

Teaching with Technology: What Teachers and Students Need to Succeed

The generation gap between today's traditional learners (many of whom are Millennials) and professors (many of whom are of the Boomer generation) presents a broad and interesting set of challenges for colleges and universities. However, there is a particular issue that the majority of decision-makers in the higher education sector agree upon: In order to be competitive, it is critical that institutions of today and tomorrow deliver advanced teaching and learning tools—to encourage sustained engagement, and to give today's students and faculty the tools they need to be successful.

Current and near-future students are largely comprised of Millennials (Americans born after 1982 and before 2001) and “non-traditional” students. The large number of Baby Boomers (born between 1946 and 1964)¹ have given birth to a “boomlet,” as researchers Howe and Strauss refer to the recent surge of Millennial college-bound students.² Millennials number between 80 and 100 million, almost one-third of the US population and, increasingly, adult learners are returning to school in unprecedented numbers. Almost half of today's post-secondary students are 25 years or older. Though these working students are commonly referred to as “non-traditional,” they're actually close to becoming traditional.”³ Institutions of higher learning will be competing to attract these demographics. Millennials and adult learners will be making education choices based on a fresh set of requirements that include: options for flexibility, skill set value/job applicability, technological edge, online and distance options—and, for many, advanced, collaborative, and community-building features that characterize a new learning milieu.

A Shift in Learning Methodologies

Millennials have grown up with technology as a natural means of social interaction and information exchange in the virtual universe of networking, learning, and entertainment. They are described as “digital natives,” while the Silent Generation (born 1925 to 1945), Boomers, and Generation X (born 1961 to 1981) are described as “digital immigrants”⁴. The Millennial Generation makes a significant departure from the X, Boomer, and Silent Generations in that they are optimistic, team-oriented, and community-centered—not since the Great Generation (as Tom Brokaw coined the

“This generation is predicted by many researchers to transform colleges and universities much like the Baby Boomers did, but more dramatically and in very different ways, beginning with technology. Tailoring the learning environment to meet the needs of the Millennial Generation will require the newest technology and software, using their abilities to be comfortable with collaborative learning, and meeting their needs to have choices in delivery of the knowledge and information.”

*Sherry Forkum, The Millennial Milieu: A Study of Instructional Strategies (2008.)*⁵

term describing a valiant generation of Americans who lived through the Depression, many of whom fought in World War II) has a generation embodied such promise and confidence in themselves and hope in the world at large. They like their communities and they like to work together toward common goals; they also like to know how close they are to their goals and what is expected of them to meet those goals. Millennials expect objective measurements and assessments, defined rewards for defined amounts of work, and constant support and evaluation.

These traits manifest themselves most obviously in academic settings. Faculty are expected to prepare team assignments, peer review, and team grading. An ideal project would be something that serves the public interest rather than individual interests.

In the classroom, expect students, parents and public officials to demand higher academic standards, smaller classes, straightforward grading policies . . . [and a] mixture of traditional values with cutting edge technology.”

*N Howe, N., & Strauss, W. (2003).
Millennials Go To College.
<http://www.eubie.com/millennials.pdf>*

“Millennials prefer 24/7 online access to grades and course progress, and a final interactive group project or choice on a final activity.”⁶ Furthermore, this generation does not respond well to a pedagogical teaching approach. Millennials are used to hands-on multi-tasking and they are well-conditioned to digest vast amounts of information in entertaining and dynamic formats. Since early childhood, they have been bombarded with multiple multimedia stimuli and the expectation that they will naturally interact with technology. They are used to actively participating in learning groups and they are not hesitant to learn new applications.

The pedagogical teaching paradigm that has characterized our hallowed institutions for centuries has been dramatically transformed. We recognize that students learn more and are engaged more effectively by directly participating rather than passively receiving information. The esteemed professor holding forth at the lectern is giving way to a facilitator of credible public Internet resources and dynamic group discussion and activities.

The Self-Directed Adult Learner

Malcolm Knowles (1913-1997) was an American adult educator famous for adopting the theory of Andragogy (a term originally coined by the German teacher Alexander Knapp)⁷—a learning-centric approach to teaching adults. Knowles made several assertions about adults as learners: (1) Adult learners are autonomous and self-directed (2) Learning needs to be connected to the participant’s knowledge and experience (3) Adults are goal-oriented (4) Motivation in adults is directed to relevancy (familiar setting/responsibilities) and (5) Adult learners seek to understand the value of learning any skill to their work/goals/life.⁸

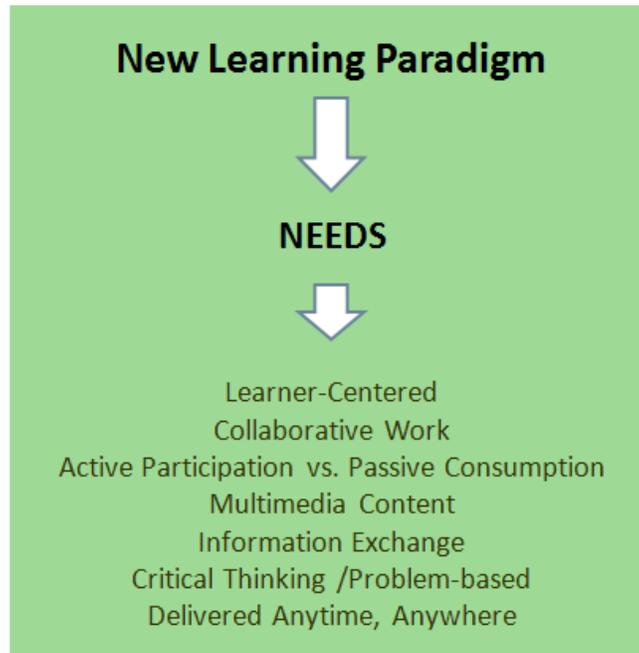
Learning Methodologies

Method	Meaning	Characteristics
Pedagogy <i>(Greek: "Child-leading")</i>	Teacher-centric	Lecture Passive Learning Instructive
Andragogy <i>(Greek: "Man-leading")</i>	Learner-centric Science or art of teaching adults	Active Learning Collaborative Interactive
Heutagogy	Self-Determined Development of Individual Capability	Asynchronous Non-linear Individually paced

Millennials may differ from adult learners in the obvious ways: less life experience, financial dependence, time and ability to explore career and life options. Adult learners bring more life experience to the classroom and have a better sense of exactly what they need to learn in order to be successful in their educational and personal endeavors. Adult learners prefer to play a significant role in the design and direction of their individual course of study. Collaboration and active learning are key to adults as their skills and lessons will find immediate application to the real world—it stands to reason that working with other individuals towards a common goal simulates a life experience more closely than passively receiving abstract information from a lecturer.

Delivering Tools for a Community-Focused and Collaborative Learning Paradigm

Technology is a significant factor in the recruitment and retention efforts of colleges and universities across the US. Today's student demands the most advanced technologies for their social and academic requirements. Institutions of higher learning have choices regarding what tools they offer to their constituents. The schools that will lead and succeed in the coming decades will make decisions based on what is important to their students: community, collaboration, participation, advanced learning management systems, and a 24/7 instant connection.



A learning management system that can provide community-building tools and anytime, anywhere access will prove critical for student, faculty, and institutional success. Access to advanced Web-based resources and the ability to integrate with industry-standard applications is also crucial: students want the most up-to-the-minute technology at their fingertips. Online and distance options are necessities for today’s student, whether a Millennial with a soccer practice conflict or a single parent who needs to be at home. A wide variety of tools are available to foster a vibrant, dynamic, and thriving online environment for students, faculty, instructors, and institutional staff to connect. Instructors and students can opt to enrich their course offerings with the following features:

- Chat groups
- Blogs
- Dialogue forums
- Targeted messaging and announcements
- Calendars
- Bulletin boards
- Unlimited affinity groups, such as career networks, music groups, interest groups, etc. Groups can accommodate mixed membership of faculty, staff, and students
- File sharing
- Custom content, including pictures, text, URL links
- Feeds from other systems, such as YouTube and other iFrames-capable content
- Synchronous/asynchronous communication and broadcast tools

New learning technologies will be developed in response to the evolving needs and requirements of our colleges and universities. We will continue to discover and identify those tools that can help institutions achieve an optimal collaborative learning paradigm for faculty and students. As Generation X and Millennial candidates move into the tenured faculty positions held primarily by Boomers today, faculty and students will have fresh insights and new solutions to bridge the gaps—and learners will continue to teach us how to provide tools for their success and that of our communities. ■

Sources

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