfsupervised access to the web and saw results that could revolutionize our thinking."

SOURCE: #TEDEdChat: New Experiments in Self-Teaching | Sugata Mitra

(EdTech Magazine - August 2017) **Students Want Access to More Online Classes and Mobile Learning**

A new study finds that students are using tech for selfdirected learning outside of school...just over half of K-12 students have access to a one-to-one device

program at school, 56 percent of students say they use more technology at home than in school. ...<u>new research</u> from Project Tomorrow indicates that overall students are quite interested in exploring more self-directed learning at home, eSchool News reports." SOURCE: https://edtechmagazine.com/k12/article/2017/08/ students-want-access-more-online-classes-and-mobile-learning

TREND 8

>Global Learning Environment

The traditional classroom, the one so many hundreds of millions of students spent their youths in, was a very isolated place.

The universe inside populated by teacher and thirty-plus students who so rarely had contact with or access to anyone or anything beyond its four walls, the upshot being that opportunities to learn were so limited. Ironic, as education amounted to being sequestered from the world in order to learn about that world.

Talk about a paradigm shift.

With one—or hopefully a class set of connected devices, all of that changes.

Classrooms become not a cloister, but a portal to a vast universe of what is and what's possible.

The classroom becomes not a cocoon, but a jumping off place, a staging area for explorations of a wide and rich world.

(Orange County Register - April 6, 2017) Anaheim kids have live video chat with astronauts on the International **Space Station**

"ANAHEIM "Betsy Ross, you guys hear us from the space station?"

"Yes!"

Some 150 students, in the auditorium of Betsy Ross Elementary School, had the chance on Monday to chat with astronauts living aboard the International Space Station.

Expedition 50 Commander Shane Kimbrough and Flight Engineer Peggy Whitson spent 20 minutes answering questions from students, who have been preparing for months for the "Skype from Space" event by doing space-related research and projects.

SOURCE: http://www.ocregister.com/2017/04/03/anaheim-kids-have-

live-video-chat-with-astronauts-on-the-international-space-station/

(Campus Technology - 02/13/17) Students Across the Globe Learn About Augmented Reality — From Each Other

"One faculty member at Bentley University in Waltham, MA, considered ways that his students might best learn to create and use augmented reality. He designed a bold experiment with a partner school, Politehnica University of Timisoara, in Romania — the students would create AR artifacts to examine and learn from each other. In this learning collaboration, students from these two schools, on separate continents, learn about augmented reality..."

SOURCE: https://campustechnology.com/articles/2017/02/13/ students-across-the-globe-learn-from-each-other-aboutaugmented-reality.aspx



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"Education is a big, big

challenge now. If we do not change the way we teach, [then] 30 years [from now] will be trouble. Because, the way we teach—the things we teach our kids—are the things from the past 200 years; it is knowledge based. And we cannot teach our kids to compete with machines [that are] smarter. We have to teach something unique, [so] that a machine can never catch up with us."—Jack Ma, Founder, Alibaba, at World Economic Forum in Davos, Switzerland, January 2018. //

STATE OF EDTECH

EDTECH'S TOP INFLUENCERS—

The minds behind what's now and next.

By VICTOR RIVERO



Their dedication, their

drive, their willingness to take responsibility for others—to help those around them (and countless others they'll never meet), these are people you want to be around, and feel better after having known and communicated with them.

Current and former educators, speakers, authors, writers, engineers, technologists, company founders, team players, leaders all—they represent a wide swath of who's who in edtech, as well as newer talents who are shaping the future of edtech.

They get things done. They are ethical, focused—composed. They care deeply about the future.

Tenacity is another word to describe them. No guts, no glory.

They lead projects, teams, movements, companies, but most of all, they lead people.

By their example, by their actions, by what they write, communicate and the products they create—they are more than a social media follower count, they are interacting with those around them, making the world a better place through their work in education technology, and this year, they are all edtech's top influencers.

Here they are and why. Enjoy!





Doug Dohring **CEO** Age of Learning

Brought together experts in education, creative content, and engineers to

launch one of the most comprehensive digital learning resources for young children, established access initiatives for community institutions, while raising \$150M to become one of the world's top edtech companies.



Nancy Knowlton -**President & CEO Nureva**

In 1987 founded SMART Technologies from startup to \$800M annual revenue

then spent the last five years leading a diverse group of people working together toward a common goal creating even more technology that is simple, thoughtful and makes collaboration easy.



Ben Wallerstein **CEO & Co-Founder** Whiteboard Advisors

Idea man; helping education investors,

companies, and nonprofits on complex policy challenges and communications strategy, committed to equity and access in public education with invaluable analysis; led his DC-based team in building an unparalleled, well-connected group.



Ayah Bdeir -Founder & CEO littleBits

After doing her part to make Beirut a creative hub, put the power of

electronics in the hands of a new generation of inventors with her award-winning library of modules that snap together with magnets; showing how a little work goes a long way, a bigtime maker movement leader.



Michael Moe **Co-Founder Partner GSV Asset Management**

We heard him speak nearly 20 years ago and never forgot his revolutionary talk, the same has been happening for thousands of founders ever since; mustering the world's most influential at the ASU+GSV summit, he himself is one of edtech's most influential people.



Jaime Casap 🛑 **Chief Educaton Evangelist Google** Rising from Hell's Kitchen, NY,

Google's chief education evangelist is

equally proud of being a 10th-grade communications educator at Phoenix Coding Academy; has spread the word on the power and potential of technology to promote inquiry-driven project-based learning models.



Alvin Crawford -**GM Education** Public Consulting Group Secured partnerships with Chicago,

Philadelphia, Atlanta, and DC during

nearly a decade with SchoolNet; a passionate reformer, he then led Knowledge Delivery Systems before moving on to further address college & career readiness, equity, closing achievement gaps.



Sheryl Abshire -**CTO** Calcasieu Parish Public Schools Lively Louisiana leader, longtime (four

decades!) tech integrator, advocate,

speaker; constantly seeking and sharing knowledge and resources, has helped schools access millions in technology funding with her infectious can-do spirit.



Mike Silagadze = Founder & CEO Top Hat

Grew his student engagement software company more than 617%

creating an amazing place filled with smart people driven by the clear mission to improve education. Now, spiffily doing just that for millions of students at three-quarters of the top 1,000 U.S. colleges and universities.



Kimberly Bryant -Founder & CEO Black Girls CODE

Engineer who decided in 2011 to introduce girls from underrepresented

communities to the world of computer science and technology; excels in leading a network of people to build effective relationships empowering them to reach their peak performance and drive.





Jamie Candee **CEO** Edmentum

Over a decade, worked her way from HR through nearly every department of her

company until 2014, then in 2017 rejoined as CEO; her unstoppable team is now a leading online learning solutions provider supporting educators and students in more than 40,000 schools.



Karen Panetta **Dean Graduate Engineering Education Tufts University**

Computer engineer, inventor,

trailblazer; but truly brilliant in helping more than 85,000 children, parents, and educators with engineering outreach activities as a real-world practical STEM proponent, and founder of Nerd Girls; also gives a great interview.



Jim Shelton -President, Education **Chan Zuckerberg Initiative**

Top-level leader with some of the

biggest names in education, from NewSchools Venture Fund, Gates Foundation, U.S. Department of Education, and 2U; it's no wonder 'Priscilla and Mark' tapped him to head the newest philanthropic behemoth addressing the future of humanity.



Karen Cantor -**CEO** Digital Promise

From head of education at Apple to the Office of Education Technology at the U.S.

Department of Education, a leading figure in advancing learning and education; oversees an Edtech Pilot Framework providing a step-by-step process helping ed leaders and tech developers to success.



Phyllis Lockett • **CEO** Leap Innovations

Raised \$70M to open 80 new public schools in Chicago, now she's jumping

into creating an edtech hub for the Windy City, advancing personalized learning, identifying, piloting, researching and expanding innovative teaching and learning from pre-K to college.



Karen Billings **Principal BillingsConnects**

Steady behind-the-scenes force, moved on from decade-plus VP and Managing

Director role at Software & Information Industry Association and continues to help guide and connect countless company leaders to greatness.



Bill Goodwyn **President & CEO Discovery Education**

Most don't work 3 years—let alone 3 decades —at any one company, but this EdTech Leadership Award

Winner has been busy: since 1987, oversaw distribution for companys 13 TV channels, grew Discovery Communications' U.S. content stream revenues to \$1B+ annually, and all for a company synonymous with riveting visual content.



LeiLani Cauthen **CEO** Learning Counsel

On a nonstop tour of more than 50 cities meeting and guiding educators

and superintendents through digital transitions, literally wrote the book on Consumerization of Learning about current state of education disruption, she's leading leaders forward into a technological Age of Experience.



Ash Kaluachchi -**Producer NY EdTech Week**

Raised in Sri Lanka, advised 1000+ edtech founders, mentors, and strategic

partners in the US and Asia; the co-founder of StartEd is an accelerator- and people-builder with a dedicated drive toward solving education's most challenging issues.



Paul LeBlanc -President **Southern New Hampshire University**

Grew SNHU from 2800 to nearly

100,000 as one of largest non-profit providers of online higher education in the country, first to have a full competency-based degree program; created initiative to cut degree cost by 40%; leader in the vanguard of reshaping higher education.



Charlie Miller Founder & Chief Design Officer Flipgrid

Tearing up Twitter and rocking out at edtech conferences nationwide, this designer-at-heart created a simple but brilliant video-based social learning platform that has turned learning upside down for millions in the education sector and beyond.



Like a runner in the city's famous marathon, he's setting a pace with a resilient spirit, advancing students forward toward a strong finish, and using technology to increase student access to opportunities, empower educators, and open lines of communication.



innovation in education, supports the broader K-12 industry and is also waking up 2.2 million K-8 students and 80,000 teachers to a successful reality every day with over 255 million math lessons.



technology changes teaching and its impact on learning, and you'll feel right at home with a great host who infuses passion, innovative ideas, and boundless energy into an important conversation.

Jennifer Carolan Co-Founder & General Partner
Reach Capital

Leads a team of former teachers, entrepreneurs and product managers; prefers action over 5-year plans. With classroom teacher origins herself, extended help to more than 50 early-stage companies and has made \$67M go a long way in creating so many of edtech's best and brightest.



transforming U.S. classrooms, his highquality affordable doc cams make it clear to

classroom teachers that overhead projectors are a thing of the past. If a picture is worth a thousand words, his impressive devices are endless galleries of student enrichment.



Vital voice in the edtech conversation, widely read and no doubt widely ignored

(at your peril), edtech's Cassandra is yours in struggle and keeping it (sometimes too) real—as she magnificently exemplifies an oft-absent yet important 21st-century trait: independent, critical thinking.



high school, this EdTech Digest Leadership Award honoree wrote the book on, well, several things: *Digital Leadership, Learning Transformed, Uncommon Learning,* and more. When he speaks, educators listen.



Ambitious, energetic, focused; devoted to bringing the world's most cutting edge

science, engineering, and tech to the most needy groups. "Showing luminous colors that seem to change when seen from different angles" is the meaning of iridescent; in that sense, a true visionary.

CEO Consortium for School Networking

Since 1995, has led the nonprofit voice of K-12 technology leaders, especially school district CTOs using tech to strategically improve teaching and learning; his 'networking' isn't just tech-sense; he's brought together and empowered education leaders to form a truly meaningful group.





Bobbi Kurshan **Executive Director, Innovation** Penn Graduate School of Education

An education entrepreneur and expert

on how innovation and tech transform teaching and learning, she's spent 30+ years working in and researching the education marketplace; her always-innovative insights make for enlightening and timely reading.



Ken Wallace Superintendent Park Ridge, Illinois 30 minutes from downtown Chicago, a former English teacher / wrestling coach

continues to smack down some of the biggest issues in education while maintaining his optimism, his love for learning, and answering the question, how can we use tech to solve real problems?



Bridget Foster SVP & Managing Director EdTech Industry Network, SIIA

Drives strategic direction, programs and initiatives for her education members focused on providing tech products and services to K-12 and postsecondary markets, has done so for over a decade; education is a purpose-driven passion and for many, a business; she helps with both.



Hal Friedlander -**CEO** Tech. for Education Consortium Believes public schools No. 1 problem is buying technology effectively; how much

should all of this technology really cost, aren't districts flying blind, where is the transparency in edtech? The answers lie in a collaborative effort, and he's inviting you to see through it, and see edtech through.



Erin Osborn Co-Founder & COO BetterLesson She's installed solar powered pumps in southwest Kenya, taught kindergartners

in Cambridge, Mass., worked alongside educator/ activist Jonathan Kozol, and recently closed \$10M (Owl Ventures) to help scale her virtual coaching program for K-12 teachers.



Jeanne Allen **Founder & CEO** The Center for Education Reform

The reform pioneer and a managing

partner of StartEd network is a driving force behind NYU Steinhardt NY EdTech Week, and a leading speaker at the Global Education Innovation Festival; she's defining some of education's key issues, and gathering industry luminaries to help.



Andrew Ng Co-Founder Coursera

The Stanford adjunct professor originally developed the university's

main MOOC, taught an online course offered to more than 100,000 students; research on machine learning and AI, with an emphasis on deep learning; one of the brightest minds in Al today; there's undoubtedly more to learn.



Jodi Marshall **President & CEO FLVS**

From middle school literacy to full-time online teacher, IMS Global Learning

Consortium Board of Directors; she's served in various roles (Senior Director Instruction, VP Instruction, Chief Academic Officer, EVP Business) with the renowned first statewide online school in the U.S.



Byju Raveendran **CEO & Founder BYJU**

India's largest edtech company's namesake; son of teachers from small village in Kerala,

the self-taught student could teach others a thing or two about funding, he's raised more than \$200M for \$1B valuation, poised to help 227M students in India alone with a range of online classes.



Dan Rosenweig **President & CEO** Chegg

Once sold word processors door-to-door, was Yahoo COO then CEO for Guitar

Hero, now heads up the billion-dollar edtech firm, at first focused on textbook rentals, now helping students save time, save money, and get smarter in more ways. Also, Chegg plants trees—more than 6 million to date, making him a natural leader.





Vesa Perälä 💳 **Founder CLANED**

Finnish entrepreneur disrupting education with an Al-driven social

learning platform, in an EdTech Digest interview, says he is looking to seriously shake up education on a global level; doesn't desire to retrofit outdated systems, but write a new rulebook instead.



Lee Ann Lockard **Executive Director Texas Connections Academy**

Combination of physical and virtual

school leadership experience, was principal of Houston-area 33,000-student Spring Branch ISD for nearly 20 years; a stabilizing team builder and EdTech Digest Leadership Award winner.



Michael Horn Co-Founder Christensen Institute, **Chief Strategy Officer Entangled Ventures**

Wrote the book on Disrupting Class; a leading voice on many fronts of school change, advisor at Robin Hood Learning+Tech Fund, LearnLaunch Institute, partner at NextGen Venture Partners; his influence is widely felt across edtech via clearly communicated books, articles, and speeches.



Kari Stubbs 💳 VP Learning & Innovation -**BrainPOP**

An elementary school teacher 10+ years; now powerfully presents internationally on a wide range of education topics in locales from Abu Dhabi, Qatar, Hong Kong, Malaysia, Prague, Shanghai, and Dubai—to Australia, Paris, Beijing and throughout the U.S.



Mark Weston -Strategist, Author, Researcher, **Contributing Editor** EdTech Digest

Key player at Dell, Apple, Education Commission of the States; advises leaders on edtech

and public policy, consulted 13 countries, 42 state legislatures, US Congress, dozens of companies, hundreds of districts. Pioneered earliest laptop for every student initiative with Angus King.



Katie Salen Co-Founder Connected Camps, Founding Exec. Dir. Institute of Play

RISD grad and professor of game

design and development, instrumental in bringing together design, research, and interdisciplinary partners to create, study and promote game-based materials, strategies and systems as tools for personalized learning.



Suzanne Klein 🛑 **Founder & CEO** WriteSteps Writing Elementary teacher, coached teachers nationwide, writing instruction expert;

modeled lessons in over 400 classrooms, presented districtwide seminars; her passion for helping other educators grew into an award-winning business now boosting literacy and writing across the U.S..



Kate Volzer Founder Wisr

First-gen college student who continued working for alma mater U

Chicago in admissions office where she read more than 10,000 application letters—many heartwrenching; with unique perspective on plight of applicants, started an edtech company radically improving institutional processes.



Frank Bonsal III **Director, Venture Creation Towson University**

This edtech investor and teacher-coach is best friend to hundreds of entrepreneurs in the edtech space. His TU Incubator has supported 80+ companies, induced 1,000 new jobs, \$30M in outside capital, and created \$150M in economic impact as Maryland's largest edtech hub.



Reshma Suajani 🕳 Founder & CEO Girls Who Code

An attorney and activist, during a 2010 run for Congress, saw gender

gap in computing classes leading her to start the nonprofit she now heads, bringing together powerful names in business, and introducing 40,000 girls to coding through afterschool and summer programs.





Regional Director Associated
Professional Educators of Louisiana

An award-winning multiple degree-

holding educator, she empowers other educators to discover and amplify their intrinsic desire to become innovators in education, and is creating a worldwide network of like-minded improvement-focused education leaders.



Elliott Levine Director of Education HP

As his company's first Distinguished Technologist focused solely on edtech,

drives strategy for the \$1B blue chip; speaks on future of education and knows K-12 and higher education, as well as startup experienced; a strategist, planner, and enthusiastic thought leader.



CTO & CIO
Green Bay Area School District

The former teacher is a 30-year veteran of education, masters in edtech, built a data warehouse, passionate about providing technology

and opportunities to all students; built a regional consortium of schools working to provide real-time data to principals and teachers.

Ma Co

Mark Milliron Co-Founder & Chief Learning Officer Civitas Learning

First-gen college student, came from a

family of nine; helms one of higher education's fastest-growing companies; believes we're entering a Golden Age of Learning and is making it so in his scalable work with radically personalized, powerful tech—and actionable data—for all.



Cindy Wenjuan Mi Founder & CEO VIPKID

With Jack Ma Foundation, her company launched an English-

language education initiative for schools in rural China; her edtech company makes students aged 4-12 feel highly valued with help from the world's best teachers for real-time online English immersion learning.



Jinal Jhaveri CEO & Co-Founder SchoolMint

Frustrated San Francisco father struggling to enroll his own daughter in preschool,

created an invaluable cloud-based (vs. paper-based) student enrollment school choice platform now used by pre-K-12 schools worldwide, helping parents toward a smoother, streamlined experience.



Deborah Quazzo Managing Partner GSV AccelerationAs co-founder of the annual ASU+GSV Summit, now in its 9th year with over

4,000 attendees, a key figure in celebrating innovations and innovators across the global \$4.9 trillion education and talent technology landscape; one of the most results-oriented leaders in the industry.



Mitch Weisburgh Founder Academic Business AdvisorsDeveloped systems, content,

curriculum and courses across K-12,

postsecondary, and corporate training sectors; helped countless organizations grow; co-authored SIIA guide to postsecondary market; edtech speaker; EdTech Awards judge and games-forlearning advocate.



Marcus Noel Founder & CEO Heart of Man

ConnectED fellow at U.S. Department of Education, this STEAM design thinking

teacher is now founder of immersive entrepreneurship program enabling middle and high school students to identify their core motivations, transforming them into gamechanging products and businesses.



Matt Pittinsky CEO Parchment

Famous as a Blackboard co-founder, the ASU assistant research professor is a

longtime leader in the edtech world, he jumped back in after a fledgling startup at the first ASU+GSV Summit caught his eye. He's also a co-founder of EdTechAZ, helping local (Arizona) startups.





Anthony Kim Co-Founder Education Elements

First interviewed by EdTech Digest in 2012, began career helping higher ed

with tech projects and data; moved into K-12 shortly after with online learning emphasis; his work has resulted in 130% student growth in reading, 122% in math; working with over 127 districts in 34 states, he's seen what constitutes success.



Alefiya Bhatia Co-Founder Crescerance

In 2011 started creating apps for schools to increase community

engagement, but a side effect was interest in how the apps were created, and a Mobile App Development (MAD-learn) offshoot was born to teach students to move from being tech consumers to becoming tech creators.



Jose Ferriera Co-Founder & CEO Bakpax

After his \$157M Knewton (through which he nearly coined the term "adaptive

learning"), the former Kaplan exec is now busy building a new edtech startup helping to carry the load for a group that could really use it: teachers who "are overworked, underpaid, and underappreciated."



Susan Patrick President & CEO iNACOL

One of few in the 'former Director of the Office of Education Technology' club, wrote

2005 National Education Technology Plan for Congress; that same year started her role in creating the leading voice in online blended competency-based education; she's online learning's strongest advocate.



Darryl AdamsRetired Superintendent
Coachella Valley USD

Began his career as musician, singer/

songwriter and music publisher in hometown of Memphis, TN; went on to become LAUSD music teacher, then principal and superintendent who provided iPads to 20,000 students; the hip-hop 'edu-tainor' and speaker delivers unique 'keynote concerts'.



Under her leadership, the mainland China-based online one-to-one English

platform for potentially 40 million young children is showing the world what China can bring to edtech, cooperating with international publishers like Pearson, and she's just getting started.



Ben Vedrenne Founder EdTechX Europe

First wrote for EdTech Digest on the Digitalization of Education back in 2013;

since built Europe's largest edtech summit, now in its 5th year, gathering exec level investors, innovators, and influencers from European and international education companies—recently expanding into Asia as well.



Andy Plemmons Library Media Specialist Barrow Elementary

pedagogy and technology to inspire them.

His students Skype often with authors, guest speakers, and developers of the tools they use in class; his students-as-creators approach has inspired a global education community; continues to focus on giving students a voice – using smart



Jennifer Groff
Co-Founder
Center for Curriculum Redesign

A Ph.D. candidate at MIT Media Lab, educational engineer passionate about redesigning

learning environments to put deeper learning for each learner at system center; Executive Producer of Playful Learning, a Learning Games Network project, watch for more from her in the future.



Richard Culatta CEO International Society for Technology in Education (ISTE)

Former (and first) Chief Innovation

Officer in RI, was Senior Advisor to U.S. Secretary of Education; recently took the helm of the 16,500-member nonprofit org working with global education community through advocacy, standards and hosting one of edtech's largest gatherings.





Cathy Cruzan -**President** Funds For Learning

Since 2000, has been an integral part of the nation's leading E-rate Funding

Compliance Services firm; committed to the longterm success of the E-rate program, she's helped 700+ clients in all 50 states understand rules and effectively obtain billions of dollars for their school tech.



Elad Shoushan **CEO** Readv4

A former Israeli national team basketball player and cum laude grad, he's upped

his game to create the world's most advanced mobile learning platform, having reached over 2 million learners in 195 countries and 100+ university partners to connect with students worldwide.



Charlene Blohm -**President CB&A**

Education, special needs and workforce development clients are better for her

help; more than 26 years opening doors and creating connections for others. A multiple EdTech Digest Leadership and Trendsetter Award winner, she's a well-known industry go-to person.



Charles Best -Founder DonorsChoose

In 2000, launched nonprofit classroom crowdfunder out of Bronx high school

where he taught history. Addressing educational inequity, his bright idea raised \$615M for 1M+ projects helping 25 million students, 76,000 schools and 395,000 teachers with donations from nearly 3 million discerning supporters.



Robert Iskander -Founder& Chairman VIP Tone

In 1992, started Middle East ops for Sun Microsystems; founded the

SchoolTone Alliance in 1999, former EVP and GM of WestCorp's SchoolMessenger solutions 2014-17, this veteran technology leader has served over 100 million end users to get very important people parents—communicating about education.



John Baker 🛑 Founder & CEO D2L

While a 22-year old engineering student, founded the now 750-

employee strong company, with nearly \$200M in funding, serving both higher education and K-12, transforming the way millions of students learn with a unique untraditional LMS.



Libby Fischer —— **CEO** Whetstone Education

Her New Orleans-based edtech firm makes classroom observation easier

with a platform on which leaders take notes, share feedback, set goals, and analyze progress in one place; she's worked very hard to make a smoother process for school leaders to pinpoint teacher needs and next steps for growth.



Karl Mehta 🕳 Founder & CEO EdCast

With his then 12-year old son, cofounded PlaySpan (acquired by Visa for

\$190M), then in 2013, the EdTech Digest Trendsetter Award winner founded a learning experience platform serving Fortune 500 companies with its 'knowledge-sharing cloud'.



Horacio Ochoa 🛑 **Head of Marketing Bloomz**

Marketed Zune and Xbox for Microsoft; consulted for Starbucks food in retail

stores; created a site connecting people who love Mexican culture with hard-to-find products, and now just surpassed the 1 million mark applying his hard-won marketing genius with a web app securely connecting teachers with parents.



Eric Allen Founder Admit.Me

With a 'focus-on-growth—sleep-optional' mantra, this Wharton-MBA grad is

building an admissions community of applicants providing the tools that help students get accepted to their dream programs; his platform reduces the 480:1 student-to-guidance counselor ratio to 1:1.





Tom Vander Ark CEO Getting Smart

The former WA superintendent and retail chain exec distributed \$3.5

Billion as first Executive Director of Education for the Gates Foundation; a Learn Capital partner, prolific writer, speaker, summited 14ers, but his vast learning landscape knowledge makes him an indispensable guide for all things edtech.



Sandra Paul Senior Exec Instructional Tech

Former New Jersey school district administrator, tech teacher in the US

Virgin Islands; has spent over two decades speaking about BYOD, Web policies, social media, connected educators, and is an #edtechchat tweeter and active in CoSN, ISTE, and founding member of EdcampNJ.



Fernando Valenzuela EdTech Edupreneur Latin America

18 years a teacher and a pro soccer coach, he's leveling the playing field for

education in 25+ countries as one of Latin America's most capable digital transformation catalysts, a charismatic leader shaping the future of education for millions of students.



Sophie Bailey Founder The EdTech Podcast

Improving dialogue between ed and tech through storytelling, former head

of content for BETT has her own podcast downloaded 1,500+ times a week in 140+ countries; in 2017, hit 100,000 downloads for the year; with 100 episodes done, she's just getting started. Next: a festival.



President EdTech Strategies

Former Executive Director of the State Education Technology Directors

Association, now the head of a heavy-hitting consultancy at the intersection of education, public policy, tech and innovation—his high-profile empirical research, writing, and speaking is enlightening leaders on some of edtech's toughest issues.



Tracy Weeks Executive Director State Education Technology Directors Association

Former Chief Academic and Digital

Learning Officer for NC department of public instruction, the self-described data geek is one of the nation's most prominent leaders in academics and digital learning, on a mission to provide safe access and high quality education for children.



Jeremy Friedman Founder & CEO Schoology

An EdTech Leadership Award honoree, in 2012 he wrote about *The Data Dilemma in*

Education, and has appeared in EdTech Digest indepth interviews about the future of edtech; he's since expanded his LMS from 100,000 to a whopping 20 million users—and continues to innovate.



Jennifer Corriero Executive Director TakinglTGlobal She's been designing and delivering youth engagement programs since

1999 when she founded her global youth network (now 500k-members strong). Avid supporter of classroom tech, she's been an EdTech Awards judge, has presented in 30+countries and inspired youth worldwide.



Anant Agarwal Founder & CEO edX

MIT professor taught the online learning destination's first course on circuits and

electronics, drawing 155,000 students from 162 countries. With 90+ partners, edX is the only nonprofit open source MOOC provider; he's co-founder of several companies as well, and one of the world's leading computer science innovators.



Rita Ferrandino Founding Partner Arc Capital Development

With three decades worth of success

in building companies, her global private investment and advisory firm operates in the K-20 market and has served 105+ clients. She's a dream-making rainmaker—and for those who've spent any time around her, fun-maker.





tech companies and national associations respond to a shifting market; her ever-popular 'She Snoops for Scoops' column has been a longtime hit with edtech industry leaders; her big presence in the sector has brought people together.



Tory Patterson **Managing Partner** Owl Ventures Swooping into edtech with \$185M in fresh capital specifically for education

startups, he's heading up a team eager to support a new wave of entrepreneurship and innovation across the education spectrum and has partnered with 15+ companies thus far, and more to come.



Rose Else-Mitchell **Chief Learning Officer Houghton Mifflin Harcourt**

From classroom teacher to television book reviewer, former EVP of K-12 U.S. and Global Product Development at Scholastic responsible for READ 180, MATH 180—she's now heading up HMH Efficacy Research, Learning Science and Data Analytics teams, and teaching / learning platforms.



Sugata Mitra 💳 **Professor of Educational Technology Newcastle University**

With his Hole in the Wall experiment, and widely viewed TED talk, taught the world valuable lessons about what happens when children are let to explore technology on their own terms; inadvertently, illuminated the disparity between our advanced technology and levels of humanity.



Mary Skipper -Superindent Somerville Public Schools MA

TechBoston Academy's founding headmaster, former Boston Public School Network Superintendent, and former Technology Project Manager within BPS Office of Instructional Technology, she's no stranger to bringing innovation and leadership to diverse neighborhoods.



Lev Gonick **CIO** Arizona State University

Educator, technologist and smart city advocate, he's been teaching, working

and living on the 'net for more than 25 years. Co-founder of DigitalC, the next-gen broadband nonprofit, he's been on a mission to make the internet accessible for living and learning, and is in the league of extraordinary edtech visionaries.



Kecia Ray **Executive Director Center for Digital Education**

Led instructional technology programs for metro Nashville Public Schools, the former ISTE board of directors now capably and energetically leads school district officials at the helm of one of the nation's foremost research and advisory institutes for K-12 and higher education.



John Bailey = Fellow Chan Zuckerberg Initiative

Big thinker, clear communicator, approachable; a consistent leader in

edtech over the years, with U.S. Department of Education, Gates foundation, White House ('07-'09), Whiteboard Advisors, Digital Learning Now!, Foundation for Excellence in Education, and now a Fellow at CZI.



Vicki Davis — Teacher, IT Director Camilla, Georgia

The very full-time educator doesn't stop with her classroom, her lessons are transforming the way people think about teaching as she shares BYOD stories on her blog, with 153K followers, through her 5-day a week "10-minute Teacher Show" podcast, and more than 20 keynote speeches.



Rob Waldron **CEO** Curriculum Associates

Educator-founded firm recently quintupled revenues, making it nation's fastest-growing

K-12 education publisher. His 700+ staff Billerica, MAbased top-place-to-work is a \$190M blended learning powerhouse, and the EdTech Award honoree is focused on the long term—he's signed a 20-year contract.





EDTECH1000: COMPANIES TRANSFORMING EDUCATION

10 COMPANIES TO WATCH & WHY

THE EDTECH AWARDS

WITH GENEROUS SUPPORT FROM

THE FUTURE

Technology, ever the

enabler, will function as an engine to realize educators' dreams.

Best practices—ways of fostering learning long held as optimal, but until now too impractical for mass implementation—are increasingly becoming 'good to go.'

More of this sort of transformation beckons from distant horizons and those freshly within grasp.

Where are we heading?

Here are some specific developments that schools will be experiencing. —MG

DEVELOPMENT #1

The Learning Environment and the experiences offered in it, continued evolution.

supported student The digital learning center (soon no longer to be known as The activities. Classroom) will become the norm as we move closer to true tech ubiquity: devices, infrastructure, connectivity, and human capacity to implement technologysupported student activities. In addition to smarter and more sophisticated instructional content and tools with which to access and process it - we'll see: - Robots, both humanoid and other - Learning Resources that leverage Artificial Intelligence (Machine

Learning). There will be far less educational

drudge work for both teachers, students, and supervisors. And freed up, school will be able to focus more on offering the, until now,

elusive Thinking Curriculum fueled by inspiring, passionbased learning experiences. School is about to become, very cool!

The digital learning center (soon no longer to be known as The Classroom) will become the norm as we move closer to true tech ubiquity: devices, infrastructure, connectivity, and human capacity to implement technology-

(Financial Times) How robots are teaching Singapore's kids

In Singapore, admired globally for its education system, authorities are trialling the use of robotic aides to teachers in kindergartens. Two humanoid robots, Pepper and Nao, assisted teachers in a seven-month trial at two Singapore preschools last year, while technology-enabled toys such as Kibo were deployed at 160 nurseries, including Sparkletots.

(EdTech Digest) Cool Tool **Awe Media**

With this cool tool, create your own Mixed Reality experiences with a simple drag and drop interface, with no code - using your computer, smartphone or tablet. This company also helps schools and organizations customize complex "awe" apps and even roll out branded awe platforms for your group.

DEVELOPMENT #2

Deeper, Broader Technology **Integration** through

implementation of a body of practices and the symbiotic development of new varieties of resource to support them. We will soon arrive at a situation in which the existence of a tech-based resource that reestablishes virtually all teaching and learning functions in an improved and enhanced way, that teachers who opt for older, hard-copy

oriented teaching will need to be prepared to explain why they made that decision.

(EdTech Digest) Cool Tool | NextLesson

This platform offers K-12 teachers over 10,000 resources that engage students in real world problem solving through topics they care about, such as movies, books, sports and celebrities. Complementing core adoptions, NextLesson enables students to develop deep understanding of skills ...

(EdTech Digest) Cool Tool | Discovery Education Streaming

Featuring tens of thousands of standards-aligned and searchable videos, images, primary source documents, podcasts, audio books, articles and more, Discovery Education Streaming has long been a "must have" cross-curricular K-12 digital content resource for educators across the country.

DEVELOPMENT #3

Technology Expanding and Enriching the Learning Platform

More and more educational possibilities will continue to appear. We'll see the increased popularization of Personalized, Self Directed, and Competence Based Learning. Not only will education be tailored to the needs of individuals, but to those of population segments and communities, as well.

WO!

(Edutopia) Computational Thinking Across the Curriculum

As defined by Jeannette Wing, <u>computational thinking</u> is "a way of solving problems, designing systems, and understanding human behavior by drawing on the concepts of computer science." To the students at my school, it's an approach to tackling challenging questions and ambiguous puzzles. We explicitly integrate computational thinking into all of our classes..."

The New Student: self directed and taking charge

"we want kids to figure things out. We want them to know that figuring it out is an employable skill in the work force." (Source:

Mobile lab encourages students to 'figure things out' Columbus Telegram Jan 7, 2017

We want kids to figure things out. We want them to know that figuring

things out is an employable skill in the

work force.

(EdTech Digest) Cool Tool | sofatutor

Students truly thrive when they're in charge of shaping their academic futures and developing their full potential – or so believe the makers of sofatutor, a platform empowering K-12 students by providing them with tools to take control of their own learning...

(New York Times) <u>A New</u> <u>Kind of Classroom: No</u> <u>Grades, No Failing, No</u> Hurry

At M.S. 442, students are encouraged to focus instead on mastering a set of grade-level skills, like writing a scientific hypothesis or identifying themes in a story, moving to the next set of skills when they have demonstrated that they are ready. In these schools, there is no such thing as a C or a D for a lazily written term paper. There is no failing. The only goal is to learn the material, sooner or later.

DEVELOPMENT #4

Teaching, Learning, and the School-to-Work Continuum

School-based Learning experiences will be integrated more fully with the real

world... er, the world beyond school. In essence, the destination becomes the vehicle by which the traveler moves toward it!
Educators and educational policy makers will be taking a much closer look at which skills will actually be of use and in demand in the evolving economy as the general population

continues to experience a disconnect between the relevance of the current curriculum and labor demands of the marketplace.

(Forbes 2017/07/18) Teaching 21st Century Skills For 21st Century Success Requires An Ecosystem Approach

"...students' success in classrooms and in the workforce requires that their educational experiences both reflect our current digital world and equip them to engage with it."

(Education Week's blogs July 31, 2017) Skip Coding, Teach Data Science

"The best way to avoid teaching soon to be obsolete computer languages to waves of young people that may never use them is to lead with problems worth solving and teach just-in-time (JIT) coding." And "While there is high demand for coding skills today, AI will increasingly take over routine coding jobs as it grows in sophistication... The longer term and larger employment and impact opportunities lie in data science..."

DEVELOPMENT #5

Increased Focus on Student Creativity and Preparation for the Creativity- and Innovation-Centered Workplace

This will become a goal and a feature of the average school's instructional program. Classrooms will become publishing centers, galleries and theaters, and digital performance spaces. In many ways, students will use technology to create and share as creativity garners more and more attention and acknowledgement as a process and method to learn. Technology, will play a very large role in the creation of performances

and products with students taking advantage of the large number of technologies and applications designed to support users in this ever more crucial way.

Classrooms will
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In many ways,
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attention and
acknowledgement
as a process and
method to learn.

(EdTech Digest) Cool Tool | Book Creator

Putting publishing into the hands of students is what this cool tool does. With Book Creator, students aren't doing busywork, they are creating content that they can then publish to an authentic audience. They create a finished product and are afforded a platform for sharing their learning with peers and others. This tool has the potential to engage reluctant writers, and it promotes collaboration and understanding in students.

(EdTech Digest) Cool Tool | Drawp for School

Drawp for School is a powerful content creation and collaboration platform for students and teachers. Teachers use Drawp as a robust workflow management platform to automatically distribute, collect and sort assignments and to track collaboration. Students use its creative design tools to add drawings, photos, text and voice recording stickers to any assignment for any subject. Its swipe-to-share feature gives students an easy way to collaborate with other students.

GOOD NEWS!

Congratulations to us.

Here's some very good news for education.

This small collection of items from our virtual scrapbook of "State of" indicators informs the minds behind EdTech Digest that deeper, more meaningful technology use—that's directed at the realization of education's most important goals—is on the horizon.

All of these appeared in 2017.

"Long gone are the days of textbooks and chalkboards. Classrooms have evolved, and teachers are now turning to technology to develop lesson plans. This evolution comes as no surprise considering the variety of options available to students, parents, and teachers. With computers, laptops, tablets, smartphones and more, learning no longer requires the standard tools of the past."

Read the full article at its source: https://edtechdigest.com/ 2017/10/18/tools-teachers-love/

"Using the format familiar to anyone who has viewed various TED Talks, students create an impassioned speech that they use to inform—and perhaps more importantly, persuade—their peers about their key environmental issue..." Read the full article at its source: https://teachthought.com/pedagogy/students-create-ted-talks/

Long gone are the days of textbooks and chalkboards.
Classrooms have evolved, and teachers are now turning to technology to develop lesson plans. This evolution comes as no surprise considering the variety of options available to

students, parents,

and teachers.

"Sixty-three percent of K-12 educators use edtech in their classrooms each day–an increase from the 55 percent reporting the

same in 2016, according to an annual survey from the College of Education at the University of Phoenix.

Read the full article at its source: https://www.eschoolnews.com/2017/10/04/survey-classroom-edtech-rise/2/

"With nearly half a million computing jobs going unfilled this year, according to Code.org, everyone from Google to the White House is eager to emphasize tech training. It's offered in the name of closing the so-called "skills gap," and giving a more diverse set of people, beyond Silicon Valley and New York City, a crack at lucrative careers in tech. But Hopeworks' founders and staff recognized nearly two decades ago that propelling people into the tech workforce from communities like Camden, notorious for its high rates of poverty and crime, requires a lot more than just teaching them to code.

Read the full article at its source: https://www.wired.com/story/incamden-bridging-the-skills-gap-

means-more-than-tech-training/

"Course choice, also known as course access, allows for parents and students to select various pre-approved courses beyond what their districts normally offer. The courses, many of which are taught online, can include everything from university classes and SAT preparation to welder training."

Read the full article at its source: https://www.edweek.org/ew/articles/2017/04/05/course-choice-a-different-way-to-expand.html

"People researching education

technology and learning science — cyberlearning — populate the landscape. A new report from the Center for Innovative Research in Cyberlearning has undertaken the ambitious project of sifting through what those researchers are exploring to uncover the major trends and help us understand where education — pre-K-12 and post-secondary — may be headed over the next decade or two."

Read the full article at its source: https://campustechnology.com/ articles/2017/10/23/6-broad-trendsemerge-for-future-of-ed-tech.aspx

"...Now, new superintendent

one-pagers from CoSN offer a comprehensive set of resources focused on different edtech topics to help guide and empower superintendents as they lead their schools, educators and students through the digital transformation. The one-pagers also aim to help superintendents more effectively communicate with their stakeholders. Communication and how it leads to stakeholder buy-in is consistently identified as one of the most important components of any edtech initiative or school plan."

Read the full article at its source: https://www.eschoolnews.com/2017/10/23/ superintendents-empower-leader/

"While some teachers remain wary of bringing artificial intelligence and automatons into the classroom, others are taking robots beyond

The goal of education cannot be the student's internalization of a fixed curriculum.

Rather, it must be the student's discovery of himself as a learner, exploration of the phenomenon of learning itself, and his evolution as a self-directed, motivated, masterful learner.

—Mark Gura (State of EdTech 2017-2018, p. 47)

STEM classes and into lessons on language arts, social studies, and even art and music."

Read the full article at its source: http://blogs.edweek.org/teachers/teaching now/2017/10/

<u>classroom_robotics_innovation.html?</u> <u>cmp=eml-enl-tu-</u> <u>news3&M=58240826&U=626037</u>

"From digital readers

to online platforms that aim to teach social-emotional skills, schools are increasingly relying on software and devices to try to enliven and enhance day-to-day lessons. But despite their growing use in K-12 education, online curricula, digital tools, and personalized learning programs deliver mixed results.

Some show evidence of success, like digital math games that raise student achievement and engage students. But many others still have significant shortcomings. Do digital tools simply need better instructional design for easier implementation, or should educators consider dramatically scaling down their use of tech?"

Read the full article at its source: http://blogs.edweek.org/edweek/ DigitalEducation/2017/10/canedtech-nurture-heartsminds.html?cmp=eml-enl-ddnews3&M=58240740&U=626037

"The aim of School in the Cloud is to spark creativity, curiosity and wonder in students and inspire them to take control of their own learning. We call spaces that make this happen Self Organized Learning Environments (SOLEs). Sugata Mitra has conducted many experiments since 1999 that have revealed that groups of students can learn almost anything

by themselves given internet access and the ability to work as a community. SOLEs can be created by anyone, anywhere, be it educators, parents or communities. It's simply somewhere students are encouraged to work together to answer Big Questions using the Internet. These places are fuelled by self-discovery, sharing and spontaneity."

Read the full article at its source: http://school-in-the-cloud.dev.indigo.ws/how-to/intro-to-sole/

"Students in Nebraska are learning that to "figure things out" can be a valuable work skill, thanks to a new mobile lab that combines science, technology, engineering and math with hands-on maker activities. The lab, part of a work pathways program, includes stations about coding, and engineering and design." "we want kids to figure things out. We want them to know that figuring it out is an employable skill in the work force."

Read the full article at its source:

http://columbustelegram.com/news/local/education/mobile-lab-encourages-students-to-figure-things-out/article_8c316a12-a8c7-59ff-8888-fb9fcf0c792e.html

"More teachers are taking their lessons online whether it be to YouTube, a blog or Twitter. Some teachers use these sites specifically to provide a place for their own students to find assignments or test prep resources. "

Read the full article at its source:

http://blogs.edweek.org/edweek/curriculum/
2017/01/
arkansas school administrator urges more teacher s to embrace video%20.html

"...what would it take for leaders to create a culture of innovation, where a group felt supported and empowered to take thoughtful and informed risks in order to innovate in service of their students? While any culture shift takes time, we believe there are three practices that help leaders develop a culture of innovation." Read the full article at its source: https://www.edutopia.org/article/getting-beyond-teacherpreneur-zachary-herrmann-zora-wolfe

"Learning in the classroom should be a source of excitement and curiosity, not a boring and dreaded task focused on the memorization of facts for standardized tests. Luckily, education trends are shifting toward project-based learning environments in which real-world problems are a driving force."

Read the full article at its source: https://edtechdigest.com/2017/08/11/the-future-ofstem/

'The economy is rapidly feeling the impact of advanced technologies such as artificial intelligence, which allows computers to make decisions, recognize speech and perform other traditionally "human" tasks. Nearly half of all jobs in the U.S. in the next 10 to 20 years will be related to AI, according to a 2016 Obama administration report, "Artificial Intelligence, Automation, and the Economy."

Read the full article at its source: https://www.districtadministration.com/article/prepping-students-future-computer-science-jobs



Miami-based Nearpod team whoops it up. This dedicated team reaches 1 in 10 classrooms nationwide, more than 5 million students.

TEAMING UP

Purpose-driven individuals grouping together in shoulder-to-shoulder efforts to create the future of learning.

By VICTOR RIVERO



Here are some of the most dedicated companies serving the education sector. They are leading innovative technology solution providers intent on transforming education. From small startups to larger, established firms in K-12, higher education, and workforce learning—the companies highlighted here represent committed individuals who teamed up, scaled up, and looked up toward the mountain of help they could provide others, and despite the odds, said, "Let's do it!"



TOP TO BOTTOM: Age of Learning, Schoolrunner, Packback team members.

COMPANIES TO WATCH



360 Alumni 3A EDucation 3Doodler 3M 500 Startups

A.D.A.M. Aakash Educational Services Pvt. Ltd. ABC-CLIO

ABPathfinder

Academic Progress Accelerate Learning Accel Partners Accuplacer

Achieve3000 AchieveTheCore

Activate Instruction Adaptemy

Adaptive Curriculum

Ad Hoc Academic Limited AdmitSee Adobe

ADTRAN Advanceme

Advancement Courses
AEFOL EXPOELEARNING

Aeris Partners Aerohive Affirm

Age of Learning AirWatch Albert AlchemyVR Alcoa Foundation Alive Studios

Alma AltSchool Alumnifire Amazon Education

Amplify Andela A Pass Ed. Group App Ed Review Apperson Inc. Appleton

Arcademics Ardusat Arivanza Arma Partners
Aruba (HPE)
ASCD
Assembly
ASU+GSV
Atomic Learning
Audio Essentials
Authentica Solutions
Autism Expressed
Autodesk

Autodesk Tinkercad Avaya Aver USA AWE Learning awe Media AwesomeStories AWS (Amazon) Axonify BankersLab BCG

Bedrock Learning!
Bedrock Learning
Belkin Education
Bell Tower Schoolhouse

Benetech Benq BenchPrep BeRobot BETT BiblioNasium

Big Word Club BigBlueButton Inc. BirdBrain Technologies Blackbaud

Blackboard BloomBoard Bloomz Bloxels EDU BNC BocaVox Book Creator BookNook Bookopolis

BookPagez BoomWriter Boulder Learning Boundless Boxlight Mimio Brain Hive

more next page >>



Magic Leap. This is the year. Founder and CEO Rony Abovitz's stealth work in augmented reality and vision becomes

more real as product rollouts soon appear. With \$540 million in recent funding from Google, Qualcomm, Kleiner Perkins and others, the Florida-based company has been working hard behind the scenes to bring the world a fascinating new view of reality that is sufficiently advanced to make your eyes do a double take.



2

littleBits. Founder and CEO Ayah Bdeir sees that our kids spend more than 11

hours with electronic devices every day, so why not help them understand how they work or even how to make their own? She's leading an open source library of modular electronic snap-together products, and her goal is to democratize hardware, to "put the power of electronics in the hands of everyone, to break down complex technologies so that anyone can build, prototype, and invent."

MI Age of Learning

Age of Learning. Regularly ranked as a leading children's learning iPad, iPhone, and Android app in the Kids and Education categories, the company has worldwide reach with more than 3 billion ABCmouse (their flagship product) learning activities completed. They continue to develop other products, are expanding like mad and are looking toward Asia and other markets beyond the U.S.



4

Nearpod. A passionate group of educators and entrepreneurs, they're

one of the fastest growing private companies in edtech, employ over 40 staff, have raised tens of millions of dollars, offer 3,500 lessons, have offices in San Francisco and Miami, and are backed by a team of well-connected investors with unmatched expertise in supporting growth of K-12 companies.

(continued)

COMPANIES TO WATCH (continued)



Brainly BrainRush Breaking the Barrier **Brett E Shelton**

Bridge Int'n'l Academies Bridge U BrightBytes

Britannica Digital Learning bulb digital portfolios

Buncee Busuu Byju's

C. Blohm & Associates

Califone Callido Learning Cambium Learning Campus Suite **Canary Learning** Capstone Digital Capti Voice Career Power CareerInSTEM Carolina Biological **Carrot Rewards**

Castle Rock Research Catalyst

Catapult Learning CatchOn

Cengage **CEV Multimedia** Chalkable Chalkup

ChatterHigh Civitas Learning Checkmate Foundation

Chegg Inc **Chrome Warrior** Chronus

CIOapplications Cirkled In

Cisco **CLANED** ClassCraft ClassDojo

Classera Classkick ClassLink

ClassLoom Classroom Inc. ClassWallet Classworks Clearpath EPM

Clever CoCubes Technologies

Code Avengers CodeCombat CodeHS

CodeKey Inc. Codementor CodeMonkey CodeREV

CogBooks

Cogent Education Cognero Cognii Cognotion Collabco College Ave College Board CollegeVine Colvard Learning **Common Caches** Communications Strategy Group

Compass Learning Connected Data Connections Academy Connections Education Content Technologies, Inc.

Copia Interactive

CoSN Course Base Course Hero Coursera **Creation Crate** CreatieLIVE Creya Learning & Research

Cricksoft CSG PR **CSI Literacy** Cudoo

Cuppla Technology Curiosityville Curious World Curriculet

Curriculum Associates Curriculum Crafter

more >>

zSpace

zSpace. This company offers an augmented and virtual reality experience

so interesting and engaging that it doesn't really matter what subject a student wants to learn about, any subject will be fascinating when experienced through zSpace. With 3-D glasses and a stylus, students manipulate and virtually interact with an object, such as a human heart, or geographic maps. With obvious 100 percent student engagement, they're moving into vocational training areas as well.



Byju's. India has a lot of people. More than 1.3 billion. By some counts, 1 out of

every 6 people in the world are Indian. The online tutoring company, founded by Byju Raveendran, is expecting to be profitable in 2018, and looking to expand to the US, South Africa and other markets. In 2017, CZI decided to invest \$50 million, their first major investment in an Asian startup.



CLANED. The cloud-based learning platform combining AI, collaborative

learning and world-class Finnish pedagogy comes from a small country creating big effects. Founder Vesa Perälä was recently elected Chairman of the Steering Group of Education Finland Program at the Finnish National Agency of Education, where he'll help promote Finnish education business globally, and edtech, of course.



Bakpax. Headed up by Knewton Founder Jose Ferreira, this stealth mode

company is currently hiring senior developers and teacher authors. "Teachers are overworked, underpaid, and underappreciated. Bakpax is here to help carry some of the load." It appears that much of their bent is helping to support more effective (and happier) teachers, though their brand allows for more.

(continued)

COMPANIES TO WATCH (continued)



Curriki CyberFlow Analytics CYPHER LEARNING

D₂L DaDaABC Data Resources Inc.

Dayton Johnson Exec Search

Declara **Defined Learning**

Defined STEM Degreed Delightex Dell **DFRobot** DigiExam Dig-It! Games **Digital Theatre Plus Dinan Capital Advisors Direct Services**

Disaster Records **Discovery Education** Docebo DocentEDU

DoctoralNet DonorsChoose DOT digital group

DreamBox Learning Dremel DubLabs DuoLingo EasyUni.com eBackpack Edbacker **EdCast**

Edco **EdFutures** Edgenuity **EdioLabs** Edmentum Edmodo

EdNET Edovo (Jail Education

Solutions, d/b/a Edovo)

EDpuzzle Edsby

EdTechAfterDark EdTechLens

EdTechTeam

EdTechX Edthena **Education Curb**

Education Data Solutions

Education Elements Education Perfect Education Technology

Associates Education.com **Educational Consulting**

Services, LLC EducationSuperHighway

EDUCAUSE EduChange, Inc. Educurious Edufolios Edulastic EduOne EduOnGo eduPad

Eduporium EduSystem EduTechGuys edWeb

Eduplanet 21

eDynamic Learning Elesapiens

Ellevation Education

ELMO USA Embibe Empow Studios Energized Minds EnGenius Technologies English Central Engrade

Enhance Knowledge Services Pvt Ltd **Enrollment Rx EON Reality** Epic!

Epiphany Learning Epraise Limited

Epson ERPScan eSchoolView eSpark eSplice EssayTagger

Essence Associates, LLC



Chan Zuckerberg Initiative. The limited liability company founded in December 2015 by Mark Zuckerberg and Priscilla Chan with a purpose of "Advancing human

potential and promoting equal opportunity" is a new kind of philanthropic organization and, with a \$45 billion endowment, is definitely a company to watch. Jim Shelton, former Deputy Secretary of the U.S. Department of Education, heads up their education efforts.



DadaABC. They've been around since 2013, but the one-on-one online tutoring company just recently raised \$100 million in series C funding, and according to their website

they've secured over 10,000 native English teachers to help students improve their daily conversational skills. Among others, McGraw-Hill Education recently entered into a partnership agreement with the China-based company. //

Essential Spanish Vocabulary

Flashcards

European Leadership University Event Leadership Institute

Eventbrite EventTracker EverFi

EVO 40 Cart from LockNCharge

EvoText, Inc. Examity Excent ExecOnline **Explain Everything** ExploreLearning **Extension Engine** EZ Vidya Private Limited

FableVision

Faria Education Group Fast ForWord FastBridge Learning

FETC

Fidelis Education FieldTripZoom, LLC Filament Games

Firecracker First Round Fishtree Flipgrid **FlipIt**

Flocabulary **FLVS**

Follett ForClass

Forward Thinking EDU FourierEDU FreshBiz Game

FreshGrade Frontline Education

FrontRow

Fuel Education Fulcrum Labs

Full Measure Education

FundersClub **Funds For Learning** FutureLearn Gadget Software Galvanize Labs

more >>



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COMPANIES TRANSFORMING EDUCATION

Gather Education **GCI** Education **General Assembly Generation YES** GetSmarter **Getting Smart** Globaloria GoCongr GoEnnounce GoGuardian Goiimo

Google for Education

GoReact **GPA** Learn Gradeable GradeHub Grammarly GrandKeyEd Gridstore

GoNoodle

Griffin Technology Groupwerk, Inc.

Grovo **GSV** Capital Guidebook GuideK12

Hanover Research

Hapara

Harbinger Knowledge Products Harris School Solutions Hatch Early Learning Helix Education Her Interactive Hero K12

Higher Learning Technologies

HireEducation **HMH Marketplace**

Hobsons

Holberton School Hootsuite Horizon DataSys

HotChalk

Houghton Mifflin Harcourt

House of EdTech

HoverCam HUE i-Clicker IRM

Identity Automation

iKeepSafe **IKIDSFUTURE** Illumeo, Inc Illuminate Ed Impero Software Infinite Campus

ingram

Insight Education Group

InstaEDU Instructure Intellatek intelliVOL Interfolio **IO** Education iontuition iPracticeMath **IStation** ISTE

Itslearning iTutorGroup **ITWORX Education** IXL Learning | Harrison PR Group JAMF Software Joomla LMS JoyTunes

Junction Education

Junyo Jupiter Ed K12 K12 Insight Kaltura Kaizen PE Kaplan Kapor Capital Kaseya **KDSI**

KEH Communications

Kickboard **Kidaptive KidPass**

Kids Discover Online **Kishmorr Productions** Kiwa Digital Ltd

Knewton

Knomadix Corporation

KnoteSter Knovation

Knowledgemotion

Knowledge Notebook, Inc. KnowStory

Kokoa Standard Kramer Kuder

L Wolfe Communications

Lab4u Labster

Kurzweil

Lambda Solutions Language Cloud Languagenut LapCabby LaptopsAnytime Laureate Education

Lea(R)n LeadID Learn2Earn Learn Capital Learning Ally Learning A-Z Learning Bird

Learning Coach Central Learning Curve

Learning Evolution Learning Games Studios, Inc.

Learning Upgrade LLC Learning.com Learning Counsel LearningBird Learnist LearnLaunch Learnosity LearnPlatform Learnsprout LEARNstyle Ltd LearnUpon LearnWithHomer LearnZillion

LEGO Education Lerner Publishing Group Lesson Planet

Lexia Learning Library For All Lifelige LightSail Lightower

Lenovo

Lightspeed Systems

Lightspeed Technologies

Lingo Live Lion's Heart Listen Current LiteracyTA Literatu

Literatu Pty Limited LiveBinders

LivingTree LockNCharge LongLeaf Solutions

Lore LTG Exam **Lumerit Education Lumos Learning** L Wolfe Communications

Mac to School

Magic Leap MajorClarity MakeBlock Makers Academy Makey Makey MangaHigh

Mansfield Sales Partners LLC

Marbotic

MaRS Discovery District

MasterClass

Masters and DoctoralNet

MasteryConnect Mathletics MathWorks Matific Mawi Learning McGraw-Hill Education MCH Strategic Data MDR Education ME Education

ME Group of Companies Measured Progress

MediaCore **MEL Science** Meru Networks Metiri Group Metria Learning MIDAS Education Middlebury Interactive Milestone Documents

Mimio Mind Research

more >>



EDTECH1000

COMPANIES TRANSFORMING EDUCATION

MIT Education Mobile Beacon MobyMax Modern Teacher Modest Tree Media

Modo Labs Mojo Enforce MooreCo Mosaic451

Motivating Systems, LLC Motivis Learning

Movenote
Mozaik Education
Mrs. Wordsmith
Muzzy Lane Software
Mwabu (aka iSchool)

myly

Mystery Science

n2y Naiku

Netop

Navigation North Navitas Ventures Ncomputing Nearpod Nepris Netmedia NETMINO

New Enterprise Associates New Intelligence Inc. New Schools Venture Fund

Newsela Newseum ED

Next Tier Education, Inc.

NextLesson
Noodle
NoRedInk
NovoEd
NS BASIC
NUITEQ
Nureva
NutKase
NWEA
Odysseyware
OER Commons
Ogment

OnCourse Systems for Education OnPoint Innovative Learning

Environments

OOHLALA Mobile Open Assessment Technologies Open English OpenED OpenStax Optolexia ORIGO Education

Osmo Otus Outcert Outschool Owl Ventures Packback Padcaster Pagamo Panasonic panOpen

Panorama Education

Panorama Educa PAPERbasket Paragon One Parchment ParentLink ParentSquare PASCO Pathbrite

PBS Learning Media PBS Teacherline PD Learning Network

Pearson
Peekapak
Penda Learning
Penguin
Penveu
PeopleAdmin
Performance Matters
Performensation

pivotEd PlayMada PledgeCents Plotagon PLS 3rd Learning Pluralsight Pocket Prep PocketTutor Portfolium Portfolium, Inc.

Powerful Learning Practice

PowerSchool

PR with Panache
PrepMagic
PREPMYFUTURE
PresenceLearning
Primo Toys
ProctorU
Prodigy
Prodigy Game
Promethean
proprep
Proversity
PR with Panache
PublicSchoolWORKS

Qualtrics Qubed Quill.org Quizlet QwertyTown Qwickly, Inc. RaaWee K12 Solutions

Radix Raise.me

Raptor Technologies ReaderBee Reading A-Z Reading Horizons Readorium ReadSpeaker ReadWorks Ready4 Realityworks Redbird Learning RedShelf, Inc

Reed RefME

Remark Test Grading

Remind Renaissance

Renaissance 2.0 Media, Inc. Renaissance Learning Rethink Education Rethink First ReUp Education

RICOH Rikt AS RoboKind RobotsLAB ROI Print Manager Rosetta Stone Ruckus RUSHWORKS Said Business School Salesforce Trailhead Samsung School Sapling Learning Scenario Learning Schell Games Scholastic Scholastic Library

School Improvement Network

School Specialty

Schoold

Scholastico

SchoolMessenger SchoolMint Schoology Schoolrunner Schoolzilla Science Bits Science4Us Scientific Learning Seas Education SecondSite SharpSchool Shenzhen Cloudpoint

Technology Co., Ltd Shmoop Showbie Shutterfly Signal Vine, LLC Silicon Mechanics

Silverback Learning Solutions

SimpleK12 SKILLS Global Skookii SkySync Skyward Skyward, Inc. Slate Science SlideRoom Smart Ants Smart Horizons

Smart Science Education Inc.

SMART Technologies

SmartBrief Smarterer Smartly SmartTerm

more >>



COMPANIES TRANSFORMING EDUCATION

Smithsonian Smrt English Ltd **SnapComms**

Snaptech Digital Solutions

Snowflake MultiTeach

Social Assurity Social Capital Socratic

Socrative Sofatutor

SoFi

SoftChalk Software2 Sokikom

SolarWinds SolidProfessor Solution Tree

Soluzione IT Services

Sonic Foundry Soomo Learning Soundtrap **Speakaboos** Sphero

Splash Math SpringBoard Square Panda Squirrels LLC SRG Tech ST Math

Standard for Success

Staymobile Steelcase STEM Revolution

Story2

StraighterLine Strategy Institute StrongMind Study Hall

Study.com StudyBlue Studypool

StudySync/BookheadEd

Learning, LLC Sungard K-12 SuperMemo World

Superplus Swivl SXSWedu

Sycamore Education

Synclovis Systems Pvt Ltd Synergis Education

T4edu Tabtor

TAG Assessment **TakeLessons TAL Education Group TALENT Mentoring LLP**

Tales2go Tangible Play

TCEA

TCS iON (Tata Consultancy)

TE21 Teach TCI

Teacher Gaming Network TeacherCast Educational **Broadcasting Network**

TeacherLists TeacherMatch

Teachers Pay Teachers Teachers With Apps **Teaching Channel** Teachscape

Teachur Teachwise Tech4Learning TechChange TechSmith Teenlife

TEKMAN BOOKS TenMarks

Tenpoint Academy

Teq Terrapin The BLE Group

The Bradfield Company The Campus Computing Project The Clayton Christensen Institute

The College Board

The Douglas Stewart Company

The Edtech Podcast The Game Audio Insitute The Renaissance Network The Social Sentinel

The Virtual High School ThingLink

Think Through Math Thought Cycle

Thread

Through My Window Tigtag Science Tinkercad Tinybop

Titan K12 Tobii Dynavox Tolerance.org

Tools4ever Toolwire Top Hat

Trading Technologies Travels with Music Triad Interactive

Trilogy Education

Tripp Lite Triseum

Triumph Learning TrueAbility, Inc. Truenorthlogic TrueShelf

Turnitin Tuteria Tuva Labs Twig Tynker Typing Agent

Udacity Udemy UnboundEd Unigo Group Unimersiv

University Beyond UniversityNow **University Ventures**

Upskill Usablenet USATestprep, Inc

Utelogy

Vantage Learning Varsity Learning Tools vCloudPoint zero client

Vectra Networks Velocify

Verbling

Verificient Technologies Vernier Software & Technology Vernier's Graphical Analysis for

Chrome Versal

Versifit Technologies

ViewSonic

VIPKID

Virtual Schools of Excellence

VirtualSpeech

Virtual Speech Center

Virtway

VitalSource Technologies Inc.

Vocabulary SpellingCity

Voyager Sopris Learning

Vretta Waggle

Waterford Institute

WebAssign WeVideo

WeWantToKnow Whetstone Education

WinjiGo Winter Group Wisetail Wisewire

Woot Math Workbench

Working Voices Ltd World Education LLC

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WriteSteps Writing Y Combinator Youth Digital Y Soft Corporation

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