

Best Practices

in Campus Technology Use



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Community college offers textbook-free degree

Courses will use open educational resources to save on tuition

From wire service reports

In what is seen as the next major innovation in cutting college costs, Virginia's Tidewater Community College will offer a textbook-free degree program in the fall that could reduce the price of earning an associate degree by about a third.

TCC says its associate of science degree in business administration will be the first in the nation by an accredited institution to entirely use open-source educational materials.

"I think we have a responsibility as a college to do what we can to help control the costs of textbooks, because we know there are students who can't afford them," said Daniel T. DeMarte, TCC vice president for academic affairs and chief academic officer. "We know there are students who are not successful because they can't afford them."

The two-year pilot program is being developed through a partnership with Lumen Learning, an Oregon company that helps schools integrate open educational resources, known as OERs, into curricula.

David Wiley, one of Lumen's founders, spoke last August at the Virginia Community College System retreat.

During a panel discussion, Wiley said it would be possible to offer an entire OER degree program but that "no one had done it yet," DeMarte recalled. Afterward, "I asked him if he'd be willing to work with Tidewater to make that happen."

The college estimates a student who completes the degree will have saved about \$2,000, although actual savings will be calculated when the pilot program is evaluated.

The business program ranks second in demand among the college's offerings, with more than 350 students earning the degree annually.

For the 2013-14 academic year, the college will offer one OER section for each of 21 courses.

Students taking the OER courses will receive additional advising to make sure they understand the concept, said Kimberly Bovee, associate vice president for strategic learning initiatives.

"For example, when a student hears it's a textbook-free course, that doesn't mean they don't have to read," she said. "That doesn't mean they don't have to engage in the course material and maybe read even more that they're used to."

Lumen views open educational resources—those that are in the public domain or have been released from copyright—as an untapped resource for repurposing to reduce college costs.

But interest is growing amid studies that show textbook costs have increased by more than 800 percent since 1978.

Virginia State University, which embraced the concept several years ago, offers all of its core curriculum courses in the business school on open digital textbooks.

The state's community college system is seeking to expand OER courses, but as yet no other college is offering a textbook-free degree. However, grants are being offered to instructors to develop OER classes, especially for high-enrollment courses that can be shared across the system.

VCCS Chancellor Glenn DuBois said these open resources are increasingly being used to take the place of "ridiculously expensive textbooks that students are only going to use for 15 weeks and never use again."

He said some textbooks can cost more than the tuition for a community college course.

"I think it's one of the biggest rip-offs in this business," DuBois said. "I say that not as a chancellor; I say it as a

father who just had to give his daughter 600 bucks to buy this semester's textbooks at a public university."

With open digital materials, students can save \$150 or so per course, "and if they want to print it and keep it, it might cost them 15 or 20 bucks," he said.

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Sharing IT services saves millions for Oklahoma universities

From wire service reports

Although the legendary Oklahoma-Oklahoma State football rivalry usually makes for a spectacular clash, a collaboration between the two universities is resulting in spectacular savings for both institutions' students.

Oklahoma State University and the University of Oklahoma have collaborated to generate \$3.7 million in cost efficiencies as a result of a commitment by OSU President Burns Hargis and OU President David Boren to share technology services, according to a news release from Brittney Rochell of the OSU communications office.

The largest portion of the figure came from jointly renegotiating a five-year key contract with Microsoft to provide licensed Microsoft Windows and Office software for students, according to the release.

"Through the leadership of presidents Boren and Hargis, we have saved students across both institutions on the purchase of essential productivity software," Loretta Early, OU's vice president for information technology, said in the release. "Each download of this software reduces student education costs by more than \$100."

The two universities also negotiated a contract with Tegrity to share lecture capture services, and they consolidated network equipment by co-locating devices at OSU-Tulsa.

OU and OSU joined forces again in October to create a series of cyber security awareness bulletins and videos, which were distributed via eMail on both campuses throughout the month. The campaign, titled "Bedlam Battle: Security Edition," encouraged recipients to watch the videos by adding an element of competition: The school with the highest percentage of video views—which was OSU—won.

The schools were able to save money and resources by producing a single program to be used by both institutions, according to the news release.

"Since information security is an integral part of protecting our students, faculty, and staff, we chose to promote awareness of this important topic while engaging in a friendly Bedlam competition with OSU," Early said.

"We have come a long way in the past eight months, and we look forward to continuing our momentum through further collaboration with the University of Oklahoma and OneNet," said Darlene Hightower, OSU-Stillwater's chief information officer. "It's encouraging to see what we can accomplish when we work together. We particularly want to thank the OU students in the IT Communications Department for the wonderful animation and work they did on the Bedlam security awareness campaign."

In addition to cost economies, the knowledge-sharing and relationship-building achievements of the two schools include developing a common service catalog to provide a framework for identifying collaboration targets, publishing a joint paper to further their commitment to work together and share IT resources, and enabling the ability to access each other's computing resources.

"Although this collaboration was borne out of a need to create cost efficiencies, we have reaped the additional benefit of forging ongoing relationships with our counterparts from institutions across the state," said David Horton, OU's associate vice president for shared services.

The two schools plan to negotiate additional key technology contracts while continuing to share technology training across their campuses and work closely with the Oklahoma State Regents for Higher Education CIO and OneNet, OSU's Rochell said in the release.

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ASU, Canon work to create a more sustainable university

By Jake New, Assistant Editor

Seven years into a system-wide sustainability initiative, Arizona State University is on track to become completely carbon neutral by the year 2025. And it's not just the campus environment that's being saved—the university has reduced costs by \$2 million a year.

The project, called Sustainable Digital University, is a partnership with Canon, the imaging and electronics company. Through the arrangement, the university uses discounted Canon technology to reduce both costs and the number of printing and copying devices on campus.

For example, a Canon multi-function device can copy, fax, print, and scan, potentially replacing four different machines. Canon also plans on introducing digital replacements for traditional print methods.

The partnership first began taking shape in 2005 when the university realized it was time to update its printers, scanners, copiers, and fax machines.

“We needed \$1.5 million to replace the fleet,” said Robert Lane, director of Digital Document Services at ASU. “We told the university how much we needed, and they, of course, said ‘no way.’”

Lane was then tasked with finding a way not only to update the fleet, but also to save money and energy. The solution would be to build what administrators call a sustainable digital university.

The university would need to strike a deal with a company willing to commit to a similar goal of sustainability and cost savings, even if it meant selling less machines.

ASU found that partner in Canon, offering the company a rare 20-year deal. Under the arrangement, ASU leases machines from Canon, instead of purchasing them. These machines can be more easily switched out for newer, more efficient ones as they are created.

The first major challenge in implementing the program was assessing the condition of all of ASU's machines. It was a large undertaking, comprising 6,000 different units over four campuses. A large number of the machines, particularly copiers, were analog and needed to be upgraded to digital.

“ASU had this variety of devices,” said Stephen Agostini, director of solutions marketing for Canon's Business Imaging Solutions Group. “We needed to understand usage and the needs of the students. From there, we had to take that info and find Canon technology that that best fit ASU's requirements of sustainability.”

The university found a similar challenge in convincing some faculty to get on board with the plan, Lane said. Not all professors liked the idea of bringing in the new, more efficient technology, particularly if it meant removing their personal office printers.

“Most departments fought it tooth and nail,” Lane said. “Having a printer in your own office was a perk. Faculty didn't want to give up that perk, when they're giving up so many other things lately. But now they go along with it because they see the savings.”

Since switching to Canon in 2006, the university has saved more than 700 trees and 2.34 million liters of water. This has been achieved primarily by switching to duplex printing—producing images on both sides of paper, rather than just one side.

The number of printers has been reduced by 32 percent, cutting down the use of paper by 48 percent. That's 107,000 reams of paper no longer used or needed on campus each year. Greenhouse gas emissions at the university have been reduced by 500 metric tons per year.

CRM software helps improve student recruitment, retention

Arizona State, Alabama are among the schools that have benefited from implementing CRM software

By Sarah Langmead, Assistant Editor

It's no secret that colleges and universities have struggled to recruit and retain students since the 2008 recession, but using customer relationship management (CRM) software from companies such as Jenzabar, Ellucian, and Campus Management has proven effective in elevating many schools' marketing techniques and improving enrollment.

Campus Management's Talisma CRM software increases efficiency across many processes and enables schools to focus their efforts more wisely. Its Strategic Enrollment Management (SEM) solution is designed to follow students after graduation and help build stronger alumni relations as well.

Talisma CRM helps automate communications with students, prospects, and alumni via eMail, chat, telephone, SMS text messaging, and print formats. The program is capable of measuring the effectiveness of its marketing efforts through analytics, allowing for more targeted and effective campaigns. Designed to work as a stand-alone program or in conjunction with a school's existing student information system, Talisma CRM is customizable to fit schools' unique needs.

Jason Soffer, who handles product strategy, marketing, and development for Campus Management, said that when Arizona State University (ASU) first implemented Talisma CRM two years ago, it hoped to improve its recruiting efforts without having to overstretch its budget.

ASU had its eye on the international student market but was unsure how to reach these students effectively and efficiently. The university also wanted to increase its applicant pool by 40 percent but could not afford to expand its physical recruiter group by that much.

Features within the software enable officials to observe and measure the effectiveness of recruiters' efforts. For instance, the program reveals the number and length of calls a recruiter has made, among other analytics. Users can customize these analytics to meet their specific points of interest.

"[ASU is] becoming a very data-driven organization," said Soffer, who added: "We realize that not responding to a tweet for support in a timely manner today can have devastating effects. We need to provide a tech solution that will enable that ... focus, so we can ensure that [students' and prospects'] diverse needs are being met in a timely manner."

Like ASU, the University of Alabama (UA) began using Talisma CRM to improve its student recruitment efforts.

"UA's recruitment has become very streamlined and strategic with the usage of Talisma," said Mary K. Spiegel, associate provost and executive director of undergraduate admissions at UA. "Prior to using Talisma, UA did not have a strategic process of tracking what was mailed to a prospective student, via direct mail or eMail. And, interactions between a recruiter and a prospective student were only accessible to that specific recruiter."

The tracking features within Talisma CRM have been hugely beneficial to UA, which saw its undergraduate applications increase by 22.9 percent and ultimately lead to a 42.4-percent increase in freshmen enrollment in 2009. New transfers also increased by 16.2 percent, and numbers have continued to soar since then.

As a result of its success with Talisma CRM, UA reduced its 10-year growth initiative to a seven-year timeline.

"Talisma has provided the capability to identify when and what was mailed or emailed to prospective students," said Spiegel. "And, based on the students' responses to these contacts, it can be determined if changes are needed for

the next recruitment cycle. With the ability of all recruiters to view the interaction history of a prospective student, any recruiter can now assist that student. Planning and recruitment events can be based on matriculation data pulled from Talisma.”

Ellucian Recruiter

Last August, Ellucian earned the 2012 Microsoft Dynamics Public Sector Partner Excellence Award in recognition of its higher-education CRM software, Recruiter.

Similar to Talisma CRM, Recruiter supports administrators and students throughout the recruiting and admissions process. Personalized web experiences are crucial in attracting students, Ellucian representatives say.

“Easy-to-use admissions forms, as well as intuitive ways to update contact information, make it easy for prospects to submit inquiries and applications, register for events, update key information, and submit supplemental items,” an Ellucian white paper reads. “Institutions can tailor the way they connect with prospects—and present a consistent public face—while prospects get the information and tools they need to progress through the enrollment funnel.”

Ellucian stresses that campus administrators must understand the profile of a successful student before they can elicit an effective recruiting campaign. Many colleges buy broad lists of student names to widen their search net—an instinct the company believes is often counterproductive.

“It’s almost like you can do more harm than good if you’re not focused,” said Dana Hamerschlag, vice president of product management at Ellucian. “I think while 10 years ago there was a pretty staid formula for recruiting in higher ed, all those rules are thrown out the window now—and recruiting is a much more competitive and multi-channel process.”

Recruiter includes a “marketing communications consultant” feature that creates electronic mail templates that colleges can manage in one place. If a student begins to fill out an online application and fails to finish it, Recruiter gets an alert and subsequently sends an automated eMail to that student.

Hamerschlag said the status of a student is changing all the time, and Recruiter helps keep individual prospects’ activities organized. He asserted that the better 360-degree view a college has of a student, the higher retention rates will soar. Reporting and analytics are two other important features that colleges can use to their advantage.

“To make real improvements, you generally have to look backwards at what’s working well and what’s not,” he said.

Recruiter is currently used in about 150 higher-education institutions, including Oklahoma Christian University (OCU).

“The great thing about Recruiter is that it lets us hit all our enrollment targets—undergraduate domestic, undergraduate international, and graduate—with one system,” said Risa Forrester, vice president for enrollment management at OCU.

Jenzabar Recruitment Manager

Jenzabar Recruitment Manager (JRM) is “designed to help you get more done in less time, from managing lists and producing and sending personal communications to monitoring progress, capturing and updating information, and creating and managing events,” the Jenzabar website explains. “It’s the must-have recruitment tool that keeps you focused on students—and on track with enrollment goals.”

Similar to Talisma CRM and Ellucian Recruiter, JRM is flexible and can be used as either a stand-alone solution, or integrated with the company's other ERP programs.

Peter Dupre, vice president of enrollment solutions at Jenzabar, said JRM aims to address the two most pressing issues with student recruitment: efficiency and effectiveness. He said many admissions offices spend excessive amounts of time on data management.

JRM automates much of the data management processes, and frees up staff time. It exists in the cloud and produces detailed reports on any given schedule.

The program allows colleges to respond to the specific behaviors of students, making the recruitment and admissions processes more personalized. Students are tracked based on their prospective majors, genders, or home states, among other factors. College inquiries are similarly tracked, and users can send out automated responses.

"We may assign that inquiry to a business-oriented eMail and then create a task for the counselor to follow up within 48 hours, all automated," said Dupre. "JRM is saying, here's the next appropriate step based on what data we've collected—and these are [the student's] circumstances."

Dupre said that for too long, admissions departments have failed to connect with their prospective students. He believes JRM allows for communication to be not only more streamlined, but more effective. Because there is nothing linear about the admissions process, the students should not be treated linearly, either.

"The right information at the right time can save [colleges] a ton of money," he said, adding: "Retention starts with matching the right students."

Dupre said the estimated 75 colleges using JRM today do so in part because it is built on the Salesforce.com platform, a tested, trusted, and widely used CRM software program.

"The [Salesforce] platform has been around for many years, adopted by many universities and colleges," said Dupre. "JRM is a version of Salesforce, built on Salesforce."

Four steps to admissions success with Google AdWords

By Susie Gotschall

With the growth of non-traditional students, campuses must tailor their communication to each audience. A strategy that enrolls adults must differ from one that enrolls high school students.

According to the National Center of Education Statistics, 38 percent of all students enrolled in higher education are non-traditional. Admissions teams must design the “right” digital marketing strategy to recruit adult learners and preserve their institution’s brand. Though digital marketing tools like eMail and personalized landing pages are popular, today a growing number of marketers use paid search to produce high-quality leads and drive adult recruitment.

Paid search is not Search Engine Optimization

Search Engine Optimization (SEO) is the process of improving a website’s visibility in a search engine’s search results. Paid search, or CPC/PPC, is typically much faster than SEO and is the process of purchasing ads on search engines to boost website traffic. Successful paid search campaigns can be established and executed within hours, whereas SEO campaigns can take several months to deliver results.

Paid search tends to generate traffic that converts at a higher rate. As a result of ad placement on most search engines, paid search typically attracts serious prospects interested in moving forward within the buying process. The average conversion rate for paid search in 2012 was 8.4 percent.

What success looks like

The University of Cumberlands partnered with Hobsons to expand its digital presence and generate qualified leads for a growing online degree program. Based on the university’s goals, Hobsons developed a multifaceted digital marketing campaign that included a lead-generation microsite and hyper-targeted keyword terms — and that leveraged the Google Display Network to identify additional outreach opportunities.

In less than a year, the campaign delivered 576 leads (or completed inquiry forms), of which 113 applied and 49 enrolled. With a 19.6 percent conversion rate from inquiry to application and an 8.5 percent conversion rate from inquiry to enrollment, these figures dwarf the inquiries generated with purchased lists (a rate of only 2 to 3 percent) and has helped the university revamp its communication strategy for the coming year.

Four steps to launch your next Google AdWords campaign

Step 1: Google’s free AdWords tools can help turn your campus’s marketing campaign into a student recruitment superstar.

First, launch your campaign in Google, and review your data to ensure your parameters match your goals. Select the campaign you wish to analyze by choosing a substantial amount of data within the campaign’s active date range via the “Campaigns” tab. With a new campaign, I recommend using at least two weeks’ worth of data for your analysis. Seven days might be appropriate for campaigns with significant history and volume.

Step 2: Use the Google Adwords “Keywords” tab to sort by “average position” (more commonly known as the Google search results page where your ad appears). Select your target keyword, and then select average position under the “Filter” tab.

Is your keyword's average position "above the fold" (higher than position five) for all keywords? If not, you should reconfigure your keyword content. Either raise your bid for the keyword you are targeting or choose a different keyword.

According to Google: *"When customers search on Google, ads can appear at the top of the page, on the side of the page, or on the bottom of the page. Only the highest ranking ads are eligible to show at the top of the page. Your ad's position on the page is determined by your Quality Score and your bid."*

By optimizing your ads to rank in the fifth position of Google's search results or better, you will notice an increase in the amount of clicks and your campaign's click through rate will improve. In turn, Google will reward your efforts with a higher Quality Score and lower Cost Per Click (CPC).

Step 3: Determine which keywords are taking up a disproportionate amount of your campaign's daily budget. Review keywords by click-through rate to determine if page position and keyword bids need adjusting. Generally, if your ad has a low click-through rate, additional adjustments are necessary. Use the keyword filter to sort by "Cost Per Click" and decrease your bid on keywords with high CPC and low conversions.

Step 4: Last but not least, sort your keywords by "Quality Score." Use "pause" on any keyword with a score of only one or two. This will improve the quality score of your campaign's ad group and improve results.

From recruitment to enrollment, digital marketing success in admissions requires an iterative approach. A strong strategy includes multiple components and should be revised based on results. These refinements will ensure that you maximize the return on your investment.

Susie Gotschall is a search analyst at Hobsons.

How to boost student success in online classes

By Sarah Langmead, Assistant Editor

Though a majority of colleges consider online education crucial to their long-term success, retention is a key challenge, according to a study from Education Sector. The study also described how educators could learn from one college system's impressive online student retention numbers.

The "Calling for Success: Online Retention Rates Get Boost From Personal Outreach" study closely aligns with another recent report, "Changing Course: Ten Years of Tracking Online Education in the United States," compiled by Babson Survey Research Group, Pearson, and Sloan-C. This 10th annual report about the state of online education is based on survey data from more than 2,800 colleges and universities.

The Babson survey found that 69 percent of institutions considered online education programs a critical piece of their long-term academic strategies. The number of students signing up for online learning continues to surge, having increased by 570,000 students in 2012 to a total of 6.7 million students. At least 32 percent of students take an online course during their college careers.

Though students evidently are attracted to online learning, the survey found that 44.6 percent of faculty believe teaching an online course takes more time and effort than a traditional course. Still, 77 percent of faculty said online learning is comparable to face-to-face learning.

Some instructors are concerned with the numerous barriers that online education presents. Perhaps the most common barrier is student retention; though many students sign up for online courses, some fail to complete assignments on time and follow the course structure. More than 80 percent of college officials cited a lack of discipline as a major problem area in online learning.

If students are signing up for online courses and not completing them, how can colleges improve retention rates for online courses?

The University System of Georgia (USG) might have some answers.

USG runs its online courses through eCore, a program that recruits highly qualified faculty members from universities within its system to teach online courses.

Many students who sign up for classes through eCore are nontraditional students: older than 22, with family responsibilities and job commitments. A common misconception held by many is that online courses will be simplified versions of traditional face-to-face courses, and students who hold this belief quickly begin to struggle to keep up with the rigor of online curriculum.

"The lack of face-to-face accountability—and disapproving professor looks—requires online students to demonstrate more initiative and strong time management skills," said Mandy Zatynski in Education Sector's latest ES Select. "And because half of eCore's students are 25 years or older, chances are school work is one chore on a long list of things to do—and thus, easy to push to the bottom if work or family lives demand more time."

eCore aimed to confront such barriers head-on, establishing a student success team in 2007 to target at-risk students and aid them in their online experience. The 14-member team mostly consists of full-time university employees who, every week, are alerted by course professors regarding which students are at risk based on poor scores or failure to attend online discussion boards. Team members contact the at-risk students and connect them with tutors and counselors.

Zatynski explained that team members can make upwards of 600 calls a day from the start of a course until midterm exam week.

“This semester, team members made 1,071 phone calls and sent 1,126 eMails to students who hadn’t logged in by day three,” she said. “The primary reason students hadn’t shown up? They couldn’t find or didn’t know their password.”

The student success team targets problems early, and remedies them with equal urgency. Team members understand that some students need more reminders and a greater push than others to succeed in online courses, and they intend to help them do so.

Since its formation, eCore’s student success team has been extremely effective in improving online student retention rates. In 2012, online retention rates reached 83 percent for all of USG’s campuses—an 11-percent increase from the previous year.

“At the University of West Georgia, where the student success team was launched six years ago, rates are an impressive 92 percent, up from 68 percent in 2007,” said Zatynski. “That campus also saw online course retention rates inch ahead of those of face-to-face courses (92 percent to 91 percent, respectively) for the first time this past summer.”

Learning analytics aim to boost student outcomes

By Sarah Langmead, Assistant Editor

As policy makers and campus leaders focus on boosting college completion rates, learning analytics is a field that has exploded in importance. A number of programs now exist to help instructors and campus leaders track student progress more closely, leading to better student outcomes.

Some of these programs are standalone software packages, while others are modules or features included in leading student information or learning management systems. Here's an overview of some of the many products that can improve communication between students and professors, allowing everyone to gain a clearer perspective on students' needs.

Ellucian's Course Signals

Course Signals, a product originally developed by Purdue University, uses online signals to alert students of their progress in a given course. Purdue officials piloted the software for three years before joining efforts with the former SunGard Higher Education to market the software to other schools.

Course Signals sends students graphical representations of their progress, depicted as red, yellow, or green circles resembling traffic signals. A green circle indicates good progress, a yellow circle signifies there is room for improvement, and a red circle shows that a student needs immediate attention. The colored graphics are sent to students via eMail and are based on the recorded grade data entered by professors.

Though SunGard Higher Education merged with Datatel in 2011, the newly formed company that has resulted—called Ellucian—has continued to promote Course Signals. Ellucian Course Signals offers students the same traffic light alert system, indicates when professors need to intervene with struggling students, and suggests ways that students can improve their grades.

A major benefit of Course Signals is its ability to identify at-risk students as early as the second week of the semester, its makers say. Both students and professors benefit from the continuous feedback.

“The predictive model in Course Signals gives students a good indication very early in the course of how they are performing and whether they are starting to lag behind others in the class,” said John Campbell, Purdue's associate vice president of the Rosen Center for Advanced Computing. “This very early alert to the students is extremely valuable, even in populations where you might not think it is necessary. Signals is helping Purdue improve [student] retention rates by identifying underperforming students early on and providing them with course-specific advice on how to change their trajectory.”

As student retention rates continue to pose a problem for many two- and four-year colleges, users of Course Signals say the product can help.

“We found in our research that this can improve student performance an average of one letter grade for many students,” said Gerry McCartney, Purdue's chief information officer and vice president for information technology. “Course Signals is an important step forward for higher education that can be implemented successfully at many universities and community colleges across the nation to improve student retention and success.”

Jenzabar Retention

Through its custom-built, patent-pending predictive modeling techniques, Jenzabar Retention (formerly known as FinishLine) helps to pinpoint at-risk students quickly and offer them the necessary resources to attain success.

As with Course Signals, the product includes early alerts based on a predictive model. However, this model is customizable for each institution, based on its own experiences.

With Jenzabar Retention, when a risk factor appears on a student's profile, relevant administrators are notified immediately. Alerts are prompted not only through poor attendance or failing grades, but also by numerous other academic, social, and economic factors from the past five years.

"It's not an absolute indicator, but it's a predisposition," said Burt Rubenstein, vice president of student success solutions at Jenzabar. If the data suggest that students are at high risk, professors can "proactively give them a better advisor or put them into a learning community."

Every institution has a customized array of indicators that suggest low-, medium-, and high-risk students. Jenzabar works with institutions to understand how administrators define risk. Called "candidate factors," these behaviors could include anything from poor attendance to skipping payments on bills. Jenzabar takes those candidate factors and runs them against the institution's historical data to see if the two correlate; if they do, those factors become reputable indicators of low, medium, or high risk.

"We intentionally don't have a generic model," said Rubenstein, because every school has its own unique challenges.

Currently, Jenzabar Retention does not alert students of their personalized risk factor, though the company is conducting research to explore whether such a feature would be beneficial to users.

When asked if campus leaders are feeling pressure to invest in learning analytics in order to improve student outcomes, Rubenstein didn't hesitate.

"I don't think they have a choice," he said. "There are both private and government-funded grants that are related to improved outcomes." He noted that many states are moving to a funding model that bases support for public institutions on the number of students they graduate instead of how many are enrolled.

Blackboard Analytics for Learn

Providers of learning management systems (LMS) software recently have begun to develop and integrate learning analytics tools into their product designs as well.

Launched in 2011, Blackboard Analytics for Learn uses learning analytics to track multiple metrics, such as grade-book scores and involvement in online discussions, to help students monitor their performance in a given course, and compare it to how their peers are performing.

"The data come from multiple sources, not just the LMS," said Jim Hermens, general manager of Blackboard Analytics. "Right away, we're co-mingling traditional student management data and LMS data and exposing that to the student."

Professors can analyze and monitor student activity patterns and trends over time, identify at-risk students early on, and keep performance data current for students quite easily. The product offers several user-friendly tools for self-service, including pre-built dynamic report formats.

Hermens said Blackboard Analytics allows administrators to examine not only students' performance, but also their progression to determine whether there might be problems in the design, structure, or delivery of a course, among other things.

He called learning analytics a necessary tool for colleges and universities, explaining: "Having the data is a critical component, [but] having a program [to help] you use [the data] for constant improvement" is important as well.

Though some colleges use Blackboard Analytics for Learn to improve course retention rates and monitor student progress, Hermens said the product also is used in many institutions to assess course structure. Some administrators would like to attract students to less popular majors, and Hermens believes the presentation and breadth of data collected by Blackboard Analytics for Learn can help them evaluate their courses with an eye toward this goal.

Desire2Learn Analytics

Desire2Learn Analytics aims to improve student outcomes through four primary objectives: designing curricula-aligned assessments, analyzing results and reporting on evidence, making informed improvements, and defining outcome standards.

The product compiles data using quizzes, rubrics, competencies, and learning outcomes to compare students' results with learning objectives so that professors can better assess whether their assignments are effective. Students also are able to compare their performance to that of their peers.

Students "can understand how they're doing relative to others in the class," said Alfred Essa, director of innovation and analytic strategy at Desire2Learn. "It gives them more insight into how they're performing, and it [could] motivate them to do better."

Professors and students can view data in multiple formats, such as charts, heat maps, or decision trees, in order to observe trends. At-risk learners are identified quickly, and by the second week of classes, the product can predict what a student's grade will be by the end of the course, Essa claims.

"Think of it as an early-warning radar system," said John Baker, president and chief operating officer of Desire2Learn. "We want to have the capability to identify students at risk, not only how they're doing now, but be able to forecast with incredible precision about where they're going."

Though projection is important, Desire2Learn believes personalization is the key to better learning outcomes. "The promise of learning analytics is to personalize learning," said Essa. "Less data, more insight."

Essa and Baker also highlighted the importance of comprehending the social dimension of learning. Desire2Learn recently used predictive modeling to create a sociogram, or a dynamic network graph of interactions among students, to determine which types of students were "isolated," or more unwilling to work in groups in specific courses.

Essa and Baker believe this type of research can help not only when intervening with at-risk students, but also in advancing enrollment processes.

Canvas Analytics

Instructure's Canvas Analytics, which launched last June, presents dashboards for students and professors so they can make better data-driven decisions and achieve optimal learning outcomes.

Students can compare their individual progress with their peers' performances, while professors can monitor the class as a whole and quickly detect at-risk students. Canvas Analytics also allows administrators to compare multiple courses and assess different departments and programs.

"It has always been focused specifically on the learning side, making sure that we can help teachers and administrators, and students see at a glance how students are doing," said Brian Whitmer, co-founder and chief product officer at Canvas.

Product developers used the same process to create Canvas Analytics that they used to create the larger open-source Canvas LMS. Designed with input from a dozen institutions, Canvas Analytics aims to address the major chal-

lenges experienced by students and faculty.

“I’m really proud of the fact that our analytics suite is as open as the rest of Canvas,” said Whitmer. “We think of Canvas as a learning platform. It’s the hub that brings the educational experiences together.”

Whitmer said the openness of Canvas Analytics allows administrators to harvest and control their own data. When asked about the outlook for learning analytics, he said he thinks well-organized data will lead to better decision making in higher education.

“I think there’s a great opportunity in the next couple of years to see this data-driven decision making come to the forefront,” he said. “Some of our heavier users of analytics have been students [who] are looking at their own data.”

MIT innovation could personalize eLearning

New crowdsourcing system gives students feedback from multiple sources

By Sarah Langmead, Assistant Editor

Critics of online education programs commonly refer to the perceived disconnect these create between students and instructors, but a new crowdsourcing system that offers students personal feedback could help alleviate these concerns.

The system is called Caesar, and it was developed by MIT Professor Rob Miller and two of his graduate students, Mason Tang and Elena Tatarchenko, through the MIT Computer Science & Artificial Intelligence Lab (CSAIL).

Caesar is able to split students' submitted assignments in a programming course into prioritized chunks through a process called the "code selector." Caesar then enacts the "task selector," which sends those chunks that require review out to various MIT teaching assistants, course alumni, and computer science students.

The final step, called the "reviewing interface," allows multiple reviewers to offer students feedback on their assignments. Students generally receive feedback in less than three days—something that Miller highlights is much quicker than with traditional grading processes.

Miller says he first developed the idea for Caesar in 2010, and it was partially inspired by a crowdsourcing system that CSAIL had developed called Soylent, which draws on crowds of people to help with editing tasks. Soylent and Caesar embody similar characteristics: Both take a large program, chop it into pieces, and distribute those pieces to a crowd for review and discussion.

"The on-campus problem we were trying to solve was slow feedback," said Miller. "The students in our programming courses write a lot of code, and it takes a long time for a small staff of human graders to read and grade. The old way, it might take a few weeks to get feedback about what they'd written, and in that time they've written more programs—often repeating the same mistakes over and over."

Because Caesar's "reviewing interface" aspect is speedy, students are able to read their feedback prior to completing their next assignment—something that Miller believes will result in a better understanding of class material, and possibly higher grades. Also, by connecting students with multiple resources, students gain invaluable insight they might not have otherwise.

"Caesar substantially reduces the time it takes to get feedback," said Miller. "Students typically hand in their programs on a Thursday, and by Monday they have comments about it from the crowd of reviewers."

Miller believes Caesar can resolve similar problems in the larger context of online education programs, including massive open online courses (MOOCs).

"Online, the problem of scale is even greater—too many students, not enough staff," he said. "The usual approaches to the scale problem in massive online education are purely automatic, which have a lot of limitations in the kinds of feedback they can give and the kinds of work they can evaluate. Caesar is [ultimately] trying to add a human dimension to the feedback."

Miller has selected reputable sources that offer helpful feedback to students in his programming course.

"What we are trying to do is to learn how to use a crowd of people with mixed expertise in an intelligent way," he said—"one that helps students and the 'crowd' expand their knowledge and improve on their expertise."

Currently, Miller's pool of resources is limited to members of the MIT community. He hopes to continue to expand

this network in the future. He also has implemented tools for students and reviewers to interact further after feedback has been offered.

“Like Facebook and other social networks, Caesar provides opportunities for other kinds of interaction among its users,” the CSAIL press release explains. “Reviewers can agree or disagree with fellow reviewers’ comments via an ‘upvote’ or ‘downvote,’ a process similar to the ‘like’ feature on Facebook, and can also leave comments for both students and other reviewers.”

Based on its success, the Caesar program is already being expanded into other MIT programming courses, and the technology might be adopted by edX, the MOOC platform founded by MIT and Harvard University last spring.

Graduate school on the iPad

St. Mary's redesigns programs for Apple's popular tablet

From staff and wire reports

Heather Kolupailo wouldn't be attending graduate school if it weren't for her iPad.

The 27-year-old St. Paul, Minn., resident is a recruiter for Adecco, a job that involves travel and some long hours, making attending regular classes difficult.

Now, thanks to three St. Mary's University graduate degree programs redesigned to be completed entirely on the Apple tablet, Kolupailo can earn her master's degree in human resources management without setting foot on campus. She is one of 200 students around the globe enrolled in programs the university launched last spring.

"That was one of the most important factors for me, because of my job," Kolupailo said. She enjoys the freedom of working on her schedule as opposed to spending a weekend day in class. "It's better than having a sixth work day."

The number of students from kindergarten to college taking classes online has skyrocketed. In 2010, more than 6 million attended online college classes, up from 1.6 million in 2002, according to a study by the Sloan Consortium, a nonprofit advocate for online education.

Many of those programs are traditional courses repurposed for the web by recording lectures or putting study materials online. Others are "blended" classes that include class time and online work.

Marcel Dumestre, vice president of graduate and professional programs at St. Mary's, taught these types of online courses. Although he thought they were effective, he wanted to do something different: a complete experience in which students from around the world could study and interact anywhere, anytime.

"What is different about these programs from others online is they are built to be native to the iPad," said Dumestre, who believes the university's approach is unique.

Like many of its champions, Dumestre thinks the device has the power to enhance the learning experience like no other.

The new programs are the latest example of how technology isn't just replacing things like textbooks or lectures, but is even eliminating the need for classrooms. At St. Mary's, administrators and instructors spent a year working with a consultant to design coursework that takes advantage of the iPad's portability and immediacy.

Students in the new programs are expected to master the same skills, but the way material is delivered is unique.

"We didn't want it to be just a presentation tool," Dumestre said. "We wanted it to be interactive."

Discussions between students and faculty via social media, video chat, eMail, and text message become key components of the learning process, Dumestre said. The programs are in project management, human resources, and organizational leadership and are accelerated coursework designed for working professionals.

"Our students find value not only in instruction; they find value in networking and interacting with other students," he said.

Bob Andersen, director of instructional technology for the university, said students share their ideas and professional experiences with each other and often improve the lessons.

"Adult learners are adaptive learners," he said. "We want to bridge the gap between work and academia."

He encourages the Business Management students to take their iPads into their workplaces and use Twitter to tweet about how course concepts are playing out in their professional environments.

Andersen also highlighted the iPad's accessibility and immediacy of information as two of its greatest benefits.

“Its portability is key—we think that it allows adults, busy adults to capture ‘stolen moments’ and ‘couch time,’ so if they’re on their lunch hour or in the waiting room at the doctor’s office, they can work on their assignments,” he said.

While students are still expected to write standard term papers, many professors organize assignments into five-to ten-minute chunks so that students can quickly read an article, or view an instructor-created or TED video.

The instructors also use Apple Store applications in their classes. “We try to leverage the apps in the app store to improve the professional status of students,” Andersen said.

The altered course format takes a little getting used to, Kolupailo said, although she finds the virtual interactions more meaningful and valuable.

“There is a different dynamic online versus in the classroom,” she said. “I think this is very functional. It is very interactive and opens up a lot of possibilities.”

Professors also have had to adapt their teaching style, which can be difficult, but the changes that have come with the transition have staying power, Dumestre said. Now 15 professors are teaching iPad courses, and that is expected to grow with the university’s plans to add a dozen more degree programs tailored to the iPad over the next five years.

“Once you’ve taught an online course,” Dumestre said, “you can’t go back into the classroom and do the same thing.”

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