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Colleges embrace the question 'How can we do that online?'

By Amy Lane
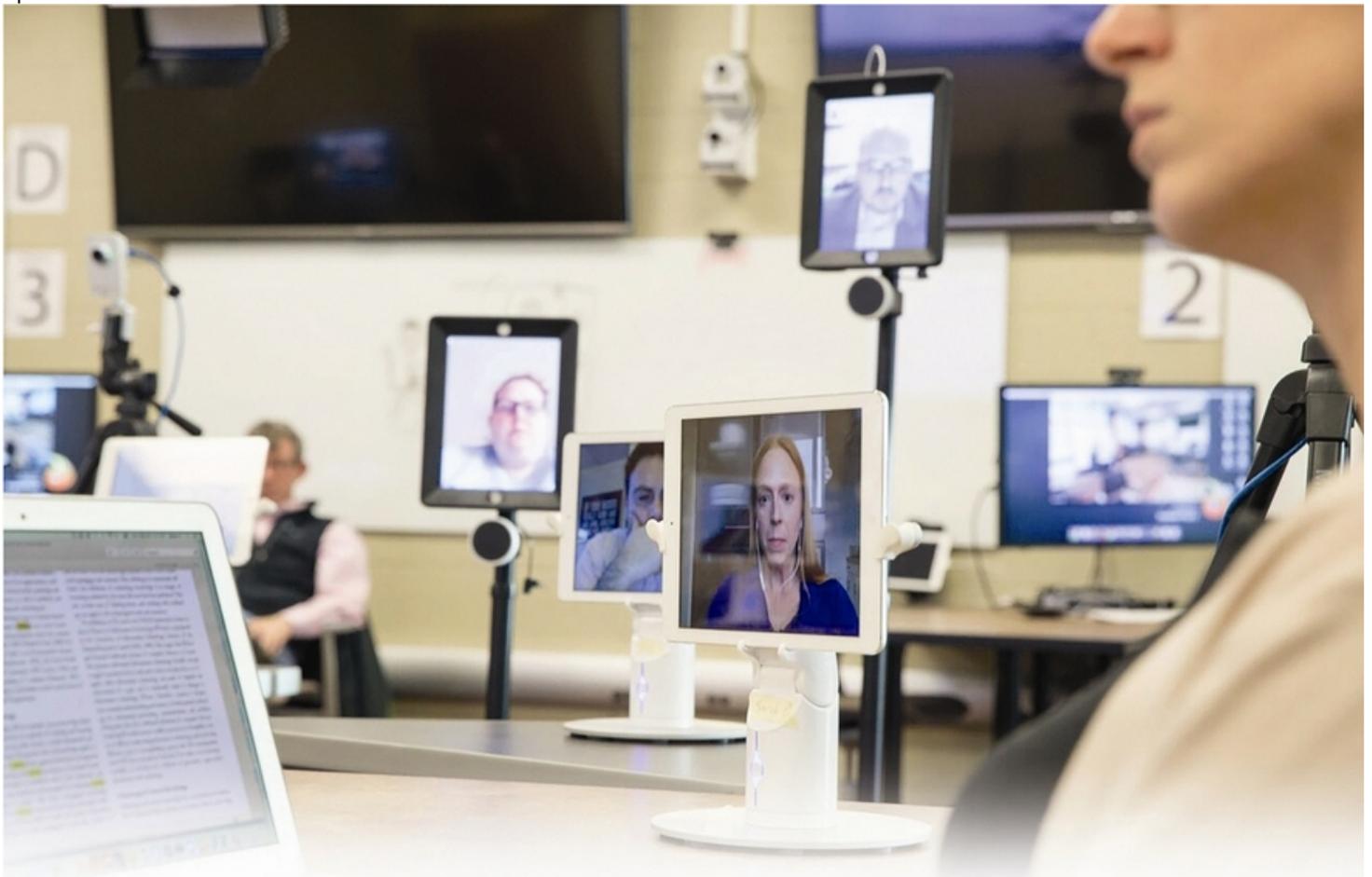Special to Crain's Detroit Business

Photo by JEFFREY SEGUIN / MSU COLLEGE OF EDUCATION Off- and on-campus students in the Educational Psychology and Educational Technology Ph.D. program this spring at **Michigan State University** interacted through iPads affixed to robots that allowed them to swivel or move about the room.

In the graduate study of architecture, producing drawings, models, full-scale constructions and documents to be critiqued by an instructor is all part of a student's path to a degree.

It's hands-on interaction that brings together students and instructor in "design studios."

While traditionally held on campus, at **Lawrence Technological University**, the design studios are also online.

The studios occur virtually, via video chat, with a small group of students and instructors joining at prescribed times to present and discuss work, viewing it on computer screens, posting documents, drawing concepts, using models exchanged by email, and

registering thoughts through texting, typing and speaking.

It's an approach that Lawrence Tech saw as signature in launching its online master's of architecture degree in 2009.

"If we were going to offer an online master's program, it needed to be online ... including the studios," said Richard Bush, executive director of eLearning Services. "We knew no other institution was offering at that time as complete an online master's as we planned to deliver."

As schools like LTU look to appeal to students interested in accessing education from anywhere, anytime, they are working to be more interactive and innovative — think robots, even — to improve the experience and usefulness of online learning. From faster-paced coursework and new teaching formats and technologies, to faculty training and classes that orient online students, schools are plugging in to enhance student achievement.

Keeping pace

"The challenge is keeping up with the pace of advances, and technology, and try not to follow the fads, and just stick to what is good for our students, and their success ultimately," said Ahmad Ezzeddine, associate vice president for educational outreach and international programs at **Wayne State University**.

One approach to improved online learning is to present course information in smaller segments, Ezzeddine said.

"When someone is online, the attention span is a lot shorter. You need to maintain the interest of students, so having them watch a three-hour lecture is not going to be effective," he said.

Students want "more action-oriented learning, in smaller doses," and clear relevance, said Ed Borbely, director of the **University of Michigan**'s Integrative Systems and Design graduate degree-granting division housed in the College of Engineering. "There's less tolerance for 'Just sit back, someday you might use this.'"

Ahmad Ezzeddine: "The challenge is keeping up with the pace of advances."

He said the division in the past four years has added instructional designers who work with faculty to enhance online delivery and help them "think about how they could more creatively deliver the course content" — like "chunking their courses in smaller bites," using animation and interactive models, and employing "flipped classrooms." That's a model, used by many schools, in which students prior to class go through content — like short video lectures posted online — leaving the scheduled class time to discuss and apply material individually or in small groups.

Such approaches are designed to be more engaging and aid learning, Borbely said. And "while intended primarily to enhance the course for remote learners, they are also benefiting students who are on campus and taking the same course content in the same semester."

Boosting interactivity

Another step has been to integrate student response systems into courses online and on campus.

"It's a way to gauge the student's understanding of what's being taught, and also solicit input, in real time, regardless of where the student is located," said Diane Landsiedel, the UM division's associate director. While on-campus students can use physical devices such as clickers, software deployed over smartphones enables "students anywhere in the world, who are running the app, to do exactly what you would do in that room," she said.

Schools also use simulation technology that creates interactive, real-world environments as a means to provide a relevant and engaging online learning experience. At **Eastern Michigan University**'s College of Business, for example, business strategy students can "go in and operate a company in cyberspace ... make every decision that a business would have to make, in an online environment," assessing benefits and drawbacks of actions and seeing their impact, said Michael Tidwell, the college's dean.

Quicker completion

Some schools are compressing courses for faster completion and to appeal to students interested in focusing on just one course at a time. Lawrence Tech, for example, is starting to change some 16-week courses to eight-week formats to respond to online students' desire for a rapid pace toward finishing a course and results, said Bush.

Another example is at **Schoolcraft College**, where a new program launching this fall takes some traditional 15-week courses and condenses them into five-week blocs. "You're meeting all the competencies of the course; the course content hasn't changed," said Stacy Whiddon, associate dean of distance learning.

Another new Schoolcraft direction is an online biology course complete with "wet lab" experiments that can be done at home, not on campus.

Students buy a lab kit that contains materials necessary to complete required experiments, assisted by demonstrational videos created by the biology faculty member who developed the course. Experiment reports and pictures are submitted to an instructor via computer. A similar online chemistry lab course is expected to launch in January.

It's a shift in thinking from "That can't be done online" to "How can we do that online?" as online education advances, Whiddon said. "The goal is to provide options for our learners."

Michael Tidwell: Students can operate a company in cyberspace.

A blended model

Many schools offer courses that are completely online or a blend of online and on campus. **Walsh College** began the latter approach about two years ago, delivering bachelor's and master's business degrees in a hybrid format that combines live, on-campus class time two hours a week with other online content and required coursework.

"We were thinking about how we can provide all the essential experiences of a degree program ... and were concerned that online — as good as it can possibly be" — can't duplicate the interaction and feeling of affinity that students gain by meeting face-to-face, said David Shields, executive vice president and chief academic officer at Walsh.

Student feedback has been positive, he said, and the blended format makes a difference in students staying with their coursework to the finish.

"I would say that retention of students who spend at least some time live is probably several times higher than retention of students who sign up for an online

Stacy Whiddon: It's a shift in thinking from "That can't be done online" to "How can we do that online?"

class," Shields said.

Prepare for completion

Completion is a common issue schools try to address. Some online students may struggle if they don't anticipate time needed for coursework or lack discipline for a learning environment that, among other things, requires self-motivation and time-management skills.

"It's not unusual for a student to think an online course is easy, and it's not," said Ronda Edwards, executive director of Michigan Colleges Online, an initiative of the **Michigan Community College Association**. The collaborative aggregates and helps students access online courses from community colleges around the state.

One step schools take is to orient students to what they can expect and need to think about, prior to starting an online course.

Macomb Community College, for example, has a variety of materials on its website highlighting the considerations, skills and traits students need to succeed in online learning.

"Our role is to inform them, before they even enroll in the class" and "let them know that this is not something (that) ... just because you can do it in your pajamas you can do it in your sleep," said Carl Weckerle, director of instructional technology and online learning at Macomb.

Once they are registered, new students must take a Macomb online tutorial that focuses on online learning aspects and management techniques and acquaints them with features of the system used by the college to electronically deliver courses.

Sometimes, students need basics. **Mott Community College** in Flint found that some students weren't prepared with necessary computer skills and launched a prep class that covers "what every student needed to know at a minimum to be successful in an online course," said Cheryl Shelton, Mott's chief technology officer.

The class, which is mandatory, includes areas like Web searching, using email and the college's e-learning system, online resources and time management strategies.

Shelton said that after Mott implemented the prep class in 2008, faculty began seeing students more prepared to address course material instead of first needing to work on basic computer and online skills. The prep course also contributed to an uptick in online students' passage of courses.

Faculty training

Faculty training is another area schools address. The nonprofit **Educational Technology Organization of Michigan** offers beginning and advanced training courses, which some schools augment with their own workshops.

Others, like **Oakland University**, have tailored training specifically to their schools' electronic learning system. Oakland's four-week fully online course, begun about a year and a half ago and available to new and existing online faculty, covers areas that include how to design a good online course and interactive activities. In addition to improving quality, the course has given faculty a new understanding of students' experience, said Shaun Moore, director of e-learning.

"Probably the biggest comment we get from faculty is that they didn't realize what it's like to be an online student," he said.

Oakland is also looking at technology that will easily enable teachers to adapt courses to each student's aptitude — an automated system that, for example, would allow one student to skip ahead in coursework to the next segment, and place another student with a recap.

"Adaptive learning platforms send students on different paths, based on how quickly they're learning. Each student is logging in, what's visible to them is what's going to be on their path ... they might see a video that another student doesn't see, might be given a quiz," Moore said. "It's very difficult for teachers to give one static course for everyone.

"The real appeal to this in the learning is that it gives the student that independent study, one-on-one feel."

Online and on-campus teaching can feed off each other, to the student's and instructor's benefit, educators say.

"Online teaching has actually improved my face-to-face teaching," said Judy Davis, professor of marketing and integrated marketing communications at Eastern Michigan.

She said that designing an online class requires instructors to think through class structure and content carefully and set up all elements of the course prior to its start. She said course websites can also be companions to traditional classes, containing syllabi, instructions and assignments and "handouts" like articles, links to resources and materials, and virtual libraries.

Looking to the future

Evolving technology bells and whistles are bringing new elements to a student's experience. For example, an e-learning system Macomb is piloting will make it easier for students to set up their own Web conferencing and video conferencing to work with each other.

It has mobile applications that "will put the courses basically in the students' pocket so students will be able to go through the text, video, conferencing, through their phone or their tablet if they choose," said the college's Weckerle.

Electronic "badges" that students can earn and display online for completing course elements are another technique some schools have tried. The digital badges can serve as an award for learning something or completing an activity, but they also contain information and data, viewable by others, on skills or competencies gained to earn that credential, said Brendan Guenther, director of academic technology at **Michigan State University**.

"The idea would be it's both engaging to the learner, and it makes it much more clear to the party that comes along later, like the employer (asking,) 'What did you learn in that course?' " he said.

Also being explored in MSU's education department: Robotic devices that give online students greater in-class interaction.

The "telepresence robots" — stands mounted with tablets that display the online student and can swivel and tilt as heads would in a conversation, and taller wheeled versions — are technology that Oakland University's Moore would also like to try.

"It's an interesting mix of both online and face to face. It's like you're there, in the robot's form."