

TEACHING TECH TO TEACHERS

Educational technologies have great potential to enhance student learning—but only if faculty use them. Here's how several business schools are helping their faculty stay current in the digital age.

TECHNOLOGICAL INNOVATION in education has gone from a steady stream of individual advances—first email, then the web, then smartphones—to a whirlwind of social media, mobile apps, cloud-based computing, 3-D printing, data analytics, robotics, and the Internet of Things. What distinguishes educators who view that whirlwind as exciting from those who see it as overwhelming? In a phrase, institutional support.

We asked educators at several business schools one question: What do they do to encourage professors to embrace new classroom technologies? We found that by adopting one or more strategies featured in the following pages, these schools empower faculty not just to manage the technological whirlwind—but to harness it to deliver more innovative, enriching, and engaging student learning experiences.

THEY SET CLEAR PRIORITIES.

When it comes to making investments in a digital strategy, all business schools face the same challenge, says Peter O'Connor, professor of information systems, decision sciences, and statistics and dean for academic programs at ESSEC Business School in Cergy-Pontoise, France.

"Our challenges are not with the technology itself, because the technology exists for most things schools want to do. But there are costs associated with each and every one of them. We must figure out how can we do these things reliably and at an acceptable cost," he says. "That means we must prioritize well. Then, we can provide the resources that allow us to achieve our objectives at an acceptable speed."

At ESSEC, administrators and faculty have set three main three objectives: digitizing all of ESSEC's core courses; creating MOOC specializations, each with three MOOCs and one capstone project; and developing training in digital media, including social media, for students. As part of the first objective, ESSEC also added to its curriculum a Digital Disruption Chair, which refers to a concentration in digital innovation.

With those priorities in place, the school created a new business unit for innovation and digital pedagogy in September 2015, as well as a new position, chief digital officer, to manage it. The school's first CDO is professor of marketing Nicolas Gladu. "The idea is to transform our school, not only in our teaching and research, but also in areas such as human resources and administration," says Gladu. "We also have identified ambassadors among the faculty who have success stories that can engage new professors in our activities."

Similarly, IE Business School in Madrid, Spain, has made online and blended programs a priority, investing in tools for learning such as simulations, games, and multimedia—as well

as a new telepresence space it calls its WOW Room. (See "Teaching with Telepresence" on page 37.) With this priority in mind, the school deliberately hires professors who are excited about using new media, explains Martin Boehm, dean of programs.

"We make our commitment to online education and innovation very clear during the recruitment process," says Boehm. "Our new faculty are eager and excited about teaching online. They themselves are digital natives and see online education more as the status quo and less as an innovation."

THEY ESTABLISH HUBS FOR TECHNOLOGY.

The more b-school administrators signal to faculty that they encourage and support technological adoption, the more likely it is that their faculty will experiment with new tech. For many business schools, one of the easiest ways to send that signal is to establish or expand a department where faculty have access to instructional designers, workshops, and the latest technological tools.

Just a few years ago, IE Business School set up its department for learning innovation, says Boehm. The department staffs instructional designers to assist faculty, particularly when it comes to adapting face-to-face courses to online and blended formats.

The Academic Technology Center serves that role at Bentley University in Waltham, Massachusetts. When it was established 15 years ago, its staff worked with faculty primarily to create websites and load content to Blackboard. Today,

the ATC employs 15 staff members and approximately 30 student assistants to help professors master blended and flipped learning formats, in-class polling, digital

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media creation, and mobile applications.

"We have a green screen studio, which faculty can use to make video with different backgrounds—or they can use their own spaces," says Gaurav Shah, who is the

ATC's director and an adjunct lecturer in computer information systems. "We provide the microphone and software, so that the quality of the experience will be consistent for everyone."

At ESSEC, faculty can turn to the K-Lab, shorthand for the Knowledge Center, which offers the assistance of instructional designers, as well as facilities where faculty can practice using different digital tools. K-Lab features a 3-D printing lab, virtual reality technology, and two recording studios—one self-service and one staffed with a professional recording and sound team—where faculty can create content for MOOCs and flipped classrooms. These studios are proving especially important to ESSEC's commitment to ongoing MOOC creation, O'Connor notes. Students also can use these spaces for their own projects.

Other business schools can take advantage of university-based resources to train their faculty in new technology. That's the approach at the Willumstad School of Business at Adelphi University in Garden City, New York. Its faculty can go to Adelphi's Faculty Center for Professional Excellence for support in areas such as flipping their classrooms, teaching in blended environments, creating online audio and video, and using digital media. "The center is our faculty's main resource for all types of teaching methodologies," explains associate dean Alan Cooper. The school makes sure to keep faculty informed of upcoming center services and training through its internal newsletter. With the center available, says Cooper, administrators can focus the school's resources on providing faculty with more opportunities to use those skills.



Bentley's MBA Studio is an active learning space where MBA students spend each day of the program in a single classroom. The room features tech-enabled collaboration tables, large display screens for shared work, lounge seating, and a kitchenette.



“We will never tell a professor, ‘You’re doing this wrong. This is how you should be doing it.’ Faculty all have their own perspectives and ways of doing things. But we can say, **‘Let us show you this newer tool that will make things easier for you.’**”

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THEY OFFER ONGOING TRAINING.

A routine schedule of workshops in various applications is another common characteristic of tech-ready business schools—some taught by instructional designers, some taught by the faculty themselves. Bentley’s ATC, for example, provides monthly workshops on

new classroom tools; recent sessions have covered video creation platforms, polling software, and new features in Blackboard.

IE Business School’s department of learning innovation worked with

the dean of faculty to create a year-round series of optional workshops, so that faculty can “choose wisely where to focus their improvement efforts,” says Boehm.

Each month, designers at ESSEC’s K-lab deliver two-hour training modules for faculty on tech-related topics, which have included increasing visibility on social media, creating quality video with smartphones, setting up online quizzes, and using video-editing software. At least twice a year, says O’Connor, the school holds special “pedagogical days,” for the purpose of exposing faculty to new facilities and technology and gathering their feedback on new tools under consideration.

The training at all three schools is optional, but Bentley’s Shah says he is always looking for ways to attract more faculty to these sessions. Most recently, the ATC added online workshops, delivered via GoToMeeting, to its schedule to make training even more accessible.

A few schools have taken faculty development even further, such as the School of Economics and Business Administration (SEBA) at St. Mary’s College of California in Moraga. SEBA has designed a 12-hour, six-session teaching certification it calls the Digital Driver’s License (DDL). To earn the certification, faculty must pass an assessment of digital proficiency. (Read more about the DDL in “Creating a Path to Proficiency” on page 27.) The DDL program gives faculty a clear framework for learning and integrating technology, says Barry Eckhouse, SEBA’s director of technology and online programs. He adds that, since the DDL has been in place, the school has seen more of its professors integrate digital media into their teaching.

“Our faculty are gradually expanding their digital capabilities, and it’s becoming more likely that they’ll take that key lecture and export it to a podcast or create a digital video for YouTube,” says Eckhouse. “They’re

moving more into using rich media, such as screen capture and voice grading, for all the right reasons.”

THEY EXPAND OPPORTUNITIES.

If professors are going to invest time in learning new tools, they’ll want to have ample opportunity to use them. For many business schools, that means expanding the number of online and blended courses they offer and designing classroom spaces that rely heavily on online collaboration and active learning.

The Willumstad School now offers a course focused on social media-based marketing, and it is delivering more classes in blended formats, says Cooper. “We’re also exploring the use of mobile platforms for teaching and incorporating more simulations and interactive technologies in our management courses,” he adds. “As a school, we need to create new opportunities for faculty to apply technology to teaching. We know we have to take an integrative approach.”

Faculty at Bentley have been experimenting with its new MBA Studio, an active learning space that supports the Bentley MBA program. Throughout the program, each cohort of 20 students remain in the same classroom all day, every day. There, they spend three-month



segments taking courses from the same two professors. Every three months, the courses and professors change.

“We needed a pleasant place for the students to be in, with a nice lounge area and kitchen and areas for group activities,” says Shah. The MBA Studio replaces traditional front-facing rows of seating with group tables, lounge chairs, smartboards, LCD screens, and plenty of open space to allow for multiple activities. Faculty and students also use special software to be able to collaborate more effectively, sharing information on their personal devices to a larger screen. (See “Tech to Try” on page 28.)

Faculty have been so pleased with the function of the new space, in use since 2011, they’ve asked the university to convert more traditional classrooms to active learning environments. In response, the ATC retrofitted an additional classroom in 2013; in January it added three more active learning spaces to a new facility, for both graduate and undergraduate courses.

THEY FUND INNOVATION.

For faculty to implement their grandest ideas in the classroom, they’re going to need funding. Many schools are setting aside small amounts of money for faculty to purchase the tools they need to bring their ideas to fruition. At Bentley, for example, faculty can submit requests to the ATC for new software or hardware. After approving a request, the center not only sources and purchases the product, but also helps the professor use it effectively.

At St. Mary’s, Eckhouse is a member of the multidisciplinary Educational Technology Group (ETG), a campuswide committee that provides faculty with grants for projects related to classroom innovation. Faculty submit a simple application describing the project they would like to pursue. “I can’t think of the last time we said ‘No’ to a request,” says Eckhouse. “Once faculty come to us, their

ideas almost always seem to be well-conceived.” After they receive funding, professors must provide the ETG with project reports and share their results at a panel presentation so that their colleagues can learn from their experiences.

So far, the ETG has provided funds to an art professor who wanted to build an “infinity room,” a seamless blue-screen environment where students can work on special video projects; and a voice instructor, who purchased voice grading software so that if her students went off key in their recorded assignments, she could sing the notes correctly in her recorded feedback. The ETG recently received a proposal from a professor who wants to organize a white-hat hackathon to highlight cybersecurity issues.

Eckhouse says he has been “blown away” by ideas that faculty are proposing. Their projects show “what you can do with a grassroots effort, as long as all the stars are lined up,” he emphasizes. “By that, I mean that as long as you have a dean who gets it, program chairs who get it, and a provost who gets it—who see the value of faculty authoring in rich media forms—you can see a truly faculty-led effort toward innovation. Without the support of school leadership, it would be much more difficult for faculty to push these projects through.”

When business schools provide funding for faculty innovation, they show that they recognize that higher education is in an era of experimentation, says Boehm of IE Business School. “Teaching and learning excellence are moving targets,” he notes. “If we felt that we were where we wanted to be, we would be missing the point. Innovation is about constantly pushing the boundaries.”

THEY LET FACULTY LEAD.

If schools want to spark similar grassroots efforts on their campuses, says Eckhouse, they need faculty advocates who have great energy and enthusiasm about technological adoption. Once a school has one or two energized faculty,

“others almost always catch the bug,” he says. “From that point on, it’s mainly a matter of leading by example and promoting collaborative effort.”

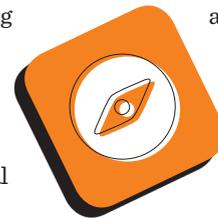
To what extent faculty adopt new technologies depends on how much a school allows them to explore on their own, says O’Connor. “Business schools always will have people who are innovators who push the boundaries, those who are in the mainstream, and those who are laggards resistant to change. The goal is to advance more of the mainstream much more rapidly,” he says. “We won’t achieve that goal by telling faculty, ‘You must do this.’ But we can achieve it by showing them what the options are and how those options can improve the quality of their teaching and make their lives easier.”

Cooper of Willumstad agrees that policies that force faculty to integrate new technologies before they’re ready are unlikely to succeed. “We need to move slowly to manage change effectively. That’s why we do not mandate anything. We tell faculty, ‘Here’s what’s available, feel free to explore it.’ Then, we hope faculty see their colleagues’ success and think that they should try those tools as well.”

Shah agrees that if the resources are available, faculty will take advantage of them, whether to solve a curricular problem or follow up on students’ requests. “We never tell a professor, ‘You’re doing this wrong. This is how you should be doing it,’” says Shah. “Faculty all have their own perspectives and ways of doing things. But when they come to us to ask about a particular feature, we can show them how to use it. And while they’re here, we can say, ‘Let us show you this newer tool that will make things easier for you.’”

THEY REWARD INNOVATION.

Eckhouse believes that many faculty aren’t reluctant to use new technology



CREATING A PATH TO PROFICIENCY

What's one way to get faculty excited about new tech? Design a curriculum that certifies them as skilled users of digital media. That was the approach of the School of Economics and Business Administration (SEBA) at St. Mary's College of California. The school launched its Digital Driver's License (DDL), a teaching certification program for faculty, in 2014. Since then, the DDL has captured the attention of several media outlets, and it was chosen as one of AACSB International's Innovations that Inspire in 2016.

The DDL was created after a 2010 conference SEBA hosted for those interested in business education and educational technology. "A guest speaker from Microsoft explained that the company now requires evidence of digital literacy and proficiency on its job applications," explains Barry Eckhouse, conference chair and creator. "That spurred conversations among conference participants about the digital skills faculty will need in order to teach those same skills to students."

The DDL consists of six two-hour meetings, five of which are held in a small studio that accommodates six faculty plus instructors. In those five meetings, professors develop their skills in video and audio creation, screen capture and voice-based grading, web conferencing, flipped classrooms, and use of electronic resources. During the sixth meeting, faculty must pass a live assessment from a web conferencing room, where they apply what they've learned first from the perspective of online students, then from that of instructors. They also must host an online conference; produce and upload videos to YouTube and iTunes; and complete 12 voice assessments of student work, providing screen capture movies of their feedback.

Finally, faculty who have earned their DDLs must teach their colleagues a digital skill. "They're usually excited about showing their colleagues what they can do," says Eckhouse. By teaching a skill to others, he adds, they enhance their own skills even further.

The provost's office provides faculty with a US\$1,000 stipend as an incentive to complete the DDL. "No one is going to retire on that," Eckhouse jokes. "But faculty development is sometimes done without any financial recognition. Providing this stipend shows

faculty that they have the support of the academic administration."

Schools might be tempted to deliver a program like the DDL in a fully online format, but Eckhouse emphasizes the importance of providing faculty with face-to-face instruction, especially when they are being introduced to new media for the first time. "We conduct face-to-face meetings first, before we gradually work toward our remote assessments," he says. "A school doesn't need an extravagant space to do this—just a small but capable media studio where faculty can work with the technology."

Natasha Munshi, associate professor of management and entrepreneurship, came to SEBA in 2014, just as the DDL was launched. She immediately applied to the first DDL cohort, so she could be more confident teaching in one of the school's hybrid programs.

"As academics, we're experts at teaching in brick-and-mortar classrooms, and we're comfortable in our expertise. But when we start teaching in hybrid environments, we're in front of tech-savvy students who might be working for companies like Airbnb and Tech-Force. Suddenly, we can feel very disadvantaged by comparison," says Munshi. "Going through the DDL made a huge difference in how I taught my course and in the quality of my student evaluations."

Munshi was especially interested in learning how to use Adobe Connect breakout rooms to sort online students into discussion groups, as a way to transfer the case-study method to an online environment. "I could jump from one group to another, listen in on their conversations, and answer questions when necessary, just as I do in a brick-and-mortar classroom," she says.

Munshi and several colleagues are now conducting a study to compare the student evaluations of faculty who have earned their DDL certifications to the evaluations of those who have not. They will break down the data by discipline to see if DDL training affected the evaluations for faculty in some disciplines more than others.

By this fall, 36 SEBA faculty will have earned DDL certifications. SEBA has delivered the program to professors from anthropology, leadership, communication, and modern language; library staff; and even instructional designers from St. Mary's IT group. The business school also has received interest from faculty at other schools.

For that reason, SEBA is considering creating a larger classroom to double the potential number of participants in a cohort from six to 12. Within the next two years, coordinators hope to roll out a similar program for students, perhaps as a digital concentration.

The DDL has been a great way to showcase SEBA's work to others, at St. Mary's and elsewhere, says Eckhouse. "The DDL also has been a perfect vehicle for collaboration, because it crosses disciplines so easily. We're opening our doors and inviting others to walk through. Now that so many faculty have accepted the role of digital media in higher education, it's time to help them take the next step as they work with new forms of content creation."



Barry Eckhouse (left) and a guest expert in discussion-board technology work with faculty in SEBA's Digital Driver's License program.

because they fear trying out new tools. Rather, some might be concerned about the time commitment involved; others might fear that they'll receive negative student evaluations; still others might believe their efforts will not be recognized as academic work. As a former chair of SEBA's rank and tenure committee, Eckhouse often writes to the committee on behalf of faculty members, providing extra explanation of their technological adoption when necessary. "They deserve our advocacy.

We want to show that we support their use of technology as central to their work as teachers."

ESSEC's Glady would like to see more schools show they value a professor's classroom innovation. "One of the biggest challenges is for the academic community to recognize the importance of digital innovation," he says. "It would be great if a professor's successful technology initiative could be seen as being as important as an influential book or paper in a top journal."



No matter what support business schools provide, not all faculty will jump on new digital strategies right away—and that's OK, say these educators. "Most faculty are up for learning new things," says Shah. "They want to know what's out there." [D](#)

To learn how Bentley University exposes students to innovative tech, read about its CIS Learning & Technology Sandbox in "A Social Space for Tech" on page 64.

TECH TO TRY

Because the capabilities of IT for the classroom seem to be advancing by the second, faculty are continuously testing out new classroom solutions. Here are some tools that the educators featured here believe will change the way their faculty teach:

■ **Mobile-based polling software.** Many business schools have used clicker devices to take in-class polls, but many faculty are now testing out polling apps for smartphones. Gaurav Shah of Bentley University uses a tool called **Poll Everywhere** that allows professors to conduct polls via text. "I can set it up to start my class session with a poll on the display," he says. "Students can respond over their cell phones and we can see the results in real time."

■ **Text messaging.** It's no secret that most millennials don't check their email accounts regularly, instead relying primarily on text messaging for communication. That's why Bentley's Shah now uses a web platform called **Remind.com**, which allows faculty to send text messages to students without having to know their phone numbers. The online messaging app provides everyone a greater level of privacy. Once students register their numbers on the site, any messages professors send via the platform reach them more immediately than an email or online post.

■ **Wireless presentation platforms.** Shah also has long been interested in finding a tool that allows professors to annotate common documents with students without being tethered to a podium at the front of the room. "I've dreamed of walking around a classroom freely, annotating on my device while my notes are wirelessly presented to a screen, and I've heard from other faculty here who would like the same capability," says Shah. "So, we've been experimenting with a technology that we found recently that allows us to do presentations from an iPad or laptop."

That platform, called **Solstice**, is a collaboration tool from Mersive that allows multiple users to connect wirelessly to the same shared display so they can see and annotate documents collectively. Shah

notes that Bentley plans to add more Solstice-enabled displays to its newest classrooms.

■ **Face-to-face web conferencing.** Traditional web conferencing platforms like **Adobe Connect** and **GoToMeeting** are usually deployed to allow remote individuals to participate in a class or meeting. However, professors at the School of Economics and Business Administration (SEBA) at St. Mary's College of California are experimenting with using web conferencing technology in a different way—to facilitate greater engagement among students and faculty who are all physically in the same space.

"We've found that web conferencing can help students participate without having to walk up to the board," says Barry Eckhouse. "We're seeing faculty walk more around the room while using a tablet to work on the same screen—everybody can literally be on the same page. It also helps move the traditional teacher from being the 'sage on the stage' to the 'guide on the side.'" Eckhouse is now leading a study on the impact of in-class web conferencing on teaching and learning.

■ **Voice grading.** Instructors are now exploring the use of real-time video screen capture of their voices and notations as they assess student work. These recordings, which students can play back as often as they like, provide a richer, more interactive experience for students and faculty alike, says Eckhouse.

SEBA faculty new to voice grading use **Snagit** by TechSmith, which allows them to do straightforward screen captures of their voice and notations. Once they've mastered Snagit, they can upgrade to TechSmith's **Camtasia**, which provides more sophisticated editing tools.

"We find that with voice grading, faculty are more inclined to give reasons for their notations, improving the quality of their comments," says Eckhouse. "This is a great example of how technology might be employed at a college with a teaching mission."