

# Trends for Higher Education

## The Future of Learning | Fall 2016

From demographics and social change to politics and technology, many trends impact planning in higher education. SCUP's *Trends for Higher Education* is designed to help you and your institution make sense of the most significant evolutionary forces.

**This edition focuses on trends both on campuses and across society at large that affect the very heart of the higher education enterprise—learners and learning.**

### About *Trends*

Demographic shifts. Political changes. Social movements. The evolution of technology. These all affect your institution. SCUP's *Trends for Higher Education* helps you and your institution stay on top of the major changes in the world around you. How?

- » We scan a wide range of media sources and identify significant trends and movements, both in higher education and out.
- » We help you anticipate how these trends might affect your institution.

### How can you use *Trends*?

- » Inform your environmental scanning or SWOT analysis
- » Support strategic planning efforts
- » Discuss the future of higher education
- » Support your budget requests
- » Assist in program prioritization
- » Help develop new curricula

### We've organized *Trends* using STEEP:

**Social:** How people work internally (psychology) and with each other (sociology)

**Technological:** How people use technology (including hardware and software), how society relies on technology, and how technology affects society

**Economic:** Macro- or micro-economics, including global trends, anything related to jobs and skills needed for jobs, and industry shifts

**Environmental:** Our external surroundings, including sustainability and our evolving workplaces, cities, and living spaces

**Political:** Public policy, governmental systems, the people within them, and the effects of government decisions on our citizens and communities

Each trend includes a brief summary, a footnoted source, and discussion questions to help you analyze and act on the trend.

### Join the conversation

It's impossible for us to identify every issue you may need to consider. What did we miss? What did we get wrong? Tell us!

- » E-mail [trends@scup.org](mailto:trends@scup.org)
- » Tweet [@Plan4HigherEd](#) with the hashtag [#scuptrends](#)



# Social Trends

Most students pick colleges close to home. Research shows games help learning. Employers want even more “soft” skills. How well is your institution attuned to social trends like these?

## How Does Gen Z Prefer to Learn?

A study by Barnes & Noble College, the bookseller’s higher education retail division, finds that 51 percent of students in Gen Z—the cohort born between 1995 and 2010, now entering the college pipeline—like to learn by doing. (Thirty-eight percent say they are visual learners, while 12 percent say they learn best through listening.) “Gen Z wants engaging, interactive learning experiences,” the study says. Researchers found that, in the classroom, Gen Zers value the use of technology, hands-on learning, and individual attention.<sup>1</sup>

### *For discussion*

How well does pedagogy at your institution support the learning modalities that resonate with Gen Z? How well are your learning spaces designed to support the ways Gen Z prefers to learn?

## Inputs, Outputs . . . or Engagement?

Arguing that a focus on “fabricated outcome measures” is the wrong lens through which to measure student learning in college, a report from the Century Foundation posits that student academic engagement best indicates student performance. Rather than focus on student learning outcomes and standardized tests, the report urges policy makers to look instead at “actual outputs from students’ academic engagement” as reflected in their papers, written exams, projects, and presentations.<sup>2</sup>

### *For discussion*

In the ongoing quest to assess and improve educational quality, has your institution started to weigh student engagement as a key building block of student success? What about factors like grit and persistence? How can we encourage accreditors and policy makers to rethink the way we measure student learning? How can we measure student academic engagement while also fulfilling accreditation demands?

## Looking for College Close to Home

When it comes time to pick a college, most students stay close to home. American Council on Education researchers found that 57.4 percent of incoming freshmen at public four-year colleges enrolled at institutions within 50 miles of their permanent home. The report suggests that “geography will be even more important for future post-traditional college students who are balancing work, family, and school responsibilities.”<sup>3</sup>

### *For discussion*

The report also found that college students from working-class families and students of color—populations that demographers say are rising—are more likely to base their decision to attend on distance. If students are more focused on finding affordable education close to home, how might that affect your institution’s ability to meet enrollment targets and compete for students with other universities?

## Entrepreneurship: Nature or Nurture?

As more institutions offer programs in entrepreneurship, a persistent question is whether the capacity for innovation can be taught. A study from New York University says yes. One of the study's authors said that the study "disrupts the position that higher education may not be conducive to fostering innovation" by suggesting that certain "structured higher education experiences" can cultivate a student's capacity for entrepreneurship.<sup>4</sup>

### *For discussion*

Entrepreneurship training is getting more sophisticated—relying less, for example, on anecdotes about successful entrepreneurs and more on skills required for using data to make a business case for innovative ideas. Some institutions are starting entrepreneurship majors. Is entrepreneurial training at your institution keeping pace with such trends? Are entrepreneurs-in-training offered ample opportunities for the experiential learning that helps students put innovation into practice?

## What the World Needs Now: Skills, Skills, Skills

According to research by the World Economic Forum's Global Agenda Council on the Future of Software and Society, creativity, emotional intelligence, and cognitive flexibility are the new must-have skills for the workplace, while a worker's ability to be a good active listener, though still valued, is becoming less important relative to other skills.<sup>6</sup>

### *For discussion*

How well is your institution investing students with the "soft" skills they will need in tomorrow's workplace? Is your institution helping students learn to be more creative, for example, and to practice emotional intelligence? Are courses, programs, and degree requirements aligned with such 21st-century skills?

## A Better Approach to Remediation?

In the United States, about 42 percent of incoming college students get referred to remedial courses.<sup>7</sup> Many experts want to make developmental programs both more effective and less expensive. A study in Tennessee found that corequisite remediation—where developmental programming is integrated into a course, not required as a prerequisite for that course—is more cost effective and also boosts student academic performance.<sup>8</sup>

### *For discussion*

### *For discussion*

Researchers have shown that games can help students retain knowledge and keep learners engaged in learning. Your institution may offer courses or even a major in game development, but how well does it understand the science that connects games and learning? How effectively does it integrate games into the curriculum? What kinds of resources would it take to invest in gaming pedagogy? How can you convince campus skeptics that games can be good learning tools?

Studies show that Black, Latino, poor, and community college students are more likely to require remediation. Given that more students from these populations are expected to enroll in college in the coming years, do universities need to devote more attention to developmental education? Are your institution's remedial courses working? Can your institution collaborate more closely with regional K-12 educators to ensure that students are prepared for college-level work?

## How the Brain Forms Knowledge

Researchers at Carnegie Mellon University have discovered how the brain acquires new ideas. Using neural-decoding techniques, they pinpointed brain activation patterns showing that the brain repurposes existing neural systems to form new knowledge. One researcher suggested that if instructors knew how the brain will encode a new concept, they might teach that concept in ways that match the encoding.<sup>9</sup>

### For discussion

The Carnegie Mellon study is just one in a wave of new brain research. What we know about the brain will certainly affect pedagogy—perhaps in ways as direct as the Carnegie Mellon research suggests. Brain research is also helping students succeed in other ways, such as in the development of intelligent computer tutoring. How open is your institution to adopting emerging new concepts based on such research? How might it be more of an early adopter of emerging ideas, tools, techniques, and concepts to improve teaching and learning?

### SOCIAL TREND SOURCES

#### 1 Getting to Know Gen Z: Exploring Middle and High Schoolers' Expectations for Higher Education

Barnes & Noble College  
<http://next.bnccollege.com/wp-content/uploads/2015/10/Gen-Z-Research-Report-Final.pdf>

#### 2 The Real Value of What Students Do in College

Century Foundation  
<https://tcf.org/content/report/the-real-value-of-what-students-do-in-college/>

#### 3 Education Deserts: The Continued Significance of "Place" in the Twenty-First Century

American Council on Education  
[www.acenet.edu/news-room/Documents/Education-Deserts-The-Continued-Significance-of-Place-in-the-Twenty-First-Century.pdf](http://www.acenet.edu/news-room/Documents/Education-Deserts-The-Continued-Significance-of-Place-in-the-Twenty-First-Century.pdf)

#### 4 Study Finds College Can Cultivate Innovative Entrepreneurial Intentions

New York University Steinhardt School of Culture, Education, and Human Development  
<http://steinhardt.nyu.edu/site/ataglance/2016/03/mayhewstudy.html>

#### 5 A Comprehensive Review of Serious Games in Health Professions

*International Journal of Computer Games Technology*  
<http://www.hindawi.com/journals/ijcgt/2014/787968/>

## FORCES OF CHANGE

### Defining the Value That Higher Education Adds

In the face of growing public skepticism about the value of college, two recent reports document the intrinsic value of higher education. In a policy brief, the National Science Board at the National Science Foundation drew on data from *Science and Engineering Indicators 2016* to make the case that universities are a critical catalyst for research and play a vital role in the development of a competitive workforce. Characterizing U.S. colleges and universities as “more important than ever to the future health, safety, security, and economic competitiveness of our nation,” the board also stated that higher education plays a crucial role in “supporting the past, current, and future success of our democratic society.”<sup>a</sup>

The American Academy of Arts and Sciences recently explored similar ground in an initiative called the Lincoln Project: Excellence and Access in Public Higher Education. Four reports from the project articulated multiple ways public research universities contribute to the public and studied funding models for research institutions. A final project report issued policy recommendations for preserving and expanding the contributions that public research universities make in their regions and nationally.<sup>b</sup>

The very existence of reports like these speaks strongly to the ongoing need for higher education to clarify how it adds value to society at large. Because the public has recently shown more uncertainty about that value, the need may be greater than ever for universities and their leaders to make a strong public case for higher education.

#### a Higher Education Is More than a Private Good

National Science Foundation, National Science Board  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=138477&org=NSF&from=news](http://www.nsf.gov/news/news_summ.jsp?cntn_id=138477&org=NSF&from=news)

#### b American Academy of Arts and Sciences Report Recommends Strategies to Sustain and Strengthen Public Research Universities

American Academy of Arts and Sciences  
<https://www.amacad.org/content/news/pressReleases.aspx?pr=10256>



# Technology Trends

From virtual reality in the classroom to the rise of the “learning engineer,” are we already on the verge of the next generation of technology in higher education?

## Oculus Rift and Pokémon Go: Coming Soon to a Classroom Near You

At the University of Maryland’s Augmentarium, researchers study how to use virtual reality (VR) and augmented reality (AR) to expand human intelligence and potential across multiple disciplines, including science, engineering, and medicine. One educational application, for example, demonstrates surgical techniques to budding physicians, including the intricacies of procedures they might encounter only rarely.<sup>10</sup>

### *For discussion*

From architecture and history to anatomy and molecular biology, VR and AR offer powerful new tools to help students learn. To what extent is your institution adopting these emerging technologies? What further steps are needed to acquire the necessary software, infrastructure, training, and incentives needed to encourage faculty to use VR and AR in their courses?

## Do Digital Natives Prefer Paper?

When it comes to the adoption of digital textbooks, we’re seeing mixed signals. In 2015, McGraw-Hill Education sold more digital products than print for the first time.<sup>11</sup> But a recent study found that in the fall of 2015, just 15.1 percent of faculty members said they primarily used digital materials.<sup>12</sup> And a 2013 study of college students found that if the cost was the same for print and digital books, 87 percent of undergraduate and graduate students would prefer the paper version.<sup>13</sup>

### *For discussion*

According to the 2015 Campus Computing Survey, 96 percent of campus chief information officers believe that digital resources improve learning.<sup>14</sup> What is the right mix of print and digital resources for your institution? What steps can your institution take to get more faculty members to adopt digital resources? Beyond personal preference, are technology issues involved? What role can your institution’s library play in distributing, integrating, and pushing for the robust use of digital materials in the curriculum?

## Active Learning Boosts STEM Performance

In analyzing 225 studies that compared student performance in undergraduate lecture-based STEM courses versus active learning courses, researchers concluded that active learning boosted average student grades by “half a letter” and that students in traditional lecture-based classes were 1.5 times more likely to fail than students in classes with active learning.<sup>15</sup>

### *For discussion*

Is active learning a key to graduating more students in STEM disciplines? If so, how is your institution supporting active learning? Are there embedded beliefs about learning delivery methods that need to be changed before active learning can take hold? Do you need to provide more resources—training, materials, technology, learning spaces—to help educators make the change?

## Rise of the “Learning Engineer”

In a recent MIT report on online education policy, researchers suggested that higher education needs more “learning engineers”—experts with “a knowledge base in the learning sciences, familiarity with modern education technology, and an understanding of and practice with design principles.” The report said such professionals can “provide a natural pipeline from research to practice by designing and redesigning learning experiences through a combination of rigorous design principles and insights from research.”<sup>16</sup>

### *For discussion*

Different modes of educational delivery are becoming more common in universities, and higher education curricula are becoming more applied and interdisciplinary. How is the curriculum developed at your institution? Does that process need reengineering? Could new expertise—such as from learning engineers—bolster curricular development at your institution? Does your institution engage in discussions about how what we are learning about learning should drive changes in the curriculum?

## Disrupting Education: LinkedIn’s “Learning Paths”

Through its recently acquired online learning platform Lynda.com, LinkedIn has started offering more than 50 “learning paths.” Essentially packages of educational material, learning paths help users learn or update skills in such areas as 3-D animation, music production, small-business ownership, graphic design, software development, and IT. Successful students earn certificates of completion.<sup>17</sup>

### *For discussion*

What are the broader implications of learning paths like Lynda.com? Do they encroach on educational territory that has traditionally been dominated by higher education? How might these new initiatives influence or hinder your institutional efforts to deliver market-ready learning? How well prepared is your institution to compete with such learning channels? Are there opportunities to partner with these new delivery platforms?

## Whither Adaptive Learning?

Tyton Partners recently surveyed the landscape for adaptive learning, which it defines in part as “technological learning solutions that adjust to a learner’s interactions and performance.” Finding that more institutions are piloting adaptive learning—though not yet at scale—researchers noted that the practice of “adaptive teaching” is evolving as more faculty learn how to use and apply adaptive technology.<sup>18</sup>

### *For discussion*

At first, adaptive learning was viewed as a means to help individual students learn in ways that best suit their learning styles. As adaptive learning technology has matured, the focus has shifted to how it can influence pedagogy. To what extent have faculty at your institution begun to pilot-test adaptive learning? How can your institution help more faculty adopt the tools of adaptive learning?

## “People Analytics” Sees Wider Adoption

The Deloitte University Press reports a marked uptick internationally in the practice of “people analytics”—using people-related data to make better management, business, and HR decisions. In HR, for example, companies use people analytics to help assess which job candidates are most likely to be successful and most likely to stay with an organization. The use of people analytics also helps employers identify staff with leadership potential.<sup>19</sup>

### *For discussion*

Increasingly, universities that use data analytics to improve student performance and success are recognizing that analytics can also improve business practices. Could “people analytics” help your institution make better HR decisions, find future staff leaders, and even improve customer service and innovation? How might your institution capitalize on the use of this emerging tool? What kinds of privacy questions might such activity create?

## Getting Faculty to Adopt New Technology in the Classroom

How can universities encourage faculty to adopt technology? Penn State's approach might be instructive. As part of an ambitious portfolio, the university's Teaching and Learning with Technology group supports faculty fellows and offers awards for faculty engagement. Among many other endeavors, recent initiatives helped faculty redesign courses into blended formats and explored how data collected via Apple Watch could improve student learning.<sup>20</sup>

### For discussion

Whether on a scale like Penn State or not, your university needs a comprehensive plan to help faculty members adopt technology. What new strategies can your institution use to spark durable faculty engagement? How well has your institution defined the value proposition for technology in the classroom, especially in terms of student engagement and outcomes? If your faculty aren't using technology in their courses, why not? If there are cultural barriers, how can you overcome them with incentives and faculty champions?

### TECHNOLOGY TREND SOURCES

- 10 The Augmentarium**  
University of Maryland Institute for Advanced Computer Studies  
<http://augmentarium.umiacs.umd.edu/>
- 11 Digital Overtakes Print**  
*Inside Higher Ed*  
<https://www.insidehighered.com/news/2016/03/30/publishers-report-digital-sales-overtaking-print-sales>
- 12 No Rush to 'Go Digital'**  
*Inside Higher Ed*  
<https://www.insidehighered.com/news/2016/02/22/study-faculty-members-skeptical-digital-course-materials-unfamiliar-oer>
- 13 Students Prefer Print. Why Are Schools Pushing Digital Textbooks?**  
*Education Week*  
[http://blogs.edweek.org/edweek/bookmarks/2016/03/students\\_prefer\\_print\\_schools\\_pushing\\_digital\\_textbooks.html](http://blogs.edweek.org/edweek/bookmarks/2016/03/students_prefer_print_schools_pushing_digital_textbooks.html)
- 14 Less Optimism Among Faculty than CIOs Over Digital Materials**  
*Education Dive*  
<http://www.educationdive.com/news/less-optimism-among-faculty-than-cios-over-digital-materials/414278/>
- 15 Active Learning Increases Student Performance in Science, Engineering, and Mathematics**  
*Proceedings of the National Academy of Sciences of the United States of America (PNAS)*  
<http://www.ncbi.nlm.nih.gov/pubmed/24821756>
- 16 Online Education: A Catalyst for Higher Education Reforms**  
Massachusetts Institute of Technology Online Learning Policy Initiative  
[https://oepl.mit.edu/sites/default/files/MIT%20Online%20Education%20Policy%20Initiative%20April%202016\\_0.pdf](https://oepl.mit.edu/sites/default/files/MIT%20Online%20Education%20Policy%20Initiative%20April%202016_0.pdf)
- 17 Start Your Journey: Lynda.com Introduces Learning Paths to Help You Stay Ahead**  
LinkedIn Official Blog  
<https://blog.linkedin.com/2016/03/31/start-your-journey-lynda-com-introduces-learning-paths-to-help-you-stay-ahead>
- 18 Learning to Adapt 2.0: The Evolution of Adaptive Learning in Higher Education**  
Tyton Partners  
<http://tytonpartners.com/library/learning-to-adapt-2-0-the-evolution-of-adaptive-learning-in-higher-education/>
- 19 People Analytics: Gaining Speed**  
Deloitte University Press  
<http://dupress.com/articles/people-analytics-in-hr-analytics-teams/>
- 20 Teaching and Learning with Technology**  
The Pennsylvania State University  
<http://tlt.psu.edu/>

## FOOD FOR THOUGHT

### "Digital Reinvention in Action"

A thought-provoking new paper from IBM suggests that after two decades of "working through a digital maturation," organizations now need to focus on "digital reinvention."<sup>21</sup> This next phase of the digital revolution combines multiple technologies, including cloud, mobile, and the Internet of Things, in ways that fundamentally rethink customer and partner relationships. To succeed at digital reinvention, IBM suggests that organizations need to "pursue a new strategic focus, build new expertise, and establish new ways of working."

The paper notes that digital technologies have altered how people and businesses interact, disrupting traditional businesses and changing the economics of how organizations function. The paper warns that organizations will need to either digitally reinvent their enterprises "or watch as their businesses decompose around them."

Every university recognizes that digital technology has disrupted higher education. Accordingly, many institutions have made significant changes, such as introducing online and blended learning. But are more fundamental changes still needed? The IBM paper argues that "for traditional organizations, digital reinvention involves a fundamental ground-up reinvention of strategy, operations, and technology." Do universities need to fundamentally reframe operational structures, business practices, and policies to better position themselves for success in the digital age? What investments will institutions need to make to realize this promise?

- c **Digital Reinvention in Action: What to Do and How to Make It Happen**  
IBM  
<http://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=GBE03752USEN>



# Economic Trends

Fiscal constraint is the new normal in higher education. What are some of the implications for learners and learning?

## Pay After You Go

Under a groundbreaking new program, Purdue University will enable students to receive money for college with the condition that they pay it back after they graduate and get a job. Under the Income Share Agreement (ISA), students agree to pay a percentage of their income post-graduation over a defined number of years. Purdue says the option is not a loan and will cost students less than a conventional with-interest student loan.<sup>21</sup>

### For discussion

As the cost of college continues to rise and more students from low-income households seek to enroll, we can expect to see more creative solutions for paying for college like Purdue's ISA. Would your institution be open to such out-of-the-box ideas? What other new strategies might your institution adopt to keep college affordable and accessible?

### For discussion

How effective is your institution in applying data to improve student outcomes? Does your strategy for using insights from data to improve learning need fine-tuning—or an overhaul? How can you engage more faculty members in using data to improve learning? More broadly, how can your institution build a culture that draws on insights from data to improve learning?

## Parsing Higher Ed's ROI

Expect to see more critiques of the value that higher education delivers based on insights from student performance data. The think tank Third Way, for example, recently analyzed data on nonprofit four-year colleges from the Department of Education's College Scorecard. It found a suboptimal record of students graduating, finding good jobs, and being able to repay their college loans—findings the group categorized as “a stunning level of institutional failure.”<sup>23</sup>

### For discussion

How can your institution better share facts about affordability, accessibility, graduation rates, where graduates get jobs, and similar factors that matter deeply to stakeholders? How can your institution make a better case for how it adds value, not just in the classroom but through service work, outreach in the community, linking learning to civic engagement, regional economic development, and development of new products—all the qualities that enrich civic life in our democracy? Is your institution prepared to lead that conversation?

## Using Data to Improve Learning

A new report from the Education Trust, *Using Data to Improve Student Outcomes*, digs into how four leading universities tease out and apply insights from data to improve learning. While the report says that no single method worked for every college, effective strategies included making improvement a campus-wide focus with clear support from top leaders, ensuring data accessibility, analyzing student pathways and customizing student services, and building a campus culture of inquiry and improvement.<sup>22</sup>

## Downstream Impact of Student Debt

With student debt now totaling more than \$1.2 trillion and average individual debt estimated to be approaching \$30,000, public concerns about that burden continue to build. Apart from the impact of debt on individuals, a spate of recent articles has suggested that student debt may impact the national economy. A prominent economist recently said that there is mounting evidence that student debt “is holding back auto spending, home ownership, and general economic activity.”<sup>24</sup>

### *For discussion*

Apart from more proposals and pilot testing of “free tuition,” expect to see more discussion about policies to relieve student debt burdens. Expect such discussions to color campus policies and decisions about financial aid—and alums’ capacity for future donations. How can your institution “do more with less” and make college more affordable? How well is your institution prepared for another recession? Are there mutually beneficial partnerships your institution can pursue now?

## Can Shared Services Keep Education Affordable?

To control costs and make college affordable for learners, J.P. Morgan expert James F. Lock suggests that universities consider opportunities to share services in such areas as accounts receivable, human resources, payroll, purchasing, audit and compliance, and food services. But it’s critical, he says, to articulate goals for shared services, garner leaders’ support, time the rollouts of shared arrangements carefully, and train staff well to participate in shared services.<sup>26</sup>

### *For discussion*

Potentially a strategy for helping colleges focus on the core mission of learning, shared administrative services may also be gaining traction as a strategy to help universities contain costs. Has your institution fully explored all of its options for shared services arrangements? Do some of those options merit a deeper look? Has your institution developed specific goals for such strategies? Are staff trained to engage in shared services efficiently?

## For Some, College Is a Food Desert

For some students, just having enough to eat can be a barrier to learning. At the City University of New York, for example, 40 percent of students reported having issues around access to food. After finding that a quarter of its students skipped meals to save money, the University of California allocated \$75,000 to each of its campuses to improve student food security.<sup>25</sup>

### *For discussion*

Student hunger can be one of those problems that hides in plain sight. To what extent is food insecurity a factor at your institution? How do you know? With more low-income students coming to college, ensuring that all students have regular access to food may become a more pressing concern. Does your campus have a plan to address this problem?

## Doing More With Less . . . and Less . . . and Less

State spending for higher education never bounced back after the recession. The Center on Budget and Policy Priorities found that in 2015–16, 45 states were spending less per student than they did before the recession.<sup>27</sup> In some states, universities struggle to remain open while legislators delay appropriations. In general, the amount of state money that is available for higher education remains constricted and contracted.

### *For discussion*

Diminished state support has significant implications for learners and learning. The financial viability of academic programs will continue to be scrutinized, and those that underperform may be weeded out based solely on fiscal performance. Tuition may need to rise. The era when institutions could offer a full smorgasbord of programs may be ending. Instead, institutions may need to reenvision themselves with a focus on specific programs in which they excel.

## Leadership for the Age of Disruption

As countless factors continue to disrupt higher education, we're hearing louder calls for different practices in college leadership and management. Think less about the present and more about the future, one book argues.<sup>28</sup> Other experts say institutions and their leaders need to shake free of the status quo and learn to be more innovative. Positing that changing institutional culture is key, a university president warns that "reshaping [the] most entrenched of organizational qualities takes time, intentionality, clarity, and relentlessness."<sup>29</sup>

### For discussion

Most colleges and universities probably find change difficult. But current trends are making change an imperative. How can your institution retool itself to embrace change? How can it make changes more nimbly? How can its leaders be more creative and open to innovation? How can operational practices be more transparent and collaborative? How can your institution reshape its culture so that it is ready to tackle tomorrow's challenges?

### ECONOMIC TREND SOURCES

- 21 Income Share Agreements**  
Purdue University Division of Financial Aid  
<https://www.purdue.edu/dfa/types-of-aid/income-share-agreement/index.html>
- 22 Using Data to Improve Student Outcomes: Learning from Leading Colleges**  
Education Trust  
<https://edtrust.org/resource/using-data-to-improve-student-outcomes/>
- 23 Incomplete: The Quality Crisis at America's Private, Non-Profit Colleges**  
Third Way  
<http://www.thirdway.org/report/incomplete-the-quality-crisis-at-americas-private-non-profit-colleges>
- 24 Not Clear Why Fed in Rush to Tighten, Sufi Says**  
MarketWatch  
<http://www.marketwatch.com/story/inflation-doesnt-justify-fed-move-this-year-sufi-says-2015-03-13>
- 25 Fighting Food Insecurity on Campus**  
American Council on Education Higher Education Today  
<https://higheredtoday.org/2015/06/29/fighting-food-insecurity-on-campus/>
- 26 Exploring the Benefits of Shared Services Arrangements**  
J.P. Morgan  
<https://www.jpmorgan.com/global/cb/higher-ed-shared-services>
- 27 Funding Down, Tuition Up**  
Center on Budget and Policy Priorities  
<http://www.cbpp.org/research/state-budget-and-tax/funding-down-tuition-up>
- 28 Higher Ed Disruption Underway—Don't Get Caught Off-Guard**  
University Business  
<http://www.universitybusiness.com/article/higher-ed-disruption-underway-%E2%80%94-don%E2%80%99t-get-caught-guard>
- 29 The Messy Human Core of Reinventing Higher Education Institutions**  
EDUCAUSE Review  
<http://er.educause.edu/articles/2015/8/the-messy-human-core-of-reinventing-higher-education-institutions>

## A CLOSER LOOK

### Shaping Programs for the “Skill-Up” Economy

A recent report from EdSurge points to potential opportunities for higher education in the emerging “skill-up” economy—an environment in which workers increasingly seek short-term training to boost their job skills.<sup>d</sup>

The report notes that many employers can't find employees with the skills they need. In one survey, 61 percent of employers said they had hired staff who were underqualified. Workers themselves acknowledge their shortcomings: A 2014 survey found that just one in ten employees felt fully skilled in using the digital tools required for their job. Meanwhile, a hotter job market may foment more job hopping: More than 90 percent of Millennials in the workforce, for example, say they will stay in their current job for less than three years.

One effect of these trends is a growing market for short-term, just-in-time-style training designed to train workers in specific skills and help them advance in their careers. Continuing education departments at four-year institutions are meeting some of this demand, but currently more of the need is being met through online learning, boot camps, for-profit institutions, and community colleges. All of this suggests a critical question: Can your institution be nimble enough to effectively deliver education outside the constraints of the traditional credit hour and seat time requirements—and thus claim part of the burgeoning market of students eager to “skill-up”?

<sup>d</sup> **From Skills to Careers: What New Job-Focused Learning Models Mean for Students, Educators and Employers**  
EdSurge  
[https://d3e7x39d4i7wbe.cloudfront.net/static\\_assets/FromSkillsToCareer.pdf](https://d3e7x39d4i7wbe.cloudfront.net/static_assets/FromSkillsToCareer.pdf)



# Environmental Trends

As we learn more about the nature of learning, adopt new pedagogies, and continue to integrate technology into higher education, colleges and universities are adapting their physical environments to accommodate that evolution.

## A Design Studio for MBAs

When Bentley University redesigned its MBA program, it also redesigned the spaces where business students learn. Eschewing horseshoe-shaped rows of desks, Bentley's MBA Studio looks more like a classroom for students in architecture or design programs. Students gather in teams at technology-enabled tables linked to smartboards that encourage collaboration and student engagement.<sup>30</sup>

### For discussion

Writing in *University Business*, Chip Wiggins, Bentley's dean of business, spoke of striving to ensure that MBA students "work collaboratively, digitally, and dynamically" and noted that Bentley is advancing similar goals in renovated undergraduate learning spaces it calls "collaboratories."<sup>31</sup> As your institution rebuilds and repurposes learning space, is it maximizing opportunities to use digital tools that foster student collaboration?

## Designing the Online Learning Ecosystem

As more learning migrates to online platforms, more attention is being given to the design of the online learning environment. To keep online learning engaging, the educational technology services company Remote-Learner suggests strategies that promote "immediacy," such as liberal use of videos and other multimedia content, timely and individualized feedback, firm deadlines, and forming a sense of community among students.<sup>32</sup>

### For discussion

Assuming your institution offers online learning, does it merely migrate traditional classes to an online environment, or is it intentional about incorporating digital tools and developing a different learning experience? How might the institution improve the design and delivery of its online courses? What new approaches or tools might be needed to measure the effectiveness of online learning?

## Partnerships for Smart Cities

Modeling how universities and their communities can be active partners in community learning ecosystems, more than 20 communities have partnered with universities to form the MetroLab Network—collaborations within and across communities to research and develop technology-enabled solutions that address community needs.<sup>33</sup>

### For discussion

Colleges and universities have abundant expertise that can help their locales, regions, states, and the nation as a whole use technology to improve civic life. Current efforts are helping reduce traffic congestion, fight crime, foster economic growth, and improve delivery of municipal services. Is your institution doing all that it can to help build "smart" communities? Is it sharing news about such accomplishments with stakeholders like legislators, local politicians, students, and parents?

## Measuring the Impact of Classroom Design on Student Engagement

If you are looking for evidence that the classroom environment directly impacts a student's engagement in learning, ongoing research by Steelcase Education makes that case. In the SCUP journal *Planning for Higher Education* as well as in other publications, the company has demonstrated a statistically significant connection between classrooms specifically designed for active learning and improved student engagement.<sup>34</sup>

### For discussion

For skeptics, data about how classroom design improves learning can speak volumes. Do planners at your institution draw on the relevant research to make this case?

## Sustainability Across the Campus

This year's California Higher Education Sustainability Conference recognized the University of California, Santa Cruz's, minor in sustainability studies and its undergraduate research program in sustainable living. Current student research projects include developing an eco-friendly tiny house and studying ways to convert UCSC vehicles from fossil fuels to electricity powered by a campus solar system.<sup>35</sup>

### For discussion

Reflecting the breadth of its commitment to sustainability, UCSC was also recognized for its work to retrofit buildings with more energy-efficient lighting and its comprehensive, institution-wide road map to carbon neutrality. In light of UCSC's example, how comprehensive are sustainability efforts at your institution? Can you document how they impact both student education and administrative operations? How could such work be improved?

## Can You Read Me Now?

Recent research by Radius Global Market Research suggests that classroom screens may not be big enough. Evaluating the readability of projected content, researchers found that 58 percent of students could not read content displayed on a 70-inch flat panel in an average-sized classroom.<sup>36</sup>

### For discussion

Campus accessibility is not just an issue for people with disabilities. In basic classroom design, is the technology sufficient to support usability for all students? Are display screens large enough and sharp enough to be able to be read by students in the back of the room? What can you do to help students who find it difficult to hear the professor or classmates?

## Spaces for Invention

Budding entrepreneurs at the University of Virginia can visit no fewer than eight spaces across campus designed to encourage invention and collaboration. A fabrication lab helps computer designs come to 3-D life. Hackville is a clubhouse for designers, makers, and programmers. The Scholars' Lab Makerspace specializes in the humanities and arts. And i.Lab provides coaching and courses for students and faculty who are "innovating the future."<sup>37</sup>

### For discussion

If your institution wants to nurture the entrepreneurial spirit, makerspaces and related campus spaces can work together to make the whole more than the sum of its parts. Is your institution thinking, planning, and acting in strategic ways to tease the maximum value out of such collaborations? Are there ways to take scattered efforts and link them into an ecosystem devoted to innovation?

## Linking Space Planning with Learning Theory

Three organizations of architects, technologists, media staff, and higher education planners in the United Kingdom are behind the new *UK Higher Education Learning Space Toolkit*. Mixing discussions about changes in pedagogy with a focus on technical and process considerations, the book compiles best practices and ideas for learning space planning in higher education. The book also nudges planners with a technical bent to develop a deeper understanding of learning theory.<sup>38</sup>

### For discussion

Institutions rely on staff expertise for quality learning space planning, but to what extent do your staff members think beyond their specialties to how learners learn and pedagogy works? Could such perspectives improve the quality of planning? Moreover, how can planners from disparate specialties and departments learn to collaborate better and share ideas more openly?

## ENVIRONMENTAL TREND SOURCES

### 30 Designing the Bentley MBA

Bentley University

<http://www.bentley.edu/graduate/mba-programs/news-insights/designing-bentley-mba>

### 31 Why Collaborative Learning Space Matters in Higher Ed

University Business

<https://www.universitybusiness.com/article/why-collaborative-learning-space-matters-higher-ed>

### 32 Is Your Online Learning Environment Engaging Enough?

Remote-Learner

<http://www.remote-learner.net/is-your-online-learning-environment-engaging-enough/>

### 33 FACT SHEET: Administration Announces New “Smart Cities” Initiative to Help Communities Tackle Local Challenges and Improve City Services

White House Office of the Press Secretary

<https://www.whitehouse.gov/the-press-office/2015/09/14/fact-sheet-administration-announces-new-smart-cities-initiative-help>

### 34 How Classroom Design Affects Student Engagement

Steelcase Education

[https://www.steelcase.com/content/uploads/2015/03/Post-Occupancy-Whitepaper\\_FINAL.pdf](https://www.steelcase.com/content/uploads/2015/03/Post-Occupancy-Whitepaper_FINAL.pdf)

### 35 Campus Recognized for Sustainability Efforts in Education, Practices

University of California, Santa Cruz

<http://news.ucsc.edu/2016/05/sustainability-awards.html>

### 36 Radius Study Shows Students’ Comprehension at Risk with Small Screens

Radius Global Market Research

<http://radius-global.com/news-release/radius-study-shows-students-comprehension-at-risk-with-small-screens/>

### 37 Spaces

UVA Entrepreneurship

<http://startuva.com/resources/spaces/>

### 38 The UK Higher Education Learning Space Toolkit

Standing Conference for Heads of Media Services, Association of University Directors of Estates, and Universities and Colleges Information Systems Association

<http://www.ucisa.ac.uk/learningspace>

## FORCES OF CHANGE

### Envisioning a Next-Generation Infrastructure for Learning

When it comes to anticipating the next-generation infrastructure for higher education, planners may feel the ground is shifting beneath them—and in many ways it is. Our thinking about learning itself is fast evolving, as exemplified in recent trends in online learning, hybrid classes, and makerspaces.

Given these trends, planners need to transform their thinking. A recent article in the *EDUCAUSE Review*, for example, argued that the rise of digital technology in higher education should shift university technologists from focusing on IT tools toward “the learners and the learning experiences that the technology enables.”<sup>e</sup> Indeed, a similar shift may be necessary among all university administrators and staff.

Reflecting similar concerns, the newly announced Digital Learning Lab aims to drive the adoption of digital learning at MIT while pursuing innovations. A related effort, the MIT Integrated Learning Initiative (MITili), is a newly created umbrella for the university’s work in the integrated science of learning, which it says is emerging “as a significant field of research.”

New administrative positions at MIT include a dean of digital learning and a vice president for open learning.<sup>f</sup>

The continued shift toward digital learning along with insights emerging from cognitive science research will have many implications for college and university infrastructure. Even as they think about changes in the short term, planners need to also consider the longer-term, big-picture ramifications of what macro changes in the learning environment portend.

#### e Six Trajectories for Digital Technology in Higher Education

*EDUCAUSE Review*

<http://er.educause.edu/articles/2015/6/six-trajectories-for-digital-technology-in-higher-education>

#### f New Initiatives Accelerate Learning Research and Its Applications

MIT News

<http://news.mit.edu/2016/accelerate-learning-research-online-education-0202>



# Political Trends

The ever-changing landscape of U.S. public policy presents opportunities and challenges for higher education. While decisions in state houses and on Capitol Hill may sometimes seem removed from individual campuses, they often have a direct impact on learners.

## Preserving Privacy: Keep the Lid on Student Data

We continue to see a steady stream of state-based efforts to control how student data are used. In April 2016, the Data Quality Campaign reported it was tracking 94 student data privacy bills in 31 states. The DQC also said it expected more enacted legislation to join six new laws in four states already on the books.<sup>39</sup> Meanwhile, in 2015, Congress was considering or had passed eight data privacy bills.<sup>40</sup>

### *For discussion*

Expect debate and legislative activity to continue around protecting student privacy while also ensuring access to data that can support student learning. Expect student interest in data privacy to also persist. How is your institution balancing privacy concerns with its need for access to data? Are the right people on campus part of big-picture conversations about data? Have campus policies been updated to reflect emerging considerations about data privacy?

### *For discussion*

If “campus carry” is a factor in your state, have administrators, faculty, trustees, students, and other stakeholders at your institution engaged in conversations about how such policies might affect the learning environment? Has your institution reviewed policies and practices that might be affected—such as those concerning the training and conduct of campus police?

## Making It Easier to Transfer

Tracking trends in academic credit transfer policies, the Education Commission of the States notes that more than 30 states now have policies mandating transferable core lower-division courses and statewide guaranteed transfer of an associate’s degree. The ECS says the fact that 15 states now have reverse transfer policies—offering more mobility of credits between two- and four-year institutions—signals “a growing change in the way we think about transfer of credit and conferring degrees.”<sup>42</sup>

### *For discussion*

The ECS reports that a third of the students who entered higher education in 2008 transferred to a different institution at least once within six years. Demographic trends suggest that tomorrow’s students will continue to move between institutions. In response to such trends, has your institution updated its academic credit transfer policies? Do those policies serve the evolving needs of today’s and tomorrow’s students?

## Can Guns and Learning Co-Exist?

Ten states have now enacted legislation allowing the carrying of concealed weapons on college campuses. That phenomenon prompted the American Council on Education to offer a session at its 2016 annual meeting exploring how guns on campus may change the nature of the learning environment. Panelists said campus carry laws may have unintended consequences on learning—particularly when classroom discussions focus on sensitive topics.<sup>41</sup>

## Who's Coming to College

Federal data released in April 2016 underscore recent student demographic trends. The National Center for Education Statistics projects that enrollment of students aged 18 to 24 years old will increase 12 percent between 2012 and 2023, compared to 23 percent for students aged 25 to 34 and 17 percent for students 35 and older. During that same period, increases in enrollments of Black and Hispanic students are projected to jump 25 percent and 34 percent respectively, while enrollment of White students will increase just 7 percent.<sup>43</sup>

### For discussion

Upcoming changes in the student population have been well documented for some time. Accordingly, many institutions have significantly retooled not just their enrollment management strategies but also the way they serve and support new student populations. Has your institution fully addressed the impact of a changing student body across all campus functions? What more could and should it be doing?

## Helping International Students Learn the Ropes

A new student guide from the Institute of International Education (IIE), *Preparing to Study in the USA*, offers 15 tips to help international students succeed in the United States. In addition to suggesting that learning critical thinking and pursuing a liberal education can give international students a global advantage, the guide also urges them to proactively learn to navigate life on a U.S. campus and to get involved in campus activities.<sup>45</sup>

### For discussion

Many U.S. colleges and universities are recruiting more international students. But how well are U.S. institutions serving that growing student population? Does your institution offer services to help international students acclimate? Are those services scattered across campus or consolidated comprehensively in one place? How well does your institution encourage international students to engage in the life of the campus?

## Higher Ed Goes to Jail?

We're seeing greater interest in helping prison inmates earn college credit. Last summer, the Obama administration launched a test program to enable incarcerated Americans to receive Pell grants.<sup>46</sup> More states are also doing more—for example, California recently funded community college programs in four prisons,<sup>47</sup> and New York governor Andrew M. Cuomo proposed a plan for the state to pay for inmates' college courses.<sup>48</sup>

### For discussion

A 2013 Rand Corporation study found that incarcerated individuals who participate in correctional education are 43 percent less likely to return to prison within three years than their counterparts who do not participate.<sup>49</sup> Can or should your institution do more to provide higher education for individuals in correctional facilities? Might incarcerated individuals represent an underserved population in need of such outreach?

## Is College Getting Less Affordable?

Study results published by the Institute for Research on Higher Education at the University of Pennsylvania Graduate School of Education suggest that state policy decisions have rendered college less affordable. The College Affordability Diagnosis also found that financial aid doesn't go as far as it used to, that rising prices mean that community colleges "can no longer be considered an affordable option," and that wages of working students often do not cover the costs of attending college full time.<sup>44</sup>

### For discussion

While the Penn GSE report argues that states need to change their policies to make college more financially accessible, it also says that universities must look at their sticker price and financial aid practices. Researchers say affordability policies are particularly out of alignment with the financial realities of low-income students. How well does your institution meet the financial needs of this growing college population? Are changes in policies and practices needed?

## Pedagogy, Pensions, or Prisons? Competition for State Funding Heats Up

An insightful report from the American Academy of Arts and Sciences shows that states face pressure to increase funding for Medicaid, prisons, pensions, K–12, and infrastructure—all of which compete with higher education for state financial support. Spending on corrections has grown faster than spending on higher education for some 30 years now, and 11 states now appropriate a higher percentage of their funding for prisons than for colleges and universities.<sup>50</sup>

### For discussion

Looking at the big picture of state spending, it seems likely that competing priorities will continue to impact and perhaps reduce state spending for higher education. Every institution that receives state support in any form will have to find ways to cope with a potentially shrinking portion of state appropriations. What more can your institution do to cut costs? How can it diversify its revenue so that it relies less on state support? And how can it make a stronger case for funding to state legislators, the public, and other key stakeholders?

### POLITICAL TREND SOURCES

- 39 States Enact New Student Data Privacy Laws**  
Data Quality Campaign  
<http://dataqualitycampaign.org/blog/2016/04/states-enact-new-student-data-privacy-laws/>
- 40 Comparison of 2015 Federal Education Data Privacy Bills**  
National Association of State Boards of Education  
<http://www.nasbe.org/wp-content/uploads/2015-Federal-Education-Data-Privacy-Bills-Comparison-2015.07.22-Public.pdf>
- 41 ACE2016: Guns on Campus May Change the Nature of the Learning Environment**  
American Council on Education, Higher Education Today  
<http://higheredtoday.org/2016/03/16/ace2016-guns-on-campus-may-change-the-nature-of-the-learning-environment/>
- 42 50-State Comparison: Transfer and Articulation Policies**  
Education Commission of the States  
<http://www.ecs.org/transfer-and-articulation-policies-db/>
- 43 Projections of Education Statistics to 2023**  
U.S. Department of Education, National Center for Education Statistics  
<http://nces.ed.gov/pubs2015/2015073.pdf>
- 44 2016 College Affordability Diagnosis**  
Institute for Research on Higher Education, University of Pennsylvania Graduate School of Education Policy  
<https://www2.gse.upenn.edu/irhe/affordability-diagnosis/media>
- 45 New IIE Book Offers Top Tips to Students Planning to Study in the United States**  
Institute of International Education  
[http://www.iie.org/en/Who-We-Are/News-and-Events/Press-Center/Press-Releases/2016/2016-04-18-IIE-Preparing-to-Study-in-USA-Book#.Vzs\\_Q74ybz4](http://www.iie.org/en/Who-We-Are/News-and-Events/Press-Center/Press-Releases/2016/2016-04-18-IIE-Preparing-to-Study-in-USA-Book#.Vzs_Q74ybz4)
- 46 U.S. Department of Education Launches Second Chance Pell Pilot Program for Incarcerated Individuals**  
U.S. Department of Education  
<http://www.ed.gov/news/press-releases/us-department-education-launches-second-chance-pell-pilot-program-incarcerated-individuals>
- 47 Four Prisons in California to Get Community College Programs**  
*Los Angeles Times*  
<http://www.latimes.com/local/education/la-me-pell-inmate-column-20150805-story.html#page=1>
- 48 Cuomo Proposes Higher-Education Initiative in New York Prisons**  
*New York Times*  
<http://www.nytimes.com/2016/01/11/nyregion/cuomo-proposes-higher-education-initiative-in-new-york-prisons.html>
- 49 The Case for Correctional Education in U.S. Prisons**  
Rand Corporation  
<http://www.rand.org/blog/rand-review/2016/01/course-correction-the-case-for-correctional-education.html>
- 50 Public Research Universities: Changes in State Funding**  
American Academy of Arts and Sciences  
[https://www.amacad.org/multimedia/pdfs/publications/researchpapersmonographs/PublicResearchUniv\\_ChangesInStateFunding.pdf](https://www.amacad.org/multimedia/pdfs/publications/researchpapersmonographs/PublicResearchUniv_ChangesInStateFunding.pdf)

## FOOD FOR THOUGHT

### Making Teamwork More Effective

Given the hierarchical and sometimes competitive nature of university politics, it's perhaps not surprising that campus teams don't always work as effectively as we might hope. Too many campus teams are that in name only. For institutions that need to nurture every competitive advantage, teams that do not function effectively represent opportunities lost.

Too many campus management teams exist not to create innovative solutions but merely as forums for administrators to share information—and battle for resources. Writing recently on the SmartBlog for Leadership, consultant S. Chris Edmonds said that one reason why leadership groups go off the rails is that they lack a formal purpose beyond merely keeping each other informed.<sup>g</sup> Edmonds, author of *The Culture Engine*, suggests that senior leadership teams should define their reason for existing, develop specific goals, articulate values by which they will conduct their work, and clarify how team members will be held accountable. When those elements are in place, he says, "decision-making is easy."

#### g 4 Things Great Senior Leadership Teams Do

SmartBrief

<http://www.smartbrief.com/original/2016/05/4-things-great-senior-leadership-teams-do>

## ONE MORE THING

### Bridging the Liberal Arts and Professional Education

In a recent speech, past Northeastern University president Richard Freeland suggested that better links are needed between undergraduate liberal studies and "the capacities of effective practice."<sup>h</sup> Freeland, now a professor at Northeastern, stated that experiential education "is without question the single most powerful pedagogical device I have encountered" for helping students nurture "essential non-intellectual capacities" like self-direction, discipline, perseverance, imagination, and the ability to work in groups and across "boundaries of difference." Moreover, he said, experiential education deepens students' intellectual grasp of the ideas they are studying in the classroom.

Freeland acknowledged, though, that linking experiential education with the liberal arts is a political challenge in higher education. "We need to help our faculty colleagues get beyond an instinctive aversion to explicitly practice-oriented components" in the curriculum, he said. To meet that challenge, he suggested asking faculty how they want the curriculum "to empower their students . . . to act effectively in the world beyond college." Sharing evidence of learning through a culture of assessment, Freeland said, would help underscore the effectiveness of experiential education "as a powerful means to accomplish the goals being sought." As a third strategy, he proposed giving faculty "space and support to experiment with new pedagogical approaches."

#### For discussion

What kinds of campus conversations are needed to help your institution better link the concepts in liberal arts courses with practical experiences that will help deepen that knowledge and invest students with practical skills they can apply in the workplace?

#### h A Third Way: Integrating Liberal and Professional Education

New England Journal of Higher Education

<http://www.nebhe.org/thejournal/a-third-way-integrating-liberal-and-professional-education>

### Trends for Higher Education Fall 2016

Society for College and University Planning

[www.scup.org](http://www.scup.org)

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### About the Society for College and University Planning (SCUP)

The Society for College and University Planning is a community of higher education planning professionals that provides its members with the knowledge and resources to establish and achieve institutional planning goals within the context of best practices and emerging trends. For more information, visit [www.scup.org](http://www.scup.org).

### What is Integrated Planning?

Integrated planning is the linking of vision, priorities, people, and the physical institution in a flexible system of evaluation, decision-making and action. It shapes and guides the entire organization as it evolves over time and within its community.