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education

Intelligent Campus: Coming to a School Near You

The concept of implementing an intelligent or connected educational campus is gaining proponents for many reasons. It is seen as a more effective way to educate and to operate and maintain vast physical plant.

In essence, an intelligent campus relies upon a broadband platform that supports a heavy computer-focused management system, many sensors, and communication channels that drive a wide array of applications. You may liken it to an Internet of Things, with an academic flavor.

Still in its early stages, the nuances of this approach seem to be up for debate. Some call it intelligent campus, implying that the network may think, reason and understand. While others use the “smart campus” label, connoting a concept of having a networked system with the innate ability to adjust to changing circumstances.



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Whatever the approach, the campus system will be designed to leverage technologies in learning and operations to create an efficient, sustainable, adaptable, agile and secure environment. And, its proponents say, it uses data generated by intelligent systems to touch a large number of functions, such as:

- Enriching the learning, teaching, and research environment
- Allowing collaborative learning, teaching and research with no boundaries
- Improving communications among students, faculty and management
- Resolving traditional learning barriers via technological enablers
- Providing ease and clarity in campus governance and management
- Aiding environmental stability and energy management. Energy costs are among the top 5 expense lines on a typical campus and among the most controllable
- Protecting students and monitor building/laboratory access

But the sweet spots, according to a recent special report from the **Center for Digital Education** containing a survey of education leaders in mid-2014, centered on:

- Making teaching and learning more effective, **46%**;
- Improving efficiencies and cost savings, **21%**;
- Leading to better decision-making, **16%**;
- Improving effectiveness in campus security, **13%**; and
- Increasing sustainability and environmentally friendly campuses, **4%**.

And that survey dovetails around the need for broadband with a separate survey conducted by Babson Survey Research Group and Quahog Research Group, LLC, with support from the College Board, the Sloan Consortium and British-owned education publishing house Pearson. That survey found that close to 70% of higher education institutions now regard online education as critical to their long-term success.

Among findings expressed:

- The number of students taking at least one online course increased by more than 570,000 in the fall of 2011 from the fall of 2010, reaching a total of 6.7 million.
- The proportion of all students taking at least one online course is at an all-time high of 32%.

Part of the reason for the increases has to do with the rising access to broadband networks, but the report also points out that perceptions of the relative quality of online courses has risen, albeit modestly. Another point to note is that while the category of Massive Open Online Courses (MOOCs) has attracted lots of press attention of late, less than 3% of academic institutions said they offer MOOCs.

The full report, reflecting responses from 2,800 colleges and universities, is [here](#).



More Bandwidth

Of course this kind of ubiquitous broadband for schools at all levels — not just post K-12 — requires funding, and the State Educational Technology Directors Association (SETDA) is advocating for more federal support to implement and maintain high-speed statewide networks and connectivity at access points including libraries and community centers.

The investment is justified, says SETDA: “Simply stated, broadband has become the enabling technology of modern learning environments. It is the medium through which educators are expanding the very boundaries of the classroom.”

Note: At least 31 U.S. states and the District of Columbia have statewide full-time online schools, and 275,000 students are estimated to have attended fully online schools in the 2011-2012 school year, according to the Evergreen Education Group, which has tracked the sector for the last nine years.

