

3 Ways Lecture Capture Delivers a Successful Online Learning Experience

Technology experts discuss online learning, and three key benefits schools and colleges can receive from investing in lecture capture solutions.

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In order for online learning to give students an effective online education, schools and colleges need to invest in lecture capture solutions.

According to Joseph Cilli, the answer as to why schools are moving to online learning is obvious – students want it.

Cilli, the director of distance learning at Florida International University (FIU), says online learning can give students the flexibility to learn on their own watch, especially if they can't attend class in person.

“Based on today’s standards, an online course is better organized, provides a community for all students to actively and anonymously participate, and has more opportunities for instructor/student engagement while being equally, if not more, rigorous,” says Cilli. “Ultimately, online learning provides fewer obstacles to learning, and allows students to create their own pace while learning what they want, when they want.”

3 Tiers of Online Learning – And Where Lecture Capture Fits In

1.) Distance learning

While distance learning is more commonly seen in higher education, Cilli says it offers opportunities for K-12 schools and colleges alike, including:

- Allowing institutions to increase the number of course offerings without incurring physical building expansion costs.
- Enabling institutions to recruit out-of-state to markets that were not previously available to them.
- Granting institutions the ability to hire the foremost experts in their disciplines, regardless of location.
- Allowing the future possibility of integrating “a la carte courses” into online learning platforms, where students can choose an online course based on the instructor, regardless of the institution.

Dale Gomez, college IT director for FIU, says his institution uses various methods for distance learning and course capture, especially for its international classes.

“The majority of the school’s classrooms are equipped with video conferencing units and course capture appliances,” Gomez says. “The rooms are designed in such a way to give users, specifically faculty, ease of use. By combining user-friendly GUI’s and touch panels, users can seamlessly transition from room to room without undergoing rigorous training. We are currently conducting simultaneous course offering to our program in Tianjin, China. Similarly, we offer asynchronous course capture for the majority of our course sections for after-class access.”

[FIU uses distance learning solutions for many of its programs, including its hospitality and tourism management classes. Read more about it here.](#)

In addition to dressing each classroom with the proper lecture capture setup for distance learning, Gomez says each piece of FIU’s online learning ecosystem was integrated with emergencies in mind.

That way, his team is ahead of the game and ready to continue delivering online learning opportunities in case of a system failure.

“All our classrooms are equipped with course capture capabilities,” he says. “We utilize Crestron’s Capture HD Pro. All rooms are integrated with two such devices to provide redundancy in the event that a unit fails. All recorded files are then uploaded, transcoded and then available to our faculty and students using our streaming media solution. We use the

Wowza video streaming engine to supply these on-demand and, in some cases, live streaming of courses.”

For other schools looking to implement distance learning solutions like lecture capture, Gomez says technology that enables ease of use is key.

“It is imperative that the rooms are designed in such a way that faculty can easily capture either scheduled or ad-hoc recordings,” he says. “Having a solution that has a low cost but high yield is key for campus wide deployment. Units are fairly inexpensive and easy to program into existing room control environments.”

Gomez also recommends considering solutions that are scalable; this is why FIU opted for Creston solutions.

“I would recommend a solution that is easily scalable,” he says. “The reasons why we choose Creston as our course capture solution is as follows:

- The course capture appliance provides a simple, one-box component for capturing lectures.
- It is designed for easy integration into our existing classroom control infrastructure.
- It delivers a low-cost, high-performance HD presentation capture solution.
- It captures in high-quality H.264 format at up to HD 1080p resolution.
- It allows live streaming of HD video and audio over the internet.
- It is easy to use and flexible enough to fit any existing environment.

“At the end of the day, lecture capture enables faculty to better serve students across a variety of study areas and learning styles,” he says. “Lecture capture solutions...are closing the gap and providing opportunities for schools to replicate the in-classroom experience for distance learners while improving classroom instruction for on-campus students.”

2.) Video

Sean Brown, senior vice president of Sonic Foundry, says that video has become one of the most important tracking methods in this decade for lecture capture solutions, and online learning.

The reason why, he says, is “students today, with their mobile devices and broad band access, have grown up consuming significant amounts of information via video. They’ve learned how to ride their hover board, do their math homework, they’ve learned how to apply hairstyles, etc. through both casual learning and formal learning and discovery... they’ve used video constantly.”

As a result, Brown says, students want to see technologies and learning strategies like these bleed over into their educational environments; this is especially true of college students.

“As they enter school and matriculate through school, universities find themselves with a cohort that is video-ready,” Brown says. “Students don’t understand why they can only see the class once, or why they had to be [in class] at an exact, specific time, ...or why somebody wouldn’t illustrate an experiment or a historical figure, etc., with video when it’s possible.”

Online learning video solutions should enable faculty members to:

- Record lectures with “room” recorders or “go anywhere” recorders
- Upload, edit, and publish the recorded content
- Capture students’ attention with engaging video players
- Give students the option to choose live or on-demand streaming of recorded lectures

Plus, solutions like these enable schools to boost student achievement and retention, start and maintain a campus video library, and extend course options.

Because of these options, video solutions for online learning can be one of the most economically, technologically, and academically efficient ways to teach students.

However, even though faculty and students integrate video in their teaching and learning strategies, schools should not invest and integrate a video solution blindly.

This is where preparation comes in, Brown says.

“I do believe that sitting down and putting together a video-enablement plan for as many classrooms as possible is ultimately the most efficient way to go,” he says. “It allows you to get the shared resources like the best cameras, the best clear audio solution, the best video capture, and the lowest bulk prices.”

Brown also says video users should consider the role of the audience in regards to their lecture capture environments. Such consideration should include:

Production strategies

For example, “you need to have a strategy for how to get a mic for the professor, how to be able to hear the professor, how to keep them in the frame,” Brown says. “Are you going to have a camera operator? Are you going to invest in technology that automatically follows the person around?”

Privacy permissions

“Because of privacy, you can have students’ permission to be filmed implied in their student [handbook] agreements,” Brown says.

Keep the whole picture in mind

“Design your room with the whole academic interaction in mind you wish to capture,” Brown says. “Don’t accidentally only capture a portion of the academic activity that’s going on in the room, and don’t blindly under-design your room. Do it consciously, and then match your policies and buy-in from your faculty to compensate for it.”

3.) Digital Environments

For some schools and colleges, like Coastal Bend College, digital environments give students another online learning option.

Karl Clark, professor of history and government at Coastal Bend College, uses a digital environment tool called REVEL (by Pearson) – an online learning experience that combines digital textbooks and online course content for students to use as a learning tool – to assign his students videos and readings to complete for class.

For students' learning needs, REVEL is equipped with interactive videos, digital textbooks (with highlighting, note taking and glossary features), quizzes to check for students' understanding of the material, an app, which enables students to read and study on the go and on any device they choose to work with, and more.

REVEL also helps instructors, like Clark, to track students' progress with an assignment calendar and performance dashboard, which allows him to pinpoint where individual students are struggling with the course content.

Clark says he uses this part of the tool to specifically check on his students' progress with essay writing.

“It gives them a clear insight into how poorly they're writing, but more importantly, it shows them how they can correct it,” he says. “That way, when they get their draft back, I expect those grammatical errors to be corrected. And when they resubmit their final paper, it [should] look like a solid academic paper coming in. I can show them ‘this is where your writing needs to be.’”

Even though REVEL can shed light on students' pain points, Clark says his students love using it for three key reasons:

- **It is inexpensive** – REVEL “is cheaper, so the books [found on REVEL used for class] are cheaper for them,” Clark says.
- **Interactive** – “That's what the students enjoy,” he says.
- **Audio capabilities** – With REVEL's audio capabilities, students can opt to have the solution read a book chapter out loud to them. This feature, Clark says, is especially important to non-traditional students who juggle other responsibilities with their studies.

“I have single parents or students who are [doing school] work and doing their job at the same time, and the chapter's being read to them – it's the lifestyle that they live,” he says. “They think it's the greatest thing, because they can be home as a single parent feeding their baby and at the same time, have the chapter being read to them. They don't have to wait for the baby to be asleep.”

Another benefit to digital environments like REVEL is that the learning processes are similar to in-person teaching, which integrates methods of the traditional classroom with online learning. Clark says he sees this most frequently when giving his in-class students and online students critical thinking questions to answer.

“With my face to face classes, because we're together, we do discussions in class,” Clark says. “Even when it's online, [students are assigned] the same question, but we just happen to be typing it in instead of talking about it...They're about a 95 percent match.”

Before You Get Started

Before your school or college jumps on the lecture capture bandwagon to support its online learning programs, Brown says technology managers, or other invested parties, should reach out to other schools first.

Reaching out to schools, especially schools that went through the same technological struggles and decision-making processes, will guide your school in the right direction and help it make the best solution choices for its needs.

“My greatest advice is to speak to ask many schools that are like you as you can,” Brown says. “Then speak to them again when you get closer to choosing a system... Your brethren who have gone before you and built lecture capture [solutions] want to help you learn from what they did previously, only in exchange for you to share how you use it with them.”