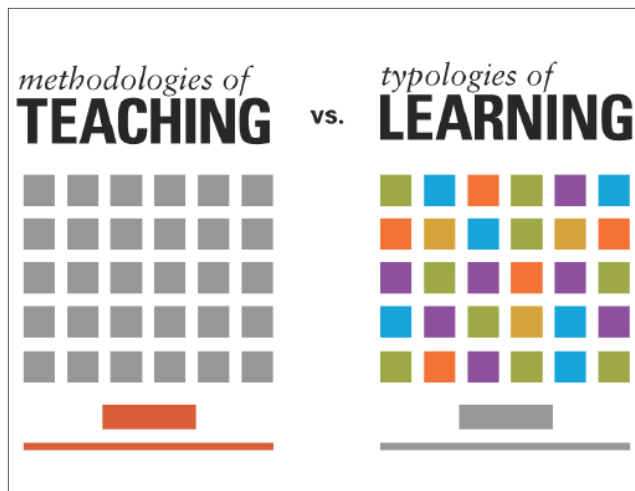


IMMERSIVE LEARNINGSCAPE

21st Century Learning/Technology

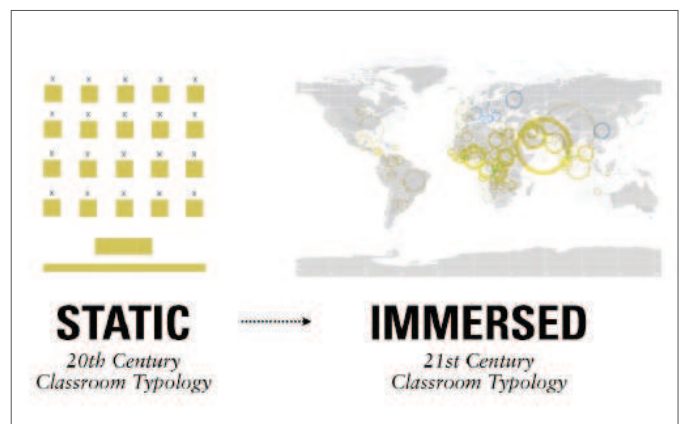
21ST CENTURY LEARNING

Learning is the priority in the buildings we design; 21st century pedagogy calls for blended learning: a combination of personal, face-to-face learning interactions with cutting-edge anytime, anywhere technology. Both informal learning spaces and more traditional, walled learning spaces will be needed in order to provide students with a variety of learning possibilities that are customized for them, and support active and engaged learning. The design of the learning environments reflect an embracement of academic innovation methods that target the preparedness of our students in a hyper-competitive world.



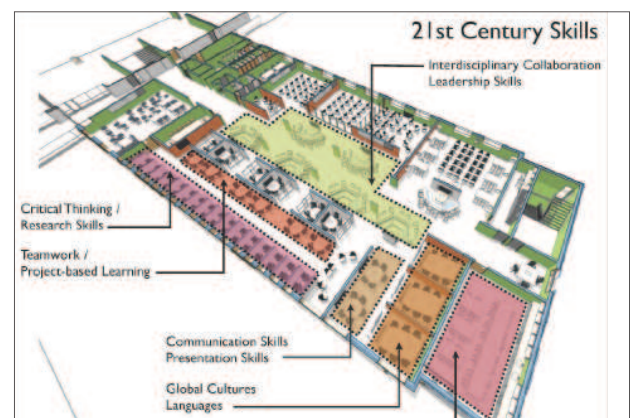
Our new Millennium calls for a new way to think about education and the spaces in which education takes place. While the design of the classroom has historically been focused on a teacher-centered space for passive learning, the evolution of technology and the shifting ways in which individuals learn are pushing us to rethink the antiquated classroom model and whether it is the best way to adapt to ALL learning methods.

While customization of every part of our lives continually evolves over time (as with DVR's on TV's, smart-phone applications, consumer goods, foods in restaurants, etc.), education is still delivered in mass production. Why? The classroom is partially to blame, since it can't adequately accommodate multiple methods of learning. It does not facilitate the advancement of interactions between students and professors, or professor-student mentorship. Nor does it accommodate the flexibility and adaptability needed to support multiple teamwork-oriented and technology-facilitated, collaborative and interdisciplinary learning environments. Most of all, the standard classroom does not support active engaging or creative learning.



If we are to compete successfully in a global economy, we need to provide spaces that make us wonder, think, create, innovate, collaborate, speculate, question, interact and be active. Research shows that when students do these things (instead of just listening), they retain 90% of the knowledge (Active Learning). We need to become a society of doers. . We visualize facilities that foster a belief that learning happens anywhere, anytime, anyhow. All spaces, media and people can teach us, so we need to depart from the concept of the word "classroom". Especially since it has been proven that we do not learn best in a class, that a room is no longer the only place we get information from and that teachers are not the only persons we learn from.

We are proposing a concept called the Immersive Learningscape.



The Immersive Learningscape speaks to two important aspects of education in the new millennium:

- First is the idea that learning happens best when it is immersive. Whether with writing, social sciences, history, geography, environmental studies or math, learning truly happens when you are immersed in the subject at hand. When you can interact with it in a multi-sensory method and manipulate, test, adjust and respond to the questions and challenges you encounter. In this form, learning is active, engaging, interesting and challenging.
- Second is the notion that the classroom gives way to the LearningScape: a combination of spaces that create a landscape for various ways of scholarship and multiple opportunities for size-specific learning. These spaces allow for technology-focused, project-based learning; for flexibility of activities and education, unexpectedness in thought provoking, collaborative environments and brainstorming space for innovative and creative learning. The areas in this landscape of learning will better facilitate and encourage interdisciplinary and innovative encounters between students and faculty, and will address the potential for every square foot of space to be maximized as learning spots, nooks, paths and spaces.

The Immersive Learningscape will be a place that integrates five typologies of learning spaces, based on the team size of the learners and the tasks at hand:



Think – based on the concept that learning occurs at the individual level. Small intimate spaces allow for the time and environment to analyze and investigate, think and digest information.

Create – focuses on learning through teamwork. These spaces can be arranged in multiple configurations, allowing for flexibility of engagement and multiplicity of programming as well as interactive learning in small to medium size groups.

Discover – designed to foster learning through a 'workshop' setting. This environment is designed for learning through testing, hands-on and exploration, allowing for larger group meetings where equipment is necessary. These spaces will encourage arts and sciences to co-create and invent via fabrication, testing, deconstruction, reconstruction, production and design.

Impart – rendered more like a typical classroom. These spaces accommodate larger group gatherings, yet feature break-out zones for smaller team areas and operable partitions to combine two classrooms for very large gatherings.

Exchange – inspired by the potential of social learning. Paralleling that of academic learning, this space becomes communal space, an environment shared between students, guests and citizens alike. Rendered as a vertical space, this dynamic space unites all learning academics.

Technology has pushed the potential for students to create (not just absorb), for customized education (not mass teaching), and for interactive learning (not passive listening). Haptic, multi-sensory technology allows us to physically interact with a specific subject. i3D software enables us to peel the different layers of a brain, turn it and twist it, as if surgeons in an operating room. Enhanced (or augmented) reality software lets us learn about the things we see in an interactive way, such as walking the streets of Paris and understanding what we are witnessing with a deeper level of information. These readily available technologies need to be actively used and engaged by our students.

The Immersive Learningscape will also be critical in another way: it will enhance the importance of transposable learning. Acquiring knowledge here, and applying it there. As globalization equalizes, 'glocalization' will differentiate. Who prevails will be determined by who can make the connections with the 'other' end. It will no longer be enough to know; we will need to excel at learning how to apply or knowledge at a local or regional level, anywhere in the world. Whether with language [Global language (English) – Glocal language (Vietnamese, South African, Chilean, Slovenian)], culture [Glocal Culture (economics) – Glocal culture (social etiquette in Japan, food customs in Honduras, sports in Pakistan, music in Tunisia)], business practices or technologies, the more we know and can relate, identify and interact with other individuals in other parts of the world, the more academic and professional leverage we will have.

The Immersive Learningscape is poised to allow something that the classroom cannot achieve: to enable students to interact with the world in a multi-sensory way, provide students with the flexibility to learn in a multitude of ways, engage students in collaboration with peers in appropriate environments, give students the time to think and digest what is being presented, and offer students the opportunity to network with other students and professors on academic and social levels, both locally and globally.

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TECHNOLOGY

Little's design team recognizes the critical role of the interior environment in shaping and reinforcing the identity of the campus. Your new interior environment must embrace state-of-the-art technologies while reflecting the qualities of University environments. Defining the Classroom of the Future also requires a multi-disciplinary team that's fully capable of addressing the challenges and opportunities presented by this project. Our core team leverages the expertise of an academic planner and a technology expert who will support the design team in translating the University's vision and program into specific and sustainable concepts for the physical space, furniture and technology.

For example, we will explore the importance of light and acoustic control in learning spaces, develop informal areas that support learning beyond the classroom, and examine the critical role of technology. We will also work to implement planned flexibility for the learning environments based on its long term goals and intentions for the upfit, and capitalize on the opportunity that this type of planning affords the University to use sustainable methodologies to lower operating costs and improve the quality of the overall environment.

Emergent communication and audio-visual technology has contributed to advances in the design of educational environments both inside the classroom and outside. Our core team includes Thorburn and Associates, leaders in technology design, whose experience in network, transport, storage, retrieval, infrastructure, audio, video, control and user interface design will support our careful space planning and design for this project. How information is disseminated across a building, campus or city, and how is it accessed, stored and then ultimately retrieved for later use is vital to the successful integration of technology in immersive learning environments.

Our focus will be to integrate technology and related infrastructure early into the planning process, and focus on cost management throughout the process. The design of the Classroom of the Future should have seamless access to technology that enriches education, and we will work with Universities to incorporate cutting-edge practices into this project.

A few trends our team is exploring:

Supporting problem-based learning: Problem-based learning breaks down large sections into small groups to collaborate on challenging problems. The classroom permits the student to push content up to the professor via wireless connectivity to podium control.

Multi-media capture systems: Students, who are paying a high premium for education, cannot afford to miss a single class. Integrated technology can not only record a class in multi-media format, it can also automate it to upload to iTunes University within an hour after the end of class.

Communication technology: Equipping classrooms for video conferences and video capture requires new lighting standards for more precise pictures. The increasing use of capture systems and video conferencing is requiring a corresponding increase in investment in lighting to address the color rendition of a classroom so images and video represent better on video and online.

Controls that are intuitive, automated and remote controlled: Technology in the classroom - especially the audio-visual environment - must be intuitive and simple to understand and operate. One-button solutions for class recording and multi-media capture permit ease of use by visiting professors and guests.

Supporting campus-wide hand-held technology: Universities occasionally issue iPads/ smartphones to all freshmen with university-sanctioned applications. Strong wireless access and healthy bandwidth is important to ensure that these resources are being used to their full potential.

Technology support in informal learning areas: Soft seating areas and informal learning environments support group study and collaboration outside the classroom. These zones can permit wireless presentation, from laptops to flat panels, and may even permit capture as well.

Optimizing performance and infrastructure: More and more information is requiring more and more bandwidth, which is a serious issue that can't wait. The learning environment of today and tomorrow. Careful design and expertise is required to avoid limitations caused by infrastructure, to design and build better networks for streaming without latency or delay, and to avoid synchronous problems. Focus must be placed on improving network prioritization and quality of service that protects the quality on the receiving side. Wireless has improved greatly, but is still not ideal for transmission of large packages of information. Therefore, we still require connectivity in the classroom - perhaps not at every seat, but at least for each lectern and rack/hardware.

Measuring student response: Student response polling using hand-held devices dedicated to classrooms encourages students to give better feedback, not just in single course but across the entire campus. This presents a great opportunity to think about new models of assessment and to prompt students to think bigger about their role in their own learning.

