How to make technology investments that pay off

Decision-makers and purchasers give advice on how to ensure fiscal responsibility when making tech investments.

Why AI is education's future

UX innovator discusses what forward-thinking schools are doing now, and what AI in education will look like in the near future.

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3 ways to set students up for success in an online course

Getting creative can help enhance the learning experience for students in an online course

By Jarrod Morgan

Online learning gives students more options and flexibility and a growing number of them are taking advantage of online courses in order to pursue their degree in a way that works for them. According to the **2015 Survey of Online Learning**, there was a 3.9 percent increase in the number of higher education students taking at least one online course. Additionally, there are no signs that this upward trend is going to change any time soon.

For colleges and universities, as well as for instructors, this means supporting students who aren't attending a brick and mortar classroom on a regular basis, if at all. Having served as director of technology at an online university, I've seen firsthand how institutions have risen to this challenge by getting creative in order to enhance the online learning experience. Below are three recommendations for setting students up for success in an online course.

1. Set Clear Guidelines

Students in online courses are learning in a non-traditional setting, and because of this a traditional set of classroom rules may not necessarily translate well.

Institutions can address this by setting clear guidelines at the institutional-level through a code of conduct specific to online courses and programs. A well-defined set of standards lets students know what is expected of them and how they can maintain their academic integrity.

Because the classroom experience has evolved, what constitutes academic dishonesty is no longer black and white and there is definitely a

Identifying parameters takes the guesswork out of following the rules for students, letting them focus instead on learning course material.

gray area, particularly when it comes to online learning. Identifying parameters takes the guesswork out of following the rules for students, letting them focus instead on learning course material. For example, with so much technology at students' fingertips it's important to note the difference between using technology as a learning tool and when it is being used inappropriately. A good code of conduct will outline when such tools can be used, such as for assignments or papers, and when they are not allowed, such as on exams.

2. Provide Support Tools

Along with a tailored code of conduct, institutions should provide students with support tools that address the unique needs of online learners. For example, the University of Florida adopted online proctoring with live proctors to augment

their online assessment strategies and enhance students' learning experience. By implementing remote proctoring, the university was able to offer innovative assessment delivery methods and students could take online exams that went beyond the typical multiple-choice test. This also provided students with the flexibility to take their tests from home, rather than have to travel to campus or a testing center. The use of live proctors also gave students a chance to receive real-time support during their test.

There is no one-size-fits all approach, and thanks to technology there are many available vendor solutions. Institutions can learn more about support tools for online students at conferences like upcoming **EDUCAUSE Annual Conference or e**vents by the **Online Learning Consortium**.

3. Encourage Collaboration and Use of Outside Resources

Simply because students are learning online doesn't mean that they have to learn on their own. Connecting and building relationships among and across online students can not only enhance their course experience, it also sets up a support system and outside resources that can help deepen their understanding of the course material.

There is no one-size-fits all approach, but some ideas include conducting online meetups or study groups for students or hosting office hours via Skype. Fostering an open and collaborative environment can ensure that students are asking for the help they need when they need it. **eCN**

Jarrod Morgan is a co-founder of ProctorU and was the company's first proctor. He created the initial prototype of the service to fill a need for Andrew Jackson University, where he served as director of technology.

Simply because students are learning online doesn't mean that they have to learn on their own. Connecting and building relationships among and across online students can not only enhance their course experience, it also sets up a support system and outside resources that can help deepen their understanding of the course material.

Are students buying what education innovation is selling?

Will the new "theory of jobs to be done" prove more powerful for education than the theory of disruptive innovation?

By Julia Freeland Fisher

Calls for innovation in education seem to get louder by the day. "Innovation" has become the catchall term for the urge to make up for what our current system lacks; a system that, on balance, is neither delivering an equally high-quality education to all students, nor designed to reliably prepare young people for the modern workforce.

From there, of course, opinions about *what sorts* of innovations we ought to invest in, and to what end, vary politically and philosophically. At the Christensen Institute, we've always divvied up these wide-ranging ideas into two main categories, which Clay Christensen first identified in the 1980s: sustaining and disruptive innovations. Those categories are helpful in identifying the dimensions along which organizations are improving and how new business models can displace existing ones. But disruptive innovation theory has little to tell us about whether a particular innovation will be successful.

The Theory of Jobs to be Done

Enter Clay Christensen's newest book, *Competing Against Luck*, out earlier this week. In it, Christensen and his co-authors Taddy Hall, Karen Dillon, and David Duncan chronicle the coming of age of another theory that may prove just as, if not more, powerful than disruptive innovation: the theory of jobs to be done.

Jobs to be done hinges on the fact that consumers "hire" products and services to do a specific job in their lives, and that they are motivated to do so by particular circumstances. For example, in an early study of how to boost milkshake sales, a consulting team found that a fast food chain sold a disproportionate number of milkshakes first thing in the morning to busy commuters. These customers "hired" milkshakes to occupy them while in traffic and to keep their stomachs satisfied until lunch. To get these jobs done, realistically the commuters could have hired all sorts of products: bananas, bagels, or even the radio. To outcompete not only other fast food chains' milkshakes, but also all of the other foods and experiences that might fulfill commuters' jobs, the fast food chain needed to design milkshakes that nailed this particular circumstance and job experienced by the commuter. Moreover, this job differed dramatically from the job parents were hiring milkshakes to do in the afterschool rush to provide children with a fun snack.

The take away? Once a business understands the range of jobs that are causing customers to hire solutions, it can redesign its products around those jobs to garner far greater, more predictable returns.

Applying the New Theory to Education

Competing Against Luck touches on a few examples in education that follow the same pattern. For example, Southern New Hampshire University (SNHU) President Paul LeBlanc features heavily into the book's discussion of a leader willing to rethink higher education admissions and learning experiences beyond the "average" 18-year-old customer that his university had traditionally targeted. Instead, LeBlanc architected online-learning experiences designed to optimize for demand among nontraditional students facing a variety of circumstances: working adults, students far beyond the boarders of New Hampshire, and late-stage career changers.

By understanding the range of jobs that adults

in particular circumstances might be trying to get done, SNHU incorporated new designs into its burgeoning online program: reconfiguring wait times for financial aid advice, implementing high-touch guidance models, and launching advertising campaigns that catered to adults who were considering going back to school to better themselves or make a better life for their loved ones.

At the Institute, we believe that jobs-to-be-done theory will prove a crucial tool to getting innovation right on behalf of students. We've spent the better half of the past year conducting in-depth research on why students "hire" college (the results of our surveys will be published next year).

Why Engagement is Low

And over the years, we've also made our best guesses at some of K–12 students' key jobs, particularly drawing on research on what motivates younger students. We've noted that many of those jobs—such as "make me feel successful" and "let me have fun with friends"—figure only marginally into traditional school design.

It's hardly surprising, then, that students don't actually appear to be "hiring" school at the rates we'd hope; survey after survey show that student engagement is low and **drops off precipitously** in high school. If we truly want students to buy into new learning models, then we will have to optimize for the things students themselves are trying to get done. Such models will have to compete with all of the other things students are willing to hire in their lives, like the latest social networking sites, tantalizing gossip, or mobile games that can make them feel equally, if not more, successful and social than school manages to.

As *Competing Against Luck's* title suggests, jobs to be done is a theory of competition. Like disruptive innovation theory, it helps us to analyze whom or what is likely to win out and why. That competitive framing can feel crude when we think about a public good like education. But the power of jobs to be done is that it can help

reformers, school leaders, and education entrepreneurs alike bridge the frequently gaping chasm between need and demand in education.

Lesson Learned

Over the years, reformers have tirelessly tried to innovate to tackle chronic deficits (not just in learning experiences, but also in paltry data collection tools, teacher shortages, and limited community engagement, to name a few) with sleek, well-designed solutions. But failures to make progress against these "needs"—from the demise of promising personalized learning **platforms like inBloom**, to countless failed efforts to shift instructional practice, to lackluster results in parent engagement—can teach us a lesson: efforts to "fill" perceived gaps in the education ecosystem do not always result in solutions that end users—be those teachers, students, or their parents—are willing to hire.

Squaring the difference between systemic needs and stakeholder demand may be a hard but important pill for champions of education innovation to swallow. To that end, I hope—and expect—that budding entrepreneurs in education will pick up the book to think about their customers differently.

But I'm also holding out hope that leaders, reformers, and advocates without any profit motives whatsoever, but who are deeply invested in changing the education system, can likewise take a page from *Competing Against Luck*. It offers a critical chance to consider the actual motivations of the entire constellation of actors in the education system in a new light; and in particular, what compels—or doesn't compel—our students to buy what we're selling.

*[**Editor's note:** This post originally appeared on the Christensen Institute's Blog **here**.]* eCN

Julia Freeland Fisher is the director of education research at the Clayton Christensen Institute. She leads a team that educates policymakers and community leaders on the power of disruptive innovation in the K-12 and higher education spheres.

Combining mobile + CRM for campus engagement

Student outreach begins with the first recruiting interaction and it must continue throughout the student's lifecycle at your institution.

By Renee Pacini

When we talk about transformation in higher education, what do we really mean? After all, the mission and key performance metrics of many institutions haven't changed, in some cases, for decades: find, admit, enroll and graduate students. What has changed is the focus on individual outcomes, redefining success not only in terms of persistence and completion rates but also ultimately on gainful employment. As a result, institutions are beginning to focus on engaging students as individuals, respecting their preferences and unique characteristics.

Campus-wide CRM tools have become the technology foundation for aiding in this process and driving this transformation.

The tactics to execution have also evolved with each generational shift. Consider these **data points from the Beloit College Mindset for the class of 2020**:

- If you want to reach them, you'd better send a text—emails are often ignored
- Books have always been read to you on audible.com
- There has always been a digital swap meet called eBay
- Robots have always been surgical partners in the O.R.
- Airline tickets have always been purchased online

The common thread is that technology-based content today is more than expected – it is assumed. Whether there is "an app for that" versus a website, providing that content is irrelevant to today's students. Young adult learners assume that they can find what they need through their mobile devices. Consequently, institutions must embrace these expectations. This is why the term "CRM" gets tossed around as much as "ISIR" and "FERPA" in the halls of academia nowadays.

Fully Utilizing CRM

As advertised, CRM is supposed to help institutions deliver the right content to the right student – and to the right device at the right time. But it's more than technology. It takes a change in the way that we engage with students.

Consider the transformation that a college applicant undergoes before becoming a student. We evaluate many factors in the admissions cycle. We "woo" applicants, treat them as individuals, listen to their goals and read their essays. We give them a clear "checklist" of requirements to complete their applications.

At the point of acceptance, we believe that we have chosen the right classes or, in some cases, believe that we have the right programs in place to foster success. The next challenge comes in the first-year experience. How do we keep the enthusiasm of bright-eyed, first-year students? How do we ensure that we have captured student intentions from the very beginning? For example, if they come in expecting to transfer, can we change their minds, or do we let them go? By knowing who our students are – beyond academic information, by knowing their intentions – we take a huge step toward completion success.

Beyond the first year (again when many institutions have programs in place that are focused on individuals), how do we maintain the right focus? Do we assume that "they got it" and stop focusing on an action plan? Retention and attri-

tion data show that drop-outs continue beyond the first year. We can't afford to take our eye off of the ball as a result.

The Power of Mobile is in Knowing Your Audience

When it comes to student success tactics, we must engage learners where they are. For many of today's students, that means mobile devices. However, the rush to "mobile" is also a generalization. Truly successful delivery is rooted in knowing your audience – "where they are" is just as important as knowing "who they are." Institutions must understand communications preferences and adjust accordingly. If we want to be truly student-centric, the message, action plan and delivery must be tailored to the student.

Another element of the tactic is fitting the method to the message. An admissions decision may be quickly communicated via text or an applicant portal. The importance of that first step on the journey is momentous for so many students. Don't underestimate the power of a paper letter, one that is proudly displayed in many homes.

Taking together the power of CRM and mobile, ask yourself these key questions as your students begin their academic years:

- Does the communication method fit the magnitude of the message?
- Are we cultivating an incoming class with high expectations and then dropping them into the student body with the right "checklist" for success?
- Does our student-centric approach go beyond knowing their names? Are we putting a holistic, 360-degree view and action plan around retention?
- Are we heavily focused on the first-year experience, or do plans follow the student through to completion?
- Do we truly understand the student's end goal? Or do we rely on expected major and graduation date to tell us?

- Are we taking the student's preferences into account in establishing the communication method and calls to action?
- Are we creating a bridge between students and the institution, helping them to stay on track and eventually keeping them engaged as alumni?

Going Forward

The proliferation of phrases like "enterprise CRM," "constituent engagement" and "user experience" are quickly becoming overused as vendors race to deliver the right solutions to address these issues. At its core, CRM-driven engagement should help to foster timely action and adjustments on the part of learners and their advisors to keep students on the path to graduation. This requires a more holistic approach beyond academics to include financial aid, housing, social interactions, career services and many other touchpoints in the student experience.

When pressed into service to influence outcomes, CRM should also help students stay aligned with industry expectations. The technology can help them engage alumni and employers in their respective industries, secure internships and, ultimately, transition from graduation into productive careers.

We're no longer just tasked with transforming students into graduates, but we're now also transforming graduates into working professionals. eCN

Renee Pacini is the director of Product Marketing & Partnerships at Campus Management. Her career began in Special Education, but she soon moved into administrative systems and has spent 30 years in higher education technology. Renee has served in roles such as consulting, product management and strategy, and she has worked with partner companies and institutions across the globe. Her passion is in seeing students reach their full potential. Renee is a Director-at-Large on the Fox School of Business Alumni Advisory Board and serves on the EMBA committee.

8 tips for technology investments that pay off

Technology decision-makers and purchasers give advice on how to ensure fiscal responsibility when making tech investments for colleges and universities.

By Meris Stansbury, Managing Editor

It's a blessing and a curse: As more needs and services are required by colleges and universities, more technology solutions are entering the market. But with so many options available for practically every type of implementation, how can purchasers make the best decision possible?

According to higher education directors and deans, and industry CEOs, making the fiscally responsible, effective decision on technology purchases requires a combination of research, planning and foresight. Also, choosing the technology that allows for the most collaboration possible is always a wise choice.

Do the Research for Easier Adoption

By Arthur Paré, associate managing director, General Services at Texas Tech University Health Sciences Center

We implemented Laserfiche enterprise content management in one department at Texas Tech University Health Sciences Center in the 1990s, and now the software is used to streamline a variety of processes campus-wide. The investment has paid off financially—we saw a return on the initial investment in Laserfiche within three years. In our organization, however, we look beyond dollars and cents to factors including time savings, improved user experience and convenience.

In order to make technology investments that provide long-term return, it's critical to examine and quantify all of these factors holistically. Before purchasing Laserfiche, we worked closely with the purchasing department in order to conduct detailed assessment research so that we could clearly communicate the benefits to leadership and users—which would ultimately make adoption easier and faster.

Then we started with a business process that had a clearly defined problem. For TTUHSC, it was the purchase order process in the finance and administration department, which was time-intensive and inefficient due to a reliance on paper documents. Thanks to this anchor department and process, we had a proven example of how it worked and the measurable benefits. It also helped that the first process and department we worked with was highly visible across the organization—departments across TTUHSC used it and therefore were able to see the improvements.

From there, other departments are more likely to embrace the technology and create new ways to use it. We in higher education have a real advantage when implementing technology because our operators and users are all thinkers and innovators. We constantly have great ideas about how to do things differently at our disposal. We just need to make sure we provide our organizations with the right technology to bridge the gap between creative ideas and practical solutions.

Invest in Technology that Fosters Collaboration

By Otto Benavides, director of the Instructional Technology and Resource Center and Emeritus Associate Professor, Kremen School of Education and Human Development at California State University, Fresno.

The "modern" higher education institution doesn't just offer courses, it teaches students how to work as a team, lead projects, be creative, and exposes them to the technology they will be using once they join the workforce.

I helped California State University, Fresno launch a "collaborative classrooms" initiative to ensure students, not professors, are the focus of instruction. Instead of the instructor standing at the front of the room and the students sitting in rows of desks, the collaborative classroom is structured to allow the instructor to act as a coach and puts students in charge of their learning.

Our desks are arranged in pods, each with their own Epson interactive projector, power ports and Mac Mini with MacBook Screen Share software so students can access and project content directly from their own devices during group work. Students can also annotate and edit their work on the projector, and then save and email their notes and annotations to their group members. The classrooms also have video cameras, green screens and cinema lights for video projects.

My advice for choosing the best tech investment is: 1) Choose technology that is flexible. You want tools that work for various instruction styles such as flipped instruction or BYOD. 2) Interact with other schools that have the technology you are considering via videoconference. Take tours, ask questions. 3) Provide appropriate staff training. 4) Choose technology that will be affordable to maintain. 5) Choose equipment that is simple and easy to use. I recommend Epson and Apple for these reasons. 6) Consider what will provide the best value for what you are trying to do. We initially considered flat panel screens for the pods but they were too expensive. We saw Epson's short-throw interactive projectors at a conference and fell in love. They did exactly what we wanted.

Consider the Broader Benefits, or Lack Thereof, Before You Invest

By Mark Francis, CEO of Collabco

When selecting technology investments, higher education Institutions should consider the interoperability of their chosen technology solution. For example, they may have been looking to solve an immediate "specific" problem or need, but they need to make sure the solution they select is not too "specific" and is able to provide wider benefits to the institution. Understanding if a solution will connect or integrate with other platforms or systems is imperative to make sure the investment was not a waste. Institutions need to purchase technology that can have its functionality widened as needed. Spending time considering the core functionality and the wider capabilities possible in a technology may result in the institution ultimately choosing a different solution, but it will pay off if it is a solution that will help to address a number of needs and provide a greater level of value to a wider audience.

For example it may be better to select a student system that helps to address not just current student technology needs, but also the needs of staff, alumni and pre-applicants. By taking a look at the broader benefits a solution can provide, higher education institutions will ensure they are choosing tech investments that will pay off in the long run.

Collabco is the creator of myday, a student dashboard used to drive student engagement, participation and retention.

Invest in Flexible, Dynamic Spaces for the Future

By Kurt Shirkey, assistant director of Classroom Technology Support in the Site Planning & Support department at Salt Lake Community College

Higher education institutions are moving toward active learning environments that promote engagement and collaboration. The "modern' institution has learning spaces that are flexible, dynamic and wireless. At Salt Lake Community College, we created "Flex Classrooms," which use a combination of student-brought devices, mobile furniture, updated cabling and power ports, and interactive projectors. There is no "front" or "back" to the classroom. Instructors are implementing the flipped classroom model. Here is how we chose our tech investments:

1) Customer support. We chose Epson projectors because we wanted a solid partner that will help us if we run into technical problems. 2) Go wireless. We didn't want a lot of wires and cables in the middle of the room. Our interactive projectors offer wireless connectivity and annotation features, which was exactly what we needed. 3) Flexible spaces. Fixed podiums and desks are relics of the past. The "modern" institution needs dynamic spaces where students and instructors can move things around to fit their needs. We replaced tablet armchairs and anchored workstations with wheeled chairs and tables and movable podiums. 4) Make it visually appealing. We replaced the tile floors of our classrooms with carpet, painted the walls bright colors and added lighting. 5) Support innovation. Our Flex Classrooms are laboratories new technology. If an instructor likes a tool, they can bring it to test out. It's another way to make the classroom fit their needs, not the other way around. 6) Start small.

Convert one classroom first and use feedback to tweak the design before incorporating it on a broader scale. Have your facilities staff, interior designers and IT department involved from the start. 7) Revise your model. In the first year, meet with faculty teaching in your rooms to get feedback on your technology design .Incorporate their best ideas into future models.

Kurt Shirkey heads SLCC's "Flex Classrooms" initiative.

Invest in Technology that Makes Data Easy to Collect, Analyze, and Integrate

By Dr. W. Allen Richman, interim dean of Planning, Assessment and Institutional Research at Prince George's Community College

In higher education, data is a key component of everything from graduation rates to accreditation. The "modern" higher education institution relies on data analysis to assist it in making programmatic changes that lead to better retention and graduation rates. Therefore I recommend higher education institutions invest in technology that allows them to easily access, manage and analyze their data – particularly assessment data. This technology must also allow institutions to integrate this data into the regular operations of the institution, rather than having it be, or appear to be, a separate set of work.

Prince George's Community College launched a data initiative five years ago. The goal was to create a comprehensive assessment program that would tie courses to learning outcomes. It reorganized the Office of Planning, Assessment and Institutional Research to head this task. We spent 18 months mapping courses and aligning them to learning outcomes. We also adopted software called DataLink Connect, from Apperson, that allowed us to develop assessments and answer keys tied to each outcome. Also, make sure data

collected integrates with the learning management system so educators don't have to go into multiple places to review data. The data now helps us determine where we need to adjust instruction and how best to revise courses. Ultimately we hope this initiative will improve courses and graduation rates.

Regardless what technology an institution chooses, what is essential is that collecting, analyzing and acting on data become as much a part of the classroom as collecting, grading and providing feedback on term papers. If universities and colleges look for technology that will accomplish this, it will help to ensure student success.

Dr. Richman is Interim oversees academic assessment including the implementation of an institution-wide assessment system for the continuous improvement of courses, programs and the institution as a whole.

Pick Tech that's Easy to Use and Versatile

By Jeremiah Proctor, director of Technical Services and Information Technology Services for John Brown University in Arkansas
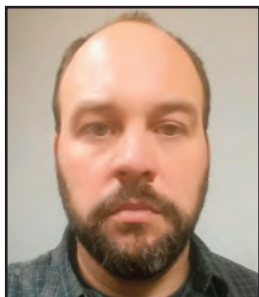
The best tech to invest in is the technology that best fits the needs of your faculty and improves the faculty and student experience without requiring extensive training or preparation. You must find tech to excite and engage the faculty and students. I would also recommend investing in technology that promotes collaboration and group work. At John Brown University, collaboration and remote presentation in the classrooms have become primary focuses for both faculty and students.

In our classrooms at John Brown University, we chose Epson interactive projectors with Crestron DMPS control systems along with Dell OptiPlex 7440 AIO touchscreen computers and document cameras. We selected Epson's interac-

tive projectors because they are simple to use and versatile. I refer to them as a wall-sized iPad. Also, we can create a wonderful interactive whiteboard experience just by placing a piece of dry erase vinyl on the presentation decks of the document cameras. John Brown University has a theater space that we are able to still use as a traditional classroom by adopting this solution.

In addition to adding the technology, we equipped our classrooms with standard meeting chairs and small round tables around the room to make it easier to create groups for collaborative exercises. The groups use products like Crestron's Air Media and Epson's collaboration software which make sharing projects with the class easy.

We are pleased with our tech investments at John Brown University. By investing in technology that is versatile, easy to use and that promotes the collaborative atmosphere that is so critical in education today, you will set your university up for success well into the future.

Make Sure it's Durable and Valuable to a Diversity of Users

By Christopher Gordon, assistant director of the Center for Education in Science, Technology, Engineering and Mathematics (CESTEM), University of North Carolina Wilmington

The University of North Carolina's Center for Education in Science, Technology, Engineering and Mathematics (CESTEM) provides professional development opportunities for regional K-16 instructors and educational opportunities for regional K-12 students to improve the quality of pre-college STEM education. One way we do this is through our technology loan program, which allows teachers from 13 counties in the region to borrow various technologies, lab books, and more to use with their students.

When selecting technology for CESTEM and our institution, I am committed to choosing equipment that is easy to use, durable, and useful in a variety of settings by our diverse stakeholders. With CESTEM, teachers check out the equipment for two weeks—or longer if no one else has the equipment reserved after them—and then brings the equipment to their classrooms to engage students in hands-on, technology-enabled learning. Oftentimes, students also use the technology independently for their own science and engineering fair projects. Given this, it is important that the technology we loan out, such as Vernier sensors or Lego robotics kits, supports heavy use.

In choosing technology, it is also important to partner with companies that have an established record of success and that are focused on anticipating the future needs of its customers. Other key considerations of technology purchases include choosing technology that connects and works seamlessly with the other technology you already own or plan to own in the future; that is a good value; and, most importantly, that will enable you to accomplish your organization's mission.

Start Small and Simple

By Linda Ding, Senior Education Program Strategist at Laserfiche

For institutions of higher education, the key to positioning a technology project for success is starting small and simple. Enterprise-level initiatives are, by nature, huge and complicated projects, and colleges and universities often find that they've underestimated the amount of research, resources, development and training necessary to complete them.

To prevent the premature death of a project and see results sooner, institutions should identify one clear business challenge in one department. Break down large undertakings into digestible processes—for instance, rather than using a new enterprise content management system to improve admissions as a whole, start by implementing electronic forms to automate application review.

Choose a key component that has clearly defined issues. If potential users of your new technology initiative are aware of and frustrated by a broken process, they are more likely to embrace change and help others to follow suit. This is a good way to build institutional knowledge as your initiative affects more and more departments or schools. Organizations see significant returns on technology investments once they build a community of practice—to share information, experiences and ideas—that often start with just a few champions.

Once an organization successfully deploys a technology initiative, it has proof of concept and can begin looking for other challenges that can be addressed by the same technology. This highlights another important factor: When purchasing technology, institutions should choose products that are flexible enough to address a variety of business problems—not just one. This will maximize the investment and enable organizations to scale up without requiring them to hire more IT specialists to support the products. Additionally, colleges and universities that are on the leading edge of technology and efficiency maintain strong relationships with their vendors to stay apprised of upgrades, new features and advancements. *e*CN

7 ways to harness technology for campus branding

Grow your online brand and generate offline results.

By Krystal Putman-Garcia

If you walk on any campus today, you'd be hard-pressed to find a student that didn't have a laptop or smart phone. In fact, 96 percent of young adults ages 18-29 use the internet – and those with a college education are more likely to use the internet than those who do not, according to a **Pew Research Study**. Your college can benefit from strengthening its online brand by reaching prospective students, current college attendees and alumni. The stronger the online brand, the more likely students and visitors will engage with a school.

Fortunately, there are some simple ways colleges can grow their online brands that ultimately lead to offline results:

1. Optimize Your Website

Your school's website is likely the first thing visitors see before they even step foot on campus – so your website should be visually appealing as well as easy to navigate. Additionally, make sure to keep all of your target audiences in mind when it comes to content and website design. Not only does your website need to *appeal* to current and prospective students, their families, alumni and donors, it also needs to *inform* them. For example, if a prospective student is interested in your school, is it easy for them to find the information they need? What about a loyal sports fan? If your website is too complicated to navigate, it will lose visitor attention very quickly.

2. Provide Essential Information

Do students rely on your school's website for information that they count on every day? While this might not be applicable for alumni, an interactive campus map, professor directory and updated event calendar can keep current students engaged on a daily basis.

3. Get Social

The great thing about college is the diversity of students. This presents both a unique opportunity and a challenge when it comes to social media because your target audience is so vast – each department and student group can pull in a different audience. Don't try to control everything, but do give both departments and student groups

guidelines when it comes to social media – what they publish online reflects your entire institution. Also, make sure you're up-to-date with the people who manage the most influential social media presences at your school to quickly collaborate and spread the word about truly big news.

4. Be Discoverable

Your school may have a great web presence, but aside from Googling your school's name, can people find your website? For example, if you have a great agricultural program, does your school show up through search terms like "agricultural research school on the East Coast?" Conduct keyword research and structure your on- and offsite efforts so your school is easy to find online. If you want to increase student engagement without waiting for your search engine rankings to naturally increase, then you should also consider spending money on paid search.
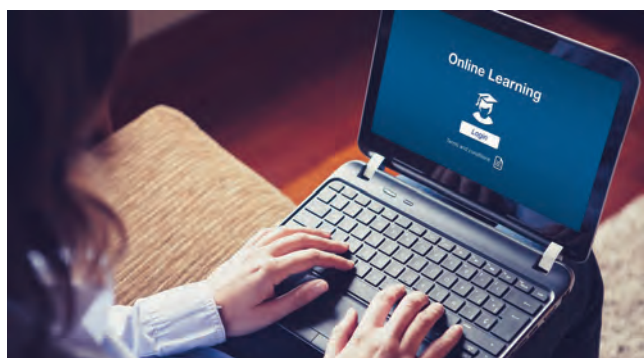
5. Give Free Classes

Giving course content away for free is a great way to grow your school's brand, both online and off. Top universities, including **MIT** and **Stanford**, post free academic courses online. Not only does this establish your school as a trendsetter, it gives prospective students – and the world – a glimpse of your top quality curriculum and professors. And when your online fans decide they want to go back to school and get their advanced degrees, your school will be top of mind.

6. Retarget with Ads

There's a good chance that if they don't already have an existing connection, prospects may not connect with your school on their first visit to your website. Retargeting customized ads through other websites that people visit – not associated with your own – keeps your brand relevant to them. Once you have someone's attention online,

whether it be a prospective student or alumni, following them on the web with retargeted ads can easily convert them into an applicant or donor.

7. Integrate Online and Offline Efforts

Yes, students are glued to their smartphones and laptops more than ever, but that doesn't mean they don't see posters at the student union or pick up free t-shirts at student activity fairs. It's important to utilize your offline marketing efforts to push your audience to connect with your school's online presence.

As you grow your online brand, pay close attention to both your school's online and social analytics. These metrics will show you how users are engaging with your school, ultimately providing the insights you need to improve your online presence and reach your overall marketing goals. eCN

Krystal Putman-Garcia serves as Vice President of Marketing for **Localist**, *an event marketing technology company that offers interactive calendars that help companies publish, manage and promote events. She is responsible for Localist's marketing and partnership efforts.*

3 reasons why AI is education's future

UX innovator discusses what forward-thinking schools are doing now, and what AI in education will look like in the near future.

By Meris Stansbury, Managing Editor

If you ask kids today why phrases like "hang up" the phone or "roll down" the window exist, chances are **they'll have no idea**. Fast-forward to the near future and "search the web" may also cause a few head scratches.

"We're evolving, but remain electronic 'hunters and gatherers,'" explained Ralph Lucci, cofounder and user experience director at Behavior Design.

But that's about to change thanks to today's quickly emerging artificial intelligence (AI) technology for practically every industry, including education. "The day will soon come when we'll sardonically ask ourselves: 'Remember when we had to visit a website and look around for what we needed?' Now the data comes to us."

And while mainstream AI isn't at that level just yet, innovative industries and some schools are already either beginning to implement AI basics or planning to structure entire departments or services on the potential power of AI.

3 Reasons Why AI is Education's Future

1. It will revolutionize the competition.

Almost every school or institution is currently vying for recognition among students that have become incredibly choosy consumers, and AI could be an effective way to stand out from the crowd, said Lucci.

"If an institution is embracing AI, students know there's support and structure around these kinds of technologies and modernized learning; which is a good thing. Students will hold the school in higher regard and in turn the institu-

tion can attract more diverse and like-minded audiences, including professors and teachers! It's a win-win situation."

One of the more immediate ways Lucci sees AI working as a differentiator is via school portals or college and university websites. As he explains, AI provides a much different UX (user experience) than sites today are currently capable of.

According to Lucci, users consume online content in three ways--what behavioral designers call surgical, casual and assisted means. "Most websites employ solutions for quick access (surgical) and the ability to search, browse, and peruse (casual). The notion of guided (assisted) experience is typically only employed when necessary or relevant to the subject matter, e.g. wizards or calculators." But Lucci noted that with the mainstreaming of AI, websites and portals will allow for this last tier to emerge as a means to simplify experiences and interfaces.

"It may begin as a complementary offering, much like a customer service representative or live chat agent, but eventually this strategy can be front and center in any interface," he explained. "In either case, a simple "What can we help you with today?"
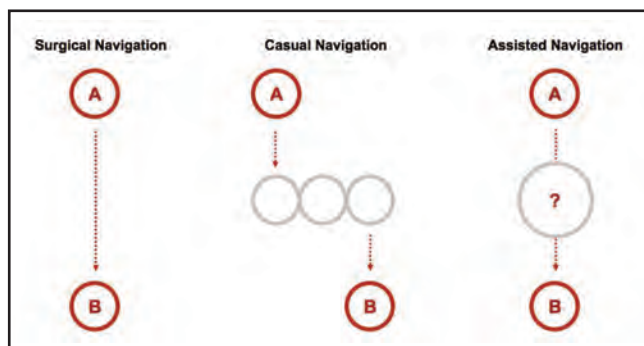
can generate a response in many forms – whether that is a direct answer with next steps or a potential list of results/matches – that initiates a personalized path akin to a choosing-your-own adventure experience. Institutions can 'test pilot' AI and adjust accordingly after gleaning feedback about how it may best serve student and school goals.

2. It will provide unprecedented personalization.

The inherent benefit of AI, said Lucci, is that it has the potential to be very user-centric, offering students the ability to get relevant answers or learn from anywhere at any time; not only from remote locations, but with one-on-one attention otherwise impossible in a large classroom.

It can also personalize a student's entire learning lifecycle within the school or institution via what Lucci calls AI's storytelling element. "With some simple input, AI mechanisms can assemble all sorts of narratives for students—about their future, job applications, and ways to make an impact down the road—to inform pursuits now that will lead to desired results. In these ways, AI is a guide for the student and can act as a concierge or an ambassador for an institution."

Examples of personalized pathway guides

include digital student guides for prospects and accepted students which provide checklists of what students need pre-application, how to connect with teachers, get housing, apply for financial aid, etc. "This helps craft an experience for future students before they even arrive on campus."

In addition to directly benefiting students, AI also helps teachers to hone in on the desired learning pace for each student and plan accord-

"Additionally, response time to students becomes immediate and impactful; if a student doesn't understand a topic, they can direct their questions to the system for a timely response rather than waiting for a teacher, which often takes some time."

ingly, he said. Through AI, teachers can automate repetitive tasks (grading tests, answering questions about coursework, etc.), freeing them up to focus on bigger picture goals. "Additionally, response time to students becomes immediate and impactful; if a student doesn't understand a topic, they can direct their questions to the system for a timely response rather than waiting for a teacher, which often takes some time."

3. It will strengthen already lucrative programs.

Building off of its personalization potential, AI can also better support online learning programs, or what Lucci describes as "the most cost-effective business process an institution can implement, with the greatest return-on-investment."

In regards to the personalization of programs like online or blended learning, Lucci said a major benefit of AI is the increasingly valuable feedback loop. "In a progressively competitive world, being able to monitor data and serve up relevant content is crucial. With richer data and improved data mining techniques, this is now a possibility. AI can steer inquisitiveness, enhance match-making, and present personalization. Many touch-points in the [online] student-professor dynamic (answering common questions and automated, personalized follow-up) can now be done automatically and intelligently, improving the experience for both professor and student."

Looking to the Horizon

When asked whether or not schools or institutions are diving head-first into AI, Lucci (who works with notable institutions like the University of Michigan and the Cooper Union) said that, unsurprisingly, education is a bit behind other innovative industries currently beginning to implement basic "narrative question/answer" assisted navigation on their sites.

Lucci noted that unlike the technology and product companies he works with that have the staff and resources, education typically does not. "There are many necessary parts: technology; carefully crafted content around convergent and divergent audiences; strong stakeholder collaboration and commitment; and numerous maintenance needs, which can all be difficult challenges to secure, nurture, and unify. We often see an institution's ambitious, flowering initiatives flourish in their own right—but the big-picture garden still needs structure and tending and cross-pollination."

As AI becomes more mainstream, Lucci sees automated chatbots (e.g. a Siri-like assistant) taking hold in the near-term, allowing students to chat with a bot to answer simple questions instead of visiting a school's portal or website, or calling or emailing. Students could also ask the bot about current grades, course information or how to submit a form.

On the heels of AI will come virtual and augmented reality, where AI will learn about a user's specific interests and choices and work in parallel with VI/AR to create a personalized learning environment. Examples could include personalized virtual tours through a physical space, or a "choose your own adventure UX model where users can explore things like student life, events or classrooms."

"The pace at which [AI] evolves will not be uniform, and with these variables comes another level of complexity and greater responsibility," Lucci concluded. "AI may become more intimidating to students that may not be as technically savvy as others. Will this mean that students need proficiency in the use of technology to learn other skills? Might some fall behind their peers in new ways? These concerns might widen the gaps within cultural and socio-economic challenges. There are many things to consider and evaluate as AI evolves in all levels of the education space." *e*CN

Are online access codes the new textbook monopoly?

Costly online access codes often force students to pay even more for required course content and tests.

**http://www.ecampusnews.com/news/
access-codes-monopoly/**

5 student opinions about higher education you should know

Today's student opinions reveal what they really think about online learning, digital resources and much more.

**http://www.ecampusnews.com/
campus-administration/student-opinions-education/**

Are institutions rethinking their STEM emphasis?

University, community colleges partner in an effort to boost humanities--but why?

**http://www.ecampusnews.com/stem/
college-stem-humanities/**

5 ways virtual reality is being used in education right now

New polls, studies delve into how educators and researchers are using virtual reality today.

**http://www.ecampusnews.com/
technologies/virtual-reality-education/**

Survey: Virtual Reality is Rapidly Coming To the Classroom

How familiar are you with the concept of virtual reality (VR)?

32%
Only slightly aware

53%
Aware and beginning to investigate

10%
Planning to use VR over the next year or two

5%
Already using

Have you ever tested VR or tried it in your school?

23% YES

77% NO

If you have tried VR in school, in what subject areas?

Science
52%

History
29%

Other
computer science, social studies, language arts, technology
23%

Engineering
20%

Arts
15%
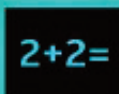
Math
2+2=
12%

Design
10%

English
Aa
9%

How often does your school use VR?

Not Sure
23%

Regularly
6%

Occasionally
19%

Never
53%
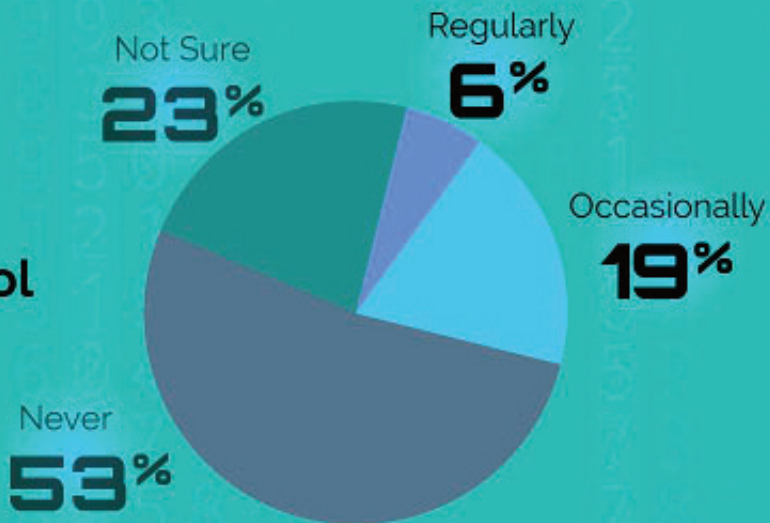
What are the major drawbacks to using VR in education?

47% Not enough VR content available yet

43% Expensive or difficult to implement

21% Too hard to manage during class

22% Might be a distraction

17% May cause headaches or brain damage

16% Too much like a game

16% I have no concerns about VR

8% It isolates students
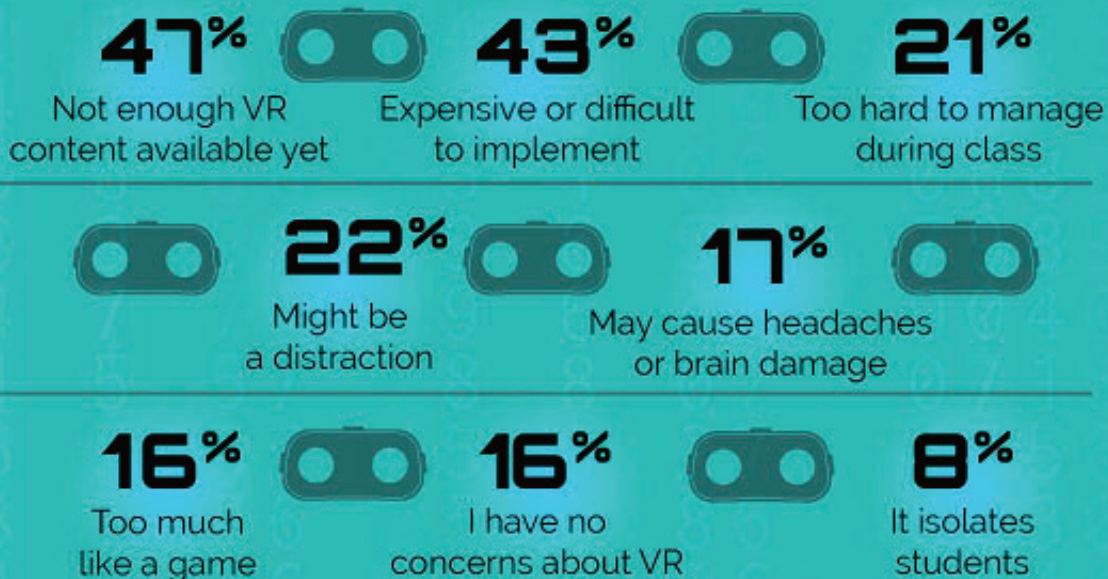
Do you teach virtual reality?

4% YES

96% NO