

Education Research

# The Connected Campus

Building Long-Term Value and Agility  
by Connecting Offerings, Organizations  
and Operations

brightspot

Knoll

# The Connected Campus

## Building Long-Term Value and Agility by Connecting Offerings, Organizations and Operations

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By adapting and connecting their separate offerings, organizations and operations, colleges and universities can prepare for a changing future.

Shifts in demographics, technology and economics continue to transform the higher education experience. Today, 46% of students are the first in their family to go to college, 42% are students of color, and 37% are 25 or older.<sup>1</sup> Even before the pandemic, online learning had gone mainstream, with 33% of students taking at least one course online.<sup>2</sup> Tuition at public universities has tripled in 30 years,<sup>3</sup> student loan debt is now \$1.5 trillion<sup>4</sup> and about 150 non-profit institutions have closed in the last 5 years.<sup>5</sup>

So, perhaps it's not surprising that a recent American Council on Education (ACE) survey revealed that only roughly one in 10 college presidents surveyed said they are very confident in their institution's ability to adapt to key trends such as changes in student demographics. Or that nationally only about 50% of students are "engaged," which is the National Survey of Student Engagement's definition of a student's degree of investment in their own learning as measured by their time spent on educationally-purposeful activities. Or that 62% of students graduate within 6 years.<sup>6</sup>

The historic separations that defined higher education are now changing. Research is becoming more interdisciplinary as teams take on complex problems. Online and on-campus are converging. Wet and dry labs are blending. Teaching and research overlap. Learning happens in and out of the classroom. Individual and team work are symbiotic. Conducting a pre-occupancy needs assessment sets the baseline for post-occupancy performance evaluation. Academic institutions are forging closer relationships with corporate partners. Support services are integrated to provide a "one-stop-shop" for students.

Now is the time to reimagine facilities, technologies, student services, operations and organizational structures to create more connected campuses.

### Methodology

In this whitepaper, which brightspot created in collaboration with Knoll, we explore about how colleges and universities can change what they offer, how they are organized, and how they operate to respond to these demographic, technological and

### Key Takeaways

- + Significant changes in demographics, technology and economics continue to transform the higher education experience, while also reshaping its business model.
- + Separations that previously defined higher education are changing and a more connected campus is emerging to better serve students, faculty, administration, alumni, community and other stakeholders.
- + Campus spaces can be designed to enable student success, as well as planned to optimize utilization of the physical campus and its assets.
- + Planning with a lifecycle approach and continuous improvement can yield much more sustainable solutions that ultimately lower operational costs.
- + The current and future campus is an evolving hybrid of physical and digital instruction.
- + Campus spaces and services that support Generation Z, the most diverse and entrepreneurial generation ever, in their college experience will allow them to thrive as they transition to the workforce and a future of blended working and learning.

cultural shifts. We then provide ways that each type of space on campus—along with the services and technologies within them—can adapt. Finally, we identify what the implications are for the future workplace and its occupants, who are today's students. These insights are drawn from the combined work of Knoll and brightspot with hundreds of colleges and universities, our review of trends and literature, and in-depth interviews with a diverse set of innovators in different roles at a variety of institutions.

We spoke with leaders in areas that are changing higher education, such as community engagement, digital learning, enrollment management, industry partnerships, social impact, student life, student success and supporting LGBTQIA+ communities. Together, their points of view provide insights on the future of higher education that institutions can use to reimagine their offerings, organization, operations and facilities.

## How Colleges and Universities Can Better Connect Their Offerings, Organization and Operations to Stay Competitive

In response to demographic, social, economic and technological change, institutions will need to change their offerings, their organization and their operations. Doing so will mean more fully utilizing their campus, embracing a lifecycle view and evidence-based design, and preparing for a blended world that mixes domains long separated. It will also mean supporting pedagogies that enable students to “learn to be” not just “learning about,” connecting physical places and digital platforms by thinking “phygitally,” and leveraging space to make an impact.

### Prepare for a Blended World

There are many separations that have historically defined higher education. Academia was traditionally detached from industry. Teaching and research were discrete endeavors. The administrative and academic sides of the house weren't seen as related. On-campus and online programs were disconnected, often with separate technology, staff and branding. In the future, all these aspects of learning and research will blend together, creating mostly positive outcomes, but certainly requiring increased flexibility and coordination due to added complexity and ambiguity.

***“Institutions must define themselves by the role they want to play and the impact they want to have, not by their disciplines or departments.”***



**SANJIT STEHI**  
PRESIDENT, MINNEAPOLIS COLLEGE  
OF ART AND DESIGN

Colleges and universities will seek multifaceted industry partnerships around the activities of recruiting students, sponsoring research, sending executives for continuing education and launching programs. More research and scholarship on learning will be conducted and more people, including undergraduates, will be involved in conducting research. A focus on student success will mean supporting the whole student and breaking down administrative and academic silos that are present today. For instance, separating academic advising and career advising will seem nonsensical in the future. Students' courses will be a mix of in-person and online interactions, with no such thing as “fully online” or “face-to-face” as these worlds are already converging. Today two-thirds of “fully online” students enroll within 50 miles of home,<sup>7</sup> and 57% of “fully online” students come to campus at least once for an immersion or event.<sup>8</sup>

## Covid-19 Accelerated Trends

**While Covid-19 has forced a reimagining of how and where we work, in the case of higher education, the pandemic accelerated trends that were already underway. These include:**

- + Financial.** Decreases in state, federal and endowment funding threaten to destabilize institutions and force them to do more with less.
- + Enrollment.** Demographic shifts—such as 15% fewer 18-year-olds in the pipeline—will impact enrollment. Additionally, as recently revised codes of ethics allow institutions to market to students enrolled elsewhere, greater competition will ensue.
- + Programmatic.** Enrollment trends and competition will create a need for much greater flexibility in terms of degree and non-degree programs that allow people to pick the format, time, place and how they want to learn. Instead of being confined to four years, education will stretch over a lifetime, and students will affiliate as a member of an institution.
- + Student Services.** Student services will have to accommodate an increasingly diverse student body in a more integrated way, rather than provide numerous specialized offices that are hard to navigate and expensive to operate.
- + Institutional.** More school closures can be anticipated. By some estimates, 10 to 20% of schools are at risk, especially institutions that are tuition dependent and lack an endowment to buffer them in a time of crisis. We can expect more partnerships, regionalization and new ways of organizing people and programs. Institutions that can leverage their digital presence and online learning options can further broaden their reach.

## Use Space to Enable Student Success

brightspot's Student Experience Snapshot shows that students' likelihood to recommend their institution (also called the Net Promoter Score) is correlated with their perceptions of campus facilities. (A correlation measures the association between two quantitative variables. For example, when one goes up the other tends to go up as well. The higher the number from 0 to 1, the stronger the relationship is.) These correlations are highest for students of color, students who are historically underserved (i.e., because they are a first-gen student, have a disability, are a veteran, etc.), and students who are both of these—underserved students of color. Students of color have a moderate Pearson correlation value of 0.60 relative to recommending their institution. For historically underserved students, the correlation is 0.51. For underserved students of color, it's 0.63. The Student Experience Snapshot also asks students about their sense of personal growth, which reveals a strong 0.79 correlation between how underserved students of color rate their facilities and their personal growth.



An active learning space allows instructors to both lecture and guide activities of students who can work through problems in teams at tables. (Shown: Arizona State University, Hayden Library)

Improving facilities enables student success. Knoll research found that students' satisfaction with the learning environment is strongly linked to their perceptions of the facility aesthetics and spatial organization.<sup>9</sup>

Campus facilities play a role in retaining students by contributing to their personal growth and in recruiting students by increasing their likelihood to recommend their institution. And, as students become more diverse and institutions seek to address systemic inequities, facilities can play an even more important role.

One example of active learning is the SCALE-UP (Student-Centered Active Learning Environment for Undergraduate Programs) movement started at North Carolina State University, which found that active learning classrooms had decreased failure rates for women in STEM and students of color. In active learning spaces, students work through problems in teams at group tables within spaces that enable instructors to not only lecture but also guide activities, facilitate discussions and have individuals and teams learn from each other.

### Fully Use Your Campus

"The era of continuous expansion is over," proclaims Niraj Dangoria, Associate Dean OFPM, School of Medicine at Stanford University. As a result, every college and university will be looking to increase the utilization of their space to enable them to grow programs and populations without adding space. Additionally, optimizing existing campus resources allows organizations to free up underutilized real estate that can be reimaged, sold, subleased or demolished. At Clemson University, a decision to allow staff to work from home indefinitely post-Covid freed up significant real estate that is being repurposed for other functions. Beyond the common target of increased classroom utilization—the easiest to measure through scheduling system data—institutions

***“Learning space can be freed from the shackles of technology and organized into clusters of informal spaces, formal spaces, and learning support.”***

**NIRAJ DANGORIA**  
ASSOCIATE DEAN OFPM, SCHOOL OF  
MEDICINE AT STANFORD UNIVERSITY



need to look at all types of space and think about nights, weekends, and summers to get the full use of their assets. Usage of 40 hours per week over 5 days a week for 30 weeks a year is only about a third of the available time when compared to the full window of available time: 12 hours a day, 7 days per week, 45 weeks per year.

A classroom with a typical 65% utilization is thus really only 21% utilized when you consider all the time it could be used, and likewise an office with a typical 40% utilization is thus really only 13% utilized. The many benefits of boosting the utilization of an institution's second most expensive asset after people will offset any increased staffing and energy costs. Some business schools are among the most successful at achieving fuller utilization, with full-time MBA courses Monday through Thursday, 9 to 5, part-time MBAs taking classes in evenings, executive MBAs coming to campus on select weekends and executive education happening year-round. Likewise, by using nights, weekends and summers to host workforce development for corporate training, adult education and other programming, two-year institutions typically do a better job than their four-year counterparts at utilizing their real estate assets.

### Embrace Evidence-Based Design

There may have been a time when colleges and universities had to design and build facilities informed only by their intuition. No longer. While it remains difficult to definitively prove causal links between a space and an outcome outside of a controlled laboratory setting, in most cases we now know what works. And when we don't know what works, we can pilot an idea to either prove that it does, improve it until it does, or move on to something else. The physical world is more measurable than ever: we can use data from wireless signals, lighting sensors, furniture sensors, computer vision, structured observations, room bookings, service transactions, logins and feedback apps to assess utilization, satisfaction and effects on people and productivity.

**“Space shapes identity and community. Decisions about space should be intentional.”**



**DAVID CLARK**  
ASSOCIATE VICE PRESIDENT OF CAMPUS LIFE,  
EMORY UNIVERSITY

There are also robust bodies of research on what works, and this information should inform campus planning and design. For instance, there is no need to debate the efficacy of active learning (which the National Science Foundation found reduces failure rates by half in a massive meta-analysis of 225 separate studies) or one-stop-shop student service points (which the Rand corporation showed increases graduation rates at least 3%).

There are also better and better ways to get input and feedback from the people who will use and operate a space before it's built, through simulations, VR and robust stakeholder engagement to create a more informed design.

### Adopt a Lifecycle Approach and Continuously Improve

A lack of information, evidence and consultation on campus needs to change, and so does the divide between capital and operational planning. Typically, these have separate departments, budgets and metrics. Because of these divides, too often ideas are rejected for capital projects that will increase an institution's initial cost but could reduce operating costs more. This means that colleges and universities need to plan their space, support services and staffing simultaneously so there is a better, more holistic picture not just of a future facility, but how it will be operated, by whom and at what cost.

This lifecycle view will reinforce evidence-based design as the norm, including post-occupancy evaluation, ongoing performance assessment and establishing a regular rhythm of reviewing findings, updating campus guidelines and informing the next set of projects at that institution. For example, in renewing their campus library by renovating two adjoining buildings rather than building a new one, Georgia Tech took a more sustainable approach that was guided by the "Long life, loose fit, low energy" approach to measuring good architecture coined by Sir Alexander John Gordon in 1972 while head of the Royal Institute of British Architects.

### Think “Phygitally”

The Covid-19 era has confirmed what many institutions already recognized: Colleges and universities can no longer think about their physical places and digital platforms separately. Because



*Providing classrooms, teaching and research labs, faculty offices, conference rooms, common spaces and more, this facility serves as a teaching lab of sustainable and innovative building technologies. (Shown: Roux Center for the Environment at Bowdoin College)*



***“Institutions need campuses that are safe, welcoming and inspiring; services that are easy to use and technology that makes them accessible. If you’re not easy to do business with, you’re irrelevant.”***

**NEIL MATKIN**  
DISTRICT PRESIDENT,  
COLLIN COLLEGE



*By providing a variety of study and social spaces, as well as services and activities to support a diverse student population, this multi-functional lobby is both inclusive and adaptable. (Shown: Brown University Engineering Research Center)*



their students, faculty, staff, alumni and visitors all experience the physical and the digital together—institutions need to think “phygitality.” People use technology to read reviews and figure out where to go. They access services online for course registration and career counseling and everything in between. They use mobile devices to navigate a place, capture an experience, communicate while there and provide feedback along the way.

Colleges and universities can use technology to render a physical experience unnecessary like a consultation via video or to make the physical experience better in a variety of ways. Thinking “phygitality” includes helping people discover and better navigate the physical such as Cambridge University’s “Spacefinder,” an online tool for people to search for and explore spaces around campus before they get there. Another reason to bring together the digital and physical is to showcase the work of students and faculty through digital displays like at USC’s Annenberg School for Communication and Journalism Media Wall. Technology can also create new ways of interacting and connect people in different places like Harvard Business School’s Digital Deck, which translates the case study format online so that a professor can see 60+ participants connecting remotely (who can also see each other) and facilitate a discussion.

### **How Colleges and Universities Can Transform Their Spaces to Better Support their People**

Every campus is a unique combination of common spaces, classrooms, labs, offices, libraries, study spaces, student service centers and residence halls. Institutions can make changes to each of these spaces to respond to the shifts transforming higher education. In this section, we’ll explore how to make spaces that are more inclusive, lobbies that are multifunctional, classrooms

that support active learning, project spaces that enable impact, student service hubs that end the student “runaround,” hybrid labs that blend different research methods and types, workplaces that flexibly support different ways of working and residence halls that support learning communities.

***“Campus climates, policies, spaces and forms can all create challenges for trans students. Change doesn’t happen on its own, you have to really fight for it—but with them involved so their voices are at the table.”***

**GENNY BEEMYN**  
DIRECTOR, STONEWALL CENTER,  
UMASS AMHERST



#### **Make Spaces More Inclusive**

As higher education becomes more diverse in every sense of the word, it’s increasingly clear that students’ sense of inclusion and belonging differs based on personal characteristics and identity, such as race, class, whether they are the first in their family to attend college, are veterans, have a disability, or identify as non-cisgender.

Institutions must take steps to make their campus more inclusive—creating deliberate spaces like Boston University’s Howard Thurman Center that serves as a common ground for



**Left:** A multiuse environment that emulates a hotel lobby builds community as well as better activates and utilizes space. (Shown: Butler University Lacy School of Business) **Right:** Flatter and more flexible learning spaces, such as this wide-tiered classroom that allows two rows of students to work together, support active learning. (Shown: University of South Carolina Health Sciences Education Building)

people of different races and backgrounds to come together, learn and find community. It also means creating spaces for specific communities like LGBTQIA+ centers, and auditing and addressing the messages all spaces send. To ensure all spaces are inclusive, institutions can consider including artwork on walls, names of buildings, how spaces are operated such as who’s granted access, and a makeup of faculty and staff that reflects the diversity of the student body. For instance, Mario Moore, an artist in residence at Princeton University, recently painted a series of portraits of people such as security guards and custodians on campus.

**“Active learning is longer-lasting and better for areas students will need in the future: communication, critical thinking, creative problem solving and data fluency.”**



**JENNIFER SPARROW**  
ASSOCIATE VICE PRESIDENT, TEACHING  
AND LEARNING WITH TECHNOLOGY,  
PENN STATE UNIVERSITY

**Create Welcoming, Multifunctional Lobbies**

Hotel lobbies used to be empty cavernous places to move through, not stay in. Today they are active social spaces with food, events and information. Higher education needs a similar transformation to not only better activate and utilize space, but also to build community. Like Stanford’s d.School, every lobby

should be flexible, support multi-functional learning and be an event space where you might find a welcome desk to orient people, small groups of students working on projects, a guest speaker addressing an audience on stairs that also serve as seating or a professor meeting with students in a café. These flexible, interactive spaces are also ways to showcase the work going on among the community of users and visitors, making it more visible through digital and physical exhibits.

**Enable Active Learning**

While large events like conferences will continue, large lectures for classes may soon be obsolete. People will come to a campus for immersive, interactive experiences that they can’t get online, and paying tuition to be “lectured at” simply won’t be acceptable. Beyond satisfying “customer” expectations, we know that active learning works, as noted earlier. Institutions will need to transform their classrooms to support active learning with classrooms becoming more flat, more flexible and with more space per student. For example, the tiered classrooms at the University of South Carolina Health Sciences building all have two rows of students on each tier so that students can listen to an instructor, participate in a case discussion, or turn toward each other to work in small groups—all in the same place.

**Provide Project Spaces**

According to the Kauffman Foundation, Generation Z is the most entrepreneurial generation to-date, with 41% planning to start their own company. Students working in teams on “renewable assignments” that make an impact will soon become the norm and this requires not just new pedagogy and classrooms, but new kinds of project spaces as well—spaces like makerspaces, innovation labs and incubators that provide technology, funding



Libraries are students' highest rated space types. A dated building was reimaged into a welcoming, flexible space with seating, study rooms and campus event venues without increasing the footprint. (Shown: University of Portland, Clark Library)

through fellowships and small grants, programming and events, and expert assistance and support such as mentoring, instruction on core skills and coaching.

The University of Rochester's iZone is a great example; it's a collaborative hub where students go to explore and imagine ideas for social, cultural, community and economic impact. Many campuses have an entrepreneurship center, incubator or accelerator for student ideas best realized by starting a company like at Butler University's Lacy School of Business. These are critical, but leave a lot of students' needs unmet. More spaces like iZone are needed for students who don't need to start a company to make an impact. There are a variety of "gigs" they can pursue for giving back: maybe they want to start their own passion project such as a film series, improve the recycling on campus or start a mentoring program.

Such spaces resonate with Gen Z as Knoll learned in recent research that identified "5Gs" that drive the beliefs and behaviors of the cohort born between 1995 and 2010, encompassing today's and tomorrow's college students. In addition to being highly entrepreneurial (gig) and wanting to make an impact (giving), this generation learns with gamification (gaming), is highly diverse (gender) and passionate about preserving their environment (green).

### Centralize Student Services into Hubs

As student bodies have become more diverse, needs and programs have become more specialized, and the business of being a student has become more complicated, colleges and universities have added more services to support their students. This has provided some benefits like specialized staff with greater empathy, but it has also resulted in making student services harder for students to navigate and has increased the cost of

***“Student services have to be accessible, convenient and proactive. The idea that we plant ourselves in a location and they’re just going to find us means we may miss the students who need us the most.”***

**CHRISTA SLEJKO**  
PRESIDENT, DALLAS COLLEGE NORTH LAKE

these services. Instead, campuses should bring student services together into hubs that are more visible and accessible, end the student runaround from place to place, are more efficient to operate, and normalize getting help instead of stigmatizing it.

Institutions should create a one-stop-shop for administrative needs. Imagine a hub like George Washington University's Colonial Center where students can get help with their bill, financial aid and course registration all within their student union. Picture a student center like Emory University's that brings together food, study spaces, services and student organizations in a community hub. Colleges and universities must also create centers for academic support; for example, the University of Miami's Learning Commons provides help and resources for conducting research, analyzing data, writing, presenting, getting class tutoring, learning from peer mentors and creating everything from a paper to a podcast.

### Reimagine Libraries as Creative Hubs

Many libraries have made significant changes to become welcoming, flexible spaces that support students and faculty with space, technology, collections and services with impressive results. At the University of Portland, a modernization of the dated Clark Library that added seating, a campus event venue and study rooms without expanding the footprint boosted patronage more than 80%.



Indeed, in brightspot's Student Experience Snapshot, libraries are the highest-rated space type in aggregate with a rating of 4.2 out of 5 (compared to the average facilities rating of 3.9) and across different student segments such as students of color, first-gen students, part-time students and students with disabilities. Institutions should continue supporting their libraries' transformations.

Temple University's new Charles Library provides an instructive example of a next-generation library. It moves less frequently used collections off-site and/or into higher density storage to make room for collaborative and quiet spaces for students. Its spaces support more than studying for a test or writing a paper by also supporting student projects that take a variety of forms, from prototype to podcast to performance. The library is a central mechanism for student success by partnering with other support services like writing support, tutoring and advising. It coordinates with and collaborates with other libraries around campus and around the world to share resources and expertise.

### Create Hybrid Labs

Research is becoming more computational, collaborative and impact-driven as more data are available and easier to analyze, and complex problems like pandemics and climate change require different disciplines to come together to make an impact and solve. Not only are disciplines, research methods and teams blending, but so are teaching and research, with undergrads increasingly involved in research projects and incorporating activities like fieldwork into their classes.

Laboratory planner Lloyd Fisk notes that examples such as Princeton University's Ecology and Evolutionary Biology Department will be the norm, where researchers move seamlessly between activities and spaces—wet labs where a tissue culture might be growing, adjacent to a dry lab where a simulation on cell growth is running, adjacent to a damp lab where researchers

are fabricating their own sensors to measure growth. Likewise, researchers need to move between spaces to analyze findings and meet as a team—teams that not only include students, faculty and staff from one university but from other institutions and industry partners as well, often accessed via videoconferencing platforms, rendering top-flight technology vital.

### Support Diverse and Flexible Ways of Working

Sector by sector, the workplace has evolved into environments that foster collaboration and ease of knowledge sharing. Higher education is just starting to experience the shift to more open, collaborative and shared spaces for staff, part-time faculty and full-time faculty—generally in that order. Not only is office space typically the largest non-residential type of space on campus (23% in the most recent "Campus Facilities Index" by the Society for College and University Planning), it has increased 153% since 1974, according to the Education Advisory Board. With the diversity of workers and workstyles steadily increasing as well, rethinking workplaces at colleges and universities is timely.

***“We’ve gone from universities picking their students to students picking their universities. So, students as consumers demand greater flexibility and a better experience.”***

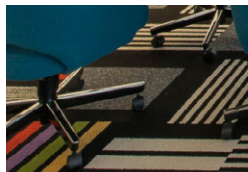
**CEDRIC HOWARD**  
VICE PRESIDENT FOR ENROLLMENT AND  
STUDENT SERVICES, SUNY FREDONIA



This coworking hub enables people to work remotely, supporting partners and off-campus populations. (Shown: 1717 Innovation Center, Richmond, VA)



**Left:** An activated outdoor area supports wellness initiatives and allows institutions to more fully utilize their space. **Right:** A living/learning environment provides community-building opportunities so students can support and inspire each other. (Shown: University of Pennsylvania Hill College House)



**“Partnerships enable institutions and industry to learn, solve problems, bridge silos, advance professional practices and more nimbly adapt.”**

**STEPHANIE SMITH**  
DIRECTOR OF CORPORATE & COMMUNITY  
PARTNER ENGAGEMENT, IIT INSTITUTE OF DESIGN

In addition to co-locating different academic and administrative staff so they can better collaborate to support students as mentioned earlier, sustainably supporting new ways of working means cross-training staff within these departments. For example, at The University of Minnesota’s One-Stop, a student can come to a single place to get help with a registration, billing or financial aid problem. It means moving departments with limited student and faculty contact (e.g., purchasing, advancement and facilities) off campus. It means providing an array of solutions for a range of faculty including offices, compact offices and open workstations, complemented with meeting and support spaces for students, like at The University of Michigan’s Weiser Hall. It means enabling people to work remotely, providing coworking hubs that support partners and off-campus populations, and treating the whole campus as a workplace where staff and faculty can meet, focus or consult with a student. It also means sharing spaces across organizations. The 1717 Innovation Center in Richmond, Virginia, is a great example of this, where Capital One and local non-profit Start-up Virginia (SVA) share spaces, ideas and programming.

**Create Healthy Living-Learning Environments**

Students learn best when they are a part of a community of learners that can support and inspire each other. To enable this, dining halls need to be more than just places to eat; they need to be flexible, inspiring spaces that foster community, like Tulane University’s new Commons. Residence halls at universities have already changed so they can be amenity-rich recruiting tools. Next, colleges and universities will go beyond study lounges, food venues, game rooms and great programming (which will become common “table stakes”) to explicitly foster living-learning communities. Places like the University of Waterloo’s Velocity will

move from the exception to the norm. Velocity combines all the features and functions of a typical amenity-rich residence hall with an incubator, meeting space and makerspace to support a community of student entrepreneurs who live, learn and work there together.

Beyond supporting learning communities, residence halls in the future will intentionally promote health and well-being to address the kinds of challenges identified in the Healthy Minds Study (HMS): high levels of anxiety, stress and depression among undergraduate and graduate students. For example, the University of Miami’s new Centennial Village will include design strategies like increased ventilation, lighting that reinforces circadian rhythms, intentional community spaces and biophilic elements to promote healthy outcomes.

**What Do These Changes Mean for the Workplace?**

What do tomorrow’s connected campuses mean for the workplace? Just as online and on-campus are converging for colleges and universities, blending face-to-face and remote work

and bringing together digital and physical will be the norm in the workplace. The work-from-home mandates that emerged from Covid-19 shelter-in-place requirements showed many companies that managing a distributed workforce is possible. As today's students transition to tomorrow's workforce, organizations will need to enable much greater diversity and inclusion. A more purpose-driven and entrepreneurial workforce will also expect the flexible structures, staffing, space, services and support they enjoyed as students.

### **Working and Learning Will Be Blended, Not Separate**

Educational technologist Tony Zanders recently wrote: "The future of work will feel more like school. The future of school will feel more like work." To unpack this to put it into practice, imagine that higher education in the future will be more distributed, tech-enabled, project-based and asynchronous. Then imagine that the workplace will be a place for upskilling, continuous lifelong learning, ongoing coaching/advising, a suite of support services and will become more social/informal as people bring their whole selves to work. Rather than your education confined to say 4 years, it will be interlaced with your work in units of minutes, hours, days, weeks, months or even years. In much the same way that students meet with advisors on demand, booking a coaching session can be as easy as booking a conference room.

***"Individual achievement is more motivating to Gen Z than group achievement."***



**MEGHAN GRACE**  
CO-AUTHOR, *GENERATION Z: A CENTURY IN THE MAKING*

### **Prepare for Greater Diversity and More Inclusion**

Many companies are just now confronting their lack of diversity, equity and inclusion in their hiring, communications, performance management, space and culture. In the future, this important work must increase and accelerate if for no other reason than the future workforce will be more diverse, in more senses of the word. At 48% nonwhite, Generation Z is the most racially and ethnically diverse generation in U.S. history.<sup>10</sup> Less than half identify as exclusively heterosexual. In 1976, students of color were 16% of undergraduate students whereas in 2016 they were 43%.<sup>11</sup> The definition of diversity is also expanding beyond race, ethnicity, gender, age and sexual orientation to include other areas like ability, education, neurodiversity, marital status, parental status, socioeconomic status and more. In the future, workplaces will need to be more inclusive—physically, culturally and cognitively. This will cover not only the spaces, but the support services and how they are staffed as well.

### **Enable Impact-Driven Entrepreneurial People**

As noted previously, Gen Z will be the most entrepreneurial generation, with 4 out of 10 intending to start their own business. So, either they will create their own start-ups or larger enterprise



*Spaces that are inclusive welcome Generation Z—today's students and tomorrow's workforce—who are the most entrepreneurial and diverse generation in history. (Shown: Student Center at Emory University)*

and legacy firms of the future will need to provide these employees intrapreneurship opportunities that give young people a sense of purpose and ownership over their work—and the chance to make a real impact. Making an impact means making things—physically and digitally in labs and shops, whether a product prototype or a podcast. Beyond ownership and impact, there will also be the need for learning, with today's students looking for durable skills and an ability to grow so they are prepared for jobs that don't yet exist—and won't yet be lost to AI and automation. And this impact and learning can't be hidden or be someone's side hustle; it has to be their work, and it has to be on display, showcased and celebrated in the workplace. "Individual achievement is more motivating to Gen Z than group achievement," said Meghan Grace, co-author of *Generation Z: A Century in the Making*. Moreover, as digital natives, they are experienced and adept at leveraging social media to nurture the projects and brands they create.

### **Flexing In All Dimensions**

The only business that doesn't need flexibility is one in an industry impervious to technological and demographic change, in a business with surplus capital that's not expanding or contracting, with customers who are completely satisfied and employees who all work the same way, have no life outside of work, and want to keep doing the same thing forever. The rest of us need flexibility to adapt to a changing world and the next generation even more so, having grown up in the on-demand world of the sharing economy. They'll need flexible organizations that can accommodate shifts in roles, processes and structures. They'll need flexible working

so that their schedule, location, tools and team can vary based on the work to be done. They'll need flexible spaces that can accommodate the ebb and flow of work among a diverse set of people. They'll need flexible services to support them along the way, including everything from basics such as tech support to differentiators like medical and residential facilities. All this flexibility can't come at the cost of health and wellness, but rather must enable it.


## Looking Ahead

As colleges and universities grapple with demographic, technological and economic change, they will need to redesign their offerings, organization and operations—or risk not fulfilling their mission or even risk their very existence in the future. Campuses can play a vital role to enable student success, advance research with impact and contribute to communities if they shift from the traditional separations that have defined higher education to a more connected campus in the future.

Shifting from a traditional campus to a connected campus will mean institutions have to determine whether they are competing on the high-tech efficiency achieved with scale, or on the high-touch sense that a focus on experience provides. Then, they have to adapt to increases in both collaboration and competition, blend previously disparate activities such as teaching and research, increase the utilization of their campus digital platform, and do it all using an evidence-based approach that looks at the full lifecycle of the campus.

Making these organizational and operational changes will enable colleges and universities to create more welcoming and inclusive spaces, facilitate active learning, support impactful student projects, consolidate student services into hubs, reimagine libraries, create hybrid labs for interdisciplinary research, enable new ways of working among staff and faculty and provide healthy environments for living and learning together.

As work looks more like school and school looks more like work, these worlds will blend. So, while universities adapt, so too will the future workplace. By bringing together digital and physical, enabling much greater diversity and inclusion and seeing flexible structures, staffing, space and services as the norm, companies can be ready too. They can position their workplaces as the natural extension of tomorrow's more connected campuses to serve a population that seamlessly lives in both the physical and digital worlds.

We've got a lot of work to do. Let's get started. 

## Traditional vs. Connected Campus

TRADITIONAL CAMPUS	CONNECTED CAMPUS
Academia and industry separate	Academia and industry partner
Education and work are discrete	Lifelong learning
Online and on-campus disconnected	Learning combines online and on campus
Focus on formal learning and instruction	Learning in and out of the classrooms
Discipline-driven research	Interdisciplinary research
Labs are either wet or dry	Labs combine wet, damp and dry
Individual work and teamwork are distinct	Individual and teamwork fluidly combined
Academic affairs separate from student affairs	Whole student approach
Siloed staffing structures	Integrated student services
Linear planning/processes	Planning/processes pre- and post-occupancy
Capital and operational separate	Lifecycle cost approach



Integrating large windows and natural light with soft tones and comfortable furnishings creates a sense of transparency and an environment that feels welcoming and inclusive. (Shown: Oglethorpe University, Cousins Center)

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**References and Further Reading**

<sup>1</sup> Today’s Student (2020). Lumina Foundation.

<sup>2</sup> Lederman, D. (2018, November 18). Online Education Ascends. *Inside Higher Ed*.

<sup>3</sup> Trends in College Pricing (2019). *The College Board*.

<sup>4</sup> Friedman, Z. (2019, February 25). Student Loan Debt Statistics In 2019: A \$1.5 Trillion Crisis. *Forbes*.

<sup>5</sup> Bauman, D. & O’Leary, B. (2019, April 4). College Closures, 2014-18. *The Chronicle of Higher Education*.

<sup>6</sup> National Center for Education Statistics (2020, April).

<sup>7</sup> Lederman, D. (2019, June 5). Online Is (Increasingly) Local. *Inside Higher Ed*.

<sup>8</sup> Online Education Trends Report (2020) *Best Colleges*.

<sup>9</sup> The Influence of Design on the Learning Environment. (2015). *Knoll*.

<sup>10</sup> Fry, R. & Parker, K. (2018, November 15). Early Benchmarks Show ‘Post-Millennials’ on Track to Be Most Diverse, Best-Educated Generation Yet. *Pew Research Center*.

<sup>11</sup> Digest of Education Statistics. (2018). *National Center for Education Statistics*. (Table 306.10).

American College President Study. (2017). *American Council on Education*.

41 Percent of Gen Z-ers Plan to Become Entrepreneurs (2019, January 15). *Entrepreneur Magazine*.

Education Advisory Board. (2016). Recalibrating Allocation and Size of Faculty Offices. *Facilities Forum*.

Eisenberg, D. & Ketchen Lipson, S. (2019). Healthy Minds Study. *University of Michigan*.

Limitless Learning (2013). *Knoll*.

Seemiller, C. & Grace, M. (2019). Generation Z: A Century in the Making. New York, NY: *Routledge*.

Student-Centered Active Learning Environment with Upside-down Pedagogies. (2020). *Scaleup.NCSU.edu*.

Student Experience Snapshot. (2020). *brighspot Strategy*.

Texas State University: A Classroom Renovation Serves as a Catalyst for the Expansion of Academic Environments on Campus. (2018). *Knoll*.

What is Student Engagement? (2019). *NSSE National Survey of Student Engagement*.

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Elliot Felix founded and leads brightspot, a strategy consultancy on a mission to transform the higher education experience with smart strategy that better connects people, programs and places—on campus and online—to increase student success, improve research support and enable staff productivity. He is an accomplished strategist, facilitator and sense-maker who has helped transform over 91 colleges and universities. Elliot is a frequent speaker on reimagining higher education, having presented at more than 60 conferences including EDUCAUSE, NACUBO, SXSWedu, SCUP and Tradeline. He has written dozens of articles in publications such as *Planning for Higher Education*, *the Journal of Learning Spaces*, *Library Journal*, *EDUCAUSE Review* and in *Touchpoint: The Journal of Service Design*.

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