INDUSTRY PERSPECTIVE

Enhance Learning with Collaborative Technologies

Collaboration and presentation systems can foster engagement, discussion and collaboration. See how.

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The traditional classroom is evolving. The sage-on-the-stage style of instruction that has defined the classroom is now making room for new approaches that focus on the student. A growing number of schools are placing greater emphasis on student collaboration as well as flipped classroom and active learning models.

Another trend changing instruction: BYOD. Studies show that many students today carry not just one electronic device, such as a laptop or smart phone, but often two or three – phone, tablet, and computer. For these students, their devices are their learning tools.

Not surprisingly, these trends are driving changes in learning space design. More and more schools are transforming classrooms, libraries and common areas into huddle spaces and other collaborative spaces. These campuses are outfitting these areas with audiovisual technologies — displays, projectors and wireless presentation systems — designed to foster engagement, discussion and easy sharing of information.

BARCO CLICKSHARE COLLABORATION AND PRESENTATION SYSTEM

One company offering collaboration and wireless presentation solutions is Barco. Its ClickShare collaboration and presentation systems allow all users in a space to share files in one of two convenient ways: through a simple, free ClickShare Presenter app (for either iOS or Android devices), or by using a small hardware device called the ClickShare Button that plugs into a USB port. With either method, students can share virtually any kind of content with everyone else in the space, on a big screen, doing away with issues around PC / Apple device collaboration. For huddle spaces in libraries, labs, and student centers, for example, ClickShare allows students — even in a spontaneous meeting — to quickly share laptop, tablet or smart phone content including slides, documents, web content, video and more.

Institutions can set up any meeting space for quick student collaboration by selecting either of two ClickShare offerings: The original full-featured ClickShare CSC Base Unit, or the new, compact ClickShare CSM Base Unit.

ClickShare CSC is designed for any room or space, regardless of capacity. It is ideal for rooms where users will need a higher resolution display, or two screens, or where multiple users will share the central screen at once. The ClickShare CSC unit can drive two separate screens simultaneously, and support special output resolution, including panoramas. Up to four students can share content on-screen at once, and up to 64 buttons can be ready to share content. It’s ideal for classrooms, lecture rooms, and large meeting areas.

ClickShare CSM is a new, compact version of ClickShare that offers the core ClickShare experience. Ideal for huddle spaces, library or lab areas, or smaller rooms where students might meet to collaborate, the ClickShare CSM unit displays images up to full HD resolution using its HDMI or VGA output. It is fully compatible with both the ClickShare Button and the free Android and iOS app, allowing one user to share content on-screen at a time. The device includes the CSM Base Unit and two ClickShare buttons; up to eight buttons can be connected wirelessly to the base unit.

Barco Corp. AV projectors can be purchased with ClickShare installed, or ClickShare can be added to existing projectors or displays.

CLICKSHARE AT THE UNIVERSITY OF PENNSYLVANIA’S WHARTON EXECUTIVE PROGRAM

The Wharton School of the University of Pennsylvania has implemented Barco’s ClickShare wireless presentation system for its executive MBA program, to allow students to better collaborate and easily share information.

The Wharton School of the University of Pennsylvania
had long relied on wired solutions as the method for sharing content in its teaching spaces. Since 2002, group study rooms, conference rooms and other teaching spaces primarily relied on wired inputs, either at a lectern or a face plate or wall plate in the room, to deliver content. “The option to share content wirelessly was very limited,” said Marko Jarymovych, IT technical director for the program.

The Wharton Executive MBA (WEMBA) program is a two-year program designed for working adults. Participants take classes every other Friday and Saturday. Students need to make the most of their time on campus. The school wanted a wireless solution that would allow these time-crunched students to just come into the environment and get to work.

“You don’t want a learning process associated with the spaces that they’re supposed to be collaborating in, or conducting group work,” said Jarymovych, “because that is a real time-killer.”

The team set out to find a plug-and-play solution that would fit a mixed-mode environment and integrate with the existing Crestron control system. The screen-sharing solution also needed to address the bring-your-own device scenario that was becoming increasingly common at the school. After seeing a demonstration of the solution at InfoComm, the large professional audio-video conference, the school selected Barco's ClickShare wireless presentation system.

“The number one thing that attracted me to Barco was that it was an elegant hardware solution,” Jarymovich explained. “We wanted to provide an elegant hardware solution for laptop and netbook users to be able to share their screens wirelessly, with a solution that was easy to set up and maintain. The solution would require limited support or training on how to use it and would have to be reliable.” He added that the transmitter and receiver were easy to set up, and don’t take up much room, even including the antenna.

The school rolled out the system — gradually over 18 months — in 20 conference rooms. Barco helped with the design and planning, along with a systems integrator for the actual installation. Each conference room is outfitted with one or two display screens. As students congregate in a room, each uses a supplied ClickShare Button, a small device that plugs into a USB port, to instantly and wirelessly connect their laptop, tablet or other mobile computing device to everyone else in the room, and to the room’s display screens. No need to set up or alter the configuration of their device, either for the

network or for a particular room. Students simply plug in the ClickShare Button and begin sharing content, without leaving any digital artifacts behind.

Each conference room required some degree of customization, Jarymovych said, depending on the specific needs of the department: “Some need more collaborative spaces, some need displays to share a large screen.”

In addition to the WEMBA program, the school also employs ClickShare for staff meetings and other departmental purposes. Altogether, some 100 MBA students access the system each weekend, along with 100 or so faculty and administrative staff.

The system also includes a reporting function. IT administrators can track ClickShare’s use through Crestron’s

**DESIGNING AV FOR LEARNING SPACES**

Adding AV to classrooms, huddle spaces and other learning areas means considering both the hardware and software that will be used.

Things to consider in designing AV for huddle spaces or classrooms include size of screen – anything from a 20-inch monitor to a 40-inch flat panel display can work – along with considerations of ambient light that can inhibit viewing. Flat panel displays offer a bit broader viewing angle than a projected image, and provide their own light. Flat panels work well for two to five people, the typical size of a huddle space. In those situations, a projector often isn’t a good choice.

For larger settings, including classrooms, where ambient light can be a factor, consider projectors with at least 4,000 lumens of power, up to 10,000 lumens. One issue: the larger the screen size, the more light reflects from the screen, and the more powerful the projector needs to be.
enterprise management platform called Fusion. “We know how many times people use it,” he noted, “or if people are using it at all.” The reports return useful information with data points such as the number of users taking advantage of the ClickShare rooms, thus validating decisions on design and installation.

According to Jarymovych, students, faculty and staff are pleased with ClickShare. “It’s easy to use,” he said. “That’s been the number one thing. We don’t hear about these things being problematic. That’s the bigger metric. People will use it or they don’t; it’s up to them. [But] after awhile, if you’re not hearing about issues and problems and you know [the system’s] being used, that’s a good spot to be in. Once it’s installed, you don’t have to worry about it.”

CLICKSHARE IN ACTION: THE CHARTER SCHOOL OF SAN DIEGO

ClickShare technology is helping students, in grades 7-12, at The Charter School of San Diego connect, collaborate, focus and share content. The 3,500-student institution, a member of the Altus Institute’s network of schools, has been using ClickShare technology for more than a year.

The software is generally used to let up to four students at a time share the contents of their school-issued tablets or iPads with the rest of the class. Work is shown on 70-inch television-style screens in classrooms that can display up to four different desktops at once.

“With [ClickShare], screen sharing has been a huge tool in student engagement,” said Tiffany Yandell, operations and human resources administrator for the school. Yandell manages the technology for the school. “It’s increasing the level of students’ comprehension… Students can see it, touch it, do it. They’re not sitting in a lecture…” The technology, she explained, “immediately engages them more because they are physically a part” of the classroom activity.

The software is on small USB-compatible devices called ClickShare Buttons. Teachers distribute the Buttons to students at the start of class, who then plug them into a USB port on their tablet or notebook. When a student pushes a button on the device, their screen is shared on the large screen. Sharing speed is instant, Yandell said, meaning that everyone in the room is seeing exactly what is on a student’s or teacher’s laptop or tablet in real time.

Another plus: improved accountability among students. The fact that everyone else will be viewing a student’s work on the big screen “immediately increases accountability on the side of the student,” Yandell added. “The teacher can say, ‘Hey, you have ClickShare. Why don’t you share what you’ve found?’”

ClickShare is helping the charter school carry out its mission, which is to give their students the real-world skills that they’ll need once they complete school. Yandell cites the example of a class on budgeting. In this scenario, four students would share work from their desktops with their classmates: one with a PowerPoint slide showing income, another with an Excel spreadsheet with budget formulas, another with a real-time search on Craigslist for apartments for rent, and another with one student’s notes and calculations.

“It’s a true integration,” Yandell said. “We didn’t just add technology to our classroom. We’ve truly integrated it into the instruction and curriculum for our kids.”

About Barco

Barco, a global technology company, designs and develops visualization products for a variety of selected professional markets. Barco has its own facilities for Sales & Marketing, Customer Support, R&D and Manufacturing in Europe, North America and Asia Pacific. Barco (NYSE Euronext Brussels: BAR) is active in more than 90 countries with more than 3,900 employees worldwide. Barco posted sales of 1.156 billion euro in 2012. www.barco.com

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