Top Tech Trends in Higher Education Today and Tomorrow

Leveraging technology to make education more adaptable and accessible

Serving more students and **ensuring better outcomes for these students** is a top challenge for many higher ed administrators. Here we discuss key technology trends that impact how colleges and universities can engage with students online successfully, both today and in the future, and just where Citrix fits within these trends.

TODAY: Providing an equal learning experience anywhere, on any device

With an influx of new technology and devices, such as tablets, touchscreen displays, 3D printers and even drones, administrators are taking big leaps forward to provide the latest and greatest technology to their students. The challenge arises when IT and educators realize that this incredible technology essentially becomes a flashy, expensive toy without the right infrastructure, mobility strategy or learning plan in place first.

Citrix and other solution providers are striving to help institutions bridge this gap and **design a campus mobility strategy** that takes advantage of the newest technology while also utilizing their legacy equipment. **When IT services and resources can work anywhere and on any device,** it makes other critical technology initiatives—like BYOD, collaborative learning spaces, and flipped classrooms—easy to introduce and expand.

If you can deliver any application, even heavy applications like AutoCAD and SPSS, to any device, whether it is a MacBook Air or inexpensive Chromebook, you level the playing field for education. In the past, if a student hoped to someday be an engineer, those dreams could easily be shattered due to the inability to afford the expensive software or device required for the classes.

TOMORROW: The Internet of Things potential for improving student engagement

Leaders at Citrix had a chance to recently talk to many college and university administrators about how the Internet of Things (IoT) can improve how institutions engage with their students. There is a lot of curiosity and interest in how IoT can simplify and enhance **blended, or hybrid learning,** with the goal of using IoT to automate much of the effort involved.

Some institution leaders define **blended learning** as ways to enhance the on-campus experience by using asynchronous education and flipped classrooms to allow students and instructors to manage their time on campus more efficiently. Yet others see **synchronous learning** as a great and efficient way to reach more students today, either by allowing students to access lectures from their home or by allowing content to be pushed across multiple campuses simultaneously.

Administrators interested in **asynchronous methods** typically want to reach students who have schedules too busy to support attending a traditional classroom on a regular basis.

There are definite **pros and cons to the different approaches,** and what we saw in our conversations was the same end goal: Everyone wants to **track and improve student outcomes**. However, with all of this variation, is it even possible to define a solution that can help everyone?

"In the next five years, technology will disrupt the learning experience in many ways. Students will consume knowledge and learning in new ways, classrooms and educators will be better equipped for education of students, and the learning experience will continue to become more virtual."

—Citrix 2020 Technology Landscape

Administrators need to frame **IoT as the Integration of Everything,** and to think of IoT as a platform to connect together disparate elements within a hybrid learning environment to improve the instructor and student experience while not overloading IT staff. Citrix's goal is to use IoT to link together all classroom tech elements; out of that linkage we can create workflows that allow instructors to simply walk into a classroom and teach their content. In the background, we can have technology supporting the presenting and capturing of the classroom content, which can be delivered in a synchronous or asynchronous fashion. The goal is to do this simply, allowing IT and instructors to define in advance their classroom preferences and to then automate the rest. More information is available on Citrix's **Project Minerva** page.

BOTTOM LINE: Change on the horizon

Higher education is at a crossroads. The escalating cost of higher education is **forcing greater scrutiny on the value provided to students** while the **advance of mobility combined with emerging technologies** has the potential to disrupt the status quo. So the focus must be on leveraging and adapting these new technologies to make education more accessible to everyone, and more adaptable to students' needs. Throughout all of these changes, Citrix is ready to provide our customers a helping hand whether that is helping to design a **campus-wide mobility strategy** or looking forward to the **IoT enabled learning experience.**

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