



Knoll Workplace Research

# Limitless Learning

Creating Adaptable Environments to  
Support a Changing Campus

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## Creating Adaptable Environments to Support a Changing Campus

Some things never seem to change on the college campus. At least on the outside. Except for the ever-present smart phone, the view of today's university looks remarkably similar to that of a generation ago or even longer.

But a closer look finds a transformation is well underway. A peek into the buildings reveals a very different picture than that of a decade or two ago. What is so different? And more specifically, how does this affect the planning function?

### Contrasts, Collisions and Clashes on Campus

Entering higher education today is walking into a world of collisions. Contrasting cultures converge both in the classroom and across campus. Learning and teaching styles can be worlds apart. Multi-tasking students, who grew up in a digital world and have an inherent ability to share and collaborate, contrast strongly with tenured professors on campuses where the time-honored approach of lectures and individual assignments prevails and technology is limited to PowerPoint slides. At the same time, though many classes are still taught in a conventional lecture hall format, some of the most traditional institutions have embraced online learning with gusto, expanding their reach internationally while establishing new profit centers.

Generational clashes arise among faculty members. Professors who are Baby Boomers or older often have a very different mindset about formality (scheduled office hours) and space requirements (private offices preferred) than younger faculty who are as "portable" as their mobile devices and as informal as their students.

Perhaps the cultural collisions are most evident in the physical structures on campus where stately Georgian or Beaux Arts buildings are situated alongside newly



constructed multi-purpose facilities designed and built for 21st century living and learning. Soaring ceilings and extensive glass create an airy atmosphere where learning studios have replaced traditional classrooms, and wide open spaces are quickly and easily reconfigured to create hubs of learning, quiet study, meeting, socializing or snacking.

Ironically, on the same campuses where state-of-the-art research takes place, a slow-to-change culture often prevails. Yet somehow, amidst these deeply contrasting factors, coalescence frequently emerges to reshape higher education.

First, a closer look at the goals of higher education today, the forces behind them

and how they ultimately play out on campus. Second, identification of a singular objective emerging to shape higher education. Finally, a look at how design and planning can address the challenge of today's trends and the future needs of a changing population and landscape.

### Factors Driving Higher Education

While the world of higher education is affected by a broad range of factors, three primary trends are the most significant drivers of change on campus:

#### 1. The need to serve an increasingly diverse population

By and large, college campuses are populated with the traditional student: 18-22 year olds with a recently acquired high school diploma attending classes full-time at a four-year institution. Yet beyond the conventional collegiate is an increasingly diversified student body. The average age of today's student is 29. Numbers of commuting students, transfer students, part-time learners, returning students, minority students, enrichment learners and foreign scholars continue to grow.

#### Three Factors Drive Higher Education Trends

Diversity, technology, and collaborative communities



A combination of three over-riding influences has the greatest impact on higher education.

Many campuses are welcoming returning students, including laid-off workers and parents “on ramping” back into the workforce by re-tooling or learning new job skills. More than a quarter of all adults participated in a work-related educational course in 2005, and the numbers of adults on campus is double what it was a generation or two ago.

## 2. The over-riding influence and far-reaching impact of technology

Digital, mobile, virtual. Technology has made a profound impact on how students learn and engage, and is easily the single factor with the widest range of influence in the educational setting. Indeed, nothing else has transformed learning, communicating, living, working,

researching or otherwise connecting on campus more than the over-arching influence of technology.

Digital technology has revolutionized textbooks, now the fastest growing segment of the industry. Professors create books customized exactly to their requirements while students enjoy significant savings. But technology no longer simply transfers printed materials to digital format. It has redefined the classroom and community at large with highly specialized classrooms and programs that support profound shifts in learning style.

Powered by WiFi and enabled by laptops and mobile devices, students are less tethered than ever and enjoy immense mobility with few physical requirements. Similarly, teachers need not be limited to cables, cords, or a front-of-the-room orientation, potentially inspiring more active learning and theater-in-the-round style participation.

Technology in the hands of today's students is a given. At any moment, anyone can pull out a handheld device, type in a few words and open a world of instant and in-depth information on a particular subject. At the same time, these “digital natives” are increasingly reliant on campus infrastructure to provide reliable, ubiquitous power and wireless connections for their technological devices. Access to technology is vital inside media-heavy classrooms, as well as outside where it is essential to complete assignments and facilitate Generation Y's day-to-day communication and interaction.

## 3. The fervent desire to foster community and collaboration

Creating community and a sense of belonging are imperative on campuses where, despite nearly constantly connecting virtually, students still crave meaningful face-to-face contact. Schools are responding by designing spaces for students and faculty that encourage engagement and collaboration, and reinforce the social aspects of learning and working.

Modeling the teamwork conditions encountered in the post-graduation workplace, schools integrate group projects throughout the curricula and across disciplines, building a comfort level with collaboration as students embrace varying backgrounds, personalities and fields of study. Not only does such cross-pollination often lead to improved learning, but

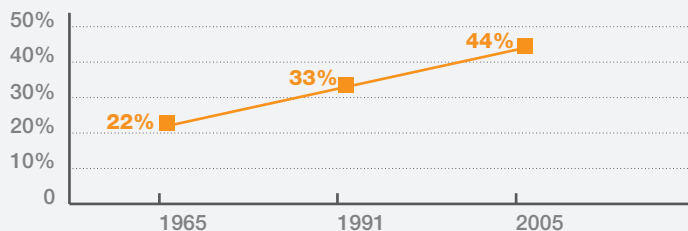
### Today's College Students Reflect a Diverse Population



Higher education serves an increasingly more varied student body, comprised of the highest percentage ever of women and minorities. With an average age of 29, some 40% of students are self-supporting adults, 50% attend part-time and 30% are parents. *Source: National Center for Education Statistics*

### Adult Learners Return to Campus

Participation rates for adult education not including full-time attendance at post-secondary institution



Whether in search of a broad liberal arts education, narrow job training, or something in between, the number of adults returning to campus in search of a learning experience to change their lives continues to rise. *Source: National Center for Education Statistics*

### Technology Drives Changes in Learning Style



**Old Style of Education** vs. **New Technology-Based Style of Education**



Teaching	Learning
One-way instruction in lecture hall	Collaboration in small group meeting spaces
Students absorb material	Students create material
One size fits all education	Customized education
Passive learning, low interaction	Highly interactive learning
Instructor as teacher	Instructor as facilitator or “learning coach”

Innovations in technology, coupled with new research, have enabled entirely new styles of teaching and learning.

beyond the classroom, it can encourage greater interaction across departments, disciplines and institutions. It can lead to many positive outcomes, from shared expertise to greater cultural understanding to improved leadership.

Fostering such cross-pollination is an important step in breaking down the silos on campus that isolate individuals and resources from one another. Instead, partnerships can form that collectively bring more than any individual entity can contribute on its own. In the process, each organization gains understanding and appreciation of the other. For example, medical schools are joining forces with nursing schools to come up with a more empathetic approach to patient care. Similarly, engineering and business schools are converging to provide real-life experience and encourage thinking beyond specialty areas.

## The Goal: Limitless Learning

As these trends shape higher education, they ultimately coalesce into a singular objective: *Limitless Learning*.

Driven by a diverse population, enabled by technology and fueled by a desire to create community, schools are striving for environments free of obstacles—physical or otherwise—that restrict learning, communication or interaction on campus.

Limitless Learning is an ideal of an unrestricted environment in which learning

### Limitless Learning

Limitless learning delivers a customized experience with no constraints



Technology has facilitated a personalized educational approach serving a broad population with few limitations on when, where and how learning takes place.

can happen anytime, by anyone, anywhere, in any way. It is readily available to a diverse population (*anyone*) without limitations where it can take place (*anywhere*: in classrooms or elsewhere on campus) or when it happens (*anytime*: during scheduled classes or on demand) or how it is delivered (*anyhow*).

#### 1. Anyone: Traditional, returning, part-time, younger, older, working, minority

Within the increasingly diverse population that is today's higher education student comes a wide range of learning abilities and life experiences.

By 2022, almost half of all public high school

graduates will be members of minority groups. If those graduates attend college, many of them will be the first in their families to do so. In fact, the greatest growth in the college-bound population comes from previously underserved groups: minority students, veterans, adult students and others, many of whom require particular support services and/or substantial need-based aid. It is also a segment that colleges have historically struggled to serve.

These underserved segments—both traditional-age and adult students—enter college with enormous variance in levels of preparation for the rigors of postsecondary education. For many, success is contingent

### Secondary Drivers Add Constraints and Challenges

In addition to the major factors driving higher education, four other noteworthy trends have emerged in recent years that also influence and shape the planning effort on campus.

- ▶ **Competition among leading institutions to recruit and retain top students and faculty.** Many students cited facilities as a major recruiting tool, designating campus age, features and amenities as influences on their decision-making for choosing an institution. In fact, 62% of high school seniors made their college choices at least partially on the basis of the appearance of the campus buildings and grounds.
- ▶ **Acute sensibility to responsibility and accountability.** Growing oversight by fiscal watchdogs from the public and private sectors has put campus expenditures under intense scrutiny. Meanwhile, low-cost alternatives such as online learning are gaining traction; tuitions are rising faster than the rate of inflation; and staggering student debt levels are estimated as high as \$1 trillion, exceeding the nation's credit card debt. The value of a college degree is being questioned, and the call for accountability and transparency has never been louder.
- ▶ **A strong cultural component that makes academia slow to change.** Academia typically cultivates an older work force—thought leaders often work well into their 70s—and a highly entrenched culture. Consequently, significant changes on campus often take a generation or more to materialize.
- ▶ **Expectations of sustainability that impact planning efforts.** Not only is providing sustainable solutions often a design requirement, but many schools use it to create a living laboratory for students and community to draw from. Moreover, energy efficiency is predicted to return to the forefront as a key way to keep costs down in new and aging buildings.



on the support services they receive on campus. Limitless learning serves a diverse population by providing a learning environment and support system that can be adapted to suit individual students and their backgrounds, ensuring success in higher education.

## **2. Anytime: Showing up. Tuning in. Logging in. The choice is up to the student.**

The traditional lecture format is alive and well on many campuses, and attendance is required by many professors. But in-person lecturing is only the beginning of the learning experience today. Lectures are often rebroadcast or simulcast on pod casts, web casts and similar platforms, allowing students to skip those 8 am lectures and instead, listen in at their convenience.

Students can also view or listen to rebroadcasts multiple times to digest complex subject matter, review classroom material and/or work through problem sets repeatedly online until they have thoroughly mastered the content.

Recognizing that not everyone learns the same way or at the same pace, computer-based modules use self-paced programs that students can complete on their own schedule, either remotely or on campus with onsite tutors who are available for extra help on demand. In many cases, these are remedial programs to bring students with lower levels of preparation up to where they need to be to succeed.

In some cases, lectures don't take place in person at all. For space or economic reasons, some universities offer some classes online only, solving classroom capacity issues and student schedule conflicts. In 2012, some 3 in 10 college students reported taking at least one online course, up three-fold from 2003.

## **3. Anyhow: Accommodating different learning styles and levels**

By facilitating the customization of learning materials and methodologies, technology supports different learning styles and alternative pedagogies that more closely parallel how the brain works. The end result is often higher grades and better understanding.

Studies at Stanford University have demonstrated greater learning takes place when students learn by doing rather than by listening, giving rise to modalities such

## **Return to the One-Room Schoolhouse?**

**20th Century Campus**  
Highly articulated series of spaces with specialized functions (classroom, lounge, café, etc.)



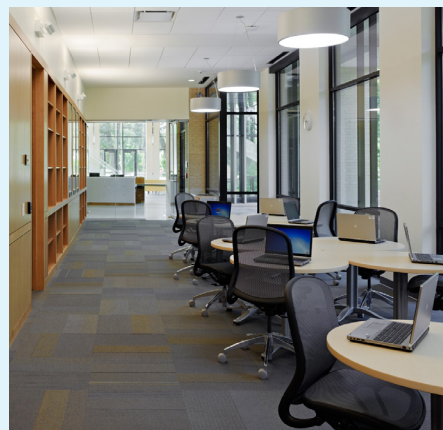
**21st Century Campus**  
Flexible, generalized series of spaces that promote interaction

In many ways, schools of the 21st century are borrowing lessons from schools in the past. Environments have evolved into flexible and generalized series of spaces that promote interaction, much like the one-room schoolhouse, only on a grander scale. *Source: Brian Paul Dougherty, FAIA, LEE AP, Partner, Dougherty + Dougherty Architects LLP, 21st Learning Q & A, American School & University, November 1, 2011*

## **Corridors, Porches and Lounges Extend Learning and Create Engagement**

Direct links from specialized classrooms to auxiliary spaces such as lounges, courtyards, group study rooms and carrels are opportunities to extend the learning experience and create opportunities for engagement. Such spaces facilitate interdisciplinary and project-based learning by fostering the spontaneity found in student team rooms, cafés and niche spaces. Schools are accomplishing this by building in brightened and widened corridors with benches to create “learning streets” that facilitate relaxed gathering and discussion. Linking learning studios with vibrant concourses in lieu of static corridors enables structured and impromptu learning and promotes social zones for students. Similarly, “front porches,” widened areas with seating outside the classroom, allow discourse between students and/or the instructor to continue after class.

Exterior spaces can also become learning spaces. In some cases, a learning commons area extends outdoors via a patio or similar setup. In others, it might mean utilizing a creatively designed, indoor-outdoor/multi-level space as a physics or engineering lab and conducting experiments that measure gravity and projection.



Wide, bright corridors, often lined with seating, link learning studios and create spaces for impromptu gatherings where discourse can continue between students and faculty after class.

as project-based and student-directed learning, individual exploration and discovery, experiential learning (utilizing digitally created virtual environments), collaborative learning experiences and small group interactions. This is particularly good news for Generation Y students who are acknowledged as natural collaborators and prefer learning by teaching each other in small groups.

Even in large-enrollment courses, media-heavy models establish a highly collaborative, hands-on, computer rich interactive learning environment. For example, SCALE-UP (Student-Centered Active Learning Environment with Upside-down Pedagogies) dispenses with lectures and labs in favor of class-wide discussions and hands-on tasks completed by students grouped into teams.

Online courses are also increasingly integrated into traditional campuses. Some professors have found it more effective to place basic or core lecture content online, reserving classroom time for hands-on or interactive exercises to clarify more complicated concepts that can be customized to class and/or individual needs. Often called upside-down learning (or “flipped” or “inverted”), the model also accommodates students who learn in different ways and/or at a different pace.

#### 4. Anywhere: Any space can be a learning center, on or off campus

Technology, WiFi and mobile devices have essentially removed physical boundaries and afforded learning virtually anywhere: inside the four walls of meeting rooms, conference rooms and classrooms, as well as spontaneously in hallways, dorm rooms, lounges, cafés and other campus hubs, and even outside in courtyards and green spaces.

Learning anywhere is a significant departure from the days before technology reigned supreme on campus. Through most of the 20th century, campus spaces typically had singular, specialized uses and definitive configurations: classroom, library, dorm or student union. Today, with the revolution in access to individualized information, the need for highly articulated space has dissolved into a more flexible and generalized series of spaces that promote interaction. Some describe it as a return to the one-room schoolhouse, only on a grand scale.

### Four Elements Comprise Adaptable Environments

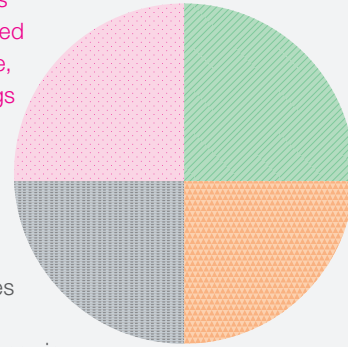
Adaptability is accomplished by delivering four critical elements in space, technology and furnishings, each with a variety of options

#### Flexibility

Different configurations of space or use achieved through easily movable, freestanding furnishings

#### Access

“Plug and play” connectivity to power wherever work activities occur. Broad, reliable availability of data access via broadband, wireless, cloud or other source. Access to storage and services such as cafeterias and recreation



#### Adjustability

Chairs, monitor arms, worksurfaces and other furnishings that can be modified easily by users for size, comfort, task, etc.

#### Expression

Furniture and design elements that facilitate communication and idea sharing, such as adaptable furniture and accessories including whiteboards and displays on movable monitor arms

### Replacement Cycles Vary in the University Setting

Schools must balance the widely differing rates of change within their facilities



The rapid obsolescence rate of technology (averaging about 18 months) is in sharp contrast to the slower replacement cycles of furniture (about 10 years) and buildings (estimated 50 years) on campus.

### Delivering Adaptability: Creating Environments That Support Limitless Learning

As Limitless Learning occurs, new planning challenges arise. Schools must support the learning that happens inside the structure, as well as the information technology that streams information beyond the building.

#### Combining functions, sharing resources

Oftentimes, learning is but one of several operations and functions in a building.

For example, a single building might unite student center, research library and learning commons (where information technology and library services come together as an outgrowth of the evolution of less stack space in libraries). Conference spaces for small or large groups are often placed near faculty offices, academic classrooms and informal meeting areas.

As economic and real estate efficiency demand that every space counts, areas on campus must serve diverse functions at different times of the day to varied populations. A classroom shifts to group

study space. A student lounge with café by day becomes a profit center when it serves as a conference center hosting catered receptions in the evening. A conveniently located and well-designed residence hall dining space becomes a popular social hub for faculty and students.

An outgrowth of both belt-tightening and increasing collaboration and cross-pollination is sharing of resources between institutions and the community. For example, a university health clinic provides medical, dental and psychology services to the students and community; schools share their athletic facilities with recreational players; and libraries open up their collections. Institutions might also share classrooms, lab space and instructors with a partner institution in a joint degree program. A state university system might build one new science building to be used by students from three state universities within the region.

### Planning adaptability for the short and long term

*Adaptability* is the key to planning campus facilities that provide boundary-free environments for the short and long term. In the short term, adaptable spaces seamlessly support limitless learning. They allow students to affect their environment and make it work how they work. Adaptable spaces are quickly and easily reconfigured to allow easy mobility of people in an economical and efficient manner. The most successful adaptable spaces require few, if any, additional resources—human or otherwise—to reconfigure the space.

In the longer term, adaptability means planning for inevitable change. Areas of study, programs, research, faculty, curriculum and pedagogy all evolve and change, as do the ways people share and communicate, sometimes dramatically and other times imperceptibly. Spaces must be designed to be flexible and easy to change in the future; technology must be integrated for both current and future use. Planning for adaptability recognizes that not all elements evolve on the same schedule. Technology can be obsolete in as few as 18 months; furniture has an average lifespan of 10 or more years; buildings last decades.

### New disciplines mean new physical requirements

Adaptable environments accommodate changes in learning that present different physical requirements. Virtual environments in experiential learning might need projection rooms, custom labs or black-box theater space. Interactive and cross-disciplinary studies often require testing, hands-on exploration, larger group meetings and equipment—and, thus, might require corresponding larger spaces.

### Delivering adaptability in space

To support an adaptable environment, individual interior spaces should not be considered in isolation, but rather by primary function:

#### 1. Learning Spaces

Flexible learning studios—no longer merely classrooms—can adapt to multi-modal teaching styles and learning experiences. Today's learning might happen in a combination of methods and locations such as lecture (auditorium), small group discussion (breakout rooms), demonstration (classroom) or interactive (media lab). An adaptable space accommodates the transition from one method to another by providing a flexible, agile setting that can be created and changed by students and teachers.

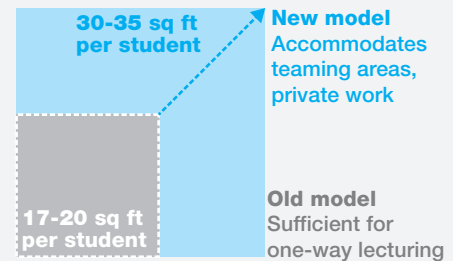
Moreover, as limitless learning allows learning to happen anywhere, all spaces on campus should support learning whether the individual is sitting, standing or lounging, inside or outside a classroom, indoors or outdoors. Such spaces are not necessarily technology intense (assuming students have laptops and access to WiFi and power), but are often more about human contact, information sharing and idea sharing.

#### 2. Meeting and Social Spaces

Limitless learning supports meetings of all types, from formal group study sessions scheduled in private meeting areas, to spontaneous meet-ups in the learning commons. Adaptable meeting spaces provide students with options that they can implement with a minimum of effort, as group sizes and gatherings vary throughout the day.

### Learning Studios Grow in Size

Changing styles of education drive change in size



New interactive styles of learning and cross-disciplinary studies require increasingly larger spaces to accommodate technology and group work.

### Quiet Spaces

Allocating small, intimate spaces for quiet, focused work is particularly critical in environments where social and collaborative areas abound.

Research confirms that learning increasingly occurs at the individual level; and providing the environment to think and digest information privately is as vital as the necessity for shared space. Recent studies point to classrooms as a preferred collaboration area, reserving libraries as the location for quiet, focused work.

Mobile boards, screens, low shelving or temporary storage can function as movable walls that divide a large open space into smaller group meeting areas and/or create visual privacy.

In addition to quiet open areas, adaptable environments should include rooms that can be closed off to provide quiet study space for individuals or private meeting space for group work.





## The Campfire Effect

Providing gathering spaces with access to power can create a campfire effect that provides opportunities for engagement while recharging electronics.



Similarly, social spaces such as cafés, lounge areas and recreation centers must adapt to accommodate formal and informal groups and various types of functions. The most successful social spaces provide access to comfortable seating, ample table space and storage, food and beverage service, as well as power and data.

### 3. Faculty and Administrative Space

Real estate consolidation and the economics of doing more with less have shrunk the office footprint on campus. Similarly, flat screen monitors, tablets, cloud computing and/or “dumb” terminals have lessened the need for expansive desktop spaces. However, the culture prevalent on many campuses puts a high value on private office space, adding a layer of complexity.

As elsewhere on campus, faculty and administrative spaces often must serve a range of functions throughout the day—workspace, spontaneous meetings, quiet research, and private office hours. Agile furniture and well-planned spaces provide flexibility and options.

## Delivering adaptability in technology

Supporting short-term needs while preparing for the inevitable changes in the long-term is one of the greatest planning challenges in

delivering adaptability in technology. Providing reliable access to voice, power and data is not only vital in student-centered spaces of learning, meeting and socializing, it is equally paramount in the many workspaces on campus such as faculty/administrative offices.

To deliver “plug and play” capabilities most “anywhere,” the adaptable environment must support a variety of connections: hardware, data and power that are integrated and transparent as well as high speed, high capacity, reliable, flexible, and accessible. Just as furniture is designed for easy rearrangement as the space shifts from one use to another, technology must also be easily reconfigured, changed or updated through the life of the facility without disrupting ongoing operations.

While broad availability of wireless and cloud computing has simplified data delivery, access to power is a continuing challenge for facilities, particularly older structures with limited outlets and/or insufficient power. Mobility in technology means less need for computer labs or areas in classrooms, but an increased need for charging areas through the building as the number of mobile devices proliferates. Moreover some spaces might have additional requirements such as team work spaces that require multimedia technologies.

While future-proofing used to mean placing a lot of conduits in the walls, today it means providing outlets for battery recharging stations everywhere imaginable. School design can capitalize on this need by creating a “campfire” effect: gathering spaces with access to power, providing opportunities to plug in to recharge as well as engage.

## Delivering adaptability in furnishings

Limitless learning environments require adaptability in furnishings to suit the spectrum of spaces where students learn and socialize today. It must also be relevant to the varied population who utilize it, from the 18-year-old residential student away from home for the first-time to the retiree learning new computer skills.

*Flexibility* in furniture is achieved with lightweight, mobile furnishings that allow quick, easy re-configurations in learning spaces. *Adjustability* is of particular value in

flexible classrooms where hybrid courses are taught with a blend of lecture and computer time. Providing tables, monitor arms and/or worksurfaces that are easily adjusted supports users as the furnishings shift to suit alternate tasks or functions as the focus of a learning space shifts.

Many environments on the college campus are utilized for multiple functions throughout the day and night by individuals and groups that need to shape their environment to the activity at hand. Adaptable work tools should be easily adjusted by the user, regardless of who that might be at what stage of the day. Access to storage in chairs, tables and room dividers can help keep clutter at bay in learning studios and meeting spaces. *Expression* is realized when furnishings are not only relevant to the users, but also facilitate communication and idea-sharing.

## Adaptable environments link the past with present and future limitless learning

Forecasts call for a growth of about 1.5 million college students over the next 15 years. Despite broad changes in how education is delivered, and a rapidly changing technological landscape, these growing, diverse populations must be accommodated in both new and existing campuses.

While the “collisions” of culture and construction on campus are real, a peaceful and productive co-existence can endure. By delivering adaptability in space, technology and furnishings, old world buildings and traditions can successfully survive amid a continual influx of new—students, technology, pedagogies, buildings and more.

Designing space that seamlessly transitions from one use to another, providing furnishings that easily adapt to different users, and integrating technology within an infrastructure that allows efficient, non-disruptive upgrades are crucial elements in delivering adaptability.

With these important strategies in place, it is possible to create environments that promote limitless learning, preserving the rich traditions already established on campus while creating barrier-free environments for students, faculty and the community who utilize the campus today and in the future. ■

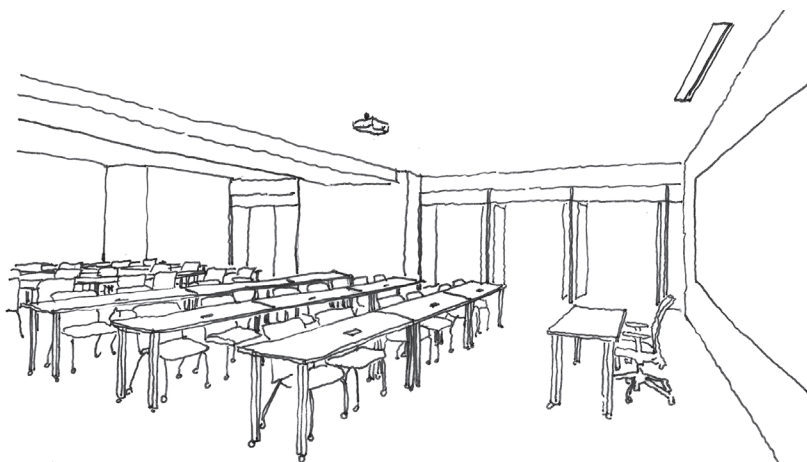


An adaptable environment accommodates a variety of learning methods, often in a single setting. In some cases, formal configurations are eliminated or reduced to encourage collaboration. In others, space must transition from one format (lecture) to another (group discussion) and back within one class period. In all cases, an emphasis on comfort is appreciated, particularly in seating. Small scale task chairs are a good solution.

Declining costs make it possible to utilize technology broadly in learning spaces. Instead of radiating from a single point (a lectern in front of the instructional wall), learning can be supported on numerous walls and surfaces.

## Large group lecture spaces

- ▶ Lightweight, mobile chairs and tables allow users to reconfigure their own space quickly and easily. Lecture-style rows for large groups can transition into various shapes—U-shape, rectangle, trapezoid, circle—for smaller group activities.
- ▶ Design elements can ease the transition from one configuration to another, such as carpet patterns that serve as “guidelines” for furniture placement.
- ▶ Compact storage can further aid mobility. Stacking chairs and tilt top tables that nestle in a small footprint open up space for small group interactive activities.

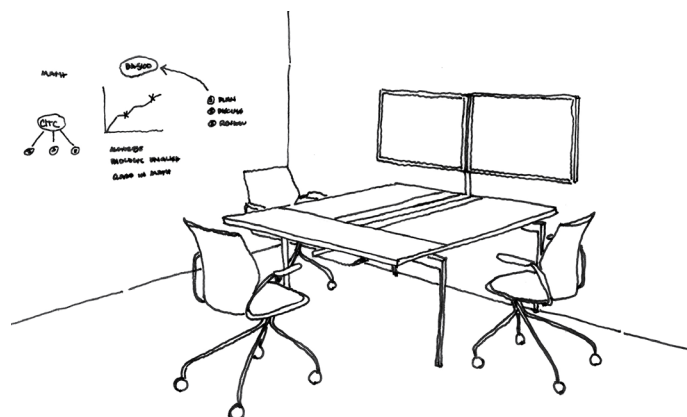


## Large group interactive learning spaces

- ▶ Learning theater with flat floor and elevated media wall accommodates lecture formats, project-based work and seminar functions all in one room.
- ▶ Media wall adds instructor mobility and opens up room orientation options by eliminating cords and cables. Display walls also create multiple zones for different groups to share solutions accomplished in class.
- ▶ Round tables and mobile chairs aid collaboration.

## Small group breakout spaces

- ▶ Breakout rooms in enclosed settings typically accommodate more task-oriented work. Task seating, markerboard, screens and expansive surface area support learning and collaborating in a functional, yet flexible space.
- ▶ Seating should support a variety of nontraditional postures (not just seated forward upright) and provide flexibility to accommodate both individual and collaborative activities.
- ▶ Easily adjustable settings for monitor arms, chairs and other furnishings accommodate different size groups and individuals who utilize meeting rooms throughout the day and night.



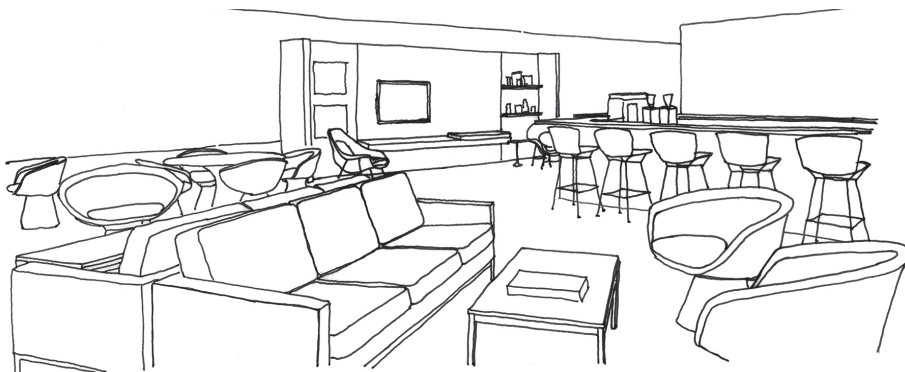
# Social and Meeting Spaces

As learning happens everywhere on campus, requirements for social and meeting spaces echo those of learning spaces. Flexibility for varied applications, lighting that allows for myriad situations, and technology that allows easy and intuitive participation deliver adaptability.

When spaces on campus segue from one use to another and user groups shift in size throughout the day, the environment must adjust accordingly. Adaptability supports the transformation of private spaces to open spaces and back easily and efficiently.

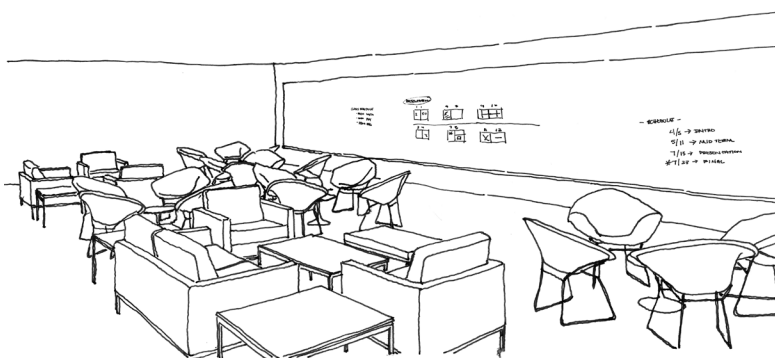
## Café

- ▶ Not only can a café provides access to refreshments, it can also work as an expressive element that eases the adaptation of one space to another function.
- ▶ Elements of a comfortable coffee shop environment can soften a traditionally sterile space such as the campus library and encourage students to use the space for informal meetings and gatherings, as well as study and research.



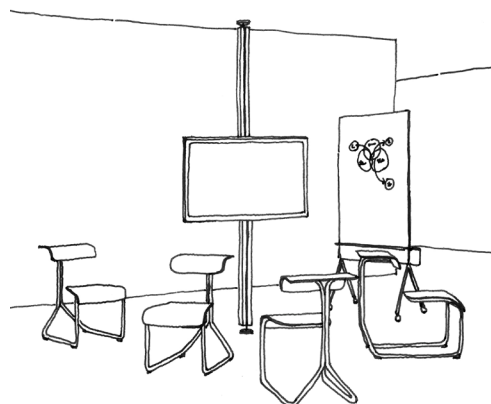
## Large group meeting space

- ▶ A cluster of mobile furniture components provides flexibility to best meet individual learning styles. Movable pieces can be arranged in multiple small or large-group vignettes, collaboration areas and reading nooks in either open or closed configurations.
- ▶ A variety of seating options accommodates different gatherings. Lounge seating, ideally with space for a laptop, should provide access to power and data and can mix with an assortment of tables and other chairs.
- ▶ Comfortable chairs around a low table provide generous workspace area to spread out backpacks, tablets, laptops and snacks. Providing storage space for backpacks and other materials in chairs or tables maximizes workspace by reducing clutter.



## Small group meeting space

- ▶ Even informal meeting spaces need opportunities to display and connect. A power pole provides abundant outlets, delivering power, data, and communication.
- ▶ Display options should provide both low tech (markerboard) and high tech (flat screen) solutions for maximum adaptability.
- ▶ Multi-function furniture provides added flexibility in meeting spaces. Some pieces change depending on the user's orientation: forward-facing as a chair with writing surface; rear-facing as a chair with back support.

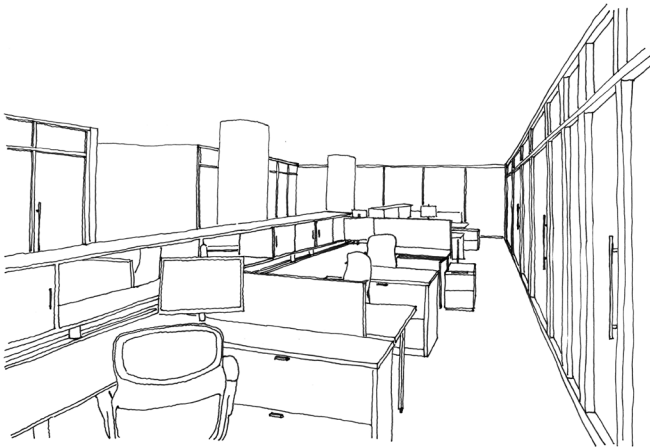
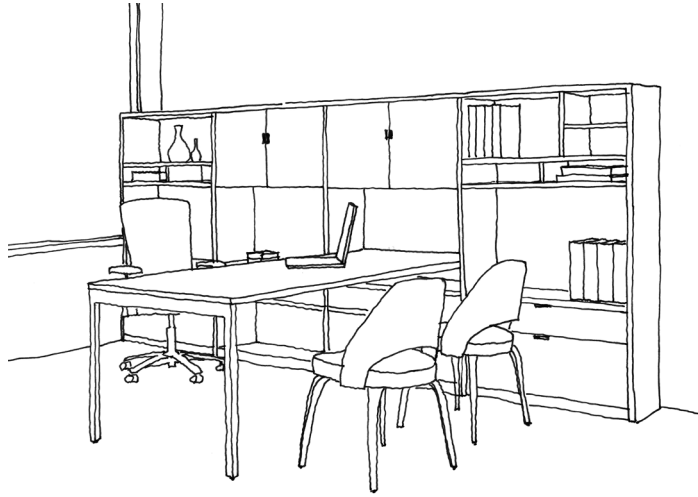


Higher education spaces are typically associated with students—learning spaces, social spaces, living spaces, etc. Yet faculty and administrative spaces can comprise 30% to even 50% of an institution's interior spaces. Planning in this arena is affected not only by workplace trends, but also idiosyncrasies unique to higher education.

Natural light is the universal preference in faculty and administrative spaces whether private or open, office or meeting. In offices this often means carving out a windowed office that results in a long, narrow space. Such rectangular spaces necessitate utilizing walls perpendicular to the window for space efficient storage and display. Additional efficiencies can be gained by utilizing the vertical space in slim footprints for added storage.

## Private office space

- ▶ Adaptable furniture such as tables that readily shift from desk to meeting surface encourage communication and idea exchange.
- ▶ Lightweight, easy-to-move chairs work for impromptu visitor seating, and can be pushed or pulled quickly from a private office to a common meeting/lounging area nearby.
- ▶ Faculty often have more substantial storage requirements than other office professionals. Besides a wealth of books, display areas are also used as an opportunity to personalize surroundings with visual reminders of studies, travels, cultural influences and families.

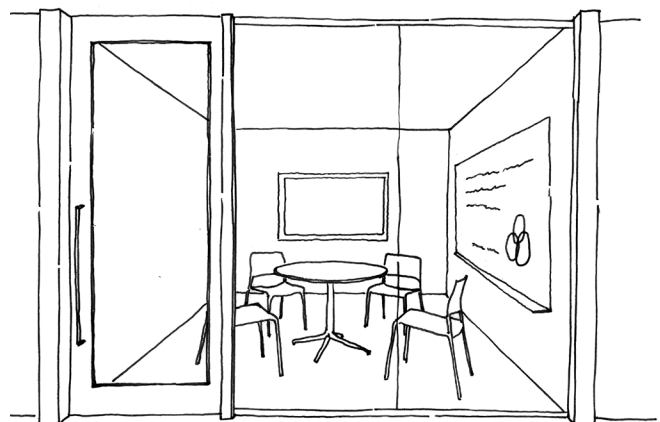


## Open workspace

- ▶ Long hours at a computer necessitate comfortable, flexible furniture and adjustable elements such as monitor arms.
- ▶ Ample worksurface and extensive storage are often needed to lay out and house materials generated by professors and their students.

## Meeting space

- ▶ Casual gathering areas situated near faculty offices and seminar rooms accommodate both spontaneous and scheduled group meetings. Lightweight tables and chairs provide flexibility for varying group sizes and/or meeting locations.
- ▶ Meeting spaces should provide opportunities to display and connect. A screen on a rear wall accommodates technology while markerboards and display tools facilitate collaboration.





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