Casey Sheahan

2019 Horizon Report

The Learning Experience for Students

Table of Contents

Executive Summary

With the future of education so unclear, what the experience for the learner is going to look like also remains uncertain. The typical experience that students in higher education used to participate in has been reshaped by technology. Learners of all ages and backgrounds are now a part of the picture and how, from where, and when they learn is changing daily. This report is designed to highlight some of trends, challenges and developments occurring in education that surround the learner and their experience. The field of education will continue to grow and change over the next five years and it is essential that as we navigate these the learner is at the center of decisions being made.

Technology and the Changing Learner

Technology is rapidly changing every aspect of education. It is changing the way students learn, how they access information and how they interact with their teacher and peers. At the same time, it is also impacting the jobs that students are being prepared for and forcing many people to return back to school to keep up. All of these changes impact the experience students. This report will also highlight the dynamic relationship between technology and the learner and how education is changing to keep up and the challenges arising as well. Technology needs to be the tool teachers and learners use, not the driver of change. Many universities are successfully adapting quickly enough to take advantage of technology, but as a whole there are still a lot of challenges and societal beliefs blocking that path and slowing down efforts. The next couple of years offer a unique opportunity to reshape the future of higher education and take advantage of new technologies to help this process.

At A Glance

Key Trends Accelerating the Value of Higher Education

Short-Term Trends: Driving value of higher education for the next one to two years

- Rise of Online Programs and Remote Learners and Teachers
- Push for Belonging Among Diverse Group of Students Entering Universities

Mid-Term Trends: Driving value of higher education for the next three to five years

- Unique Educational Experience and Personalized Learning

Long-Term Trends: Driving value of higher education for five or more years

- Lifelong Learning incorporated into the Educational Experience

Significant Challenges Impeding the Value of Higher Education

Solvable Challenges: Those that we understand and know how to solve

- Incorporating different pedagogies into curriculum
- Accessibility (including Accounting for Disabilities and Physical distance)

Difficult Challenges: Those that we understand, but for which solutions are elusive

- The Teacher/Learner Relationship

Long-Term Trends: Driving value of higher education for five or more years

- The Affordability of Education
- How Community and Identity will play a Role in Higher Education with the Changing Landscape

Important Developments Influencing the Value of Higher Education
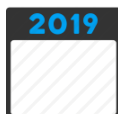
2019 Time-to-Adoption Horizon: One Year or Less

- Integration of Collaborative Learning Spaces

2020 Time-to-Adoption Horizon: Two to Three Years

- Completely Online Masters Programs

2023 Time-to-Adoption Horizon: Four to Five Years

- Admissions that does not Factor Need Base Applicants

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Key Trends Accelerating the Value of Higher Education

Short-Term Trends: Driving the value of higher education for the next one to two years

Rise of Online Programs and Remote Learners and Teachers

The amount of students taking classes remotely has been increasing over the past 10 years. While MOOCs did not have as large of an impact as some may have thought, many students still are mixing in online courses with their in person education and students are also joining courses remotely. We will continue to see this number rise every year and institutions needs to start thinking more about how to adapt and strategize for this trend. An article from US News and World Report stated that *"Based on federal data from more than 4,700 colleges and universities, more than 6.3 million students in the U.S. – most of whom were undergraduates – took at least one online course in fall 2016, a 5.6 percent increase from the previous year. This is the 14th consecutive year that Babson has reported growth in online enrollment."*

I'm sure that this number has consistently rose since 2016. Around two thirds of these students were also enrolling in public institutions. The experience for the learner and teacher are so different when the face to face interaction is taken away, but with the numbers rising institutions needs to be thinking about how to make the experience as normal and educational as they can with the remote learner. Developing learning goals and thinking about different pedagogies that incorporate remote learners into the classroom as seamlessly as possible are going to need to be focused on. Teachers are also being given the opportunity to work remotely, so the question of qualifying these teachers specifically for distance based teaching will also be a very interesting trend to follow over the next couple of years.

Push for Belonging Among Diverse Group of Students Entering Universities

"Non-traditional student" is a term that used to be widely used and accepted, but now inaccurately describes the undergraduate population.

Key Trends Accelerating the Value of Higher Education

Push for Belonging Among Diverse Group of Students Entering Universities cont.

The National Center for Education Statistics published a snapshot of who makes up the 17 million Americans enrolled in higher education. Here are some of the findings:

- 1 in 5 is at least 30 years old
- About half are financially independent from their parents
- 1 in 4 is caring for a child
- 47 percent go to school part time at some point
- A quarter take a year off before starting school
- 2 out of 5 attend a two-year community college
- 44 percent have parents who never completed a bachelor's degree

While the landscape of who makes up the undergraduate community has changed, the way universities run and who they cater to has not changed as fast. These students who don't fit the mold of the old "traditional student" need to be catered for during their educational career as well. Professor Dutton from Georgetown University found strong correlations between students excelling in their education and feeling a sense of belonging at their undergraduate institution. Universities have started to make positive changes to push for all students to feel like they are a part of the community and that they do in fact belong, but the reality is their is no longer a "traditional student" and universities need to focus on this trend now. A lot of research has been done to find easy ways to foster a positive environment for all students. One study even found that something as easy as incorporating ice breakers to highlight the variety of students in the classroom can help.

Mid-Term Trends: Driving value of higher education for the next three to five years

Unique Educational Experience and Personalized Learning

What is personalized learning? In the 2016 National Educational Technology Plan and the 2017 NETP Update, the U.S. Department of Education defines personalized learning as : *"Personalized learning refers to instruction in which the pace of learning and the instructional approach are optimized for the needs of each learner. Learning objectives, instructional approaches, and instructional content (and its sequencing) may all vary based on learner needs. In addition, learning activities are made available that are meaningful and relevant to learners, driven by their interests and often self-initiated."* Technology is changing the work force and job market constantly. New careers are popping up daily and education hasn't kept up. The structure of majors and core curriculum is outdated. Students are required to take courses that may help build soft skills, but will not teach them anything to do with the career they are going into. The alternative, personalized learning, offers a lot of challenges though. Ensuring consistency and the quality of education becomes a lot more difficult

the more individualized education becomes. Some are offering artificial intelligence as the solution for ensuring consistency while offering learners a unique experience tailored better to their goals. *"AI systems easily adapt to each student's individual learning needs and can target instruction based on their strengths and weaknesses, meaningless work for teachers and a more meaningful learning experience for students."* *(referenced from article by Sudarshan Srinivas, Krishna Moorthy, Aarthi Thiru, and Sukant Khurana)*
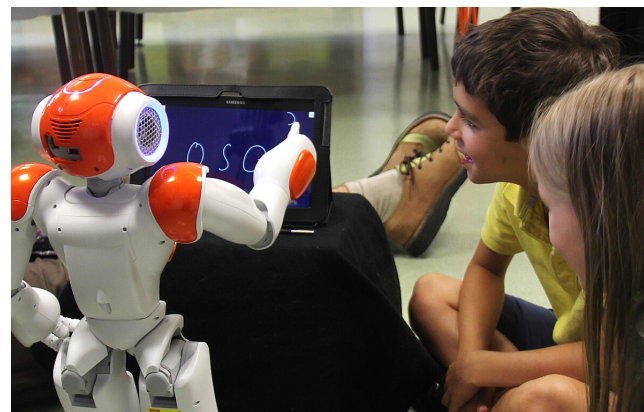
Universities are going to have to tailor education to the learner and AI is very helpful in this process. There are plenty of universities already allowing students to create their own majors and in the upcoming years the number will only continue to rise.

Lifelong Learning incorporated into the Educational Experience

Lifelong Learning has become a bit of a buzz word recently. With technology constantly developing, people working for more years, and career fields changing to evolve with it, people have to return to education to keep up. How this is going to look for universities and learners is a bit tricky to figure out, but it seems that it will eventually become the new normal for learners to return to school throughout their lives. While this topic is increasing in popularity, the education system has to update along with societies views of education before it can completely support life long learning. Lynda Gratton wrote in a MIT Sloan Management Review article:

> This concept demands a focus and society-wide commitment that is not yet in place…anticipating jobs and providing access to lifelong learning demands a complex system involving multiple stakeholders: educators that extend the reach of their programmes from being front-ended on teenagers and 20-somethings to delivering educational options to students of all ages; governments that commit to helping citizens understand future job markets and the skills they will require and that realign tax and financial incentives; and corporations that create work environments that support education and enable employees to engage in extended periods of training."

We still have a long way to go on lifelong learning and how to incorporate it effectively, but some universities are already making strides and setting goals for themselves. The University System of Georgia created a Strategic Plan for 2025 that incorporates a separate section for lifelong learning. A couple of their goals are to:

- Creating a new kind of life-learning record that has the portability to enable it to move through each student's learning journey and the security and dependability to ensure that it is an immutable record of learning.
- Creating mechanisms that allow students to easily re-enter and re-commence their studies at various periods throughout their lives.
- Developing short-term and stackable credentials that can be transcripted and widely accepted by employers.

Significant Challenges Impeding the Value of Higher Education

- Incorporating Different Pedagogies into Curriculum
- Accessibility (including Accounting for Disabilities and Physical distance)
- The Teacher/Learner Relationship
- The Affordability of Education
- How Community and Identity will play a Role in Higher Education with the Changing Landscape

Incorporating Different Pedagogies into Curriculum

Using multiple pedagogies when teaching has been proven to be much better for the learner. So why are so many classes still solely lecture based in undergraduate institutions? Space is definitely a constraint for many teachers. Most classrooms were designed to look like this:

Group work is extremely difficult in this space as students can barely move around and there are very few technological updates to the space, but these classrooms can hold large numbers of students. Luckily though, many institutions are paying much more attention to how students are learning and how they should be taught and are incorporating different pedagogies already into their curriculum. For those who have not yet changed their curriculum, it is a very easy process to change just a couple things about a course to make it more learner friendly. Some effective pedagogies that can be incorporated into lecture classrooms are: classroom response systems "clickers", team based projects and presentations, and incorporating reflection based blogs are just a couple of examples. These can all be incorporated regardless of the class size or classroom environment.

Accessibility (including Accounting for Disabilities and Physical Distance)

Accessibility has a couple of different meanings in education. Accessibility as it relates to students accessing courses from a distance and ensuring that all students are able to access information easily even if they have a disability.

Students accessing courses from remote locations poses a couple of different issues. Technology can be a bit difficult and run into issues, but teachers also need to ensure that when creating their curriculum they have ways to include remote students in every activity. Class handouts need to be available electronically and all group work needs to have easy ways to include the remote students. Luckily, there is a lot of new technology that

Solvable Challenges: Those that we understand and know how to solve

Accessibility (including Accounting for Disabilities and Physical Distance) cont.

makes it much easier to include remote students. Some options include Skype and Zoom for having students remotely joining class. All of the google platforms also allow students to interact simultaneously no matter where they are. The Meeting Owl from Owl Labs allows students joining remotely to see the entire classroom. There are tons of types of new technologies coming out to help students accessing the course remotely easier and a more seamless process.

Accessibility has been focused on more recently . The number of students requesting accommodations for disabilities has been rising dramatically. The Wall Street Journal reports *"that small, private institutions are most likely to have the greatest number of student disability declarations, with 93 of the nation's top 100 institutions with the greatest percentages of students with disclosed physical, psychological or learning disabilities falling under this institution type. At public flagship institutions, students requesting special accommodations for testing* *increased by 71% within a sample of 22 campuses."* Universities are going to need to keep up with the increased demand. There are easy ways to change websites and resources to make them more accessible for everyone including accommodating for disabilities. Ian Carter from Brighton University created a list of eight ways universities can become more accessible:

- 1) Check whether the learning environment is inclusive
- 2) Look at whether online assessments would be appropriate
- 3) Professional bodies might be more flexible about courses than you realize
- 4) The National Association of Disability Practitioners (NADP) has a lot of learning to share
- 5) Make sure any new facilities are created with inclusivity in mind
- 6) Talk to your IT advisors for help on accessibility and inclusivity
- 7) Make use of outside resources and experts
- 8) Going the extra mile with supporting disabled students

Taking into account easy steps like the ones above can bring universities up to speed on accommodating for all types of students and insuring accessibility.

Significant Challenges Impeding the Value of Higher Education

Difficult Challenges: Those that we understand, but for which solutions are elusive

The Teacher/Learner Relationship

The Teacher/Learner Relationship is one that has been evolving slowly. New pedagogies and the push to have student-centered education has reshaped the role of the teacher in education. John McCarthy in *Student-Centered Learning: It Starts with the Teacher* does a great job of explaining the shift that needs to happen in the leadership style of teachers: *"Student-centered classrooms include students in planning, implementation, and assessments. Involving the learners in these decisions will place more work on them, which can be a good thing. Teachers must become comfortable with changing their leadership style from directive to consultative -- from "Do as I say" to "Based on your needs, let's co-develop and implement a plan of action."* Teachers need to become much more comfortable taking a step back from being completely in charge. Putting the individual need of the students at the forefront, they can create more dynamic classroom environments that are more beneficial for the learners. McCarthy also recommends placing students in the middle of the decision making and allowing them to share why, what and how they came to certain decisions. Below is a graphic provided by a Canvas workshop that shows all the variables that should be factored into Student-Centered Learning. There are so many components that need to be considered when teaching students and this graphic does a great job of incorporating most and showing the dynamics of how they come together.

Significant Challenges Impeding the Value of Higher Education
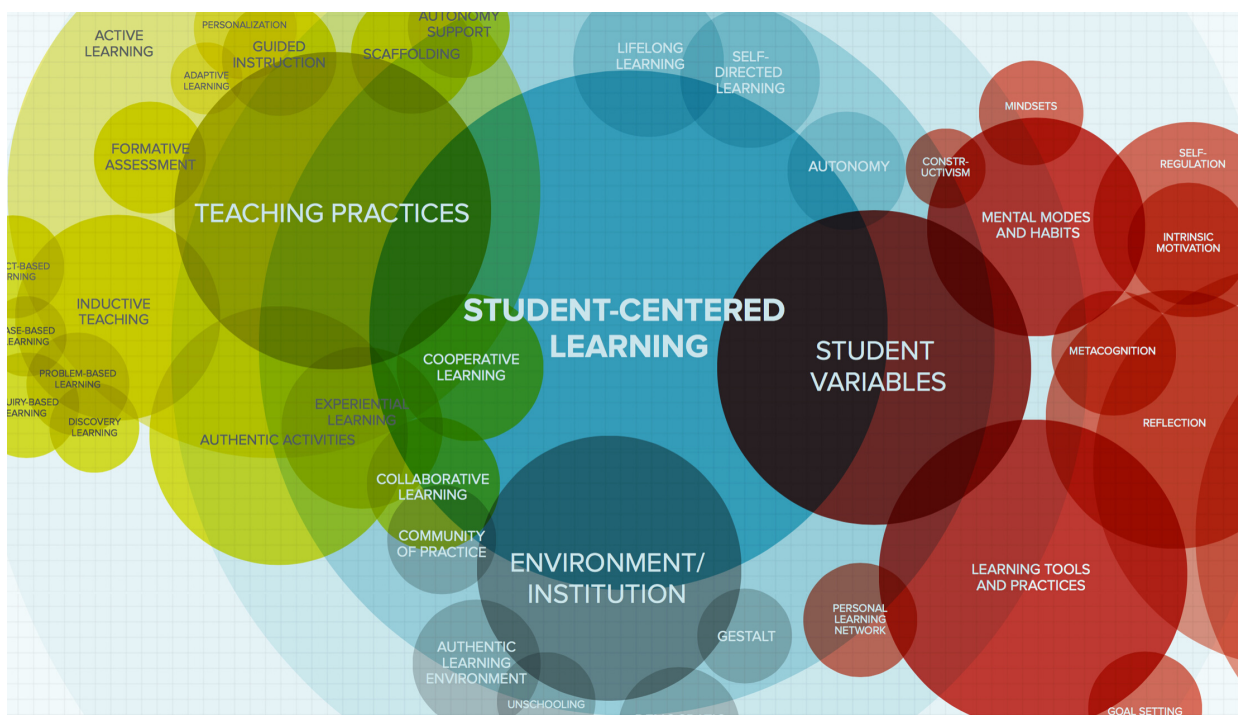
Wicked Challenges: Those that are complex to define, much less address

The Affordability of Education

The affordability of education is a challenge that there is not a solid answer to. First of all, defining what is affordable for students and then where the rest of the money should come from is something that there may not be a solid answer to for a while. This graph is a bit outdated, but it is incredibly helpful for understanding a little better where the money was coming from for undergraduate students.
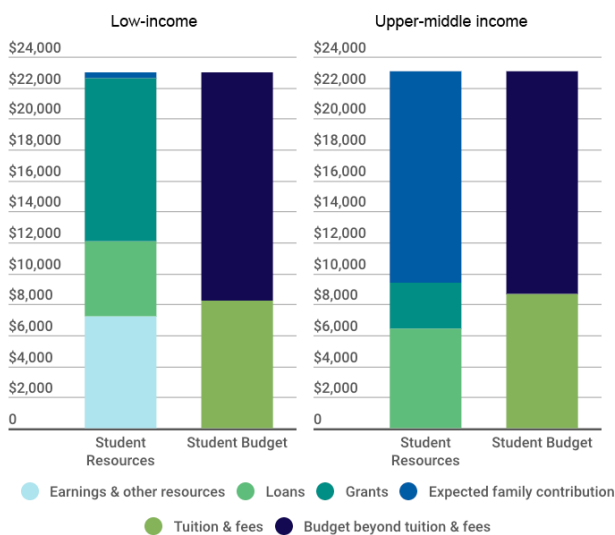
Source: Urban Institute (2017), "Understanding College Affordability," Student Profiles, http://collegeaffordability.urban.org/

Sandy Baum referred to this graph in her article *How Should We Think About College Affordability?,* originally sourced from the Urban Institute. It does an excellent job of showing the large gap in family contribution and how students from low income backgrounds make up the difference in money by earning their own money often times. Grants also make up the majority of the money given to low-income students. What the cost of education should be and how to make it possible and affordable for everyone are incredibly difficult questions to answer and ones that we have a while to go before we even start to make sense of them.

How Community and Identity will play a Role in Higher Education with the Changing Landscape

With the "traditional student" no longer existing, how higher education institutions are going to function and promote belonging among their students is going to be very interesting. Higher education is in a period of uncertainty. With so many changes on the horizon, what the community and how students will even access their education is unknown. Once all of this becomes more clear, finding more ways to ensure a community and collaborative learning is going to be essential. How students will find their identity through their education and how the university plays a role in that is difficult to say at this point.

Important Developments Influencing the Value of Higher Education

- Integration of Collaborative Learning Spaces
- Completely Online Masters Programs
- Admissions that does not Factor Need Base Applicants

Important Developments Influencing the Value of Higher Education

Integration of Collaborative Learning Spaces

With the way students are being taught changing it only makes sense that learning spaces also change as well. Classes are moving from being only lecture focused to incorporating many different types of pedagogies. Group learning and collaboration is becoming much more popular and old lecture halls don't allow this because of the physical constraints. Many universities have already adopted collaborative learning spaces and many are on their way to incorporating new spaces as well. The picture of the title page of this section is a space at the College of Westchester. Students have the opportunity to work in teams or individually and all furniture can easily move around. There are also companies designing furniture for universities specifically for collaborative learning spaces. Red Thread is an example of one of these companies and some of there designs are below.

Lynn Marentette, Learning Experience Designer, at NUITEQ listed some important factors to consider when creating collaborative learning spaces:

- Flexible space that can be easily adjusted to meet support the learning activities
- Allow for movement
- Allow for various groupings
- Allow for hands-on exploring, making, and building
- Allow for curriculum integration, including the arts
- Support social interaction and development
- Support cognitive skills and development
- Support the integration of technology
- Provide opportunities for students to learn through examples

Over the next year, we are going to see even more universities investing in their learning spaces. With learning experiences changing for the learner, the physical spaces have no choice, but to adapt as well.

Important Developments Influencing the Value of Higher Education

Time-to-Adoption Horizon: Two to Three Years

Completely Online Masters Programs

Online Masters Programs are on the rise, but may take a couple years to really influence all of higher education. These programs are evolving though and will change even more over the upcoming years as more and more universities start having online masters programs. Lindsay McKenzie wrote about how "*Georgia Institute of Technology is considering creating brick-and-mortar "storefronts" for prospective and current students to sample its course offerings, listen to lectures and network. The effort is part of Georgia Tech's plans to make its online degrees and professional education certificates more appealing to the nontraditional students of tomorrow, who the institution predicts will expect "flexible learning experiences."* Moving forward we will see more institutions offering options that are completely online, but I also think many institutions will follow in the footsteps of Georgia Tech and find ways to *create a more personal and potentially in person aspect to these programs.*

Time-to-Adoption Horizon: Four to Five Years

Admissions that does not Factor Need Base Applicants

Michael Bloomberg's $1.8 billion donation to his alma mater, Johns Hopkins University, changed the future for university admissions. His hope is that Johns Hopkins remain forever "need base blind." Hopkins President, Ronald Daniels, said *"Our dedicated financial aid endowment was simply too small, Now, as a consequence of Mike Bloomberg's extraordinary gift, we will be fully and permanently need-blind in our admissions and be able to substantially enrich the level of direct assistance we provide to our undergraduate students and their families."*

The future for other universities to be able to follow in Hopkins footsteps are unclear. Where the money will come from is a very difficult question to answer, but with this first step from Bloomberg, we have to assume that other universities will also try to change their admissions processes to become "need base blind" as well.

References

Key Trends Accelerating the Value of Higher Education

Short-Term Trends

https://www.insidehighered.com/digital-learning/article/2018/01/05/new-us-data-show-continued-growth-college-students-studying

https://www.usnews.com/higher-education/online-education/articles/2018-01-11/study-more-students-are-enrolling-in-online-courses

https://www.educationdive.com/news/opportunities-on-the-rise-for-teachers-to-work-remotely/444420/

https://www.insidehighered.com/views/2016/08/05/defining-students-nontraditional-inaccurate-and-damaging-essay

https://www.npr.org/sections/ed/2018/09/04/638561407/todays-college-students-arent-who-you-think-they-are

https://nces.ed.gov/programs/coe/indicator_cha.asp

https://fyhejournal.com/article/download/233/251

https://www.nytimes.com/2017/01/31/education/edlife/colleges-discover-rural-student.html

Mid-Term Trends

https://medium.com/personalizing-the-learning-experience-insights/what-is-personalized-learning-bc874799b6f

https://medium.com/swlh/personalized-learning-through-artificial-intelligence-b01051d07494

Long-Term Trends

http://www.universityworldnews.com/article.php?story=20170919100156534

https://www.usg.edu/college2025/executive_summary/lifelong_learning

Significant Challenges Impeding the Value of Higher Education

Solvable Challenges

https://cft.vanderbilt.edu/teaching-guides/pedagogies-and-strategies/

https://www.tolerance.org/professional-development/five-standards-of-effective-pedagogy

https://www.softwareadvice.com/lms/virtual-classroom-comparison/

https://www.educationdive.com/news/colleges-face-increasing-number-of-students-seeking-learning-accommodations/524373/

References

Significant Challenges Impeding the Value of Higher Education

Solvable Challenges

https://www.educationdive.com/news/colleges-face-increasing-number-of-students-seeking-learning-accommodations/524373/

https://www.owllabs.com/meeting-owl?utm_source=google&utm_medium=cpc&utm_campaign=search_92017&gclid=Cj0KCQiAr93gBRDSARIsADvHiOrjMZv-UEg4ofrppak27Q4onY594vgAuLk3eJ1I9DN81sn5WsviczsaAlaLEALw_wcB

https://digileaders.com/8-ways-to-make-universities-more-accessible-and-inclusive/

https://www.researchgate.net/publication/231740233_Changes_in_teacher-student_relationships

https://www.edutopia.org/blog/student-centered-learning-starts-with-teacher-john-mccarthy

Difficult Challenges

https://fau.instructure.com/courses/6341/pages/student-centered-learning

https://www.edutopia.org/blog/student-centered-learning-starts-with-teacher-john-mccarthy

Wicked Challenges

https://www.higheredtoday.org/2017/05/16/think-college-affordability/

https://www.ed.gov/college

https://www.targetx.com/finding-institutional-identity/

Important Developments Influencing the Value of Higher Education

Time to Adopt: One Year or Less

https://www.emergingedtech.com/2015/07/reasons-research-schools-need-collaborative-learning-spaces/

https://www.red-thread.com/workspace-interiors/collaborative-learning-spaces-higher-ed/

https://www.universitybusiness.com/article/creating-collaborative-learning-spaces

https://www.nuiteq.com/company/blog/characteristics-of-innovative-learning-spaces-that-you-should-know

References

Important Developments Influencing the Value of Higher Education

Time to Adopt: Two to Three Years

https://www.insidehighered.com/digital-learning/article/2018/11/26/coming-shopping-mall-near-you-georgia-tech

Time to Adopt: Four to Five Years

https://www.washingtonpost.com/local/education/bloomberg-gives-johns-hopkins-a-record-18-billion-for-student-financial-aid/2018/11/18/8db256cc-eb4e-11e8-96d4-0d23f2aaad09_story.html?utm_term=.ff540a302244