e-learn

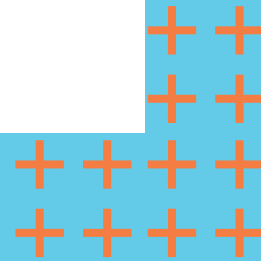A BLACKBOARD'S OPENNESS INITIATIVE | www.elearnmagazine.com

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in education
**come together
at BbWORLD**®⟨17⟩

e-learn

a Blackboard's openness initiative.

Functioning as a teaching and learning community collaboration, E-Learn is a place for educators to share ideas, insights, perspectives, and practices for the purpose of improving student success.

Want to participate? We'd like to hear from you.

Share your experience in an interview, your perspective in a column, or your field of expertise in an article. Suggest our next topic of focus, get in touch with the e-learn team.

Email elearn@blackboard.com for further information.

From the Editor

IN THIS THIRD ISSUE OF E-LEARN FOR 2017, OUR focus is on BbWorld, the biggest Blackboard event, where great minds in education come together to exchange ideas, share best practices, and address today's toughest educational challenges.

In this opportunity, we had the privilege of interviewing Dr. Jill Biden, former Second Lady of the United States and lifelong educator. Dr. Jill Biden, who is also set to open this year's BbWorld, has offered us invaluable insights about her perspective on education today.

Our special thanks to Katie Blot, Blackboard Chief Strategy Officer, who shared her insights on student success from a global standpoint.

In this issue, we have put together a special article on plagiarism prevention - a topic of particular interest to the academic community – and one that we believe we can offer valuable insights to get the conversation started. In the following pages you will find an investigative piece and infographic, on how to effectively deal with this type of situation should it take place. We also thank

Trey Buck, Senior Product Manager and SafeAssign expert here at Blackboard for his contribution.

Our gratitude also goes to Jonathan Bergmann, author of the book "Flip Your Classroom: Reach Every Student in Every Class Every Day," Izak Smit from the Cape Peninsula University of Technology in South Africa, Luis Luévano from the Instituto Tecnológico y de Estudios Superiores de Monterrey in Mexico, and Tonia Malone of Cal Poly State University in the United States, all of whom will also participate as speakers at this year's BbWorld.

In addition, and according with our aim in providing our community with the most relevant topics in education, we have included a great piece on accessibility. It is a collaborative piece offering different viewpoints from experts that also participated in Blackboard's Global Accessibility Awareness Day recent webinar series. We also extend our thanks to Scott Ready, Diana Bailey and Kyleigh Edwards, Dr. James Cressey, Lucy Greco, Juan Simón and Eloisa Alpizar.

We would also like to thank some of Blackboard's clients for having shared their experiences in this issue: David Montes de Oca, Andrew Kapunin from National University, Danny Harrington from ITS Education Asia and Helen Richardson from Gateshead College.

We hope you enjoy this issue!

Sincerely,
The E-Learn Team

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Interview with Dr. Jill Biden: Community colleges are "one of America's best kept secrets"

Jill Biden, wife of Vice President Joe Biden, is a mother and grandmother, a lifelong educator, a proud military mom, and an active member of her community. With the February 2017 launch of the Biden Foundation, Jill Biden and her husband will continue their commitment to strengthening the middle class, protecting women and children against violence, and supporting community colleges and military families.

AS SECOND LADY, DR. BIDEN WORKED TO BRING attention to the sacrifices made by military families, to highlight the importance of community colleges to America's future, and to raise awareness around areas of particular importance to women, including breast cancer prevention, all while continuing to teach as a full-time English professor at a community college in Northern Virginia.

Dr. Biden has always said that community colleges are "one of America's best kept secrets." As a teacher, she sees how community colleges have changed the lives of so many of her students for the better. As Second Lady, she worked to underscore the critical role of community colleges in creating the best, most-educated workforce in the world. In 2012, she traveled across the country as part of the "Community College to Career" tour to highlight successful industry partnerships between community colleges and employers. In the fall of 2010, she hosted the first-ever White House Summit on Community Colleges with President Obama, and she continued to work on this outreach on behalf of the Administration – visiting campuses, meeting with students and teachers, as well as industry representatives around the country.

PHOTO: **Ralph Alswang**

As a military mom, Dr. Biden understands firsthand how difficult it can be to have a loved one deployed overseas. Dr. Biden's children's book – *Don't Forget, God Bless Our Troops* – was released in June 2012. Inspired by real-life events, the book tells the story of a military family's experience with deployment through the eyes of Dr. Biden's granddaughter, Natalie, during the year her father is deployed to Iraq. The book also includes resources about what readers can do to support military service members and their families.

Through their Joining Forces initiative, First Lady Michelle Obama and Dr. Biden issued a national challenge to all Americans to take action and find ways to support and engage our military families in their own communities. Joining Forces aims to educate, challenge, and spark action from all sectors of our society – citizens, communities, businesses, non-profits, faith-based institutions, philanthropic organizations, and government – to ensure that service members, veterans, and their families have the tools they need to succeed throughout their lives. At JoiningForces.gov, Americans can find many ways to take action.

In 1993, after four of her friends were diagnosed with breast cancer, Dr. Biden started the Biden Breast Health Initiative in Delaware, which has educated more than 10,000 high school girls about the importance of early detection of breast cancer. Dr. Biden and the Vice President have also served as the Honorary Co-Chairs for the Global Race for the Cure in Washington, D.C. As Second Lady, Dr. Biden continued to stress the importance of breast cancer research and early detection.

Dr. Biden has been an educator for more than three decades. Prior to moving to Washington, D.C., she taught English at a community college in Delaware,

> Frankly, the fact that I'm still a novice with some of this technology bonds me with my students, too. They love teaching me about it, and I love learning! It's a fun role reversal.

at a public high school and at a psychiatric hospital for adolescents. Dr. Biden earned her Doctorate in Education from the University of Delaware in January of 2007. Her dissertation focused on maximizing student retention in community colleges. She also has two Master's Degrees — both of which she earned while working and raising a family. E-Learn had the honor of talking with Dr. Biden and getting some of her views on education.

E-LEARN: What motivated you to become an educator? Was there a defining moment or influence in your life that made you pursue this path?

DR. JILL BIDEN: Growing up, I sometimes had the chance to watch my grandmother teach in her one-room schoolhouse. She had an infectious enthusiasm for learning and was especially passionate about reading. I'll never forget listening to her read *Mary Poppins* aloud, with every child enthralled by her voice – me included! I saw just how powerful teaching could be by watching her.

She fostered a love of reading that has stayed with me my whole life. And as I got into education, I wanted to help build those skills in my students, even those who weren't lucky enough to have teachers like my grandmother early on. That's why I taught remedial reading, trying to help students of all ages not just learn to read – but learn to love it, too.

E.L: In today's complex global education landscape, what role can educators play in helping students overcome obstacles to success?

DR. JILL BIDEN: Great teachers make all the difference – because the most important thing they teach isn't what's on the whiteboard. It's helping them think in different ways and challenging students to push themselves. It's teaching students to believe in themselves.

When teachers connect with students like that, the ramifications are huge. Confidence built in a math class might help a student finish a book in a classroom down the hall, or believe that college is an attainable goal, or even set the course for success years down the line.

That's what I think students mean when they say a teacher changed their lives. Chances are that the classroom material will fade to some extent as time goes by. But helping someone change the way they see themselves? That's powerful.

E.L: You're a community college professor and are a strong advocate of the importance of community colleges. What role do you believe community colleges should play in the future of education?

DR. JILL BIDEN: A growing number of the available jobs in this country require some form of higher education. So the simple fact is that, for our economy to function – and for members of our communities to have a chance at good, rewarding, high-paying jobs – we need higher education to be more accessible.

That's exactly what community college does, and it does it for students of all ages and life circumstances. Sometimes that's offering an

associate degree to a person who dreams of going into a trade. Sometimes that's having flexible classes, so a student can juggle caring for family, holding a job, and pursuing an education at the same time. Or sometimes, it's the most affordable path toward a four-year degree at a moment when the price of college is increasingly expensive.

For me, the bottom line is this: If you want to learn a skill that can help your community and provide a better life for your family, you should have that chance – no matter how old you are, where you come from, or how much money your family makes. Community colleges are one of the best tools we have for helping us get there.

E.L: We know from research that it is taking students longer to complete their credentials. What do you think we can do to help students graduate on time? Is there a particular way that technology can help?

DR. JILL BIDEN: If we want more students to graduate on time, the most important thing we can do is invest in early childhood education. I know it's counterintuitive to solve a problem you see at the end of an education by focusing on the beginning, but as we all know, education builds upon itself. If the foundation isn't solid, it's going to get harder and harder to expand on it in the later years.

And I also think technology can help meet students where they are and solidify that foundation in places where it's shaky.

> If you want to learn a skill that can help your community and provide a better life for your family, you should have that chance.

Dr. Biden meets with students during her Community College to Career bus tour in 2012.

PHOTO: Gary Fabiano/U.S. Department of Labor

A couple of years ago, I visited a lab at Austin Community College where faculty taught developmental math, using technology to identify specific areas where students needed help. The results were just incredible. One woman, a new mom who was working full time while going to college at night, told me that she'd struggled with math anxiety for her entire life. Using the lab helped her conquer challenging concepts. Now, she wants to be a math teacher!

E.L: As a professor, how have you used technology in your classes?

DR. JILL BIDEN: Probably the most cutting-edge technology I've used in my classroom is 3D video with Google Cardboard. Implementing exciting tech like this is a simple way to get students engaged, and it can inspire them to think critically about the world around us. It is truly magic.

For my day-to-day – and this isn't flattery; it's the honest truth! – the technology I use most in my classes is Blackboard. It's so helpful to have everything in one easily accessible place, from my syllabus to extra articles I suggest for students if they want to pursue a subject further. I've seen how much it helps students stay on top of their studies, and how it can be helpful for parents who want some visibility into their children's education, too.

Blackboard also helps build community in a class, which is one of the most important things to me. The discussion boards are a place for my students – even the ones who can be nervous about speaking up in the classroom – to engage with me and one another in a thoughtful way.

And frankly, the fact that I'm still a novice with some of this technology bonds me with my students, too. They love teaching me about it, and I love learning! It's a fun role reversal.

E.L: What are you most excited about when you think about the future of education?

DR. JILL BIDEN: I'm excited because I see teachers with more and more tools at their disposal for connecting with their students.

We were just talking about new technologies, and that's definitely part of this. I was in Tennessee earlier this year, and I saw teachers using computer quizzes that asked reading comprehension and vocabulary questions that could adjust based on the students' performance. They were so engaged – you could see their confidence building as they moved through the lesson.

But new technology is just one of the tools teachers have. When I was in Malawi, I saw a teacher who based lessons around rhyme and song. It was stunning to see the amount of joy and understanding she elicited through that technique that's probably as old as teaching itself. So I think it's important that we teachers remember that the techniques at our disposal aren't shifting – they're expanding.

E.L: Are you optimistic about the current global education trends? At a high level, are societies and nations in general doing a good job of implementing this great equalizer?

DR. JILL BIDEN: Yes, I'm very optimistic. Of course, progress is uneven – it always is. And in my travels, I've seen some heartbreaking situations with schools and students who aren't getting the resources they need. But I've also been inspired by the heart, strength, and determination I've seen again and again.

When I was in India, I watched girls coming from some of the poorest slums, dressed for school in pristine, starched white shirts. They dressed with incredible care, because their education was one of the most important things in their lives.

And I once met a principal of a girls' school in Jordan, an elementary school outside Amman, named Maha Al Ashqar. With the incoming Syrian refugees, her classes were becoming overcrowded, and she knew they didn't have the resources to take on any new girls. But she also couldn't turn desperate, often sobbing mothers away. So she came up with a solution: send your daughter to school with a chair – any chair you can find – and she can enroll. And since then, with an array of beat-up old chairs, and the help of those mothers serving as teacher's assistants, she's been able to enroll 65 new refugee students.

Stories like that give me a lot of hope.

E.L: In the US and globally, we have seen a re-examination of the purpose of higher education that reflects a greater shift to workforce readiness. Do you see this happening? Why/why not?

DR. JILL BIDEN: I do see this happening, because as jobs become more technical, they require more training. Community colleges and apprenticeship programs in particular are helping close the skills gap.

A couple of years ago, I hosted a bus tour with the Secretary of Labor called "Community College to Career," which highlighted partnerships between industry and community colleges to help train workers. The administration also hosted the first ever White House Apprenticeship Summit and invested in apprenticeship programs across the country.

We focused on workforce readiness because we believe deeply in it. As a teacher, I see how engaged my students are when they know that what they're learning will be useful to them down the line. And we're all better off when businesses can find the workers they need to do their best work and when people can find the jobs they need to live their best lives.

Paving the way to student success: An interview with Katie Blot

Katie Blot is Chief Strategy Officer at Blackboard Inc. In this capacity, she's responsible for aligning Blackboard's business to industry and customer needs – overseeing key functions including industry strategy and development, business line leadership, product and partner management, and marketing – and ensuring Blackboard builds and delivers products and services that customers love.

AS A MOTHER OF THREE BOYS, KATIE IS BOTH professionally and personally dedicated to advancements in education. She is actively involved in research and trends in student-learning outcomes, competency-based learning and the links between education and employment. She participates in discussions on innovation in education and serves on the Executive Board of a local early-childhood education provider, the Board of Directors of the NEA Foundation, and the Board of Directors of UPCEA. Thanks to her background, E-Learn had the opportunity to interview her.

E-LEARN: What is your definition of student success?

KATIE BLOT: Broadly, I think of student success through two lenses: that of the institution and that of the student. As an industry, we have always focused on the first, defining the outcomes a given institution has for its graduates both academically and more holistically. Something happening now that is personally very exciting to me is the growing emphasis on the lens of success as defined by the student. After all, our systems of education exist to serve students and the societies of which they are a part. So, I think part of how we define success has to be whether we have helped the student achieve their aims, which can vary widely from student to student. For one person, that might mean earning a degree or certificate to position them for a career. For another, that could mean taking focused coursework to help them broaden their skill set and advance in their current job.

E.L: What is the most important contribution a professor can make toward student success?

K.B: A positive professor-student relationship is critically important for learners to achieve their educational goals. Professors are usually the face of learning to the student and the most important personal connection the student has in their academic life. That's why a timely outreach from a professor can make all the difference when it comes to a learner who may be struggling to understand the material in a course. With that said, professors are often leading classes of several hundreds of students, so it can be challenging for them to connect on a personal level with each student, or keep track of how they are performing. That's why at Blackboard, I'm proud that we are focusing on providing innovative technology that proactively alerts professors to students who may be struggling and makes it easy for them to reach those students with personalized outreach.

E.L: How has the definition of student success changed in the last 20 years?

K.B: I think the most profound change that's happened in the last 20 years is the evolution in how we think about measuring success. We have moved from the measure of success being 'access' alone to an expanded 'access and completion' to, now, a holistic view of 'access, progression, completion and career readiness.' I think there has been a shift in the education community and there is now consensus that it's not good enough to help students gain entry into college. We also need to cultivate supportive environments that help them succeed when they are enrolled and ensure they graduate and are positioned for whatever is next for them.

Student success is more important today for both students and institutions than it's ever been. For individuals, the increase in the percentage of jobs that require post-secondary education means more need higher education to achieve their goals. And the rise in performance-based funding has required institutions to change how they define success. I find this very exciting – because the goals of the student and the goals of the institution are becoming more aligned.

E.L: What are some of the factors that institutions need to pay close attention to in order to increase learner success?

K.B: When looking to increase learner success, I would say that nothing is more important than data and information. It is nearly impossible to improve something you can't measure – or to help people if you do not know they need help. Data can be used in a multitude of ways to advance student success. It can be used to inform institutional decision-making around key components of the student experience; to enable personalized experiences that engage students in meaningful ways; and to help the student make informed decisions about his/her own pathway.

In today's world of an almost overabundance of data, the challenge is less about having data and more about how to harness it as information and surface it at the right time to be able to make a difference.

E.L: What does it mean to be student-centric?

K.B: Simply put, student-centric means that we think first about the student and their needs as we define the education experience – and we use those needs to shape what we do. I contrast that to the institution-centric way that education evolved in most cases. We identified the outcomes that we wanted for students, determined the best way to deliver them to large numbers of students and then created an experience completely shaped by our delivery abilities.

I think the rapid rise in student expectations coupled with increased competition for students has really accelerated the student-centric movement. Today's students want the personalization, flexibility, and conveniences that they have in all other aspects of their lives in their education. They demand tools and experiences that meet these expectations and set them up for success. Given this fact, it simply is not feasible for most schools to have an institution-centric model anymore. With the advancements in technology, it is also possible to be student-centric today in a way that it just wasn't before. For example, before technology, it was near impossible to provide a personalized student experience at scale – even though we all knew that this was probably more effective and certainly more appealing to the student.
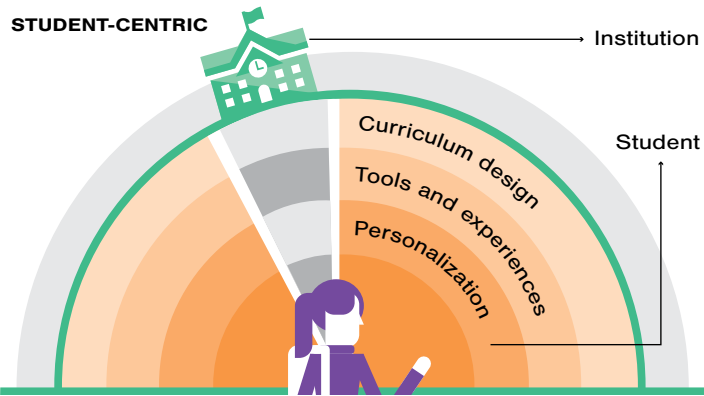
I'm seeing more and more institutions adopt a student-centric approach to everything from curriculum design to student services. They ask key questions such as "What do our students want?" or "What would make their lives easier?" They involve students in almost every decision they make impacting the student experience and they recognize that students aren't a single category – but are actually a super set of many, many different cohorts who may have unique needs.

E.L: What do you think will be the most significant change in education within the next 5 years and how is Blackboard preparing for this change?

K.B: While there are a lot of big changes that seem to be afoot in education, such as the exploration into new delivery and funding models and the re-thinking of some of

the critical building blocks of education (e.g. courses and credit hours), change happens slowly. When I think of a five-year horizon, I think the changes within that window that will be transformative are how we use emerging technology to drive learning outcomes and student success. An area of growing excitement is how augmented intelligence and cognitive computing will greatly increase our ability to scale truly personalized learning experiences. At Blackboard, we're working closely with IBM to see how we might be able to leverage their Watson technology to influence student pathways and their persistence in college.

E.L: What initiatives does Blackboard have that contribute to a better understanding of the world of the learner?

K.B: There are several ways in which Blackboard is able to garner unique insights about the world of the learner.

One way is through community interaction and input. Blackboard serves over 16,000 clients across 90 countries, reaching over 100 million users. This unparalleled reach gives us an incredible vantage point from which we're able to understand what's happening in education. Every day, we have the opportunity to sit and hear from education leaders around the world about the challenges they are facing and how students' needs are changing. We also actively solicit input from our clients on a regular basis, leveraging everything from technical previews of our products and customer research groups, to our Innovative Teaching Series where we bring together cohorts of educators to talk about best practices. In addition, through our Blackboard Community, we actively engage our clients in discussion forums and use their feedback to inform our decisions as a company.

Another way is through research. Blackboard also conducts unique and complementary types of research to help us garner insights about the world of the learner.

In our data science research practice, we investigate how faculty and students use learning technologies and look into the relationship between that use and student achievement. We conduct this research with anonymized data to improve our products, but also to share our findings and insights with the broader education community. With the large data footprint that Blackboard has to analyze, our team is able to look at student learning and achievement in a way that no other company can.

We also do qualitative, empathetic research that seeks to understand what people do and why they do it. We spend a lot of hours in the classrooms of faculty, and in the dorm rooms of students conducting immersive interviews around the higher education experience and with advisors who are helping students every day.

The quantitative research helps us understand "what" and the qualitative research helps us understand "why." When we pull these together, we get powerful insights into the world of the learner.

E.L: Given your role, you've had the opportunity to understand the current status and challenges in education worldwide. What are some of the biggest commonalities and differences you've seen across regions?
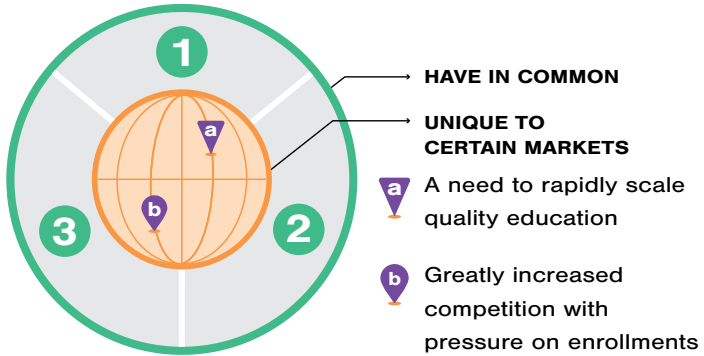
K.B: One of my favorite things about what I do at Blackboard is the opportunity to meet with people dedicated to education and student advancement around the world. I am always struck by the commonalities across regions–as well

as humbled by a greater appreciation for the different challenges that various locales face.

The things I see that most areas have in common are: **(1)** a mission of equitable access to a quality education, **(2)** a growing student focus on the value of education (a combination of whether it is affordable and whether it is 'worth the investment') and **(3)** an increased emphasis on career readiness as a primary outcome of education.

Some of the things I have seen that are unique to certain markets are **(a)** a need to rapidly scale quality education – usually seen in countries with a rapidly growing middle class and **(b)** greatly increased competition with pressure on enrollments – usually seen across mature education systems.

E.L: When thinking about technology for education, the LMS usually comes to mind. What are institutions missing out on when they limit themselves to only thinking about or considering an LMS?

K.B: Driving learning outcomes isn't only about what happens in the classroom. What happens outside of the classroom is just as important–and sometimes more important. For example, in K-12, involvement of parents and community members is critical to student success. That's why digital communications tools that allow teachers to connect directly with parents, and help school districts share important news with the community are imperative. In higher education, non-traditional students who are juggling multiple personal and professional responsibilities can benefit greatly from online collaboration tools that allow them to connect with professors or classmates outside of school hours. For these reasons, institutions should be thinking holistically about how technology (outside of just the LMS) can improve all aspects of the student experience and lifecycle.

Jonathan Bergmann: Flip your classroom, embrace technology and enhance student learning

The traditional model of education where the teacher stands in front of the classroom talking, while students listen and hope to learn and memorize, has been flipped. The Flipped Learning Model is a different way of educating minds, where students can take full advantage of class time, and the presence of their teacher and classmates.

Jonathan Bergmann
Author of Flip Your Classroom:
Reach Every Student in
Every Class Every Day

BY: **CHRISTINA GÓMEZ ECHAVARRÍA**
CHICAGO, ILLINOIS, UNITED STATES

JONATHAN BERGMANN, A HIGH SCHOOL CHEMISTRY teacher, along with a colleague, decided to flip the traditional classroom model by embracing the technology that was available to them, with the goal of enhancing students' learning and understanding abilities.

In essence, the Flipped Model consists of the following:

1. The teacher videotapes short micro videos for each subject so that students learn in an interactive and simple manner.

2. The student, as homework, watches the micro video, takes notes and writes down questions.

3. The teacher then takes some classroom time to answer any questions students might have on the theory, and according to that, the teacher divides the class up into the students who still need to understand more fully, those with a solid understanding, and those in-between.

4. The teacher prepares different activities for the entire class such as labs, quizzes and discussion groups, where students can interact with each other and with the teacher, in order to better understand the subject matter at hand, through this hands-on approach.

After five years of implementing this model in his chemistry class, Mr. Bergmann wrote a book called "Flip Your Classroom: Reach

Every Student in Every Class Every Day," as well as eight other books on education. E-Learn talked to him about his thoughts on education and how the Flipped Model works.

E-LEARN: Could you please share a brief explanation of what the Flipped Classroom Model is?

JONATHAN BERGMANN: It's a simple idea. The best way to understand it is to think of Bloom's Taxonomy, which is a pyramid and the bottom is knowledge, which is also the one with the biggest space in the graph, and then understanding, application, analysis, evaluation and creation are at the top. Most teachers in the world spend most of their time delivering content at the knowledge and understanding level, so most of the class time is in content delivery and very little is used in the application, analysis, evaluation and creation. The flipped learning model moves the direct instruction and the content delivery to the personal space, so the teacher delivers the content through short micro videos that the students watch on their own time and the class time is used for hands on learning. So essentially, Bloom's Taxonomy is flipped, so you spend less class time in the learning and understanding level and use it to create, to evaluate and to generate analysis. That is the idea of Flipped Learning in a nutshell.

E.L: What do you think is the main problem in education today?

J.B: We're stuck in this model where all the knowledge and information has to come from the teacher and we live in an information age where you have to actively engage with students. People often ask me why Flipped Learning works and my answer is that because, number one, it makes the group space or the class time an active place of learning and all the research out there shows that active learning is what makes the big difference. Secondly, and something that I think is very overlooked, is that it allows students better opportunities to have better relationships with their teachers. Again, the research is clear on this, a student or a trainee in a corporate setting has a better relationship with their teacher, and to that degree they will be more successful. We are relational humans.

E.L: And how do you think technology has changed education? What are the benefits?

J.B: I think technology is not the answer to education. Lots of people think that if we throw a computer in front of somebody, it's going make education better, but it hasn't. Once again, that is pretty well researched. But technology can enhance learning. One thing I know about Flipped Learning is that it serves a good purpose to technology, because good education really happens in a group space, to engage and enrich in meaningful activities during that class time. A rich and engaging activity is not sitting and having somebody talk at you. But in order to really have a rich, meaningful experience, you have to know something about the subject matter beforehand, so that is the point of the flipped part, where students still receive information, but in a different time and manner.

E.L: And what do you think are the setbacks to using technology in education?

J.B: We definitely have a culture where people have too much screen time. We don't want to enhance additional screen time. In terms of using technology, I think we have to be cautious of how we use technology and not overly use it. But

Jonathan Bergmann continues to teach, record, and publish his videos on his YouTube page, and gives conferences to convince others about the power of this model of education, which he believes to be the best and to truly accomplish the goal of teaching: getting kids to learn and to love to learn.

also realize that it's an amazing tool, we have the world at our fingertips, we can have access to any information that we want by just asking Siri or any other bot you want to use.

E.L: If you could create your own school, and change the entire educational system, how would you structure it so that learning is really enhanced?

J.B: Obviously as an advocate for Flipped Learning, I think that the places where I've seen the best results are the entire schools that have become Flipped Learning Schools. That takes a big process. You have to find people who are willing to work outside of the box, such as educators, teachers, administrators, students and parents. It's amazing what I've seen in these Flipped Schools, what they have been able to do, the amount of active learning that is taking place, the innovation that is happening in those schools, projects that the kids have been able to do has been mind-blowing. I really think that Flipped Learning should become the new foundation of our schools. Flipped

did not originate with me, the concept came from Dr. Robert Talbert, he says that we have to think of Flipped Learning as the operating system of education. A computer has an internal operating system, Mac or Windows, or how a phone has Android or OS. On top of that, the device has other things, it has applications. So if we think of Flipped Learning as the operating system and on top of that the apps might be project-based learning, mastery learning, inquiry learning, etc. Those are the things that you can add to, but you need the time to explore in a group space these other apps, and Flipped Learning gives you that. What "apps" a teacher uses depends on what type of content they are delivering. Throughout this process we have learned how to take the schools through the cultural change that involves going from being a regular school to a Flipped School.

E.L: What is your view on the current grading system. Many students are unmotivated by the need to get certain grades, and others do just fine but aren't really learning the material, they just do what they are told... Do you agree?

J.B: I was a very traditional grader before I flipped my classroom and I believed in it. As I began to flip my classroom, I realized that we needed a paradigm in assessment. I moved to more of a standards-based grading system, where you either pass or you don't, and I think that is the way we ought to go, and I do believe that one of the biggest problems in education is our assessment system, whether it's by letters, numbers or percentages. I don't think that helps students or schools. I think that a student should get a passing or a failing grade, and they should only pass if they show proficiency. The point of school is to learn, not to get by with a below average grade, without truly learning.

E.L: Everybody has different strengths and weaknesses, everybody learns differently. How can a school keep being economically viable, have a number of students, and still provide a personalized education?

J.B: The beauty of Flipped is that that is exactly what is does. It reduces the class size, in a way. For example, if the students see the micro videos ahead of time, before class, if the student

has a 45 minute class period, they have that entire class period to individualize, personalize and differentiate for each kid. The students who have understood the material go on to do experiments and activities, while the kids who are struggling a little more make a group where they can discuss along with the teacher. This way, the class is divided into two or three groups, and the teacher gets to spend a certain amount of time with each group, and talk to every kid individually to see where their understanding level is and what they need help on. As a teacher, you can't really do that unless the class is Flipped.

E.L: What is the importance of Mastery?

J.B: The Flipped Mastery model is the apex of the model. Flipped 101 is where the kids watch a video and the next day they do an activity in class, and then repeat. In that model, all the students see the same video on a certain day. But in a Mastery Model, students can move at a flexible pace, where throughout the semester they can move as fast or as slow as they want, considering that they have to finish by a certain time to finish the course. All over the world, people are moving to the Flipped Mastery Model. After the unit or topic, the student has to take a summative assessment to prove they have achieved mastery, which means that they have understood the model, if they can pass it they can move on, and if not, they stay in that unit until they learn it. The beauty of this is that the students actually learn stuff. In most classrooms, the class comes to the end of a section, students take a test, and however they do, the class moves on. For those students who are lost, they get further and further behind without understanding the subject material. The traditional educational system wants to get every kid on the same page at the same time, and that's not how it works. The Flipped Model works because

in a traditional class, the teacher has to move on, they can't wait for every student to catch up while the students who do understand just wait. But in the Flipped Model, those who understand just move on to the next subject matter, and those who don't can learn the topic well so they don't fall behind with the more complex issues. As we were talking about before with Flipped being the operating system, Mastery is an app like Project-Based Learning. There is no one way to do it.

E.L: Why has the traditional model not had any changes in such a long time? Why has generation after generation learned the same way?

J.B: Education is slow to change. I think we are seeing the change happen right now. It's a matter of time before it will change. I think that the power that we have in our pockets with our phones, has changed the game. Because information now is cheap and easy to find. From the poorest kid in Argentina to the richest kid in Spain, students are getting access to these devices. I visited a province called Misiones that is completely adopting Flipped Learning within 5 years. Misiones is poor, the kids are poor, and it seemed like every kid had a cellphone in their pocket with a data plan. I asked how these kids could afford these cell phones, and they told me that they always find the way. So these schools in Misiones built an app so that the kids can access it at school, they can download the videos they need so they can see them at home, even if they don't have WiFi.. Education is going to be disrupted whether they like it or not. If anybody gets opposed to it, they are going to be out of the job, eventually. But it's exciting, we are in the most exciting time of education as it goes through this transition, from the 19th century model, to a more active learning model.
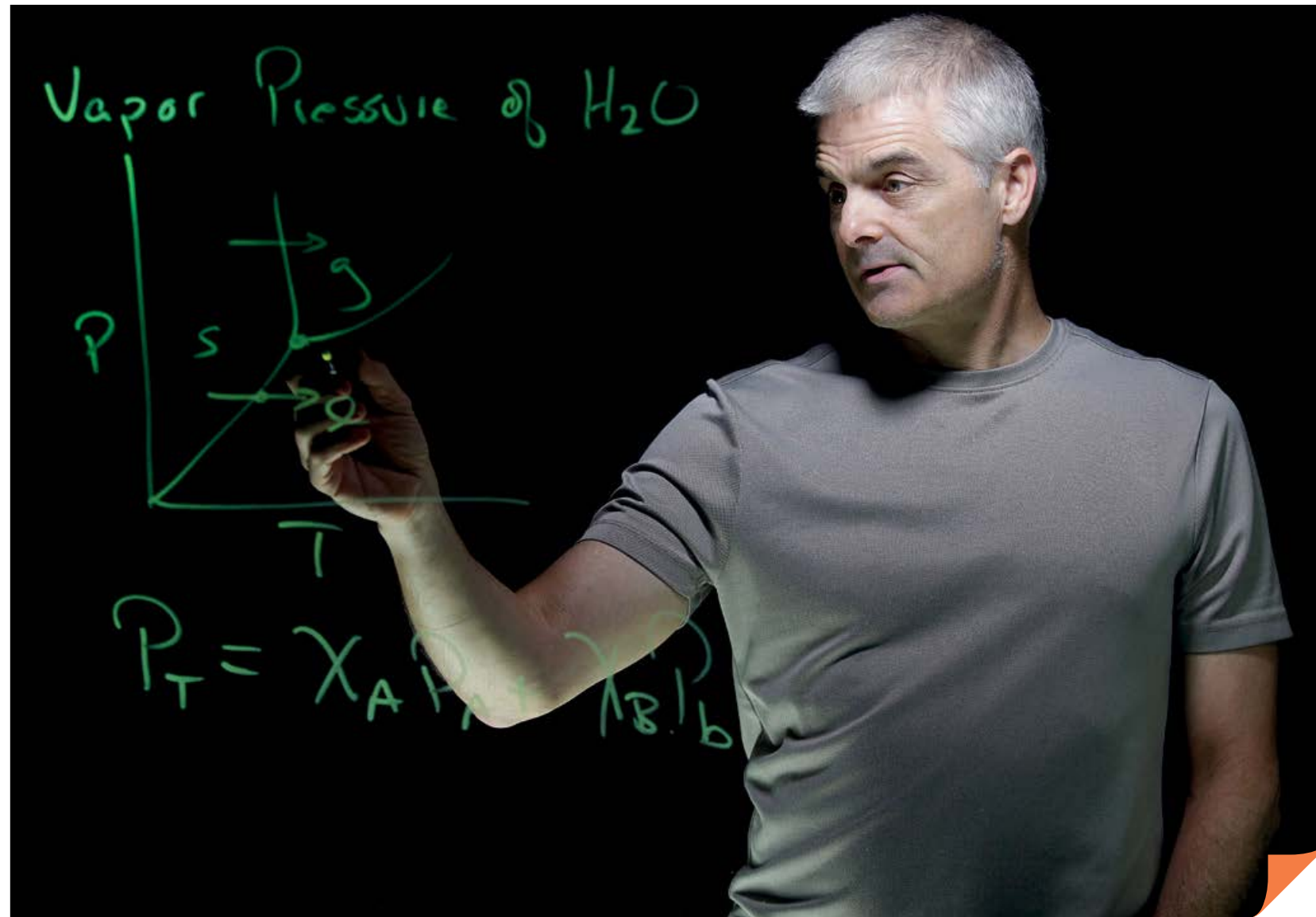
E.L: What will you be talking about at BbWorld?

J.B: I'll basically be saying that Flipped Learning has to be the new operating system. The title is Teaching and Learning in Unprecedented Times. I'll talk about learning 3.0, which means things are changing so rapidly, with even some of the political realities that are happening in our world, and we need to really rethink what education should look like.

E.L: What do you think is the future of E-Learning?

J.B: I like online learning, I teach classes online, but I also understand the limitations of online learning. Often times, online learning can mean a little bit less connection or relationships. It can be done, however. I've seen it happen with a Blackboard Collaborate room where you can have a proper discussion with your students, but my preferred model is Flipped. I think the future of E-Learning is that it is going to keep growing, but hopefully with a blended approach that allows students to have that connection to the teacher and make it more personal.

E.L: The life of a teacher can be hard. They have to repeat lessons every day, they have to be in the front of the class "performing", and most people don't understand that. What can be done to make teachers' lives better?

J.B: The Flipped Model really changes the dynamic for the teacher. Instead of being on stage, they become a guide alongside the student, and those teachers who have embraced flipped learning have really seen a dramatic change in the way they interact with students and in the way they interact with content. 95% of them will say that they will never go back to the traditional model, because of the engagement that they see with their students, with the success, typically their test scores even go up, and this is the new paradigm we need for education.

E.L: You say that you talk to every kid, every day, in every class. Why is that so important?

J.B: The foundation to a good education is relationships and connections, and to the degree that you can have a deeper relationship with your students, it means that the student is going to learn more from you, is going to perform more, is going to be willing to take risks, and there's nothing better than to see that. That is why (hopefully) teachers get into education, because of the impact and the way they can change lives, they don't just want to deliver content.

E.L: How do you get students motivated to learn and to go to class?

J.B: I think the best way to motivate a kid who is unmotivated is to let them know that you are there, you are on their side. That is the best way to motivate a kid. Flipped is the ideal for that, because instead of having a lecture of 30 minutes each day, then you only have about 20 minutes left to interact with kids, but in a flipped environment, you get the whole class time to work on motivating and encouraging kids to learn.

Vapor Pressure of H_2O

$$P_T = X_A P_A + X_B P_B$$

Luis Eduardo
Luévano
Belmonte
Instituto Tecnológico
de Estudios Superiores
de Monterrey (ITESM)

PHOTO: AFP Ernesto Moreno Valtierra

How to use telepresence technology to increase student engagement

With its 'Profesor Avatar' project, Instituto Tecnológico de Monterrey seeks to enhance the teleconferencing system by using real-time image projections. As a result, distance learning gains a human quality.

BY: ENRIQUE SANTOS

ZACATECAS, MEXICO

THE CLASS BEGINS AT THE SCHEDULED TIME and, in the middle of the room, the teacher bursts into it like lightning. The students recognize the familiar body shape and hear his words. They greet him back, although they know they are speaking to air. In reality no one is there, it is only a projected image – bright and clear–transmitted as if by magic.

This virtual professor, seemingly of flesh and bone, is a revolutionary innovation the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) has implemented to replace teleconferenced classes. The idea, which turned into the 'Profesor Avatar' project, began with the intention of solving the enormous difference that exists between attending a face-to-face class versus a long-distance, online lecture.

This innovation resulted from a collaboration between three professors at the university: Luis Eduardo Luévano Belmonte, Eduardo López de Lara Díaz, and Eduardo González, who together analyzed student-teacher communication challenges, and found telepresence technology to be an answer to this challenge.

Increasing student interest was also a clear goal. The professors hoped to reduce a student's tendency to lose focus when solely interacting with a screen.

As a result, they decided to complement the telepresence technology with a robot that the professors refer to as a 'telepresence kit'. It is a system that, when working simultaneously, has shown to have an incredible effect on the connection and empathy generated between the students and their teacher.

But, what are these technologies and how exactly do they work?

The telepresence robot is an instrument that allows the teacher to have a physical and autonomous presence within the classroom, while controlling it remotely. In addition, this automaton has several features that reinforce its interaction potential. For instance, it has two cameras that transmit audio and video in several directions, which provide the ability to give students personalized attention. "It's a robot that improves telepresence best practices, but its effect is also amplified when it works in conjunction with a projection," explains professor Luévano. "This technology allows us to generate an image of the professor, which is much more accessible and expressive than that of a computer or television," states Luévano.

The robot is complemented by a projected image, since it provides the illusion that the professor is in fact in the classroom, and the robot works to give him or her human characteristics that make their presence feel 'real'. "When we take these technologies and use them together, we come up with a package that could potentially take distance learning to a new level of connectivity," he says.

In an effort to demonstrate the transformative power of their initiative, Profesor Avatar's team launched "*Challenge i.*" This challenge is a collaborative network that was extended to three more universities in Latin America (Rafael Landívar University in Guatemala, TecSup in Peru, and

Pontificia Universidad Católica in Chile) in order to demonstrate the collaborative capacity of telepresence technologies. It was tested through a pilot class on how to build an electric power generator using recycled materials only.

Thanks to this 'kit,' students from universities in Mexico, Peru, Guatemala and Chile were able to work together to complete this challenge.

"We thought technology was going to be the leading actor, but it was not," recalls Professor Luévano. "After overcoming the initial fascination that comes when implementing semi-futuristic and innovative solutions, project leaders were surprised to see that the technology was quickly adopted by students."

At the end of class (carried out last year), the quality of the synergy generated with the implementation of this initiative was a great sign. More than 80% of students felt comfortable with the telepresence system, and more than 90% said they would participate in an activity like this again.

> The professors hoped to reduce a student's tendency to lose focus when solely interacting with a screen.

ILLUSTRATION: TRiiBU Studio

'Profesor Avatar' project at Instituto Tecnológico y de Estudios Superiores de Monterrey.

But the success of "*Challenge i*" has not been the only achievement accomplished by Profesor Avatar's team. Recently, they received the Silver Award in the category of Best Use of Information, Communication and Technology Tools in the 2016 Reimagine Education Awards.

Currently, the biggest challenge for Profesor Avatar is to become a high-impact initiative within the world of education. The necessary requirements to use the telepresence kit effectively cannot be found in many places. However, as these technologies become less expensive and more accessible, projects that use them will grow exponentially.

In the meantime, the potential of the things Profesor Avatar can do comes to life little by little at the universities and institutions where it has been adopted. At the Instituto Tecnológico de Estudios Superiores de Monterrey,

where it was born, students who otherwise wouldn't have had the chance are attending lectures by world-class educators.

Institutions in Germany, large regions in African, and even the Government of Colombia have demonstrated their interest in increasing the scope of this initiative.

For Profesor Avatar's founders, his goal has never been to replace the teacher's role. On the contrary, he aims to get educators where they cannot be in person. "The human element has always been the leading actor," says Luévano. "With Profesor Avatar, distance learning can get that human aspect to it, and possibly innovate the E-learning field."

Izak (Sakkie) Smit
Director of the Center for Innovative Educational Technology at Cape Peninsula University of Technology

PHOTO: AFP Rodger Bosch

Disruption: A driver for technological adoption

Over the past three years, a highly volatile situation has been developing in the higher education sector in South Africa. In September 2015, a movement that was started by students from multiple universities gained traction and worldwide attention, as their slogan with the hashtag *#FeesMustFall* went viral.

BY: SEBASTIÁN PULIDO ZETHELIUS
CAPE TOWN, SOUTH AFRICA

SINCE THEN, PROTESTS HAVE DISRUPTED ACADEMIC ACTIVITY repeatedly and for extended periods of time. This situation is strongly connected to the unemployment rate in the country, one of the highest in the world. Currently, about 27% of South Africa's population is unemployed, with approximately 56% of that group under 30 years of age. South Africa also has more people receiving social grants than those in employment. As a result, there has been an enormous pressure on the younger population to get a specialized field qualification.

Along with other destabilizing political events, as well as rising tuition costs, student unrest has prevailed. When students find themselves in such a complex situation, with a lack of access to education and a high unemployment rate, they may not be able to continue with their studies. Alternatives must be found and,

as Izak Smit, Director of the Center for Innovative Educational Technology at Cape Peninsula University of Technology points out, the disruptive character of those protests can be seized as an opportunity to make way for the adoption of technologies, which can support the academic process.

Cape Peninsula University of Technology (CPUT) is the only university of technology in the Western Cape, and is the largest higher education establishment in the region. With more than 34,000 students, Izak and the CPUT are faced with a great challenge. With the initial protests, students who were supposed to be finishing their studies at the end of 2015 had to wait an additional term, due to class and academic activity disruption. At the time, CPUT hosted all of their Blackboard Learn data locally. Some protesters located the power source for the servers, and managed to disrupt services. In early 2016, the university migrated to a hosted solution to avoid similar events in the future.

Students who were not able to complete their courses in 2015 due to the protests had access to online assessments to make up for lost classes. However, online activity slowed down as regular 'talk and chalk' classes were resumed and academic activities carried on normally. September 2016 was going as expected when a second wave of protests hit CPUT. This time, with more violence and even arson, some buildings in the university's campus were burnt. This was, according to Izak, the tipping point for those at the university who had not yet seen the possibilities of online learning. Eventually, after seeing what was possible following the initial implementation in 2015, those inside CPUT 'jumped on the bandwagon' for good.

It is important to keep in mind that CPUT has a blended learning approach, not a fully online one. As a result, these events have presented

an opportunity for university administrators to assess the utilisation of online resources, including the use of technology in teaching and learning. Not only does a blended approach help to mitigate the impacts of severe disruptions, it also represents an improvement in education accessibility, engagement and quality. When physical facility improvements need to be made after protests, that requires time, effort and costs to cover damages. Therefore, technology serves as a valuable solution in a challenging environment.

Izak also reflected on the most common generalization made about technology: that it 'saves the day'. This is, without a question, false, as CPUT's vandalised servers demonstrate. However, in a blended model, technology can be a lifeline for those who have the will and need to continue to teach and learn in the face of unexpected events.

Disruption can be positive when it serves as a driver for change, and in CPUT's case, it resulted in technology adoption and improvement. As a result, it also became necessary to adjust pedagogical methods in order to suit the new learning approach (online learning). To this effect, CPUT's instructors were assisted with learning design, and most of the training was done through Blackboard Collaborate in order to reach all instructors displaced during the protests, or those located far away. As one might imagine, time was of the essence, with thousands of students stranded in-between terms without having finished their courses. This is why what CPUT managed to accomplish was no small feat: they went from 536 instructors and 20,000 students enrolled in the online platform at the end of 2015, to 1037 instructors and 33,400 students as of June 2017.

Albeit, this transition was not challenge-free. Although the National Government has a policy on open and distance education to broaden access to education and rely less on classroom time, some students might not have proper Internet connection or bandwidth. Even if they are not participating in violent protests, they are sometimes forced to leave their studies due to connectivity issues. To this end, authorities and some Internet providers are working together to provide free WiFi hotspots or broadband access for students to have access to online learning platforms and continue their studies.

The first annual Hackboard embraces openness and gives the community a chance to be creative

Scott Hurrey
Blackboard Code Poet /
Senior Software Engineer

A hackathon is a sports-like event for coders, where they compete to create the best software or application with a specific goal in mind. Hackathons always have a purpose that needs to be met, such as improving existing software, building an app, enhancing design, or meeting educational needs. Blackboard's first-ever Hackathon is focused on the latter, as it is intended to improve the teaching and learning experience, overall.

BY: CHRISTINA GÓMEZ ECHAVARRÍA
CHARLES TOWN, WEST VIRGINIA, UNITED STATES

BLACKBOARD IS CONSTANTLY INNOVATING IN ORDER TO PROVIDE clients with the highest-quality tools to enable student success. As part of this mission, Blackboard decided to launch a competition that challenges developers and college students in the United States to create a unique, user-friendly and impactful application that will integrate with the Blackboard Learn learning management system (LMS) to improve the teaching and learning experience.

The man behind Blackboard's hackathon is Scott Hurrey, better known at Blackboard as the 'Code Poet.' His main goal at Blackboard is to foster Blackboard's coding community, and he came up with the Hackboard as a way to build that community, as well as introduce Blackboard Learn REST API's. Blackboard supports a number of integration frameworks that allow customers and partners to integrate with and extend Blackboard Learn. They include

PHOTO: AFP Tasos Katopodis

Java-based "Building Block" APIs, SOAP web services, and a Partner Cloud service that provides access to educational resources from publishing and educational partners.

Last year, Blackboard added support for REST APIs. After REST was integrated, Scott started looking at raising support in order to make the hackathon a reality. With REST API's, everything lives outside of Blackboard and any coding language can be used. By requiring all Hackathon entries to inteact with Blackboard REST APIs, all the applications will have the ability to be incorporated into Blackboard or other LMS's that support interoperability, such as Moodlerooms, Sakai and others. All contest entries for the hackathon will be open source, giving a kick start to the open source community around the REST Applications.

All hackathons search for an innovative idea that will contribute to the hosting company, as well as the individual who creates it. Those who enter and have the possibility of winning greatly benefit from the personal growth they undergo when creating something of value for a great cause, such as teaching and learning. Another great aspect about Blackboard's hackathon, which may be appealing to applicants, is that there are no limitations as to the type of problem that they may solve. Entrants can think about anything related to teaching and learning that might have a solution, an issue they experienced in school or something that could be improved, and provide a solution to that problem. "There is a lot of opportunity for personal growth, personal satisfaction and exposure to make a name for yourself," Scott explains.

From Blackboard's perspective, the company also benefits a great deal with these contests. First, getting education community members to take advantage of REST API's strengthens the API's themselves, as the more people that use them, the more they can learn about how to improve them. Also, the more Blackboard apps that use REST API, the easier it will be for all programmers who might have good ideas but who find it difficult to develop them in Building Blocks. Ultimately, the main objective of the Hackboard is to unleash participants' creativity and provide them with a barrier-free environment so they may create something that helps others learn.

Openness has been a focus of Blackboard's for some time now. The company advocates for a "no-barriers" approach to teaching and learning, and they want the whole community to pitch in and help improve education globally. They understand that everyone may have some type of solution in mind and that if we can all truly collaborate to think about what could be better in education, and share our thoughts and solutions, Blackboard could have an even stronger worldwide impact on teachers and students. With Moodlerooms, also a part of the Blackboard solutions toolkit and internationally renowned for being an open source solution that anyone can modify, and now with the adoption of REST API's, there is a true calling to give the community a chance to contribute their ideas and solutions.

Aside from organizing the Hackboard, Scott also organizes DevCon, the Developers Conference that Blackboard hosts right before its annual BbWorld user conference. DevCon is where coders meet for a chance to see new innovations, listen to different speakers on the advances of technology, and see what the community has been working on. There, the winners of the Hackboard will get a chance to be introduced to the community and to present their winning project.

When looking through application entries, Scott will be hoping to find applicants that address education concerns and what they perceive to be the gaps in the teaching and learning experience, with really innovative ideas. He is particularly interested in tools that help personalizing learning and student pathways.

His hope is to open up the Hackboard to the global community in the next year, as well as to Moodlerooms clients. Certainly, it will be very interesting to see what highly creative people come up with, in order to create solutions for teachers and students that enhance education and change the learners around the world.

Tonia Malone

Instructional Designer / Lead Moodle Administrator, Center for Teaching and Learning Technology. California Polytechnic State University, SLO

Student support and success with Moodle tools

Moodle and its different tools can store great amounts of data that can be of high value for faculty in any given institution.

BY: SEBASTIÁN PULIDO ZETHELIUS

SAN LUIS OBISPO, CALIFORNIA, UNITED STATES

NOT ONLY DOES DATA ALLOW FACULTY IMPROVE course content and allocate resources efficiently, it could also offer a helping hand to students who might be having a hard time with their studies. Data can help faculty determine student performance and spot at risk students who need help to pass their courses. More importantly, data paves the way for a timely response and personalized support.

To that end, the California Polytechnic State University (Cal Poly) has put together an initiative that aims at making the best possible use of Moodle tools for student support. Located in San Luis Obispo, halfway between San Francisco and Los Angeles, Cal Poly is a highly ranked public university, and one of California State University's 23 campuses. It offers renowned programs in business, economics,

engineering and architecture, among others, with a high employment rate for graduates.

Tonia Malone is an Instructional Designer and Lead Moodle Administrator in the Center for Teaching, Learning & Technology (CTLT) at Cal Poly. She shared her experience with the teaching and learning community through an interview with E-Learn. Also, she will be a speaker at the 2017 BbWorld New Orleans Moodlemoot.

Malone works with faculty on the use of technology, making sure they are using it effectively to support student learning, and promoting the use of formative assessments. With experience giving workshops at the Student Support Center about note taking, writing and time management, she has worked closely with

students who are on academic probation and is aware of the challenges and opportunities surrounding this sensitive issue.

Cal Poly is currently saving all the data it can, with plans to make use of it in the future and analyze multiple courses or quarters per student. The goal is to improve their capacity to offer proper support. In the meantime, Malone wants to use all available resources to collect information about students who can eventually end up on academic probation.

She is set to start some workshops at the university in order to talk with faculty about the initiative to identify at-risk students, and to determine what can be accomplished through the use of the tools and information at hand. In their case, those Moodle tools include:

1 FORMATIVE ASSESSMENT

Malone wants to show the LMS more as a learning tool for students than a grading tool for faculty. Since Cal Poly has 10-week quarters, some faculty will only hold three tests during that time. As a result, it can be difficult to identify which students are at risk until the fourth or fifth week, when courses are almost halfway through and recovery becomes difficult. Thus, formative assessment exists to go beyond head nodding and make sure that students actually understand class topics from the beginning. Adequate use of quizzes, assignments and other tools is essential for students to take advantage of lower stakes grades and be less reliant on summative assessment, if they are having academic difficulties. After faculty has added more formative assessments, they can look at the information Moodle provides and determine which students are at risk.

2 QUIZZES AND ASSIGNMENTS AND LOGS

Quizzes can be randomized and multiple attempts are allowed. At the Center for Teaching, Learning & Technology, Malone and the rest of the team have access to the usage data from faculty, as well. They have seen a significant increase in formative assessment activity; a surge that is seen in the form of quizzes and assignment uploads, as well as more feedback for students. For assignments, comprehensive documentation for different submission types, best suiting each course, is provided by Moodle though their support site. Also, faculty can track their students' LMS activity using the Logs feature, and data collected can help determine if a student is going to need help. In addition, some publishers have developed Moodle quizzes for their textbooks. The Office of Institutional Research, as well as the CSU Affordable Learning Solutions program, also provide some content for formative assessment quizzes and assignments.

3 COMPLETION TRACKING

It can be very useful for professors to check if students completed all the assignments and quizzes, and whether they did well or not. When performance is low, Completion Tracking gives clues as to where the weaknesses might be, and then faculty can reach out to those students via email or in person between the second and fourth week, in order to look at options like tutoring or counseling. This feature can be configured to show a check mark on every required task for assignment.

4 GRADE BOOK

Malone spends most of her time helping faculty with the Grade Book. At the CTLT, the team sits down with professors to help them find the optimal settings for their Grade Book depending on the grading scale they use, the number of grades, and whether they wait until the end of the quarter to enter the grades. In some cases, professors wait to the end to add grades, even though students can benefit from getting regularly updates on their grades. Or they don't know how to use certain features. With the Grade Book, for example, some of them might ask for guidance when it is already too late for some students, which highlights the importance of always using these tools. The Forecast Report tool was also activated for students to type in different values and find out the grades they need to pass. Also, personal response system (clickers) are used in some of the classes. The data from those clickers is also pushed to the Grade Book and can be used to keep an eye on struggling students.

5 FORUMS

According to Malone, it could be argued that forums are difficult to grade. An alternative is to use the Completion Tracker feature to improve the grading process and make certain requirements for students, such as posting once and replying twice. A Q&A Forum can also be used in cases where it's best for students not to read other posts before they write their own. Malone's workshop also includes some methods for creating well formulated questions for the forums, like beginning with an example or avoiding yes or no questions.

However faculty may be using the LMS, whether it is for face-to-face classes, blended, flipped or online learning, Malone and the CTLT want to encourage them to use it as a supplemental tool to support all levels of learners, even in face-to-face classes. With the formative assessments in place to gather information, and with logs, reports, Completion Tracking, quizzes and grades, they can determine which students are struggling to keep up, and reach out via e-mail and in person.

Student Support departments should also be a part of this process, therefore Malone has reached out to them to make sure they can be involved. The Wellness Center, Food Bank, Dean of Students office, Counseling Department, Academic Skills Center, study groups, and workshops can all help faculty in using every tool available to be two steps ahead of the students. Academic challenges

Cal Poly is currently saving all the data it can, with plans to make use of it in the future and analyze multiple courses or quarters per student.

are not necessarily academic problems. Sometimes students can be going through personal or financial problems, are sleep deprived, or are unable to afford three meals a day. If students know that their school cares about their well-being, they might seek help for themselves using some of the Student Support resources that can be put in place for them.

Rise in Plagiarism requires integrated strategies

Understanding plagiarism as a complex phenomenon is essential for institutions to develop an effective approach to tackle academic dishonesty.

BY: PRISCILA ZIGUNOVAS

ILLUSTRATION AND GRAPHICS BY: TRiiBU Studio

IIN 2016, AN INVESTIGATION BY THE TIMES NEWSPAPER REVEALED that almost 50,000 students from 129 British universities had been caught plagiarizing in the prior three years.[1] This "plagiarism epidemic" brought several ethical questions to surface, including "contract cheating" — when students pay for individuals or companies to write assignments on their behalf. In fact, student behavior studies show that academic cheating is prevalent and that some forms of plagiarism have increased over the past decades.

The percentage of undergraduate students who admitted to having cheated on written assignments and tests has reached 68%, according to surveys conducted from 2012 to 2015 by Donald McCabe and the International Center for Academic Integrity.[2] For graduate students, the number is somewhat lower, at 43%. McCabe, former professor at the Rutgers University Business School and a leading researcher on the subject of cheating, collected data from 71,300 undergraduate and 17,000 graduate students.

In the article Cheating in Academic Institutions: A Decade of Research, McCabe and Linda Klebe Treviño, a professor from Penn State University, review ten years of research on plagiarism in academic institutions. The authors stress that "universities cannot assume that its students will take the time to familiarize themselves with campus rules about academic integrity on their own, and even if they did, an institution's failure to emphasize for its students the high value it places on academic integrity sends the message that it is not a high priority." Therefore, "such institutions should not be surprised if they experience above-average levels of academic dishonesty."[3]

In fact, a high percentage of students claim that they have not received any training in techniques for academic writing or plagiarism issues. According to the paper Impact of Policies for Plagiarism in Higher Education Across Europe: Results of the Project, research conducted in 25 European countries shows that, whilst more than 75% of students said they received training in Austria, Greece, United Kingdom and Finland, less than 35% of students from Italy, Bulgaria, Czech Republic and Poland received such instruction.[4]

THE CHEATING CONFESSIONS

68%
From **71,300**
undergraduate
students

43%
From **17,000**
graduate
students

UNDERGRADUATE
students who admitted
to having cheated.

GRADUATE
students who admitted
to having cheated.

STUDENTS THAT SAY THEY RECEIVED TRAINING AGAINST PLAGIARISM

75%

35%

Austria, Greece, United
Kingdom and Finland.

Italy, Bulgaria, Czech
Republic and Poland.
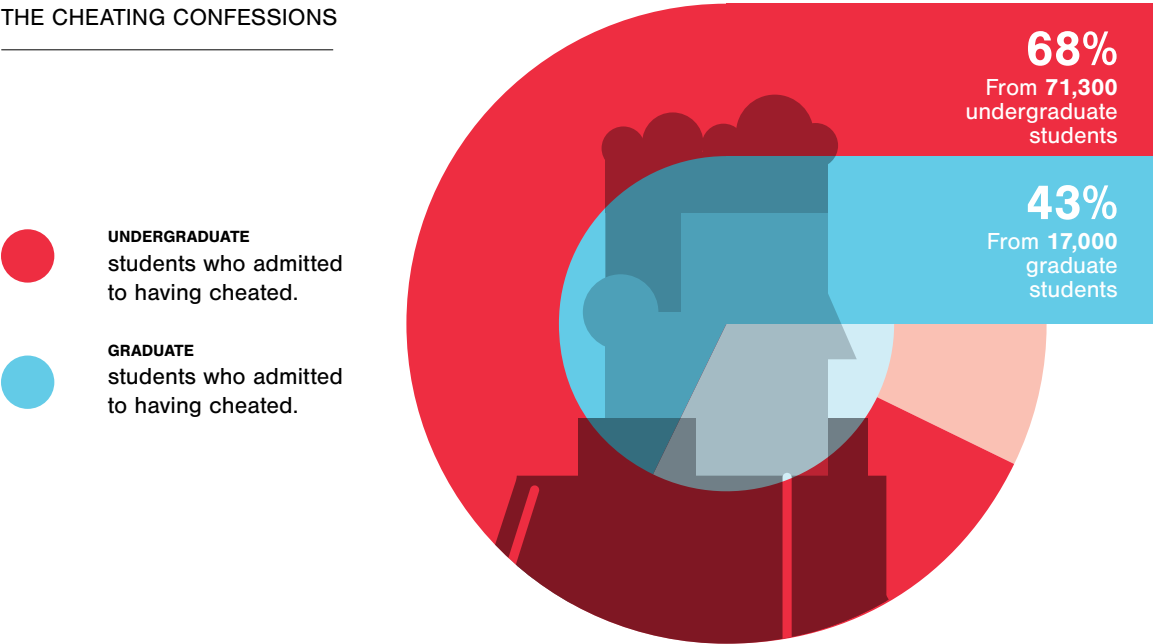
Institutional action

The implementation of programs and policies promoting academic integrity, such as honor codes, has been proven to positively influence students' behavior. According to McCabe and Treviño, honor codes can be quite successful; however, "a truly effective honor code must be well implemented and strongly embedded in the student culture," meaning that merely the existence of a code is not enough to prevent cheating.[3]

"Many stakeholders are convinced that plagiarism is a serious academic problem and institutions will have to demonstrate that they are tackling it," say researchers Fintan Culwin and Thomas Lancaster, from South Bank University. In the article *Plagiarism Issues for Higher Education*, the authors point out that there is a lack of consistency across the higher education sector. "Some institutions have a pro-active anti-plagiarism policy, some a reactive policy and a few still claim, but cannot prove, that none of their

students cheat." From their point of view, "the standards across the sector need to be equal, so that students cannot assume that they can cheat by moving to a more lenient institution."[5]

To cheat or not to cheat: why students plagiarize

Plagiarism is not a new phenomenon, as recalls Chris Park, Professor Emeritus at Lancaster University. In the article *In Other (People's) Words: Plagiarism by University Students—Literature and Lessons*, he highlights that "copying from other writers is probably as old as writing itself, but until the advent of mass-produced writing, it remained hidden from the public gaze." According to Park, "opportunities to plagiarize have expanded greatly since the advent and increased accessibility of the internet."[6]

Amongst the most popular forms of plagiarism by students, according to Park, there are: stealing material from another source and passing it off as
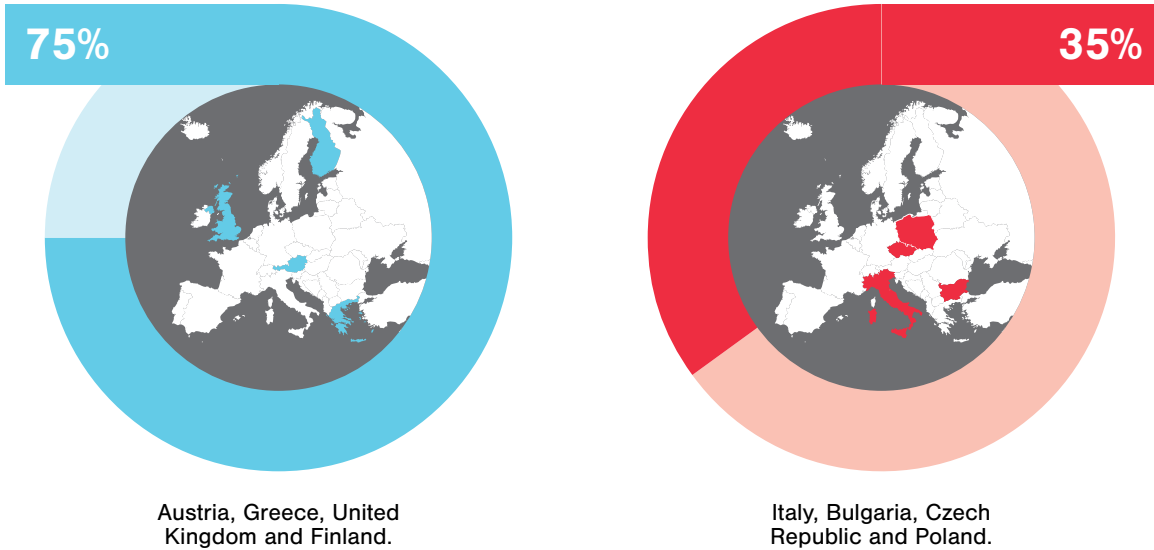
their own; submitting a paper written by someone else; copying sections of material from one or more source texts and supplying proper documentation but leaving out quotation marks, thus giving the impression that the material has been paraphrased rather than directly quoted; and paraphrasing material from one or more source texts without supplying appropriate documentation.

McCabe and Treviño[3] mention a few reasons why students cheat: pressure to get high grades, parental pressures, desire to excel, pressure to get a job, laziness, lack of responsibility, poor self-image, and lack of personal integrity. They stress that "contextual factors, such as students' perceptions of peers' behavior, are the most powerful influence." Therefore, students may cheat because they do not want to be at a disadvantage compared to their peers. Studies have also shown that men tend to cheat more than women and young students cheat more than mature students. Additionally, when students know that they are at risk of being caught or punished, they tend to cheat less.

Unintentional cheating

Park explains that "some students plagiarize unintentionally, when they are not familiar with proper ways of quoting, paraphrasing, citing and referencing and/or when they are unclear about the meaning of 'common knowledge' and the expression 'in their own words'." These difficulties in understanding proper citation caused a new cheating resource to emerge: online paraphrasing tools that help students modify original texts in order to write "in their own words."[6]

In the article *Using Internet Based Paraphrasing Tools: Original Work, Patchwriting or Facilitated Plagiarism?*, Ann M. Rogerson and Grace McCarthy, from the University of Wollongong, Australia, say that "the case of a student submitting work generated by an online tool without appropriate acknowledgement could be considered as a form of plagiarism, and the case of academics trying to reframe texts for alternate publications could be considered as a form of self-plagiarism." According to the authors, both scenarios could be considered as 'facilitated plagiarism.'[7]

> "Plagiarism represents an opportunity for teaching students about integrity and originality in a world where being original is increasingly difficult."

Cheating in online learning

It may be surprising for some, but evidence shows that online students are not more likely to cheat. Researchers George Watson and James Sottile, from Marshall University in West Virginia, United States, interviewed 635 undergraduate and graduate students enrolled in online and live courses.[8] "The most important finding from this analysis was that there were no significant differences in the students' admission of cheating for live (face to face) and online courses," the authors wrote. In fact, the results showed higher rates of academic dishonesty in live courses. "One possible explanation is that classroom social interaction in live classes plays some part in whether students decide to cheat," say Watson and Sottile. "Familiarity with fellow students may lessen moral objections to cheating as they work through assignments and assessments together over the course of a school term."

Nevertheless, the study shows that one type of dishonest behavior does deserve to be discussed by online course developers. "The data showed that students were significantly more likely to obtain answers from others during an online test or quiz. This ability to receive answers without the monitoring of a professor presents problems for the standard lecture-based, test-driven course," say the authors. They suggest instructors should "change the assessment from objective measures (multiple choice and true-false) to more subjective (essays and research papers) that require more in-depth understanding of a topic and more personal expression."

Contract cheating

Universities all over the world have been dealing with the growing business of plagiarism, specially with essay mills, or "contract cheating" – when a student pays a company or person to write an assignment that they will pass off as their own, generally through a website. Many of these websites announce "plagiarism-free guarantees," or papers tested against plagiarism detection tools.

According to recent information from the United Kingdom's Quality Assurance Agency for Higher Education (QAA), there are currently more than 100 essay mill websites in operation. In the report *Plagiarism in Higher Education*, published by QAA in 2016, the agency states that "there is no single solution" and that universities need "a multi-faceted approach that builds on published research and the steps that universities and colleges are already taking to promote good academic practice by students, to 'design out' opportunities for plagiarism in their assessments, and to identify and penalize academic misconduct." [9]

Government involvement

Although plagiarism is not a crime in itself, helping a student to cheat has become a crime in some countries, showing that governments could also play a part in reinforcing integrity. In New Zealand, since 2011 it is illegal to advertise or provide third-party assistance to cheat, and the New Zealand Qualifications Authority (NZQA) has the power to prosecute anyone providing or advertising such services. In the United States, 17 states have some form of law addressing custom essay writing services (data from October 2014). 9 In the United Kingdom, the QAA recommended the development of "new laws to make it illegal to help students 'commit acts of academic dishonesty for financial gain,' punishable with fines," according to *The Guardian* newspaper.[10]

Plagiarism is a major challenge that needs to be considered in the development of institutional strategies. However, it also represents an opportunity for teaching students about the value of integrity and originality, in order for them to thrive in a world where being original is increasingly difficult.

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Trey Buck
Senior Product Manager
at Blackboard and
SafeAssign product expert

PHOTO: AFP Kelly Wilkinson

Teaching academic integrity through plagiarism prevention technology

Rather than "catching" students doing something wrong, tools like SafeAssign present learning opportunities to improve student writing.

BY: PRISCILA ZIGUNOVAS
INDIANAPOLIS, INDIANA, UNITED STATES

PLAGIARISM HAS ALWAYS EXISTED, BUT THE AVAILAbility of information and technology has made this practice much easier – and more traceable. For a generation of people who have grown up using collaborative resources like Wikipedia, music file sharing and other websites and applications, the concept of authorship may have become more diffuse or difficult to understand.

"Having the answer to almost any question imaginable right at your fingertips is something entirely new to humanity. I believe it makes it harder to strive to come up with our own unique answers, and students may end up finding an answer someone else has already created more quickly or easily than generating their own", says Trey Buck, Senior Product Manager at Blackboard and SafeAssign product expert. "At the same time, though, I see it as a real opportunity. It is a benefit to education that there is information readily available that can help solve problems, but critical thinking skills – being able to assimilate information and really understand, write about, and ultimately communicate that information in a way that is unique – are more important than ever. Platforms like Tumblr and Facebook allow people to get their voices out, but given that the possibility of plagiarizing is greater, our content needs to be more original, as well."

Educational tool

Offered as a part of the overall Blackboard Learn solution, Blackboard SafeAssign is a plagiarism prevention tool based on text-matching algorithms capable of detecting multiple exact and inexact matches between a submitted paper and source material. It compares documents across several sources, including the Global Reference Database, which contains papers that were volunteered by students from Blackboard client institutions to help prevent cross-institutional plagiarism.

According to Buck, who has been working with SafeAssign for the last five years, there has been a significant growth in the adoption of the tool, with 30 to 40 percent increases year over year. This growth is being driven by both existing Blackboard clients using SafeAssign more regularly and new schools coming online with SafeAssign for the first time. "More and more schools, I believe, will start to place emphasis on these types of tools because the natural adoption and usage of online educational tools broadly has gotten far more sophisticated. Enabling SafeAssign within Blackboard Learn is so easy, and being able to decide where to use it inside of courses and assignments provides flexibility and choice to schools and instructors," he says.

Buck states that the most important thing about plagiarism prevention technology is its intended use as an instructional tool rather than a punitive tool for policing students. "SafeAssign should not be treated as a perfect mechanism that is going to 'catch' students in all cases. What we really want is for our customers to use SafeAssign as a way to teach students about the value of original writing as well as proper citation."

He reminds us that there are several forms of plagiarism out there, and unintentional plagiarism is a reality. "I often use the example of a history class. An introductory history class in, let´s say, the history of Brazil, is very likely to have a lot of the same high level topics that have been covered for years – even if the prompts change – and therefore it can be difficult for students to write truly new and unique content about that sort of subject. So, it is very possible that students end up writing something similar to what has previously been written, even totally unintentionally. We want users to think about SafeAssign as a tool to help improve the educational experience and the practice of administrating education, and not as a way of trying to catch students doing something wrong."

Buck points out that it can be difficult to engage students on the topic of plagiarism without it feeling threatening: "That is something we hear from students quite a bit, that they feel like the school is always judging them, so to speak. That may not be the school´s intention at all, but because of the way the students often feel about these types of tools, the perception is inherently negative. Even the idea of plagiarism is kind of a negative thing, so people do not necessarily want to talk about it," he says.

In order to mitigate students' feelings that they may be punished by using the service, it can be a helpful practice to allow students to submit drafts and correct their own work prior to submitting the final version of an assignment. Instructors can also create assignments with an unlimited number of submissions to allow students to resubmit after review. In short, it's important to use plagiarism software in a preventative and educational way so students will not feel that they are being caught by surprise or assessed unfairly.

Plagiarism can be a constant malaise in the education sphere, and many schools have academic conduct policies that at least mention plagiarism. Additionally, students should be learning about original writing throughout their educational journey. "It is a topic that covers a lot of different writing levels as well as educational levels, and I do not think it is the school´s sole

> Plagiarism can be a constant malaise in the education sphere, and many schools have academic conduct policies that at least mention plagiarism.

responsibility to teach their students about this," he says. "I think it is the responsibility of schools to use tools like SafeAssign to help educate their students as a part of the learning process, in addition to giving them writing assignments and allowing students to do their own creative work. And then, in cases where intentional or unintentional plagiarism may be of concern, schools can use the analysis of a tool like SafeAssign to help facilitate the appropriate actions."

In Buck's opinion, the main challenges that institutions are facing are setting the right expectations for both instructors and teachers when they are using these types of tools, making sure they understand what they are getting out of the tool, and ensuring that students do not feel like they are getting punished in every way by the school and the institutions that use these tools. "There are so many learning opportunities that these tools can create, and we want people to recognize and act on those occasions as opportunities rather than punishments."

Technology evolution

Blackboard has owned SafeAssign for more than a decade, and over that time the tool has improved in many aspects. For example, it was moved from a separate tool in Blackboard Learn – where the teacher had to create a separate assignment type to use – to an integrated option in the native Learn assignment workflow. "We have also made some adjustments to the algorithms over time, to make results more accurate, and we have improved the user experience and overall quality of the SafeAssign Originality Reports," affirms Buck. "Another interesting thing is that, for each client that signs up to use SafeAssign, every document that has been submitted by their users goes in a database just for them, and the longer they use the server, the bigger that database gets. So they have an ever-growing database of documents to analyze student work against."

As for the future, he believes that SafeAssign should present matches in a smarter way. "Today we very much rely on the teachers to do their own understanding and interpretation of the originality of the reports, even in the most basic level. That is good in some ways, but we can certainly continue to make the results more intuitive. And I think that, over time, we will likely start to roll in additional functions to SafeAssign that surround that basic progress."

Although tools like SafeAssign tend to get smarter with time, Buck emphasizes that they should never replace a human. "It is concerning when we see schools that will set policies like, 'if the match percentage of originality in the report is over a certain amount, that report automatically gets flagged for review by an academic oversight committee' or something similar. I also know that, to students, a policy like that feels very much like oversight rather than support and further exacerbates students' concerns about these types of tools," he says.

"Blackboard is extremely conscious of the implications of accusing students of plagiarizing and that is why we always position SafeAssign as one tool of many in an instructor's toolbox. We always leave the choice in our clients' hands as to what to do with the results; we do not flag them for follow up, we do not report them anywhere," Buck adds. "The tool is meant to support our clients' pedagogies and beliefs in how education should happen at their school. At the end of the day, humans – not machines – should be deciding whether plagiarism has occurred and then taking the subsequent actions. Programmatic tools like SafeAssign are built to help inform decisions that humans should always be making based on as much information as possible."

Overcoming plagiarism: 8 steps to creating a culture that fosters academic integrity

When students are part of a community in which integrity is a strong value, they are less likely to take part in dishonest behavior. To create such environment, institutions should consider plagiarism a reality and develop strategies to deal with it, using technology as an ally. Instructors can create their own classroom culture, offering students guidance and support.

BY PRISCILA ZIGUNOVAS

INFOGRAPHIC BY: TRiiBU Studio

1 | HAVE AN HONOR CODE

Programs and policies promoting academic integrity through an institution improve students' behavior. In campuses with strong, well-implemented honor codes, new students will notice significantly less cheating than on non-code campuses, and as a result, begin to internalize this new community ethic. Even better, studies indicate that honor codes can have a long-term effect, having a positive influence in future workplace behavior. Instructors can also create a classroom honor code, placing appropriate responsibilities and obligations on students.[1]

## 2 | TEACH STUDENTS TO WRITE BETTER

Unintentional cheating is often caused by a lack of understanding around using proper citation and paraphrasing. Teaching students how to research and become better writers can be the key to ignite their passion for learning and find their own voice. In order for this to happen, institutions should integrate writing in the curriculum.

3 | ALLOW STUDENTS TO CORRECT THEIR OWN WORK

By allowing draft submissions through plagiarism detection tools, students can make the necessary changes and enhancements to their work before submitting the final version of an assignment. This practice increases the feedback loop for students and helps mitigate the feeling that plagiarism detection software is meant to punish rather than help them. Instructors can also develop a "writing zone" by having assignments with an unlimited number of submissions. This provides students with a space they can always go to in order to check their work for originality prior to their formal assessment.

4 | SUPPORT INTERNATIONAL STUDENTS

In the United Kingdom, research showed that students from outside the European Union were four times more likely to plagiarize in exams and coursework. For the Quality Assurance Agency for Higher Education (QAA),[2] some possible explanations include cultural differences and distinct learning styles. Language competence or proficiency, particularly where English is not the first language, can affect students' ability to write in their own words. Therefore, developing programs and policies to support these students can help reduce plagiarism.

CREATION

PLAGIARISM

TOOLS

WRITING ZONE

HELLO

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TRASH
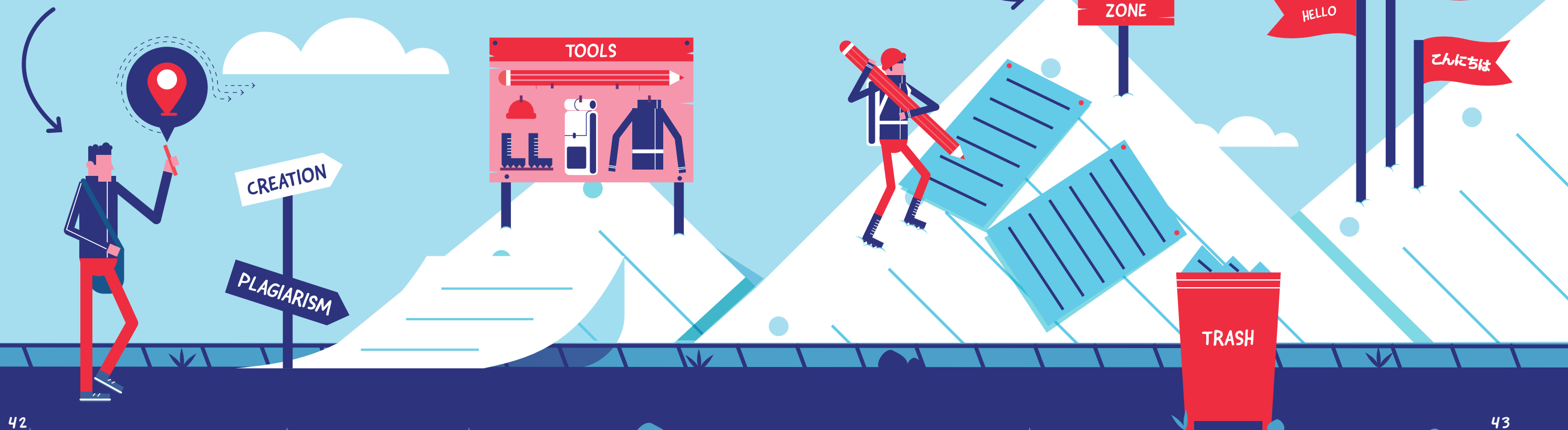
5 | USE REFLECTIVE METHODS

Rather than stimulating behavioral change only through sanctions, institutions should focus on policies and practices that emphasize self-reflection, inner understanding and dialogue, in an integrated manner. Nijunk Dalal, professor at the Oklahoma State University, defends that while approaches based on sanctions may bring about desired changes in behavior, it is not clear whether these changes are based on fear of punishment or rather transformative inner learning. If change comes out of fear, students may cheat again in situations where they are unlikely to be caught or punished. However, he affirms, if change comes from within, the student is unlikely to resort to illegitimate short-cuts.[3]

6 | DEVELOP FAIR FORMS OF ASSESSMENT

Being supportive with students promotes respect and reciprocity, causing them to cheat less. Instructors should develop fair and consistent grading policies and procedures, and punish transgressions in a strict, but fair and timely manner. When possible, pressure can be reduced by not grading students on a strict curve. It is important to focus on learning and not just grades, and to create interesting assignments.[1]

DETOUR

7 | MAKE SURE ONLINE STUDENTS GET THE SAME TREATMENT

Since they are not on campus, online-learning students may not receive the same kind of information regarding plagiarism as on-site students. Institutions need to find ways to communicate their policies to online students and offer them plagiarism instruction. That can be done, for example, by asking them to sign pledges that they will not cheat, or by requiring students to take a course on the subject.

8 | BE CLEAR AND CONSISTENT ABOUT ACADEMIC DISHONESTY

Institutions need to affirm the importance of academic integrity, clearly communicating their expectations about behavior that constitutes cheating. Also, it is essential to establish and communicate cheating policies and to encourage students to abide by those policies. The institution must also convince students that plagiarism will be met with strong disapproval, and that cheating is the exception on campus, not the rule. When cheating occurs, the institution must be prepared to hold students accountable, employing sanctions that have both educational and deterrence value.[1]

GRRRR...

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The challenge of making education accessible to all

Although accessibility awareness is growing, putting theory into practice can be a tough endeavor for educational institutions around the globe. To better understand the challenges of making education accessible to all students, E-learn interviewed speakers from Blackboard's Global Accessibility Awareness Day webinar series.

BY: **PRISCILA ZIGUNOVAS**
ILLUSTRATION AND GRAPHICS: **TRiiBU Studio**

CURB CUTS - THE SMALL RAMPS BUILT INTO THE CURB OF A SIDEWALK to ease passage onto the street - started to appear in different cities around the globe in the early 1990's. That small change ended up making a big difference for people in wheelchairs, and ultimately brought benefits to a much larger community, from mothers with strollers to cyclists and skateboarders.

These changes in accessibility to the physical environment did not happen spontaneously. They were enforced by law. Canada was the first country to legislate standards of accessibility, through the Canadian Human Rights Act in 1985.[1]

In 1990, the United States instituted the Americans with Disabilities Act, which prohibits discrimination and ensures equal opportunity for people with disabilities.[2] The act has also established that new business constructions must be accessible and that existing businesses are required to increase the accessibility of their facilities when making renovations. Since then, many countries have created similar legislation, such as Australia (1992), South Africa (2000), France (2005) and Norway (2008).[1]

"We had the laws and the standards in place [in the United States] so that the physical environment had to become accessible. Buildings had to have elevators and ramps installed. The sidewalk curbs had to be cut out in order for individuals with wheelchairs to be able to easily cross the streets," describes Scott Ready, Blackboard's Principal Strategist for Accessibility.

"But the digital environment is just now really getting addressed for accessibility. I look forward to the day when our online learning programs have that same kind of approach, where accessibility has been addressed and we have an inclusive digital environment, so that we are no longer trying to make accommodations, but rather we design the environment and provide it to be inclusive for all students. Right now, the biggest challenge that we are facing is building the awareness of how to do that."

A complex global problem

More than a billion people in the world live with some form of disability.[3] However, disabilities disproportionately affect vulnerable populations, generating a cycle that is hard to break. People in poverty are more likely to become disabled, and people who are disabled are more likely to be poor.[4]

According to the World Health Organization, people with disabilities experience lower educational achievements and less economic participation.[3] Children with disabilities are less likely to start school, and have lower rates of staying and advancing in schools.[1]

Promoting accessibility in education is the best way to change those numbers. "Throughout the world, accessibility varies from country to country, and there's different cultural values that come into play, as well as the legal aspects of region to region that impact how well accessibility is provided," said Ready.

According to Ready, one trend today is that students are becoming much more aware of their rights and also more active in fighting for accessible education. "The other trend here in the United States is that there's been a surge of litigation and investigations in higher education to identify barriers or those that are violating accessibility. Often times, the remediation of that is to force the institution to review and to make their learning environments accessible. That is changing the environment for students with disabilities, as institutions realize that it becomes very expensive to go through a litigation process."

If we think about the curb cuts example, we will see that accessibility imposed by legislation eventually led people to understand the importance of such measures and as a result, awareness about physical accessibility followed. The same should happen now with digital accessibility.

Scott Ready
Blackboard's Principal
Strategist for Accessibility

PHOTO: AFP John Carrington

Institutions and accessibility

"The cost of inaccessibility is that people are not receiving the education that they want, so basically the institutions are not able to achieve their mission," says Lucy Greco, Web Accessibility Evangelist at the University of California, Berkeley. As an evangelist, Greco works with people who are new to accessibility in order to teach them how to incorporate accessibility into their work. Blind since birth, she has been working her entire life helping people with disabilities find unique ways to get tasks done, mostly with the support of assistive technologies.

"What is happening in education today is that educational institutions are all aware of what accessibility is, and all have kind of a basic idea that they should be including people with disabilities, but very few institutions actually have the resources, or understanding, or knowledge of how to accomplish that," says Greco. For her, that is why it is important that institutions create an accessibility policy, and specifically a policy document to help people understand which path they need to take.

"If you work on accessibility, you are improving yourself as an organization, and the impact for everyone at your institution is greater and more effective than anything else you can do," says Greco. "Improving accessibility is just making a better product, and including individuals of all different styles, abilities, understanding and comprehension is what education is all about. We don't teach to teach the privileged and the few, we teach to teach all, and if we don't become accessible, we are not teaching everyone."

For Greco, the best way to work on accessibility is to include people with disabilities. "There is a common statement here in the United States,

Lucy Greco
Web Accessibility
Evangelist at
UC Berkeley

Frances
Friendly
partner dog

PHOTO: AFP Jana Asenbrennerova

'Nothing for us without us.' You can't understand how to include a person with a disability until you include a person with a disability. You can't create a tool that you think is accessible without having a person with a disability there with you, because *you don't know*. And the only way for you to know and understand how a person with a disability works is by interacting with them, engaging with them, and realizing that, first of all, people with disabilities are people, and they can contribute."

A way to teach all: Universal Design for Learning

James Cressey is an Assistant Professor of Education at Framingham State University in Massachusetts, United States. As a licensed special educator and nationally certified school psychologist, he teaches courses in special education at the undergraduate and graduate levels, with a focus on Universal Design for

Learning (UDL). UDL is a set of principles for curriculum development intended to give all individuals equal opportunities to learn.[7]

"In my classrooms, I see amazing future teachers who are ready to master the art and science of teaching, and I find that they are very interested in UDL and special education," says Cressey. "They are going to be general education teachers, but UDL really helps them think about the complexities of a classroom of students with and without disabilities."

According to Cressey, traditional, inflexible teaching can have harmful psychological and academic consequences to students, and the root causes to that are sociological and systemic. "In my teachings and presentations I frame that through *ableism*, which is discrimination and stigmatization of

James
Cressey
Assistant Professor
of Education at
Framingham
State University

PHOTO: AFP Casey Atkins

disability and people with disabilities. Ableism can be seen as inherently linked with racism and sexism, heteronormativity, xenophobia and ideas like English-only teaching or the unfortunate 'America first' kind of thinking. Ableism supports this paradigm of the mythical 'normal' or 'average' student. If teachers are replicating that way of thinking in the classroom, they are really creating trauma for students rather than helping them learn."

In the United States, says Cressey, enormous research goes into the testing, evaluation, and the eligibility determination process for disability. "If we could use UDL more, we could reallocate some of those resources, and special educators and school psychologists could build more UDL practices into classrooms and partner more with teachers to build in accessibility. And then we can spend less time sorting children into categories of disabled or not disabled and more time building high-quality learning experiences."

In Kansas, an inspiring experience from Deerfield Elementary

Diana Bailey is a fifth grade teacher at Deerfield Elementary, a public school in Lawrence, Kansas (United States). Four years ago, she implemented the blended learning model in order to personalize learning for every student in her classroom, along with Kyleigh Edwards, a special education teacher.

"Four years ago, there was really that old factory model, as I like to call it, a teacher in front of a classroom, rows of desks, and the teacher would be kind of shooting for the middle of all abilities. Then you have your higher kids being bored and unengaged, and your lower students, who are struggling to understand the context, feeling frustrated. It was just not working," tells Bailey.

At that time, special education students had to leave the classroom at certain periods to study with Edwards. That separation was not working either. Together, the

Diana Bailey
Grade Level Teacher at Lawrence Public Schools, Kansas

Kyleigh Edwards
Special Education Teacher at Lawrence Public Schools, Kansas

PHOTO: AFP Dave Kaup

Learn from Bailey and Edwards

- **Start small.** Choose a single subject area, a single class, or even a single activity to allow your students to tailor that assignment or that objective to their personal needs.

- **Get to know your students.** Talk to the parents, create surveys or activities that allow students to talk about themselves.

- **Be flexible and have an open mind.** "I like to consider myself this architect, that designs learning paths for each student, instead of that 'sage on the stage,' standing in front, kind of controlling everything about their day," tells Bailey.

- **Celebrate diversity.** "There is no one right answer to how to teach and how students learn," says Edwards. "Nobody is the same and we should not expect them to be the same, because our diversity is what makes us unique, and is what makes things interesting and fun in the classroom."

two teachers made a plan to implement a more personalized learning model in order to keep special education students in the classroom, learning at their own pace. The changes ended up benefiting all the students.

"I can see on the kids' faces that they are excited to be in this room, they are excited to engage in the assignment," says Edwards. "And especially the special ed students, who are excited because we found a way to make them successful based on their strengths and what they are interested in."

For her innovative work, Bailey has been recognized with multiple awards, such as the Unusually Excellent Educator

Award and the Lawrence School District Teacher of the Year for 2014. "All students can learn and they have a deep desire to do so," says Bailey. "It is just a matter of giving them more choice and allowing them a myriad of ways to demonstrate their knowledge instead of making that so rigid like it has been in the past."

Born to be accessible

Universidad Abierta y a Distancia de México (UnADM) is a unique institution. It was created in 2012 with the mission to guarantee access to education for the most vulnerable populations in the country, such as people with disabilities, people deprived of their liberty, ethnic groups, and indigenous communities. With

Eloísa Alpízar Gómez
Curricular Design Leader at Universidad Abierta y a Distancia de Mexico (UnADM)

PHOTOS: AFP Bernardo Montoya

Juan Simón Isidro
Technology and Educational
Innovation Coordinator at
Universidad Abierta y a
Distancia de Mexico (UnADM)

23 bachelor's degree programs, 19 associate's degree programs and two postgraduate programs, digital accessibility is essential for UnADM to fulfill their mission and vision.

"We want to be an institution that increases coverage and inclusion in higher education, that promotes education through an open and remote model as an alternative for people who do not have access to face-to-face higher education," says Juan Simón Isidro, Technology and Educational Innovation Coordinator at UnADM.

The university currently has 929 students with some form of disability. According to Eloísa Alpízar Gómez, Curriculum Design Leader at UnADM, accessibility was always considered an important part of the model. "Our content production model was developed taking into account the accessibility standards of the World Wide Web Consortium (W3C) ," says Alpízar. "In this model, criteria for the production of each course was defined, as well as accessible versions of the courses."

Learn from UnADM

- **Education for all.** Instead of aiming for the middle, consider a wide range of learning needs and styles.

- **Consider accessibility from the beginning,** in every course and all educational material, rather than thinking about it in terms of accommodations. "This practice allows us to include people with disabilities from the beginning and not wait for the demand to respond to or adapt to the situation presented to us," says Alpízar.

- **Improve your practice on an ongoing basis.** Count on the advice of specialized institutions. For example, collaboration with the Institute for Persons with Disabilities of Mexico City (INDEPEDI) led the university to detect the need to improve accessibility for the deaf community.
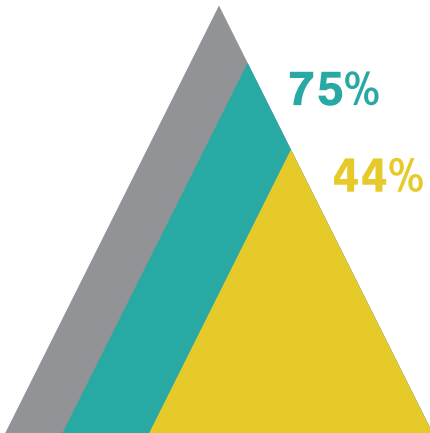
SOME FACTS ABOUT ACCESSIBILITY

- According to the World Health Surveys (2002-2004).
- According to the Global Burden of Disease Study (2004).
- Without disabilities
- With disbilities

Adults in the world that have disabilities[1]

16%   19%
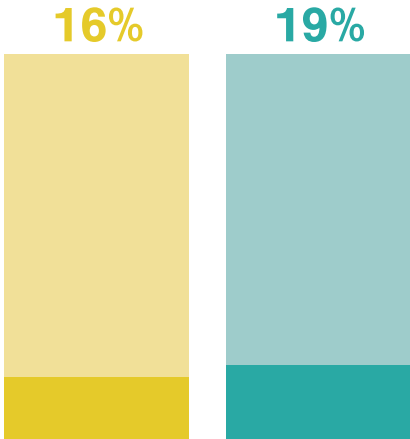
Employment rate for people[1]

75%
44%

Children in the world that have disabilities[1]

5%

Disabled people that live in the developing world[7]

80%

SOURCES

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Enhanced instructor-student communication with Blackboard Learn

Daniel DiStasio
Department Chair for General
Education at Keiser University

PHOTO: AFP Andrew Innerarity

Keiser University was started 40 years ago as a health care services-oriented school to meet the economic and workforce needs in Florida. From their first and main campus in Fort Lauderdale, Keiser has expanded to 19 campuses across Florida, one campus in Nicaragua and another in Shanghai. It is Florida's third largest private, nonprofit, regionally accredited university and provides over 100 undergraduate and graduate degree programs in Business, Criminal Justice, Health Care, Technology, Hospitality and Education.

BY: **SEBASTIÁN PULIDO ZETHELIUS**

FORT LAUDERDALE, FLORIDA, UNITED STATES

DANIEL DISTASIO'S JOB IS MULTIFACETED BUT HE thinks of himself mainly as an English professor. At Keiser University, he is the Department Chair for General Education in the Online Division, and works with the faculty on several areas of General Education to assist them on their online class delivery. Daniel is also a Course Developer and a member of Keiser's Instructional Design Team. He has been working in online education for nine years, six of which have been with Blackboard, ever since Keiser adopted the learning

management system (LMS). He spoke to E-Learn about how they optimize communication with students using the Blackboard Learn across all of Keiser University's campuses.

The online environment in Keiser University

All campuses have face-to-face courses that are now also entirely supported by an online companion and hybrid courses, which are utilized to collect grades and to offer an online component to students. Within that scope, the Online Division has its own students, who can earn their degrees entirely online. Keiser offers up to three hundred online classes per month, which students in all campuses can access.

Using Blackboard Learn tools to optimize communication with students

Keiser offers four-week intense courses that typically require the students' engagement on discussion boards at least three days a week. The discussions are all graded and usually there's a minimum time requirement for when the instructor has to reply to the student. In order for the communication to be fluent, it is very important that throughout the course and in particular on the discussion boards, that reply time is quick to engage the student in the topic at hand. Multimedia content can also be shared through discussion boards, so it is recommended to avoid only using text, as even the smallest visual support makes a big difference.

These requirements help strengthen the communication between instructors and students by taking their interactions one step further. For example, when asking specific questions while interpreting a poem or a literary fragment, students should think for themselves instead of paraphrasing. The instructor can then configure the discussion so that students can only view other threads after they write a post about the topic that is being discussed, which can have surprising results compared to just asking students to write voluntarily. Discussion boards are a course participation component that is graded, therefore, full discussion content is only available for one week to encourage rich interactions within that timeframe. For discussions that may need to be referred back to

for the entirety of the course, instructors can change the student settings from "participant" to "reader" and have the contents always available for review. Lastly, instructors can subscribe to threads so that when a student posts a question, they are instantly notified via e-mail to answer as soon as possible.

At Keiser, instructors are also required to offer one-hour live sessions each week using Blackboard Collaborate, which can be recorded and available at any time. It is common at the beginning for instructors to display a PowerPoint presentation and talk through it at first. In Professor DiStasio's experience, his understanding and use of the tool has changed over time. He currently takes students via screen sharing to the online classroom itself to be able to read, reflect and discuss each assignment. He can share Microsoft Word documents, and if there is an assignment, he can demonstrate how he would have approached it. Some courses at Keiser require students to deliver speeches and oral presentations using their webcams. And, when students require assistance, Blackboard Collaborate allows the instructor to hold one-on-one sessions, and some even use it to record instructions or sessions that are saved and archived for the students to view later.

Across different campuses, as is the case at Keiser, the use of a single LMS makes the online classroom experience totally seamless for instructors as well as students. Today, for any course, whether on-campus or not, students are all enrolled through the same LMS version. Moreover, the university library is fully online and for every discipline and course, students and staff have access to endless resources. In the case of the Nicaragua campus for instance, Keiser has an entire Latin-American division where students can earn their undergraduate to master's degree fully in Spanish, while having access to resources from all other campuses.

Under One Roof: National University's Use of Community Engagement and Quick Enroll Modules

David Montes de Oca
Director of e-Learning Services.
Center for Innovation in
Learning at National University

Andrew Kapunin
Sr. Developer. Center for
Innovation in Learning at
National University

PHOTO: AFP Bill Wechter

Today, there is a rising demand for alternatives to traditional educational institutions. As diverse student bodies pursue degrees in specialized fields, they require a more flexible and responsive education to meet their needs.

BY: SEBASTIÁN
PULIDO ZETHELIUS
LA JOLLA, CALIFORNIA,
UNITED STATES

NOT ONLY ARE BUSY WORKING ADULTS LOOKING TO FURTHER their careers, many other populations could benefit from an alternative educational approach. The National University System (NUS) is meeting this need with a unique one-class-per-month format, along with the implementation of their LMS across multiple affiliate institutions.

The NUS is a non-profit educational system that serves learners of all ages through its affiliates. Founded in 1971, its main affiliate, the National University, is an accredited private non-profit university with a one-course-per-month format. National University offers flexible online and onsite programs serving adults and veterans with flexible online education options. More than 70 degree programs are available fully online across all NUS affiliates, including:

- National University (NU): Graduate, undergraduate, associate and extended learning

- John F. Kennedy University (JFK): Graduate, undergraduate and extended education

- City University of Seattle (CityU): Doctoral, master's, bachelor's, and associate's degree programs delivered on-site and online

- National University Virtual High School: An accredited online high school

David Montes de Oca is a System Administrator of a shared multitenant LMS environment, comprised of those four unique Institutions. He has experience in functional extensions of LMS environments, such as LTI integrations and custom solutions development. David works with a team of developers and project managers on the functional extension of the system. Working alongside him is Andrew Kapunin, a Senior Programmer with a background in project planning, research, development and support. They both spoke with E-Learn about utilizing the native features of Blackboard Learn's Community Engagement Module (CEM) and the Quick Enroll Module (QEM) tool to consolidate a single managed-hosting environment for all affiliates, while maintaining a high level of autonomy among brands. They shared their experience, and provided some advice on best practices to take in to account when approaching similar projects.

The Community Engagement Module

When David, Andrew and their team executed the migration from their previous LMS to Blackboard Learn, they applied the same administrative and faculty access structure they already had in place. Once that was set, and courses were being migrated over to the new platform, the CEM stood out to the team, as it allowed them to build an institutional hierarchy with a node structure that was native to the platform. As a result, David and the development team could create a platform tailored to the affiliate, schools or colleges within the system and courses by subject. Administrative access, course access and tool utilization can be managed with the creation of delineated admin roles and privileges for different individuals.

Establishing an Institutional Hierarchy

Trying to make one system act like another is a risky approach, so, with the complex structural organization of multiple institutions, the management of users and courses by a small department would have been virtually impossible. At the same time, it is important to separate access to student data for each affiliate. With that in mind, The Center for Innovation and Learning (CIL) team established a detailed hierarchy of the entire National University System within Blackboard Learn **(System Admin > Communities > Institutional Hierarchy)**. This allowed them to designate administrators to each node, with the ability to manage courses and organizations under that node. Essentially, each node administrator can have extensive privileges, but within a limited scope.

The Quick Enroll Module

Under the institutional hierarchy for NU, CityU, JFK, and NU-VHS, they also use another customization tool called the Quick Enroll Module. They can path an administrative role to a course level role specific to each affiliate. For instance, CityU has an administrative role that is used by three staff members in charge of faculty support. They provide best practices for the use of online tools or troubleshooting technical issues. David's team created that role within CityU's hierarchy, very much like a partition, so that those staff members only have access to their affiliate's courses but with specific privileges, such as turning tools on and off, or managing Tabs and Modules. The experience is seamless for the end user, and administrators can be sure that their activity won't affect entities outside of their affiliate's hierarchy.

Having a Quick Enroll feature, however, does not automatically provide an experience like National University's, but it does make it possible, as faculty have the freedom to access tools that are specific to a subject matter or institution. It is the way in which faculty make use of that freedom that makes that experience possible. For example, an LTI (Learning Tool Interoperability) integration could be executed and turned on for single subject matter courses only.

Reasons to consider an Institutional Hierarchy

- **Custom branding**

  With Blackboard Learn, the team was able to customize each brand in detail. A set of cascade style sheet (CSS) files was downloaded in the form of a theme package. Each CSS file describes how every element of the user interface will be presented. This gives administrators and developers an excellent tool to manage the look and feel of the LMS. Not only were they able to create a custom theme for each affiliate, they could also further improve user experience. For instance, Font Awesome was added as an open-source icon kit within the course content. This functionality is available at **System Admin > Communities > Brands and Themes.**

> The next challenge was to provide users with unique content, depending on the school or institution they were enrolled at.

- **Delineated permissions**

  The next challenge was to provide users with unique content, depending on the school or institution they were enrolled at. This was possible thanks to the flexibility of Tabs and Modules **(System Admin > Communities > Tabs and Modules)**. This section allows creating top-level navigation, second-level navigation items, and modules for each page. Modules are small widgets (pieces of content) that are flexible enough to display content associated with a particular tool, or simply with HTML.

- **Admin roles**

  Administrative support staff at Blackboard Learn helped the development team find a way to map an individual Program Director or Course Lead role to a specific course role with administrative access so they could search for a course by term, course name, or course ID. Quick Enroll allows them to avoid having multiple versions of courses that can increase loading times and create confusion with enrollment.

To engage each brand with users and their affiliates separately, and to show only relevant modules to those users, Institution Roles come into play **(System Admin > Users > Institution Roles)**. Each user, when enrolled in the LMS, is assigned an institution role that represents the brand of the affiliate and their target group (students, instructors or staff). Each theme, navigation structure, and set of modules is associated with the respective institution roles as well.

Key tips for approaching a Hierarchy

- **Institutional hierarchy should not be forced.** This means being very mindful of the course management permissions for different users and tool availability, such as feature customization for a smaller student body with different needs, or an LTI integration.

- **Set up efficient communication channels with Blackboard Learn administrators.** Team leaders should discuss which permissions should be granted to different users. If permissions are not enabled by default, discuss with the Blackboard Learn administrative team what options are available.

- **In a shared environment, it is a give and take relationship between institutions, and roles should be clearly defined to prevent possible mishaps with admin settings.** It is useful to focus on how the experience for the staff member that serves students and faculty is in practice. Then, it is easier to map a similar role in the new LMS without providing full system admin access, as it is a shared environment.

In short, trying to make one system act like another is risky, as David and Andrew have revealed. When trying to find the way through an LMS implementation or integration, NUS's case shows that expectations can be met, even surpassed, when the Design and System Management teams are mindful of the tool's capabilities and limitations. This, along with careful planning, is the key to building a seamless end user experience.

PHOTO: AFP Scott Heppell

Helen Richardson

Learning Innovation
Manager at
Gateshead College

Education that gets you ready for the real world: How to gain the employment edge

The working environment is very different from the academic environment, and when students graduate college, they may not understand what it means to be in an office or how to carry out their profession. They are not taught work ethic and they may not know what to put in a CV or resume to stand out from the crowd. Most colleges don't teach these skills, and students are left to figure it out on their own.

BY: CHRISTINA GÓMEZ ECHAVARRÍA
GATESHEAD, ENGLAND

GATESHEAD COLLEGE HAS MADE SURE THIS DOES not happen to their students and have taken the necessary methods to ensure their students are prepared for the workforce. Helen Richardson, Learning Innovation Manager, and Stuart Horn, E-learning Technologist, have come up with a variety of methods to help students in each field reach their maximum potential and get ready for what they will face when they leave college.

Gateshead College has five campuses and over 5,000 students. They deliver higher education (degree courses), post-graduate education, part-time programmes and apprenticeships.

They have implemented three main initiatives to help students prepare to leave college:

The Careers Team

A dedicated team within the college that works alongside the teaching staff to support students to acquire the skills they need to get their dream job. They do different things to get that job done such as:

1. The careers team has partnered with entrepreneurs in the area, one for each faculty (catering, business administration, etc.), and those entrepreneurs will visit the college once a month to talk to the students. This allows the students to ask them questions about the field they are interested in joining, and the entrepreneurs can give them feedback on the things that are important to learn, master, and expand on. This motivates the students, because, as Helen says, work is very different from college, and if a student is studying to become a chef, the end goal is becoming a chef and not being a student. Seeing individuals that represent their future goals in front of them motivates them to become better students and professionals. The careers team makes sure that all students take part in practical work experience before they graduate.

2. The careers team has an LMS designed just for this area, which is called "On-Track."

This allows the staff on the careers team to look at the progress of the different students. They have access to the CVs of the students, and can professionally assess if each student is capable of entering the workforce, as well as what subjects, extracurricular activities, or additional skills they might need to acquire. This helps prepare the students by the time they graduate.

3. Helen, along with Jisc (a non-profit organization in the United Kingdom which promotes the use of and investment in technology in education), has come up with several projects that use technology to enhance the students' learning, as well as their employability. They first came up with the cARv Project. Helen Richardson was aware of the fact, that sometimes a paper CV is not sufficiently accurate in letting the employer know what skills the person who is applying has - especially a person who just graduated and probably has little to no experience in the workforce. She came up with an idea to put augmented reality (a live or indirect view of a physical and real-world environment that is transmitted via a computer generated input, such as audio or video) inside the CV. With the help and funding of Jisc, she filmed a short recording of the students performing a certain skill, for example, chopping while the student talks to the camera and introduces him or herself. Then they generate a QR code for the video and include it in the CV with an opening letter giving the employer instructions on how to access the video. The employer can then scan the QR code with their phone and the video immediately pops up on their screen. This way, not only does the student stand out, but the employer has an idea of who the student is and what their skills are, and can make a more informed decision.

They use software to make the creation of E-Learning courses easier

1. Stuart Horn says that Articulate, a software tool that allows you to build interactive E-Learning courses, has been a great addition to their Moodlerooms LMS. The E-Learning team realized that the teachers have had a

difficult time embracing technology. However, they also realized that when they effectively present the technology to each teacher and thoroughly explain how it works for their specific courses, they understand it better and are more open to embracing it. For this reason, Stuart and the e-Learning team have begun to make E-Learning packages using Articulate. The process is so easy that they are able to personalize each course with the specific tools and content that the teacher needs for that course, to carry it out as well as they can.

2. Stuart has also been able to identify certain problems that specific faculties have, and try to fix them using technology. For example, the Travel and Tourism students hadn't quite gotten the hang of using technology for their studies, and most of them do not have the money to be able to travel the world. Stuart created an interactive map of the world in Articulate and applied gamification into the pedagogical approach to get these students to be able to "travel" the world through technology. A specific example is the learning of world capitals. By using the Articulate map with Google Expeditions, and an interactive white board, the students can connect the dots of the capitals with each country. When they get the correct answer, a picture of that city pops up so they know what it looks like and what the main interest points are. This is a fun and effective way of learning.

Implementation of the very best technology available

Helen explains that she is all for technology in education, but that it can inhibit education if it is used without purpose and without considering the advantages and uses that the technology will have in a specific classroom.

1. The students who are in catering school have to be able to demonstrate their knowledge and skills to paying customers. With that in mind, Gateshead College opened its very own restaurant, Enfields Kitchen, and they invite the local community to go and eat there. When the students present their exams, the restaurant opens

and the students go into the kitchen and have a camera on them the whole time. The students are viewed live in the dining room by the paying customers. This makes students more mindful about how they handle the food and encourages them to conduct themselves professionally at all times. This also allows the students to look at the footage after the exam so they can conduct a critical peer and personal review of their work, in order to assess what they need to improve and what mistakes they made. This, Helen explains, is an effective way to use technology to enhance learning.

2. They also use technology to teach staff about technology. Since the E-Learning team inside the college is very small and there are lots of faculty members and departments, it would be too time-consuming to teach each one of the teachers how to use the technology. Helen, along with Jisc, invented what they call the Innovation Chain. This means that Stuart meets with his team and ten faculty members, for example. Stuart teaches them the tools, the software, and what they can do with it. The faculty members are then asked to teach what they learned to three other faculty members. The faculty members are asked to teach while using a Wiki, and record how they teach others. Then, the Wiki can be uploaded to the LMS so that other faculty members can log in and view it. This way, they could share the vital information with minimum effort.

3. Stuart explains that he is constantly talking to students to see what they are using in terms of technology. He said it would be wrong to apply a bunch of technology to students that they do not use. In

contrast, the college has to find out what is new and look at how they can implement that tool to existing technologies in an effective and realistic manner.

Helen says that she will keep on working to keep Gateshead College at the forefront when it comes to integrating technology in education. She says that the college is full of forward thinkers and that they are continually trying to develop and implement the best technology possible. They believe in the power of gamification and the amount of learning a

person does when they are having fun. For this reason, they asked a games teacher to work with the E-Learning department to come up with fun and engaging ways to enhance learning. But always, and most importantly, Gateshead College ensures their students are prepared for the real world and can leave college with a good job of their choice, and that their work satisfies their employer. At the end of the day, that is the purpose of a college education.

5 tips to achieve work success while studying

1 USE TECHNOLOGY TO SELF-ASSESS YOUR SKILLS. You can record, photograph, and/or document your progress so you know what to work on, what you are doing well at, and how much you have progressed.

2 USE TECHNOLOGY TO STAND OUT TO POTENTIAL EMPLOYERS. All CV's look the same. With design, creativity, and some technology, you can make a CV that stands out from the rest. Make a video resume that shows your skills and energy to make an impression on the employer.

3 BE RESOURCEFUL WITH TECHNOLOGY TO HELP YOU IN WHAT YOU NEED TO WORK ON. There is so much information online; you can learn practically anything. Take full advantage of those resources and reach out to experts for them to give you guidance so you can grow. Experts on different subject matters might be able to help guide you on what is important for you to know and how to make yourself stand out.

4 LEARN TO MANAGE YOUR TIME. With the possibility of taking E-Learning courses at any time, you can build your skills at your own pace.

5 START SCOUTING FOR JOBS BEFORE YOU GRADUATE. This way, you will know what job opportunities This way, you will know what job opportunities are out there, how the industry is evolving, and what it is asking for. It is always good to know how to do an interview, even if you do not get the job. Ask for part-time jobs that can help you get a foot in the door of your industry and gain contacts and inside knowledge.

BONUS TOMORROW, WHEN YOU ARE A PROFESSIONAL, YOU WILL THANK THOSE WHO TAKE THE TIME TO REACH OUT, STAND OUT, WORK HARDER, AND GET AHEAD.

An alternative to mainstream school education

In Hong Kong, a teacher has developed a school model focused on student success. Their e-learning approach offers real time classes for local and international students.

BY: PRISCILA ZIGUNOVAS

HONG KONG

Danny Harrington
co-founder of ITS Education Asia

IN MANY SCHOOLS AROUND THE WORLD, THE LEARNING MODEL still remains fairly close to what it was 150 years ago: kids watching a teacher at the front of a classroom. That is the reality of learning for many children. At ITS Education Asia, the idea of education is that it should be compatible with modern life. Hundreds of students from Hong Kong, Southeast Asia, China, the Middle East, and East Africa study in a flexible learning model through real-time, online classes.

"The potential of online learning used correctly is the way that we can fit education into modern life and into the way that modern children actually experience life. The ITS model allows us to be much more accommodating to what a current learning generation is actually doing and how they need to be prepared for the future, using technology, leading things, being able to collaborate, using social media," says Danny Harrington, co-founder of the institution. "We cannot run away from these things, we have to embrace them and work out how we can effectively educate people without holding them back for the future."

Looking for a new pathway

Harrington went to Hong Kong in 1997, and worked as a geography teacher for a small tutorial group. After a few years, he realized there was something missing in Hong Kong's education landscape.

"In Hong Kong, you only had two kinds of education going on. One was to go to a mainstream school, a standard kind of school that we see all over the world, where you sit in a class with 30 to 40 students and you just go through that curriculum, all very rigid and traditional," he says. "The other kind of education were private tutors and private tutorial schools, like the one I was working for. But they are not able to provide full time education, so they are only ever providing support to children in their mainstream schools."

Over discussions with other teachers, Harrington found out that they agreed with his vision. "We would think to ourselves, 'what about all the people that cannot get a good education from a mainstream school? And what about the fact that most children in a mainstream school are not maximizing their

potential?' So the idea of ITS and its purpose was born out of creating more options for learners in Hong Kong, so that they could find ways to go through their learning, go through their schooling, that were more suited to them as individuals, but still get all of the important qualifications that they needed to be able to continue their education, perhaps, at university or college, or even just to go to the workplace." In 2005, Harrington and a colleague named Gary Hadler set up ITS Education Asia in order to fill that gap.

An innovative e-learning model

ITS started as a physical school in Hong Kong. In 2009, a second school was founded, and in 2012 the founders began to wonder what was the next step. "We began to think about online education, and we found that there was a bit of a jump in the quality of learning management systems and virtual classrooms that were being made available, becoming more accessible for smaller institutions," says Harrington.

At that moment, instead of building new physical schools, ITS decided to allow anybody with an internet connection to access their existing schools. "That was the approach we determined, and that is where our online model came from. There are very few institutions running live, online classes in real-time where the students and the teachers are connected, as they would be in any class in any physical school," he adds.

With that approach, ITS ended up choosing a model with a small profit margin. "That is why nobody else is doing that, but we think it is the most valuable and highest quality and it felt like a natural move to us," Harrington explains. "We have got such a depth being a proper school organization, unlike many other online options,

PHOTOS: **AFP Isaac Lawrence**

that students really get that level of assessment, understanding, and flexibility all mixed in. Most of the time when you get 'flexible learning' online, you actually just get electronically delivered distance learning. You do not have the teacher in [so present in the learning environment]. We are the only ones that really bring the benefits of everything together into one place. And they get this for a fraction of the cost that they would if they went off to a university. That is a key point."

A flexible online environment

The classes at ITS happen through Blackboard Collaborate, and the learning management system (LMS) is Moodlerooms. "What I love about Moodlerooms is from a holistic and strategic point of view. First of all, for us, it is an excellent central point to bring together

the stakeholders in any one learner's situation. In traditional schools, there is a big disconnect and often big time lapses between what students do and what parents see, for example. When you create something in Moodlerooms, everything is recorded and stored in the LMS. Any one of those stakeholders can go and look at it at any time. That just makes our ability to help a learner along that pathway so much better," he says. "The second thing I love about it is just the fact that Moodle is so widely used and accepted, particularly in the international school community and in the UK school community. For us, to be collaborating with other schools is very easy if we are all talking about the same system. So I like it because it is successful already."

FLIP learning

ITS runs what is called the FLIP pedagogy or FLIP learning, a modern approach in which *F* stands for flexible environment, *L* stands for learning culture, *I* stands for intentional

content and *P* stands for professional educators. Harrington explains it point by point: "By providing a flexible environment, we allow students to learn where they want and, to a certain extent, when they want, but certainly where they are is up to them, because online, with Collaborate Ultra, you can be anywhere," he says. "The learning culture is about being student-centered, having much greater depth of exploration of subject material and lots of reflection and extension of ideas that the traditional curriculum does not do. The intentional content means that there are still points where you have got to actually teach things, you cannot just have students self-learning, so we make sure we identify those and then make them accessible to everybody. The teachers are of course still there, and they are incredibly important in this model. They are available to students at all times, they are assessing formatively much more than summatively, and we encourage them to collaborate and train with other teachers to share ideas and build up a real ecosystem of learning professionalism."
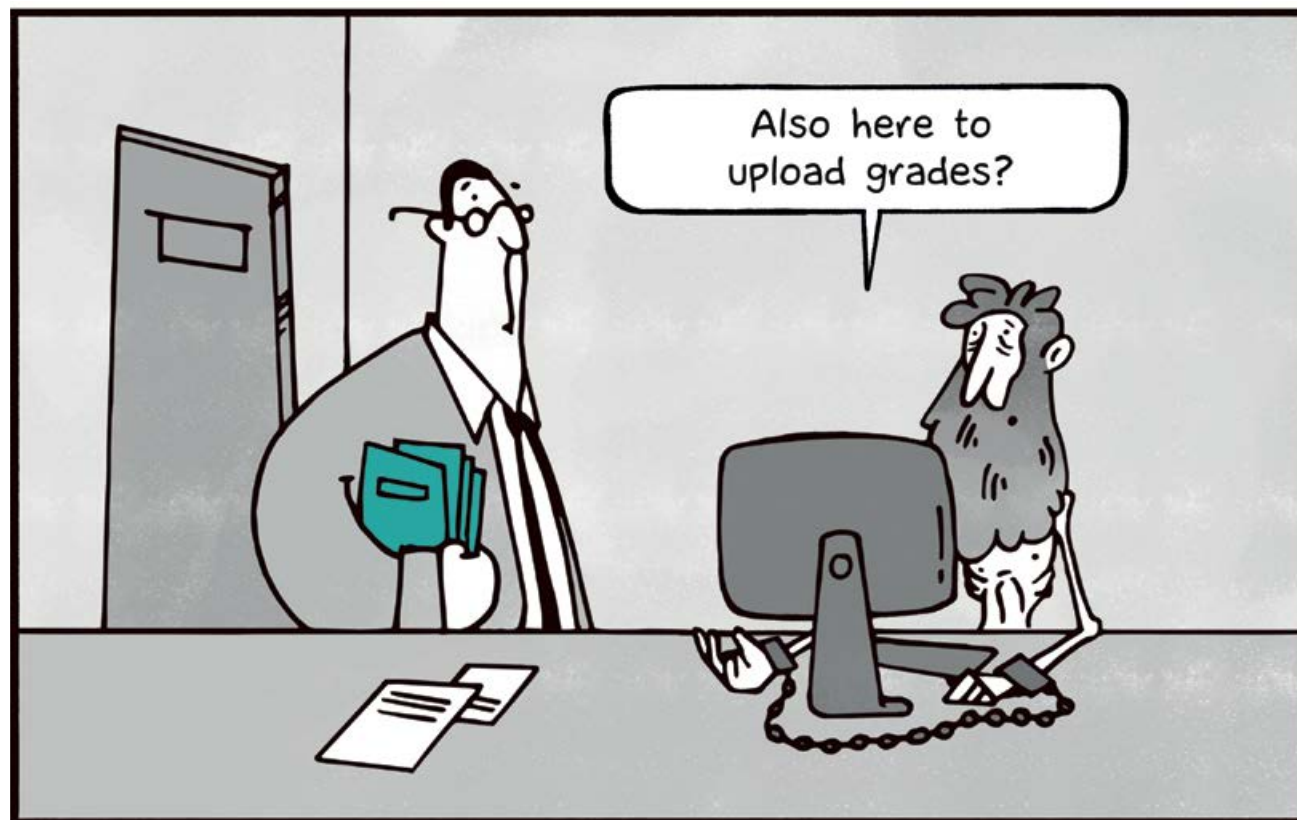

Educational services

Although ITS was created as an alternative to mainstream education, they still needed to be a part of the system. Students still needed certificates. "Therefore, we offered non-mainstream pathways to the mainstream qualifications. Now we are very UK-focused in our accreditations, so we provide the International General Certificate of Secondary Education (IGCSE), and the International A-Level, the two things that finish off high school or secondary school in the UK. They are recognized globally, so you can use them in many countries for work or university application."

Over time, ITS added to its portfolio further qualifications from the UK and the BTEC (Business and Technology Education Council), including official admissions courses, professional counselling and education planning. Also, ITS was the first in Hong Kong to open a school placement service. "The purpose here is that we will happily take a student at any point in their learning life and we will help them along the way with as much as they need, for as long as they need, and then, whenever they need to move on to, we help them identify that, and then achieve that. That is really what we are about," affirms Harrington.

When asked about ITS best practices, Harrington says there is only one. "Our best practice – and it is also the starter of our philosophy, everything we do depends on it – is really, truly, honestly, keeping the student at the center of everything," he emphasizes. "The way we organise things, plan, and are always asking, 'what is best for the learner?' That is the best practice that any educator can ever apply, and everything flows from that, and everything is subordinate to that. So you have to ask the question first and then you can decide how you organize yourself around that to deliver it."
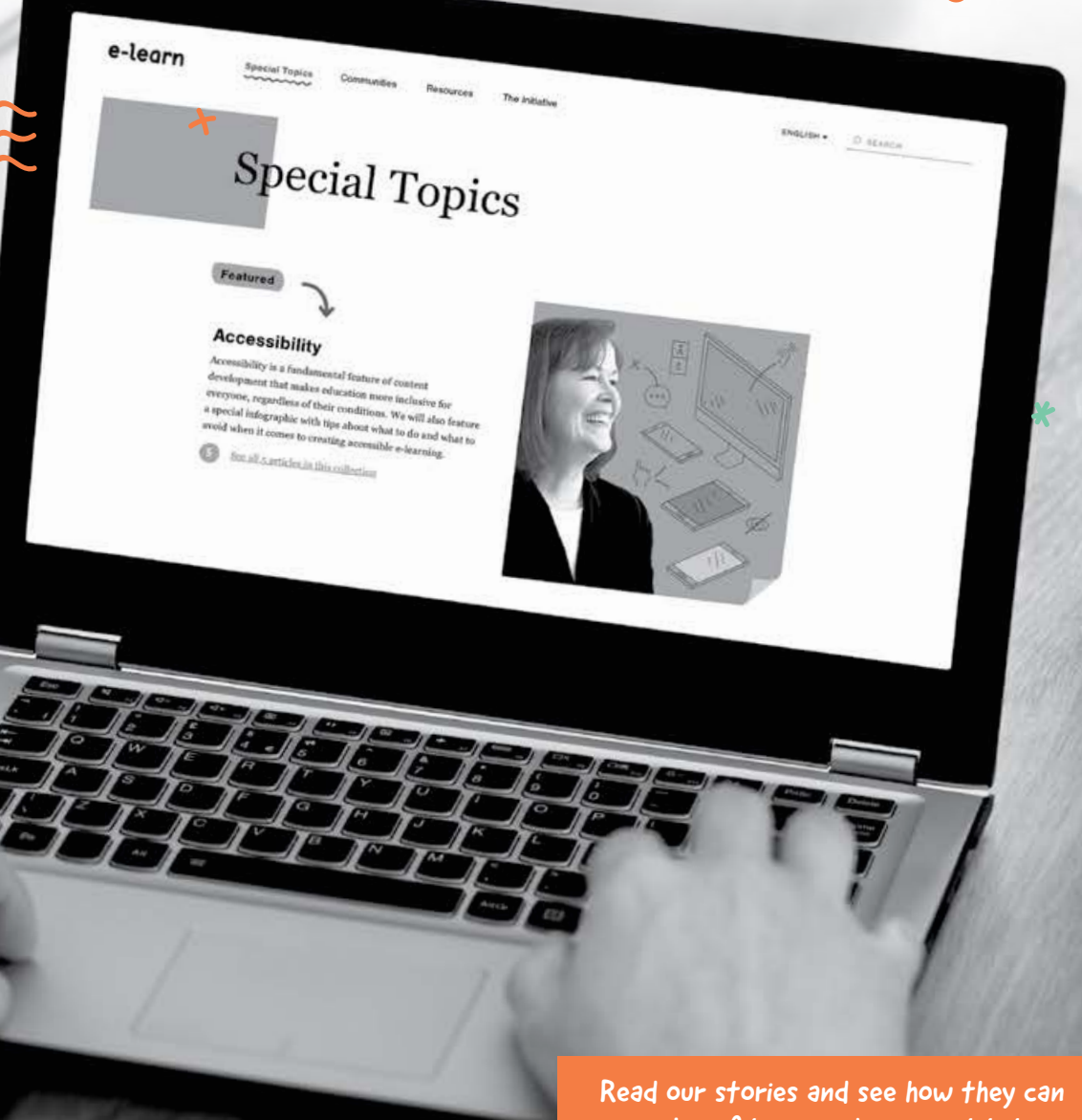
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