LEARNER ENGAGEMENT:

INSPIRE GENUINE INTEREST, Attention, and Interaction in the Learning Process
From the Editor

As you may recall, we began this year focused on Academic Effectiveness, where we shared our team’s much deliberated definition on this important topic. To us, academic effectiveness is about empowering excellence in teaching and learning experiences, and goes hand-in-hand with our commitment to offer a comprehensive, digital learning environment that goes beyond the LMS. To do so, we must adopt a much more holistic approach to education and technology; for this reason, we find it fitting to begin this year’s second quarter focused on Learner Engagement.

In the main piece “Inspiring a Love for Learning” we define what we mean by learner engagement, share what it looks like, and provide some initial ideas to get the community started. To be precise, we intentionally focus on learner engagement as opposed to student engagement, because it places attention exclusively on the learning experience. In this sense, learner engagement is about inspiring genuine interest, attention, and interaction in the learning process.

We had the privilege of sitting down with Professor Richard J. Reece, from the University of Manchester, to talk about the power of harnessing technology to offer students a much richer exam experience that benefits faculty and students alike. You will also get a glimpse into the work being done at City of Westminster College to improve learner engagement and success rates through a well-implemented and interactive virtual learning environment. In other parts of the world, like in Brazil’s St. Paul Business School, we explored how this institution plans to revolutionize and democratize executive education through artificial intelligence. You won’t want to miss what St. Paul’s innovators have been working on to offer ongoing education to the contemporary adult leader.

In order to solve today’s key challenges in education, it’s important to understand what the upcoming generation of higher education learners need and expect from their educational experience. For this reason, we’ve put together some of the key findings from a new study done by Blackboard and the UPCEA on this topic. Also, consider how four professors in the United States successfully teach a student-centered class, and further deepen your knowledge about online learning and the student-centered approach with expert Michael Horn.

Special thanks to everyone who contributed to the creation of this issue, and as always, we wish you continued success navigating these changing and exciting times in education. Together, we can come up with the best strategies and solutions to bring positive results to your organization.

Sincerely,
The E-Learn Team
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E-Learn Cartoon
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What makes a great learning experience? Inspiring genuine interest, attention, and interaction in the learning process is what learner engagement is all about. Whether in a face-to-face or online classroom, engagement is driven by behavioral, emotional and cognitive components that work together to influence the way we learn.
WHAT DO WE MEAN BY LEARNER engagement? You will often find references to both student and learner engagement in higher education. The concept of ‘student engagement’ tends to be broader than ‘learner engagement.’ Student engagement is often used to refer to a broad scope of activities designed and coordinated to catalyze students, from all segments of the student population—first-generation college students to adult learners—to actively, positively participate in the full array of the college experience from the classroom to extra-curricular activities. The National Survey of Student Engagement (NSSE), identifies two critical factors that make up student engagement: how an institution uses resources and organizes the curriculum and learning opportunities to get students to participate in activities linked to student learning; and the amount of time and effort students put into their studies and educational activities. By using the term, ‘learner engagement,’ we are intentionally narrowing our focus to the learning experience.

In short, learner engagement is inspiring genuine interest, attention, and interaction in the learning process.

BEHAVIORAL
Reflected by what learners do in the learning process such as ask questions, demonstrate persistence, concentration, and attention, and participation in discussion or class activities.

EMOTIONAL
Attitudes toward learning—from painful dislike to highly valuing the acquisition of knowledge and skills.

COGNITIVE
Effort and strategy. From a simple willingness to learn, to going above and beyond expectations to accomplish learning outcomes.

It is easy to equate learner engagement with class participation, but that’s simply not true. Oral participation is not a good indicator of learner engagement. In a physical classroom, oral participation can be an element of learner engagement, but other behaviors may be just as important such as eye contact, posture, seat location, note taking, and facial expressions. Learner engagement has three facets:

Behavior, emotional, and cognitive components of learner engagement work together to influence learning, whether it’s taking place in a face-to-face classroom or online.

At Blackboard, we recognize that an LMS is simply not enough to solve your most critical challenges. As we look to the future, we are focused on developing a comprehensive, digital learning environment aimed at helping institutions to solve their core challenges. Instead of building products separately and integrating them into an LMS, we are taking a much more holistic approach. By providing education insight, we are driven to help improve learner engagement and enable academic effectiveness to solve those core challenges. At E-Learn, we began this journey producing numerous pieces exploring academic effectiveness. Now we will shift our focus to learner engagement.
In traditional learning models, instructors decide what students will learn, how they will learn it, and the pace at which they will learn. Students love having choices; it gives them a sense of ownership and control in their work. When students have voice and choice with respect to learning, their engagement grows. But how can instructors provide voice and choice for students? Blackboard can help enable voice and choice in a way that is easy and efficient for instructors. With Blackboard, instructors can allow multiple options for students to choose to demonstrate their learning. For example, for a final project, an instructor can define a single rubric to evaluate learning outcomes in an efficient manner, but enable students to choose from a final research paper, a presentation, or even collaborative project with peers. Students can even opt to review the authenticity of their own work to ensure they are properly cited their sources. Additionally, instructors can leverage conditional release capabilities to create personalized learning paths for students. These paths can provide flexibility with the pace, can be determined by demonstrated mastery levels, or guided by student preferences.

Another way to enable voice and choice and empower students to own the learning process, is by providing accessible digital course content. To engage with digital course content, students must have access to digital content that meets their needs. And, students learn best with content matches their learning styles. According to the U.S. Department of Education about 11 percent of K-12 students in the United States, aged size through seventeen, have a disability. At institutions of higher learning, sixty to eighty percent of students with disabilities do not disclose their needs to administrators or instructors and many more students remain undiagnosed. Creating inclusive learning experiences is one way to ensure every student can engage in your course. With auto-generated alternative forms of content, Blackboard helps institutions adapt to a variety of student needs and learning styles with tools that enhance the learning experience and increase the resources available to all students. With alternative formats readily available, students can choose the content format that best meets their needs or learning style. To take that a step further, Blackboard supports institutions and instructors throughout the learning environment fostering inclusive learning best practices to drive continuous improvement.

Expand Opportunities for Active Participation

Provide many and varied opportunities for students to participate in class. Just like speaking out in the physical classroom is not the only way to be engaged, instructors need to find many opportunities for students to participate. With Blackboard’s learning environment, students can participate virtually in a class discussion, share videos or news clips with the class, reflect in a blog, collaborate with classmates in wikis, or even participate in peer assessment or peer assisted study sessions, such as at Deakin University. Instructors and students can also engage in real time with live audio and video conferencing. In the virtual classroom, students can present and share ideas, participate in a discussion or review session, collaborate on the whiteboard or engage in a class poll or live quiz. Students can share how they are feeling about the instructions with a pulse check or with feedback in the chat. Students and teachers can participate from anywhere with any devices for both synchronous and asynchronous options.
Better opportunities to have better overlooked, is that it allows students and something that I think is very makes the big difference. Secondly, shows that active learning is what makes the group space or the class works because, number one, it classroom model, “Flipped learning Bergmann, creator of the flipped and creation. According to Jon Bloom’s Taxonomy, knowledge and understanding, class time can be used to reach higher levels such as application, analysis, evaluation, and creation. According to Jon Bergmann, creator of the flipped classroom model, “Flipped learning works 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.”

Leverage Analytics in Your Digital Learning Environment

With respect to digital learning, the emerging field of Learning Analytics offers a research-based approach to improve learner engagement. There’s much to be learned from activity in the digital learning environment. Instructors can analyze the way learners engage with courses in fine-grained detail. Learning Analytics identifies how learners interact with course materials, learning activities, and one another. They can look at patterns over time, see where learners stand relative to others in their class, and identify the activities and topics that produce the highest level of engagement.

- Did that discussion forum that was certain to garner an exciting debate really get learners fired up?
- Did the extra-credit project that called for learner collaboration exceed expectations in terms of learner involvement?
- How many learners are truly engaged or how many are just agreeing with their peers?
- Rich information on these interactions can help educators develop a more accurate and timely understanding of which learners may be at risk of failing a course. And, by understanding precisely how learners are engaging with their courses, instructors can make changes to strengthen learner-course interaction.

When instructors are equipped with an “early warning system” alerting them to learners who are struggling and when they’re able to improve their courses on an ongoing basis, learners will be more engaged and learning will be more effective.

Leverage Analytics in Your Digital Learning Environment

While these are just a few ideas to get started, the possibilities for driving learning engagement with Blackboard are endless. Throughout this edition of E-Learn, we will continue to explore the concept of learner engagement in greater depth.

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Helping Solve Core Institutional Challenges
THROUGH EXPERIENCE IN ACADEMIA

A qualified consultant team and a strong strategy can make a difference when universities seek to develop world-class digital learning environments focused on driving student results. Meet three of Blackboard’s Global Consulting team members and learn how their experiences, past and present, enable them to assist educational institutions and organizations in the best possible way.

**Meet the Interviewees**

- **Adrian Powell** is the Director of International Platform Services at Blackboard.
- **Chad Kainz** is a Principal Strategist Within Strategy & Transformation Services.
- **Ruth Newberry** provides strategic consulting and implementation services for institutional assessment and accreditation planning as well as the implementation of Blackboard’s various assessment software at the institutional, college, and program levels.

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**E-LEARN: Before joining Blackboard, what universities did you serve and what was your role? How long did you work in the university setting?**

**Adrian Powell:** I worked for 25 years at the University of Sheffield, a Russell Group institution in the United Kingdom (UK). The first 13 years were spent as a member of faculty in the Department of Electronic and Electrical Engineering, focusing on the research and teaching of semiconductor devices. However, as my interest in learning and teaching grew, I chose a change in career path and spent the following 12 years in the university’s central administration, building and leading a learning and teaching development team responsible for the introduction of learning technologies across the institution.

**Chad Kainz:** Immediately before joining Blackboard, I concurrently held two roles at the University of Chicago, both as assistant chief information technology officer (Assistant CIO) and executive director for Campus & Academic Services. My career spanned 18 years at the university, where I started as a data visualization & multimedia specialist within the High-Performance Computing group, and was then promoted to manager of Multimedia Technologies & Services a few years later, became director of Instructional Technology, and was promoted to senior director of Academic Technologies. I then became assistant CIO and executive director.

**Ruth Newberry:** When I first started at Duquesne University, I was fortunate enough to connect with individuals in the Division of Continuing Education who were creating a very innovative program in the early 1990s, directed specifically at working adult students. I was asked to join the team, which led to 11 years of teaching the University’s core English courses, special topics, and business writing in an award-winning and innovative eight-week program. This program was one of the very early Professional Studies programs. The 1990s were an exciting time to be teaching as technology was beginning to reshape teaching and learning, and LMSs were...
Starting to appear. As an instructor, I became very interested in how technology could help students and created for the program an online Teaching and Learning Center, and with the program’s advising team a mentoring program. My use of technology led in 2000 to becoming an educational computing consultant and then the Director of Educational Technology from 2003 – 2014. As Director, I developed a campus-wide training program that expanded the use of Blackboard from 25% to 85% adoption and helped programs and the University with student performance assessment. With my team of sys admins, instructional designers, and media technologists, we supported the campus’s use of various technologies for teaching and learning, developed a technology sustainability process, introduced an early alert system to support retention, and streamlined purchasing requests.

**E.L.: What made you join Blackboard?**

**A.P.:** I decided I would like to apply the experience I had gained from implementing an institution-wide learning management system and driving its adoption by faculty and students to a larger audience. Blackboard gave me the opportunity to apply and develop my knowledge in the use of learning technologies to a much broader range of institutions across the globe.

**C.K.:** Although I had a great position at one of the world’s leading research universities, I found myself in a situation where I was reinventing what I had already reinvented several times before. I truly felt that the university needed a different perspective on how to support its faculty and students. I wasn’t actively looking; I was looking for positions for a friend of mine who was seeking work in higher education and I found a posting for a solutions director within consulting at Blackboard. I had introduced Blackboard (CourseInfo) at University of Chicago in 1999 and depended on the learning platform for all digital learning on campus, so I was very familiar with the company and its services. The position description caught my eye as it gave me a chance to work with and advance the vision of more than one institution. I applied through the front door and the rest is history.

**R.N.:** While my position was moving into supporting primarily our online programs, the University was not clear on its direction and I needed a change. I had been working with Blackboard representatives since 2000 and always found them very professional, so I reached out and when a position in the assessment field opened up, I decided to join.

**E.L.: How do you feel your previous experience influences your current role?**

**A.P.:** My experience gained as a member of faculty and administration influence much of what I do at Blackboard, particularly in my consulting interactions with clients, where it quickly allows us to move past the ‘why should we listen to you?’ phase of the discussion.

**C.K.:** When I started, I was also leaving a major humanities-focused technology-planning project, where I was a co-principal investigator and co-director with the University of California Berkeley. It engaged over 100 different colleges and universities, organizations and companies worldwide, and provided me with the opportunity to develop my community-focused leadership skills as we needed to tackle difficult problems across multiple institutions and multiple countries by applying different lenses to issues – process, academic, technology, cultural, financial, and so forth. I had also worked as a learning spaces subject matter expert and academic technology consultant on the side for well over a decade, and participated in IEEE learning technology standards development, all of which required critical thinking, deep listening and interpersonal engagement skills. Additionally, the University of Chicago is one of a handful of institutions that crosses different institutional and academic cultures. It is a private liberal arts undergraduate institution and a global path-breaking research university. Working in that environment provided me with a perspective on institutional culture, investment, and the role of technology that I would have spent a lifetime gaining from multiple places. As a result, I anticipate the unexpected, complex, and seemingly unattainable in all of my work because that is, quite frankly, the norm at the University of Chicago.

**R.N.:** Everything I did at the university involved supporting faculty and programs with teaching and learning. My task was to introduce, especially for online programs, teaching strategies to improve student engagement and learning through technology, quality course design, and getting information out of Blackboard for accreditations. Before I even came to the university, I was a high school teacher and trained in curriculum development and assessment. I brought a lot of these best practices in active learning and assignment design for higher-level thinking to nine schools at Duquesne. I was involved in two of our Middle States self-studies and became a Middle State team reviewer. Additionally, my previous position allowed me the opportunity to interact with academic leadership, with Deans and department chairs and with faculty to help them meet their teaching and learning technology needs. In my job now, I am meeting with provosts, deans, chairs, faculty, and assessment directors to help them assess student performance and program quality. Understanding the academic environment, its internal structures, culture, politics, budgeting processes, teaching and learning environment, and faculty attitudes is critical to my current position.
E.L. What were some interesting discoveries that you’ve made by coming to the other side and working as a partner to academic institutions?

A.P: There is a lot of commonality in the issues and challenges faced by institutions across the world, yet every institution is different. Clients often emphasize how their institution is very different from all the others and then promptly ask for details of what other institutions are doing as they might like to do the same. In reality, the issues may be similar (e.g., faculty never have enough time to develop their skills), but the solution needs to accommodate their local behaviors, organizational structure and culture. The one discovery that stands out for me came from a discussion with a group of students at a rural African University. I asked them what they would like to see from the introduction of an LMS. They responded with excitement saying that, if they could get the course handouts online, it would have a massive impact on their educational experience. After listening to them describe how they currently access resources, I understood their excitement. A few weeks later, I heard a similar request from a group of students at a leading UK institution. Of course, once we enable the simple processes to be done well, it raises the expectations of users and they immediately come back with more requirements. But that is what makes working for Blackboard interesting.

C.K: One of my first discoveries was how passionate everyone at Blackboard is about education. I didn’t expect that. As a decision-making and budget-holding client, I saw the contracts and business sides of a partner/vendor relationship a lot. But once you peel back that layer, Blackboard and many of the educational technology companies in the market have a deep passion for learning and teaching. And more importantly, you don’t have to have an academic background to have that passion. Even if one has never worked at a university, people care about learning. It permeates everything.

R.N: From my previous work with Blackboard consultants, I knew they cared deeply about education, and that was a key consideration for me when joining. What I think was so different for me was being a remote worker. Moving away from face-to-face interactions working out of my home and not seeing people was the hardest part. It was a huge adjustment for me.

E.L. How does your role help to increase learner engagement at the universities you serve?

A.P: I lead the global Educational Consulting Services Team with members working with institutions in every geo. We provide a portfolio of services around academic technology planning (new clients and existing clients wishing to move to the next stage of their development), user training (awareness of how our platforms can be applied), staff augmentation, professional development, course design, and development and quality assurance. Members of the team will be working both face-to-face and remotely with educators and administrators at a range of global institutions every working day (which includes Sunday in some regions) all with a single purpose in mind: how do we impact the learning experience of the student? Often this translates to ‘how do we get faculty to engage with the learning technologies?’, as without them the students have nothing to engage with.

C.K: Much of my work involves connecting an institution’s or organization’s vision for learning and teaching with the capabilities and investments they’ve made over time. Colleges and universities exist within an ecosystem of technologies and services of their own design and choosing. And while there was a time when process requirements superseded the needs of people, today that’s no longer the case. We’re living in the world where much of what we accomplish is enabled by technology, not directed by it. As such, I apply ‘people first, technology second’ philosophy to all that I do. Engaging learners is much more than providing the right capability at the right time; it is also about connecting capability with culture to provide a meaningful and purposeful result. When I worked with George Mason University on the Student Experience Redesign Project, it was all ‘people first.’ Transforming the student experience at an institutional level alters the university’s culture and, as a result, services will evolve, processes will change, and technology expectations will shift. So, when I say people first, technology second, it is more about being human-centered in thinking and design. If you understand the people, you will define appropriate and innovative ways to engage learners and educators alike.

R.N: Assessment can lead to powerful insights about learner engagement; where are students struggling, where are they being challenged, and where are they succeeding? The processes for assessing student learning can help programs and faculty make significant changes in instruction, course design, course sequencing, curricular decisions, support services, professional development, use of technologies, and other aspects of the student’s learning experience that lead to improvements in learner engagement. Assessment asks programs and faculty to examine objectively what they do in teaching, why they do what they do, and how they can improve so students can be more successful.

E.L: Can you share with us some results from your work with clients that have positively impacted learner engagement?

A.P: One personal example would be a prestigious Italian University where I had spent three days working onsite with them to develop an implementation plan for their LMS. At the end of the three days, the client executive sponsor said he had never seen such cohesive working from the group of stakeholders drawn from across the institution. When I returned, three months later, they were proud to demonstrate how they were adopting the recommendations resulting from our consulting engagement, one of which was to encourage student engagement with the project. They had run a competition for students to suggest the name for their institutional environment in which over 70% of students had voted on a list of names. In just a matter of a few weeks, everyone at the institution was aware that their institution was embarking on an initiative to provide them with access to the best learning technologies available, and that those technologies were being delivered by Blackboard.

C.K: Because much of my work is strategic and long-term in nature, results often take years to unfold. A great example is the transformation that’s currently underway as a result of our initial work at George Mason University. Sometimes little things provide a glimpse into the change that is underway to improve learner engagement. During a student focus group at a different university a few years ago, one of the participants declared that “being a student here [at this university] was like being on an Easter egg hunt.” Students didn’t know where to go, what to do, or how they should engage with the learning experience that was defined for them. This past year I have learned that within strategic planning efforts of that institution they are actively working to solve the “Easter egg problem.” The student’s comment, which was expressed within the context of our work, is having a meaningful lasting effect that is driving change years later.
The results revealed that students were struggling on a particular question. As the program dug deeper to find out why students were not performing well on this question, they determined that the course content and activities in the course focused on recognition instead of functionality and application of concepts, critical skills students need to be successful in their next classes. In this case, changing course activities and instructional approaches led to significant improvements in learner engagement. Whether it is looking at key exams or capstone projects for how well students are meeting student learning expectations, the practice of assessment helps programs identify where they can improve and where they are successful in the design and delivery of their curriculum for student learning success.

What are the biggest obstacles to learner engagement? Does this vary by culture and country?

As technologies improve, there is an expectation that it will be always available from any device of the users choosing and that it will be intuitive for that user to navigate their way through the environment. Our platforms have come a long way in meeting these expectations, but ultimately the user experience is not only defined by the technology, but by the people who leverage that technology.

One of our biggest obstacles is to ensure the users of our technology are aware of the platform capabilities and equipped with the knowledge and skills to exploit the tools Blackboard provides. Learning technologies is really a people business. Looking across the global landscape, there are many different cultures that need to be recognized if we are to become a true partner. However, most institutions have the similar requirements and face the same challenges regardless of the country in which they are based. For example, they all simply expect the platform to be stable and robust. They all recognize that they need to engage learners and that the first step is to engage faculty (who simply do not have enough time to do this ‘extra’ work). Local language support is always going to be a challenge for us, especially if we are to grow in certain international markets. Particularly in our more mature markets, we need our clients to recognize their need to adapt to the changing needs of students, employers and society in general to then continually challenge Blackboard to be their best partner possible.

Culture tends to be a challenge. Now, when I mention culture, to some degree I am referring to differences in societal norms across the world. However, I see those as factors that need to be considered as a baseline when framing learner engagement. Where I tend to focus is more on the different cultures that exist within institutions – the faculty culture, the student culture, the staff culture, etc. They are intertwined and at odds with one another, which contributes to distinctiveness of academic institutions worldwide. They create opportunities as much as obstacles. Aside from the obvious ones, there are other cultures that need to be considered and are often overlooked or taken for granted, such as the technology culture of the institution – student and faculty life at an engineering-focused university will likely be very different from that of a community college. The same goes for the social culture – digital and/or physical, as well, as the different academic cultures that coexist within a university. In many cases, the campus ‘day’ culture is very different from the ‘night’ culture and far removed from the ‘weekend’ or ‘online’ cultures. The culture of the library and the perception of studying can have a profound effect on learner engagement. Getting institutions to recognize coexistence of the myriad cultures within their institutions and helping them embrace the diversity of experiences to drive engagement tends to be a challenge.

Yes, the social-cultural-historical perspective from which students, faculty, and institutions come to education can influence learner engagement. For instance, not too long ago it was considered a radical move in higher education to move away from the lecture method to more active learning, or from the classroom to online and hybrid modalities of teaching. Not only did faculty have to rethink their instructional approach, but students also needed to adapt to new methods of instruction and become more responsible for their learning. Both faculty and students needed some coaching and preparation for these new instructional methods, such as active learning and problem-based learning that replaced or supplemented the more passive lecture method. Awareness of these national, regional, and institutional attitudes help us recognize diversity in our classrooms, capitalize on this diversity, as well as ensure that we design program curriculums, learning activities and instructional approaches, and support services that will help increase the many levels of “engagement” that exist in the today classroom.
Digital Exams Enable Fast and Effective Grading Outcomes

Professor Richard J. Reece, from the University of Manchester, in the United Kingdom, shares his institution’s success with digital exams, which offer students real-world experience and allows faculty the time to provide well-thought-out feedback, among other advantages.

By: Leonardo Tissot
Manchester, England, United Kingdom

With over 40,000 students and established as a global top 50 institution, the University of Manchester stands as England’s first civic university. In its current form, the institution is the result of a 2004 fusion between the Victoria University of Manchester and the University of Manchester Institute of Science and Technology (UMIST).

Constantly looking ahead, the university developed its Virtual Learning Environment (VLE) and started offering students digital exams over a decade ago. Since then, it has proven to be the right choice, as taking exams digitally offers students a better skill-testing experience and also makes it easier for professors to grade them in a timely manner.

Professor Richard J. Reece, associate vice-president for Teaching, Learning and Students at the University of Manchester, talked with E-Learn to share his thoughts on digital exams and to discuss broader themes such as student accessibility.

E-Learn: Professor Reece, could you tell us a bit about the work you have been doing at the University of Manchester?
RICHARD REECE (RR): We try to enable technology to make sure students feel as though the experience they are getting is as personalized as it can be. As a large organization, we have students coming to join us with a wide variety of backgrounds. Our focus is on offering support to base-level digital literacy students, with mechanisms that enable them to keep up with the technology we are offering. For specific learning practices, we have, as you’d expect of any higher education institution, a Virtual Learning Environment (VLE) – in our case, we use Blackboard technology. We work so that all of our modules within our courses have a Blackboard presence, in degrees that are appropriate, depending on the individual topic that is being taught. To us, it’s a matter of ensuring students have the opportunity to interact with teachers and the teaching staff from day one of the course.

E-LEARN: How do you think providing accessibility for students can drive learner engagement in the educational environment?

RR: At the university, we have three main goals: To perform world-class research, to guarantee excellence in Learning & Teaching (L&T), and to act with social responsibility as an organization. And as part of that last goal, we try to be as inclusive as we can be to students. The accessibility part is very important for the sorts of things we do as an institution – striving to ensure that the L&T materials are provided to students as accessible as they can be. This not only benefits students with specific learning difficulties, but the wider student population as well. We have a set of criteria that must be met for the production of all L&T material – be that paper, electronic, video or audio based – to ensure that they have as wide a scope as possible among that student population. And, I think we’ve seen a real significant increase in access of these materials in all students. For example, like many institutions – and we’re probably at the vanguard of this – we record almost all of our L&T events. We’ve done this for about five years now, and in this current academic year, we will be recording 90% of the L&T events that take place across the institution. We try to make sure that those recordings are available to as wide a group of students as possible. Our lecture capture system has helped with the engagement of students.

E-LEARN: You also have a successful case of digital exams. Could you share with us a little more about this experience?

RR: We’ve been doing it for about 10 years. Some members of our academic staff started to produce exams in a digital format and realized the advantages of working this way for them, but also for students. That’s one of the key drivers that we are working towards: As an institution, we are providing more and more in digital formats. Of course, now students handwrite far less than they have done in the past. So, when we question students about this, they quite rightly state that actually the only time when they handwrite anything these days is in exams. This doesn’t seem appropriate, considering when they transfer to their working lives, after university, they will almost certainly be using electronic materials. About four or five years ago, we started to take this more seriously as an institution, and put in place all the requirements that we needed in order to set-up exams on campus, but in a digital format. Many exams simply replicated the written versions, but others started to use the power and capability of the digital format to make the digital exams a much richer experience and really be able to give students a real-world test of their skills and knowledge. In terms of the way we use digital exams, we have somewhere between 4,000 to 5,000 students taking them each semester. It is a relatively large activity – not as large as our paper-based exam system yet, but it is continuing to grow rapidly. The university has set goals to increase the number of online tests that are taken, because we see value in it, both for students taking tests in a format they are much more familiar with, and giving them a much better flavor of the sorts of assessments that they will be required to take place in their professional lives, and also for staff.

E-LEARN: Could you touch a bit further about the advantages of using digital exams for academic staff?

RR: The exams we’ve done here have suggested that staff not only spend far less time marking tests, but can also give much better feedback when the exam is in a digital format. Digital exams take about 25% of the time that it would take to mark a paper-based version, which is a significant saving. This time can be invested in creating a much better form of feedback for students, giving them a far richer idea of the strengths and potential weaknesses of the answers that they’ve given to a particular question. Currently, specific courses have chosen to initiate this form of assessment, so, not the totality of the assessments are in this format yet. But, we are working on it for the future.

E-LEARN: How would you say digital exams impact students?

RR: A number of exams that we run in our institution are summative exams (exams at the end of a course) and we generate a mark (grade) that then goes into students’ overall grade for the subject that the student is taking. I would agree those three topics are important to get learner engagement in the first place, and the definition of how you do that, as an educator, is an interesting one. It certainly varies between the face-to-face activities and those that take place in an online environment. From my own experience, I feel as though we use a blend of the activities – some of them are face-to-face and the 40,000 students we have are predominantly taught in this way.

The University of Manchester does have a significant number of distance-learning students, and creating a sense of engagement for them, is a different process than for students.
who regularly come to Manchester. For campus-based students, that sense of belonging can be created through interactions with our building and infrastructure, and our faculty and with other students. It is, perhaps, more difficult to create this sense of belonging in an online setting (and requires a different skill set from professors than those who can do it really well face-to-face). However, as we provide more online material to our campus-based students, the boundaries between ‘on-campus’ and ‘at distance’ are becoming increasingly blurred. So, for me, it’s creating that blend of the activities that you do in the face-to-face setting along with the blend of the online environment. You have to aim to keep students engaged for the entirety of that course, using small, almost ‘micro’ pieces of work in the online setting, and then you augment that in the face-to-face setting to expand them into interesting contexts.

E-LEARN: Is there a clear policy on which courses to use digital exams and which not to? How do you define that?

RR: There is no policy like that. Essentially, the target that we have is to increase the number of online exams that we offer. We have no preference at an institutional level to what those would be, it’s more of an academic decision. If an academic case can be made as to why a particular exam should not be in a digital format, for instance, then we’re more than happy to take that into consideration. There is academic freedom to do that, and we want to ensure our teaching staff can choose what the most appropriate form of assessment might be.

E-LEARN: Do you measure student satisfaction around digital exams? What is their overall feedback?

RR: Very positive, generally. We do not have a comprehensive analysis around digital exams because they are spread throughout the institution. Some courses will have digital exams and some courses won’t. When we look at student feedback, which we do on a regular basis, there are several themes that come forward. Many of the students engage more with digital exams than the paper-based version. We get a lot of complimentary comments about how easy students found it to do, and how much more straightforward they found the interaction in the exam itself. However, it is not all a bed of roses. We also get students who say that they find their typing skills can somehow deteriorate when they are under exam pressure, and often they require additional time during an online exam than perhaps they wouldn’t during a paper-based test. Again, we are trying to build that into our system, so, and particularly for first year students, we do a conversion from paper to online and offer them a slightly longer time to do the exam, and make sure there’s no specific issues around students getting caught up with the technology and not concentrating on their answers.

E-LEARN: You mentioned that using digital exams saves you time. Does it also save money or other resources?

RR: In the broad sense time is money, isn’t it? One of the big things from the time saving is the reduction in the administrative effort that is required in order to look after the exam process itself. It might sound trivial and almost irrelevant, but it does take a lot of time during the marking process to get all of these things in order. Coming back to my own course – I’m a biologist and I run a biology online exam – and often I have 200 students on that course. They write essays and they do short answer questions; In the short answer questions, the accuracy of the marking has greatly enhanced in the online format. And there’s a significant time saving for me as a marker, and for the administrative staff afterwards, because as soon as I’ve finished the marking, everything is done. It’s also transferred into the VLE and then the marks go straight into our students record system. Hence, it’s a very straightforward process.

E-LEARN: The University of Manchester has had a relationship with Blackboard for over 10 years now. What would you say the institution’s initial goals with the use of Blackboard products were back then? How would you say these products have helped the University of Manchester to achieve these goals?

RR: It is probably fair to say that the University of Manchester was relatively late coming to the party with respect to VLEs. It was before my time but when Blackboard was first adopted, it was very much a case of getting all courses to have a minimum specification on the online environment. What we’ve been trying to do more recently is to use a much richer set of tools with our students, to develop scenario-based e-learning modules and problem-based sets that can really start to stretch the students other than in the face-to-face setting. The face-to-face settings are really important to us, as the majority of students that we have are based on campus. But we realized that having that additional background, that much richer set of information available to them – so they can work through problems and find solutions in their own time – is equally important to really drive learner engagement.

E-LEARN: Overall, where do you think education institutions are headed and what are University of Manchester’s specific plans for the future in this regard?

RR: It’s an exciting time in the digital world and in higher education. Since 2012, when massive open online courses (MOOCs) started to take off, it has made institutions think really hard about how the digital environment is changing students’ mindsets. Also, the way in which we need to think about the education offering that we provide. Long gone are the days when information was scarce. You have to be able to mold that information in a way that is suitable for students. Now, anyone can get information at their fingertips, from any device. So, the role of institutions is changing, the role of education is changing. Now, there is much more downloadable information available, which impacts the sorts of questions you can ask when you have all that information. We want to make sure that Manchester is at the vanguard of what happens in the digital space. What happens in that space may be different for different institutions, so we need to make sure that we do something that is right for Manchester. And again, underpinning much of that, is ensuring that our students are digitally literate, so they can not only learn with our courses back here, but then go out to the workplace and really act as excellent employees and entrepreneurs and everything else that they do in the digital world. Just as our students need to be digitally literate, our staff do as well. And I think one of the things we are working towards is trying to get a parity of digital literacy between students and staff. Digital literacy of course doesn’t just mean using pieces of technology. It’s really about how we can use those in a rich education environment to try and extract the maximum benefit we can from it.
Imagine what it would be like if professors at your institution had a new career possibility: to teach reasonably complex topics to an artificial intelligence capable of understanding student questions and explaining various concepts, techniques and relations within a subject to students. What kind of implications would that have on the future of education?

This may resemble an episode of Black Mirror, but it’s actually happening at one of Brazil’s top business schools which intends to revolutionize executive education – and maybe adult education itself.

Saint Paul Business School, based in São Paulo and five times listed among the best in the world in the Financial Times ranking, spent all of the last year developing a platform called LIT which uses artificial intelligence in an unprecedented way. The project began to be executed in November 2016, with the contribution of approximately 40 vendors.

Onlearning: The Concept Behind the Platform

José Cláudio Securato, Saint Paul’s CEO and founding partner, explains that the institution has developed a concept called on-learning, which proposes a theoretical basis for how they believe the future of executive education will be, and also adult education in general - education for people in the job market. “LIT is the way we found to develop a product based on onlearning,” he explains.

But what does onlearning consist of? According to Securato, although the idea of lifelong learning is familiar to the different generations currently in the workforce, there’s something new in the air. People tend to have grown up hearing that studying is important, but learning tends to occur at certain times throughout life, not continuously.

“Our generation’s life-long learning is on and off, as if we turned on and turn off our learning mindset, as if there was a moment to learn and another moment when you don’t have to. That’s what happens today. But we think that’s outdated and that the learning process should be ongoing, like we were always on ‘learning mode’. That’s where on-learning came from,” explains the CEO, who wrote a book called Onlearning: How Disruptive Education Reinvents Learning (OnLearning: Como a Educação Disruptiva Reinventa a Aprendizagem, available in Portuguese only).
For Securato, learning doesn’t have to be monotonous. On the contrary, “It has to be more organic, more fluid, more intuitive. It has to be compatible with our modern life and with ourselves. Online learning disrupts the traditional model of learning, which is what we are proposing,” he says.

How Does LIT Work?

LIT is like a Netflix of courses. Students will pay 99 Brazilian reals per month (approximately 30 dollars) to get access to all course content available. According to the institution, even if you were willing to study eight hours a day, 365 days a year, you wouldn’t be able to consume more than 15% of the content which will become available on March 1st, the day the platform is set to be launched.

“We also have 1,500 exercises and case studies solved step by step, 7,000 books on our digital library and 10 MBA programs. It is, in fact, lifelong content,” says Securato.

The platform allows students to earn micro-certifications along the way, so they can acquire specific skills they need or want to develop. Upon completing these certifications, the learner has the option of completing a set of additional components in order to earn an MBA degree from Saint Paul, recognized by the Brazilian Ministry of Education, for a fraction of the cost of a traditional program.

Although delivering course content through a subscription platform is already an impressive innovation for a business school, Saint Paul decided to take it one step further. They also wanted student experience to be personalized.

In order to do that, Saint Paul has invested heavily in technology. They have combined the artificial intelligence technology IBM Watson with e-learning resources from Blackboard’s digital learning environment, as well as videos, a library, and a social network that connects everyone to everyone – you can’t add “friends” – used by students to talk about complex topics and share their experiences and knowledge in business.

Inside LIT, Watson is called Paul. Taught by Saint Paul professors and experts, Paul has learned a lot so far. He is able to identify the students’ strengths and weaknesses and personalize their learning. He also analyzes the students’ textual production and interactions in order to capture personality traits and suggest the most efficient ways for them to learn. And he can teach by talking to students and answering their questions.

“Paul is a supplementary method of learning, which doesn’t exclude the others. The platform contains a myriad of learning methods and Paul is one of them, a disruptive, innovative method, which it’s especially interesting because it allows learning to be unstructured, meaning that the student can start from wherever he or she wants,” says Adriano Mussa, academic & artificial intelligence research director and partner at Saint Paul Business School.

Paul Trainers

Founded and managed by teachers, Saint Paul prides itself of putting students first and professors right alongside them.

Securato and Mussa make a point of emphasizing that Paul can’t replace a professor. In fact, Paul has created a new role for the teaching staff: the institution already has professors whose title is “Paul trainer.”

“The professor teaches Paul, Paul teaches the student, the student teaches Paul and Paul has to teach the professor, who will continuously work in that content curatorship, since content isn’t linear, but cerebral, practically a neural network. So, the complexity of content curatorship is another role for the professor. What we are seeing is that Paul actually has expanded possibilities for professors in terms of professional performance,” says Mussa.

According to Securato, if the work of the professor is going to change, Saint Paul is getting ahead and saying how it’s going to change. With Paul’s evolution, according to the CEO, professors will have time to study more, learn more, teach more and guide students in more complex topics.

In Mussa’s opinion, the use of artificial intelligence in teaching is a natural advancement for society, because if the student is able to learn less complex, or reasonably complex subjects from Paul, then the professor can focus on teaching more advanced content.

Additionally, subjects related to the humanities remain a challenge for artificial intelligence, so the work of human professors is even more essential in those areas.

Democratizing Education

One of the greatest barriers for Brazil’s growth is the low efficiency level, as measured by any economic index, as Mussa points out. “So, if one of our major problems is inefficiency, Paul is helping us to take bigger steps as organizations, as society and as a nation. That’s what Brazil needs: high quality, personalized, democratized education. That’s our greater purpose, our role in Brazil’s social and economic change,” he says.

“When we consider all the innovative features that LIT offers for 99 reals, we know for sure that we are democratizing quality learning, which becomes accessible to millions of people that maybe wouldn’t be able to pay 40,000 reals for a Saint Paul MBA program. So it’s a profound change we are making,” says Securato.

Meet Paul, the Artificial Professor

An omnipresent professor that can talk to students any time they need, explain simple to reasonably complex concepts and relationships, disambiguate terms, and personalize learning according to each student’s personality. Paul is a very interesting idea and is one of a kind, to say the least – so far, no other educational institution has been reported to be using artificial intelligence in the same way. But how exactly does Paul work?

• Development

Paul was developed based on the technology IBM Watson. To allow professors without any coding knowledge to train him, a team of Saint Paul’s experts created their own algorithm.

• Training

Before Paul was ready to teach students, he needed to be taught. Experienced professors have spent 12 to 18 months learning how to do that. The first subject that Paul learned successfully was accounting.
The goal of the institution, over the years, is to transfer all their knowledge over to Paul.

**Cognitive Computing**

Paul is a new way to learn inside a platform with multiple learning objects. The student can learn by talking to Paul and asking him questions. When a student asks Paul a question, he uses natural language processing to understand what the student wants to know, and delivers an answer prepared by the professors.

**Unanswered Questions**

If Paul doesn’t have the answer the student is looking for, real instructors are available to help. However, when a question is unanswered, a process that Securato calls “content curatorship” begins to occur: a team of professors works quickly and continuously to teach Paul the new content, so the next time that question is asked he will know how to answer it.

**Personalization**

Paul can capture insights about the students’ personality and suggest better ways for them to learn. He can also adapt the learning options to the time the student has available: if a student says he or she only has 15 minutes to study on a given day, Paul will select the best learning option for that day.

**The 7 Onlearning Principles: Essentials for a Successful Onlearning Project**

1. **Life-long Learning and Learning in Micro-moments**

The idea of continuously learning throughout life makes more sense when you think of learning in micro-moments. “You can’t learn for the rest of your life at the pace of an MBA,” argues José Cláudio Securato, Saint Paul Business School’s CEO and founding partner. People now want immediate answers for problems that previously would have taken hours or even an entire day to solve. Just as important is the idea of learning in small periods along the day, like during the fifteen minutes you have while waiting for a meeting or while commuting. Learning should become a more fluid, organic process.

2. **Personalization**

Teaching in a standardized way was important in the past, when the biggest challenge in education was scalability. Today, we need to take a step further: personalization is now the key. Students have limited time and that time needs to be used in the most efficient way – a way that makes sense to each one of them. “If I only have fifteen minutes, I can’t afford to learn something that isn’t what I need, that won’t do anything for me. If it won’t solve my problem, I will switch to another app,” says Securato.

3. **Micro-certifications**

If students learn in micro-moments, why can’t they get a certification from micro-moments? Micro-certifications represent the idea that the students must be masters of their own learning, choosing their certifications according to their career needs and personal interests. Securato suggests the idea of a LEGO structure as a metaphor for learning. “That’s interesting because it allows the student to connect the pieces and set up the learning path that he or she wants,” says Securato. The big trend right now are the micro-certifications that offer the possibility of creating more advanced certifications when you add them up.

4. **Learning Through Social Media**

The idea of learning through a social network is not new: communities of practice have been doing it for decades. But the social media platforms that we have now can empower that concept in an unprecedented way. “We believe that the power of learning through social media is yet to be explored. We can put that together with the micro-moments and take learning into practice, because when you enter a community of practice, or a social network, you can exchange practical information with people who have more experience,” says Securato.

5. **Learning Through Artificial Intelligence**

Cognitive computing is based on two major groundings: the use of unstructured data and natural language processing. Why is that important? Students’ minds don’t work in a linear, structured way, so cognitive computing allows students to learn at their own pace and choose their own learning path (instead of following the order of chapters in a book, for example). Another point is that students can ask questions in their own natural language and the artificial intelligence will understand what they mean.

6. **Blended Learning**

Combining different methods of learning according to the needs and personality of the student is other important onlearning principle. On LIT, for example, students can acquire micro-certifications studying online and then earn an MBA from the institution by completing a few extra steps.

7. **Return on Investment**

Education can be very expensive, and the rate of return can be questionable. “Everyone knows that education offers return. What we want is a higher return on investment for students,” says Securato. “People are investing increasingly more in education, but generally speaking, their earnings are the same.” Democratizing access to education is an important factor for an onlearning project.
City of Westminster College

Encourage students to be resilient, independent and lifelong learners. This is the central focus at City of Westminster College (CWC) in the United Kingdom. CWC strives to ensure students achieve higher success rates compared to the country’s average, placing it among the 10% best-ranked colleges in the country and making it Central London’s Top Vocational FE College.

Esam Baboukhan
E-learning Manager at CWC

Julie MacArthur
E-learning Manager at CWC

Through CWC’s Virtual Learning Environment (VLE), students have continuous access to class content in and outside of the classroom, and their progress can be measured. “All of these things combined have increased the success rates, because they create a really good foundation for students to succeed on their courses,” adds Baboukhan.

The first online resource implemented at CWC was the ClickView, an online system designed to upload videos and track learners as they complete interactive questions. “This was a project implemented first with a challenging group, and the results were very satisfying. We piloted it last year with a group called N.E.E.T, which stands for ‘Not in Education, Employment or Training,’ so they were quite disengaged. What we found is that video really did engage this type of learner,” explains Baboukhan.

Baboukhan notes that the change has made it easier to access online content. “Moving to Moodlerooms really improved...”

An Inspirational Environment

All resources are available on the Virtual Learning Environment and, to avoid the ‘content depository’ mentality, City of Westminster College moved to Blackboard’s Moodlerooms LMS platform, making the VLE more interactive and attractive for students. “It is working out well, especially the landing page, with a wider range of courses. Every course in college here has a Moodle course, which students use to find information, answer quizzes and to submit assignments and assessments,” says Julie MacArthur, e-learning manager at CWC.

Baboukhan notes that the change has made it easier to access online content. “Moving to Moodlerooms really improved...”
the look and the feel of Moodle compared to our previous version. So now when students land on a Moodlerooms homepage, they are presented with a list of courses that we want all students to undertake. To encourage usage, we are trying to make the homepage as dynamic as possible and to change the content on a weekly basis, and that follows some of our learning themes that we have and run every month, so students always expect something new in the homepage.”

In addition, eTracker, a tracking system that links with the Management Information System (MIS), was implemented for both students and teachers. eTracker is a platform where teachers and tutors can create actions for learners, track their progress and provide them with guidance and challenging goals.

Another resource that is greatly used to improve learning is Microsoft Office 365. Every student and staff member has an account with storage and relevant programs.

“But what we’ve been pushing for more recently is the use of OneNote for Classroom, because it is far more interactive for students, and allows us to capture the learning of those students,” adds MacArthur.

To ensure that online courses are built taking full advantage of the interactive tools, CWC introduced the idea of digital badges to gamify some of the courses. “We believe that gaming encourages learners’ motivation and completion. We also want to ensure that all of our courses have auto-completion and tracking by default, and this is something we will introduce by September 2018,” says Baboukhan.

MacArthur thinks that a skilled and concerned staff member is also fundamental to ensure that students find an encouraging environment. “Student support is what really creates the effective learning environment, especially in the vocational context, which is what we really are. We have a section that most deeply focuses on vocational, so we have all the resources we need to make sure the students achieve a good qualification (education) and get what they need.”

E-learning Champions Scheme

With the aim to encourage independence, provide teaching staff with one-to-one support and improve their digital capabilities, CWC launched the E-learning Champions Scheme sometime last year. The pilot program offered three groups of teaching staff with hour-long sessions once a week, in the hopes that they can disseminate skills and help other staff members.

“We think it was a success, and now we are officially rolling it out to a new set of teachers this year. The idea is to use an approach where teachers can go through the scheme and that they will act as mentors or e-learning champions in their schools and spread good practices. It is a success, because we are working the confidence of teachers, and hopefully they will work as mentors in their schools,” comments MacArthur.

CWC is also implementing a digital ambassador scheme, in which a group of student mentors can help other students in the digital arena, such as privacy issues and proper social media use.

Microsoft Showcase School

CWC has been recently recognized by Microsoft as a Microsoft School, a program for schools working to transform education and integrate technology in their classrooms. The college is now working hard to also become a Microsoft Showcase School, a leadership-focused initiative to highlight and support a global community of schools engaged in digital transformation to create immersive and inclusive experiences.

“It demonstrates our commitment to embracing technology to transform education,” says Baboukhan. “We’ve set out some high targets to be in a position where we become one of the leading colleges in the UK that delivers good practices when it comes to using technology to personalize learning, engage learners and enhance the overall learner experience.”

SCORM

“We use a lot of SCORM Compliant materials delivered through the VLE. We use interactive videos that can be tracked in terms of assessment and views, and have plans to use the forums or Moodle to encourage reflection and dialog about students’ learning journey. We really feel this is an important area and it will only grow,” says Baboukhan.

SCORM (Sharable Content Object Reference Model) is a set of technical standards for e-learning software that determines how online content and learning management systems work together. Its main advantage is interoperability, and at CWC it provides access to e-learning content that covers a range of curricular areas and also all general content that is cross-college, related to employability, British values and other topics. The content is created by a software called Articulate Storyline nurtured by SCORM Compliant, which gives the teachers the ability to track learners’ compliance.

CWC hosts over 70 screencast videos demonstrating how all the teaching and learning systems that teachers are expected to use actually work. All teaching staff have access to this content and the videos, of approximately seven minutes each, are created by a college team and include subtitles and captions to make them accessible for staff. “We are only at the beginning of this journey, and we are putting a lot of effort and work to improve the e-learning provision in college in every aspect of our system,” concludes MacArthur.
Bethany Stolle
Design Research Lead for the Blackboard Product Design team

Designing Student Success Through Empathy

“‘It’s a struggle, to be honest. But it’s reality, and you can’t escape it. Sometimes you can’t eat. But nothing else matters now. Try not to fail or get probation. To be honest, education now isn’t about learning. It’s about passing.’

BY: BETHANY STOLLE, BLACKBOARD PRODUCT DESIGN

Tsong was studying Computer Information Technology part-time at an urban public university that caters to non-traditional students. He transferred there from a more expensive university so he could contribute to his family’s finances and accumulate less debt. As a first-generation college student and the child of refugees, Tsong did his best to manage a grueling schedule, support his family, and get by in his classes. He would have loved to earn A’s and B’s, but his metric of success was passing with a C or better—and he tried to be gentle on himself given his schedule and general stress level.

Much of the focus in North American higher education has been centered on how to support students across their academic journey. The ‘traditional undergraduate student’ no longer looks like someone between the ages of 18-24 who is enrolled in classes full-time and lives on campus.
In 1999-2000, 73% of first-time, first-year college students in the United States had one or more of the following characteristics which would place them somewhere on the continuum of ‘non-traditional’ students: financially independent, over age 25, delayed entry into college, full-time work, attending school part-time, have dependents, single parent, no high school diploma.

While a Learning Management System (LMS) like Blackboard has typically centered on engaging learners in the classroom experience, contemporary students’ needs are evolving, and a digital learning environment should consider the learner’s broader context.

That’s why last spring, several members of Blackboard’s Product Design team visited colleges across the country as part of an immersive, qualitative research project. We met Tsong and dozens of other students, advisors, and faculty to hear their stories, empathize with their experiences, and better understand the non-classroom dimensions of student success and engagement.

Some key questions guided our inquiry: How did students navigate their academic journey? What was the role of advisors along the way? What happened during an advising encounter? Were they helpful, overwhelmed, or confused by their financial situations?

We took all the photos, notes, milestone activities, and recordings from the research sessions and synthesized them into a set of core insights—provocative statements of truth about human behavior, that may be wrong.

**Student Success Research Insights**

- **Everything is a Financial Decision**

- A student’s real problem is always hidden—until it explodes

- Students trust the person they see the most

- Advisors trust the person they see the most

- Referrals are micro-rejections

The intent is not to study a small group to make statistically-significant observations and predict the behavior of a larger population. Rather, we focus on developing empathy, finding inspiration, and keeping the insights and stories in front of us to provoke new design ideas. What follows are some stories to ground each insight and point toward possibilities.

**Everything Is a Financial Decision**

James had been working as a financial aid advisor for seven years, and his best advice to help students save money was to graduate from college in four years. He and his colleagues had seen firsthand how a lack of basic financial literacy led students to make decisions based on their immediate monetary needs and not consider alternative approaches. Unfortunately, their academic and non-academic choices often had a cascading effect.

Isabel was enrolled in a private liberal arts college and expected to graduate from college in four years. He and his colleagues had seen firsthand how a lack of basic financial literacy led students to make decisions based on their immediate monetary needs and not consider alternative approaches. Unfortunately, their academic and non-academic choices often had a cascading effect.

Isabel was enrolled in a private liberal arts college and expected to accumulate $150,000 in personal debt by graduation. She lamented the fact that the student never met with an advisor to consider his options or the consequences of his choice.

A Student’s Problem Is Always Hidden—Until it Explodes

We heard from students who were one crisis away from potentially dropping out of college, and advisors with limited to no visibility into the challenges students faced.

Pamela had been an academic advisor for over 20 years and recalled one student who was on the verge of suspension for failing classes over multiple terms. Pamela learned the student had epilepsy and skipped class because she feared having a seizure; the student never met with her professors to work out a solution. Pamela was able to help the young woman get accommodations, enroll in online classes and independent studies, and access tutoring. The student ended up graduating with a 3.8 GPA and pursuing a master’s degree. What looked like a hopeless situation had a happy ending, but it required a proactive advisor who was willing to look beyond the presenting problem.

At one private university, we interviewed several advisors affiliated with the TRiO program (a federally-funded program to support students from underserved populations). These advisors met with their students at least monthly, and Kao noted, “When you’re able to build relationships with students and they’re not in crisis mode, it allows you to help them when a crisis does happen.” Robert, a faculty advisor at the same school, observed that, “If a student seeks me out, something is happening or they need help.”

Students tended to seek input from family and peers, especially when faculty and advisors seemed less accessible. Family and friends were well suited to offer emotional support, but often their advice was outdated, lacked a nuanced understanding of academics or financial aid, or didn’t appropriately consider the student’s context and experiences. This led students to make choices that didn’t align with their personal goals.

For example, Sofia continually registered for community college classes each semester. Right before the term began, she would drop the classes.
in order to work. For two years, she considered herself a college student but never attended courses or progressed toward a degree. Her father called the question, which prompted her to get serious about going to school. Sofia enrolled part-time and synced her schedule with a friend so they could study together and support each other. This kept Sofia enrolled, but the friend’s progress was delayed because she modified her plan to match Sofia.

Jason was going to a flagship four-year public university on a baseball scholarship. To keep players’ grades up for team eligibility, the school offered a robust support network of tutors and advisors who held sessions two or three times per week. Sometimes the advisors knew what Jason needed to do before he did. Even with highly-accessible, trusted advisors, when Jason wanted advice about school, he turned to his brother—a senior at a different public university and studying a different major.

Advisors Lack Agency to Make Real Change

“We advise, you decide,” was the mantra printed across posters in multiple advisors’ offices, reinforcing the fact that students are ultimately responsible for their own success. Advisors wanted to offer guidance but were hindered by caseloads ranging from 300-700 students, legal and school policies, self-disclosure requirements around students’ personal information, and outdated technology and communication methods.

Jessica was assigned to 700 students and estimated that the top third of her advisees were proactive, the middle third were not competitive but kept trying, and the bottom third generally did not respond and sought her out only when suspended or in crisis. She turned to templated emails, automated responses, and academic alerts to manage her workload. Jessica wished she could increase proactive interventions and 1-on-1 time with students before they were in serious trouble.

A military veteran and Chemistry major, Jennifer excelled academically but was deeply unhappy with her major because she wanted to be an actor. After a chance encounter with a friend, Jennifer looked into switching to a Public Relations major. She had to work with at least six advisors to change majors without losing her GI Bill benefits. Jennifer was glad to be moving closer to her desired career, but she had to take the initiative herself. Because she earned good grades, there were no objective measures or system alerts to trigger an advisor to intervene.

Referrals Are Micro-Rejections

Joan worked at the one-stop-counter on campus where students could ask questions about anything from registration to financial aid, to student accounts and more. She fluidly navigated between seven computer systems to respond to student questions and made sure she didn’t advise beyond her areas of expertise. Sometimes this meant referring students to other departments or even outside the institution.

While referrals were intended to be helpful, they became opportunities for students to be misadvised—or to get lost in the system. Referrals put the burden on students to follow up and make sense of sometimes-differing or conflicting advice. The problem was compounded when the institution didn’t have the tools or structure in place to track and find students who got lost along the way.

This was a major point of frustration for Robert, a faculty member with advising responsibilities. At his university, the notetaking part of the school’s Student Information System (SIS) was used inconsistently (if at all), and he didn’t know who else might be supporting a student. In lieu of this information, he either spoke directly to the student or issued an academic alert to activate help. Academic alerts were embarrassing to the student, and he couldn’t track the outcome. Robert was especially concerned about the dangers of poorly managed referrals for students with mental health issues, especially when there were already 85 students on a waiting list for on-campus counseling services.

“We’ve thought a lot about how to help students succeed...but the connection between [individual efforts] is unknown.” This quote from Robert articulates the challenge, but also an opportunity for a company like Blackboard to support students not only inside the classroom, but across the educational journey.

Our qualitative research revealed a few key areas that could have a large impact when it comes to improving student outcomes

1. Connecting students and advisors

Advisors play a critical role in helping students navigate college, but the onus is on students to seek out advising services. Plus, students are frequently derailed by non-school issues. We see an opportunity to build trust and facilitate access between students and a team of advisors, aided by qualitative and quantitative data about the student’s challenges. This breaks the reactive system that contributes to a culture of crisis.

2. Providing context and nudging toward action

Students are immersed in managing day-to-day life, which can keep them from attending to occasional milestones and big-picture goals. This becomes risky when action (or inaction) has a cascading effect. We think this is a chance to help students articulate their goals and nudge them to stay on top of key dates, while showing advisors progress so they can assess risk and intervene if necessary.

Sources

2. For the purposes of product design, we use Jon Kolko’s definition of an insight as “a provocative statement of truth about human behavior that may be wrong.” (http://www.jonkolko.com/writing/Process.php)
A new study by Blackboard and the University Professional and Continuing Education Association (UPCEA) explored educational experience through multiple generations. More than a thousand people in the United States were surveyed—and the results may surprise you.

**BY: PRISCILA ZIGUNOVA**

**JASON SMITH**
Executive Director of Enrollment Management, Georgetown University School of Continuing Studies

**CHRISTINA FLEMING**
Vice-President of Marketing and Enrollment Solutions, Blackboard

**JIM FONG**
Director of UPCEA’s Center for Research and Strategy

ARE EDUCATIONAL INSTITUTIONS COMMUNICATING WITH THE right tools and messages? Do they have the best services in place to care for students? Are their approach and processes in need of a full makeover or simply an update?

Answering these types of questions in order to understand the needs and preferences of the new adult learner was the goal of the study Navigating Generational Shifts: Understanding Today’s Student Demographics, Preferences and Expectations, sponsored by Blackboard and developed in collaboration with UPCEA.

The study surveyed 1,080 people between the ages of 18-35 in January 2017. The sample was provided by ResearchNow, a leading internet research company.

“The United States is very dependent on the four-year bachelor’s degree or the two-year associate degree,” says Jim Fong, director of UPCEA’s Center for Research and Strategy. “We believed that the upcoming generations have different educational needs and expectations, and that they also differ in terms of their marketing and communication preferences. That was our hypothesis.”

When the results came in, however, it was revealed that differences between generations do exist, but are not too dramatic. Instead, the results revealed there are some common aspects among all age groups.

“What we learned was that there are opportunities and concerns that are much more alike than we imagined,” tells Christina Fleming, Blackboard’s vice president of Marketing and Enrollment Solutions.
The biggest cause of concern and frustration across all generations, according to the study, was affordability. When asked about the most important factors or attributes that they consider when deciding on attending a college or university, the respondents put affordability first (66%), followed by program offerings (47%), location (41%) and reputation (31%). They have also named financial aid and scholarships as the leading factor to their educational success (59%), followed by academic advising and support (53%).

Although this was expected, the level of concern over financial aid and scholarship help was significant, says Fleming. “We knew that affordability would come up but we weren’t expecting to see the extreme level of concern over support services related to Financial Aid and scholarships, regardless of age.”

The concern around affordability reflects the rising cost of tuition in the United States and the growing amount of student loan debt. According to data assembled by the College Board organization, between 1997–98 and 2017–18, prices for undergraduate tuition and fees at private nonprofit institutions rose 65.2 percent, while prices at public institutions increased 110.3 percent, after adjustment for inflation.*

“Ten or 15 years ago, studies would say that students looked at value or quality first, and then price. But the United States higher education institutions have raised their tuition at such a high level that it has become the most important criteria now. People look at whether or not they can afford it and then they start assessing quality and the type of career they want,” says Fong.

According to a recent study by the Federal Reserve Bank of New York, student debt nearly doubled over the past decade. Americans owe over $1.3 trillion in student loans, which is more than the 2016 gross domestic product of Russia ($1,283 trillion). Borrowers leave school owing about $34,000 on average, a 70 percent increase from a decade ago.†

Furthermore, according to the Federal Reserve study, loan delinquency raised to 11.2 percent in the last quarter of 2016, the highest rate for all types of household debt. Consequently, student loan payment is coming after other imperative financial demands, such as mortgage payments, rent, and phone bills. In that scenario, in order to convince the adult learner to prioritize education, institutions need to demonstrate the return on investment, meaning they have to be very clear about how that degree or credential will benefit the students’ career in the immediate future.

In Fleming’s opinion, the best route for institutions when it comes to affordability is to focus their efforts around their student support services, and their ability to help students get real time assistance in sorting out their various financial options. The problem is that these services, which are crucial to students—financial aid and scholarship services – have earned the lowest scores in terms of satisfaction in the Blackboard/UPCEA research study.

“There are lots of options when it comes to financial aid and scholarship, and it’s confusing for students. Schools need to tackle affordability through offering the right services, to help them understand their options,” suggests Fleming. “It is equally important for a university to adequately communicate the return on investment that the student will achieve through job placement and career growth.”

Flexible Learning Options

Offering short-term learning options, such as credentials, micro-credentials, badges and certificates, is a trend that can’t be ignored, according to the survey results. It may be a consequence of our contemporary need to hurry, but the fact is that learners are interested in educational options other than conventional degrees.

“Especially the younger generation wants to be rewarded more often and for smaller modules of learning. They are very open to badges and certificates, and in fact, in a lot of cases if they can get the smaller pieces along the way, while getting their broader degree, that would be a preference,” says Fong.

“Micro-credentials or alternative credentials are really an exciting opportunity for institutions to try to offer programs that are shorter in terms of the time commitment and less expensive,” suggests Fleming. “They get the institution involved with that student, allow them to develop that relationship and then the student can stay consistently engaged with that institution, over a long period.”

Better Communication

Students want to find all relevant information easily on the university website, including costs. And they also expect to receive a reply from institutions within a 24-hour period. What’s more, they want to communicate via social media.

Many institutions are still not fully prepared to meet these expectations. “Schools are doing better about following up quickly and thoroughly,
but they are primarily using email to do that, and in some cases it is just an automated response,” points out Fleming. “The more that they can use human interaction and personalization to coach students along, the greater the opportunity to nurture students and keep that relationship very close.”

In some cases, says Christina, institutions are missing a fundamental point: having a well-devised website. “We learned that the first thing prospective students are going to do is browse the college website for information. And they are going to search online for costs, programs, ratings and reviews. So those are things that can’t be ignored. There has to be an evolving system that allows you to keep those tools updated and current.”

That means offering easy access to all information regarding learning options, return on investment and costs. However, Fong says that it is common in some cases it is just an automated response,” warns. “The more that they can see the price, and if they do not see the price they will become very frustrated and leave their internet search,” he warns.

Best Practices: Learn From Georgetown

The Georgetown University School of Continuing Studies is investing to truly transform their students’ experience. They have already applied many of the practices recommended in the study, in order to effectively tend to the different generations of learners.

Jason Smith, executive director of Enrollment Management, says that one of the most important changes made was regarding the school’s website. “A conscious effort was made to create a very outcomes-based website that speaks to the needs of prospective students today – especially those students interested in professional and continuing education. As the study demonstrated, all students are concerned about the value of higher education and this new website addresses this concern by pulling in facts around students are concerned about the value of higher education and this new website addresses this concern by pulling in facts around

thinking through ways to make the student experience more flexible and fluid, especially since we cater to such a variety of students from ages 16-70. There was a time that simply having a fully online program was sufficient, but students today want the ability to move in and out of modalities.”

For Smith, short-term, non-credit and online programs all need to play a role in the portfolio to attract and grow enrollments, while satisfying student demand. “Prospective students are looking at other ways of gaining the experience and competencies they need to succeed in the workforce. Flexibility and a creative approach to short-term credentials will certainly be a focus in the coming years, as we think through a variety of learning options to accommodate the demand from all of our students, regardless of generation.”

Why did you discontinue your program?

(18 TO 20)

GEN Z

(19 TO 21)

MILLENNIALS-Y

(22 TO 25)

MILLENNIALS-M

(26 TO 30)

MILLENNIALS-O

(31 TO 35)

MILLENNIALS-X

(36 TO 40)

**Cost was too high** | 33% | 44% | 46% | 19% | 30%
---|---|---|---|---|---
**Lack of financial aid** | 33% | 27% | 45% | 17% | 18%
**Already had a job** | 0% | 8% | 0% | 23% | 23%
**Didn’t know major** | 50% | 19% | 14% | 21% | 8%
**Didn’t fit in** | 17% | 12% | 7% | 6% | 15%
**Difficulty with courses/material** | 0% | 23% | 21% | 15% | 3%
**Parents didn’t go** | 17% | 4% | 4% | 0% | 5%
**More important responsibilities** | 33% | 46% | 18% | 42% | 33%
**Not convenient** | 17% | 8% | 11% | 11% | 8%
**Other** | 50% | 23% | 14% | 17% | 20%

**GEN Z RESPONSES %**

0% - 10% | 0% - 10% | 0% - 10% | 0% - 10% | 0% - 10%
11% - 20% | 11% - 20% | 11% - 20% | 11% - 20% | 11% - 20%
21% - 30% | 21% - 30% | 21% - 30% | 21% - 30% | 21% - 30%
31% - 40% | 31% - 40% | 31% - 40% | 31% - 40% | 31% - 40%
41% - 50% | 41% - 50% | 41% - 50% | 41% - 50% | 41% - 50%

**MILLENNIALS RESPONSES %**

0% - 10% | 0% - 10% | 0% - 10% | 0% - 10% | 0% - 10%
11% - 20% | 11% - 20% | 11% - 20% | 11% - 20% | 11% - 20%
21% - 30% | 21% - 30% | 21% - 30% | 21% - 30% | 21% - 30%
31% - 40% | 31% - 40% | 31% - 40% | 31% - 40% | 31% - 40%
41% - 50% | 41% - 50% | 41% - 50% | 41% - 50% | 41% - 50%

SOURCES


How to Teach a Student-centered Class

Instructors who teach online and hybrid courses face many challenges: Using technology in an effective and creative way, delivering personalized learning to increasingly bigger classes, managing limited resources and often heavy workloads.

Meet the Interviewees

- **Torria Davis** is Instructional Designer for the Online and Professional Studies (OPS) division of California Baptist University, in Riverside, California. She is also Adjunct Professor for OPS and the School of Education.
- **Brian Morgan** is Chair and Professor at the Computer & Information Technology Department at Marshall University, in Huntington, West Virginia.
- **Eric Kunnen** is Associate Director of eLearning and Emerging Technologies at Grand Valley State University, in Allendale, Michigan.

**E-LEARN: What is student success to you?**

- **RENE MARTINEZ, REGENT UNIVERSITY**: I believe the focus is on the mastery of the learning goals. We develop objectives by thinking about questions such as: What do we want students to know in order to achieve mastery? What do they need to be able to do to prepare for their field? Also, asking students to create their own personal learning goals is important because it gives them responsibility for their learning. You have more ownership of a goal if you are invested in it. Success is mastering the course and personal learning goals, which prepares students for the real-world.
- **TORRIA DAVIS, CALIFORNIA BAPTIST UNIVERSITY**: Student success is helping a student move from where they are to where they want to be. It’s up to the instructor to be in tune with the varied goals that students might have when they begin a course, and build a framework within the course to accommodate those varied goals.
- **BRIAN MORGAN, MARSHALL UNIVERSITY**: Student success is helping a student move from where they are to where they want to be. It’s up to the instructor to be in tune with the varied goals that students might have when they begin a course, and build a framework within the course to accommodate those varied goals.
- **ERIC KUNNEN**

**BY: PRISCILA ZIGUNOVASS**
student or the graduate feel they want to do. It’s not necessarily getting an A or making a million dollars. It’s all individual.

ERIC KUNNEN, GRAND VALLEY STATE UNIVERSITY: At the foundational level, student success enables and empowers students to achieve, to be able to successfully accomplish their learning goals, to complete courses and to earn degrees. In reality, it’s about putting students and their expectations, needs and desires at the center of our institutions. We are here, as educational institutions, to help students generate a willingness to learn and to help them persevere and put hard work into achieving their outcomes.

E-LEARN: What tools or resources do you use in order to personalize learning?

RENE MARTINEZ: In a student-centered course, we want our students to be active participants and to construct knowledge through interacting, engaging and sharing. I work with five tools that help personalize learning, and the first one is having them create their own personal learning goals. Secondly, self-assessment is a key component — I ask students to self-assess using a rubric so they can see where they are. The next tool would be formative feedback, and accept revisions. I will accept as many revisions as a student wants to submit until they earn the grade they want or until the course end date. Beyond providing guidelines and criteria that must be included in a successfully submitted assignment, I minimize telling them exactly how to complete the assignment and what tools to use to complete the assignment. In that way, students have the choice to blend their interests with the assignment guidelines and criteria. Once the assignment is submitted, I provide detailed feedback. This is where the learning takes place. This is where I engage students personally with their interests and the course content. If the rubric requirements are not fulfilled, students are invited to apply the feedback and resubmit the assignment for full credit, allowing the student an opportunity to internalize the learning and attain the objectives set for the course.

TORRIA DAVIS: My approach is three-fold — allow student choice, provide detailed feedback, and accept revisions. I will accept as many revisions as a student wants to submit until they earn the grade they want or until the course end date. Beyond providing guidelines and criteria that must be included in a successfully submitted assignment, I minimize telling them exactly how to complete the assignment and what tools to use to complete the assignment. In that way, students have the choice to blend their interests with the assignment guidelines and criteria. Once the assignment is submitted, I provide detailed feedback. This is where the learning takes place. This is where I engage students personally with their interests and the course content. If the rubric requirements are not fulfilled, students are invited to apply the feedback and resubmit the assignment for full credit, allowing the student an opportunity to internalize the learning and attain the objectives set for the course.

BRIAN MORGAN: What I like to do is to assign projects that are going to be of interest to them. Something that is not always just out of the book. For example, in my Web Programming class this semester, they are learning HTML, CSS and Java Script. But their final project is to develop a website for themselves, or for a fictitious business, where they want to sell something. And so, I motivate them by encouraging them to come up with something extraordinary, and some of the ideas that come in are just awesome. In Database class, I make all of their projects to be centered around a real-world issue, so that they’re developing something that may lead them to a job.

ERIC KUNNEN: I think the key for motivation and engagement is building social presence in courses. What we know about learning is that it’s a social endeavor, so there’s tremendous value in building courses that intentionally include active learning principles and social engagement through intentional instructor-student and student-student interaction. We know that students are more engaged in courses that use active learning; we know that students are more motivated with gamification or gameful learning opportunities; we also know that students that have seen the application of a content to the real world see the connection of the content beyond the class as well. Courses that are designed to include regular instructor communication, group work, facilitated online discussions, live collaboration, reflective journaling,
and timely assessment feedback, all help contribute to building a learning community.

**E-LEARN:** How can you predict student success or difficulties? And how to intervene effectively when needed?

**RENE MARTINEZ:** You can tell if a student is going to be successful based on the amount of participation they have within the course. In the discussion forums, I can see how many times they have come in, logged in and posted, and how they are following up in the dialogue with their group members. Before an assignment is due I send out a reminder, and then if a student does not submit it, I follow up with an e-mail right away. For the few students who do not follow up on that email, I will call them, and if I still do not hear from them, I will send a note to their advisors. The key to helping students who are having difficulty is to follow up with them and find out if everything is okay and what I can do to help them.

**TORRIA DAVIS:** Many years ago, I came across the presentation slides of Dr. Jill Kerper Mora, a professor of bilingual education from San Diego State University on the topic of “dimensions of instruction.” Her presentation consisted of three dimensions, that if managed well, would allow instructors to design courses at an appropriate level for their learners. First is the content dimension — how complex is the content. How can it be simplified? Second is the process dimension. What strategies are best suited for the learner given their current level of knowledge? And three, the product dimension, that is the learning outcome developmentally appropriate given the learner’s level of experience. To predict student success or difficulties, and intervene effectively, instructors need to analyze what is already known about the intentions of the course with respect to these dimensions, and the learners participating in the course. For example, is this an introductory or advanced course, are there pre-requisites learners need to enter the course, is the course theory-based or skill-based, etc. Then allow this understanding of the context of the course and the learners to guide all remaining course decisions for learning objectives, types of activities, instructional materials, and technology use.

**ERIC KUNNEN:** All institutions should be about student retention and student success, so I think we have some work to do there, of leveraging more effectively some of the data that’s hidden away in our LMSis. If you think about the power of big data, of learning analytics and predictive modelling, we have a plethora of possibilities to be proactive at predicting student success. Products such as Blackboard Predict and Analytics for Learn help us down the path and can help to accelerate campus discussions around the benefits and value of data. Also, on the topic of intervention, there is a lot of potential for looking at the idea of nudges, proactive student reminders, tracking activity through tools like the Retention Center and Performance Dashboard in Blackboard, and finally, personalizing how we interact and engage with students to help them create a guided pathway for learning.

**BRIAN MORGAN:** How I started was by just listening to students talking about how instructors were doing in other classes. It was funny, because at first, I really wasn’t doing it on purpose, but I started to change how I did things in class based on what I heard from students. I would also ask questions to a bunch of students to see what was working and what wasn’t. Then I started to simply offer customized feedback for my students, even the ones who were acing homework assignments. I try to push them and motivate them to go further, give them feedback and encourage them to try additional examples and problems, and I allow them to text me or ask questions, so it puts me more on their level.

**E-LEARN:** What would be your advice for instructors, teachers or coaches who want to start working in a more personalized way? What practices would you recommend?

**RENE MARTINEZ:** Start by forming a trusting, caring environment where you get to know your students and their learning style preferences. For example, in the discussion forums, you can group students by interest. I teach in the teacher education program and, in one of my courses, I group the students according to what discipline they are going to be teaching. I also teach, lead, and facilitate the learning process which encourages students to be active and engaged in their learning. Encouraging teamwork and collaboration through a professional learning community provides students with opportunities to construct knowledge, in essence, deepening their understanding of the content. Feedback that is focused and task specific helps students make improvements and allows them time to reflect and enhance their work in order to achieve mastery of their learning goals. These practices add personalized elements to the courses.

Success is whatever the student or the graduate feel they want to do. It’s not necessarily getting an A or making a million dollars. It’s all individual.
Online Learning, a Disruptive Innovation in Education

AN INTERVIEW WITH MICHAEL HORN

BY: CRISTINA WAGNER AND MICHAEL HORN
LEXINGTON, MASS., UNITED STATES

IN THIS INTERVIEW, HE SHARES HOW TO transform the educational system into a student-centered learning (SCL) approach, how to use online learning to maximize student success, and why online learning is considered a disruptive innovation in education. He also shares his perspective on the challenges of blended learning, as well as some of the trends educational institutions will experience in the coming decades.

E-LEARN: How would you define student-centered learning? We live in a knowledge economy, why is this approach important nowadays?

MICHAEL HORN: I think of student-centered learning as the combination of personalizing learning, meaning delivering the right learning experience at the right time, with competency-based or mastery learning, in which students move on as they master their learning objectives, not based on time. It basically means every student is going to learn; we are going to make sure we are doing the right thing for each individual, whether that degree of experience is a project, direct instruction, or individual tutor. If you go back a hundred years ago, when the factory model education system was created, we wanted to get as many students as possible through school with a minimal education level, and it was okay that some students really would get concepts while others just would not, because we had a place for them in the industrial economy. As for a knowledge economy though, you really need to make sure that every single student is mastering the basics, and then, is having opportunities to discover and build passion and fulfill their potential. We really need everyone participating in the economy in a much richer way, which means helping individuals fulfill their potential.

Michael Horn is an expert in online learning, blended learning, competency-based learning and student-centered education. He works with several education organizations to improve student learning experiences and his work has also led him to serve on education organizations advisory boards. He is co-founder of the Clayton Christensen Institute for Disruptive Innovation, a non-profit think tank, and is the author of the bestseller book “Blended: Using Disruptive Innovation to Improve Schools.” Horn holds a BA in history from Yale University and an MBA from the Harvard Business School.
E.L: In your experience, what are the determinant factors to achieve student success?

M.H: There are two elements I think about. The first one is the academic preparedness side of things: Are we giving students a learning experience that is appropriate for them based on their working memory capacity, their background knowledge on the subject, and so forth? Secondly, we need to think about their motivational level – that is, are students motivated to tackle something because they conclude that they are able to complete a proposed activity successfully?

E.L: How can schools and teachers use the opportunities that online learning provides in order to improve student engagement and maximize student success? You say that online learning is considered a disruptive innovation in education, why is that?

M.H: Online learning allows the teacher to be able to move between the students based on their individual needs because it is inherently flexible, and students can learn a given content at their own pace. It can therefore help to deliver the education that is right above their level so that it is sufficiently interesting and challenging, but not too hard that they grow disengaged and conclude that they can never ‘get it’. Also, that it’s not too easy that they grow bored. Online learning can help target and tailor the right learning experience, at the right time. The definition of a disruptive innovation is of an innovation that delivers something far more affordable, convenient, accessible and simple than previously existed, and basically it is disruptive relative to a tutoring experience. Tutoring is expensive for most students; Online learning, for the first time, gives teachers the opportunity to really tutor.

E.L: Teachers face a challenge when it comes to new technologies: they tend to get excited about the technology itself and end up forgetting about the learning objectives. What would you say about the educator’s role in keeping the experience focused on the learning goals?

M.H: It is true that a lot of educators get excited for technology’s sake, as opposed to thinking about what students are using these tools for, or if the materials students are delivering thru technology are high-quality. It is really on the educator to start with the fundamental “What am I trying to achieve here,” question. “What problem am I trying to solve, what opportunity am I trying to seize, what am I helping students achieve from a learning objective perspective?” Secondly, they need to question what success looks like in a given context. Then you start to ask how technology can help achieve that objective more efficiently and effectively.

E.L: Is there an ideal balance in blended learning? How can schools set that according to their reality? Is there a way low-budget schools can start working with student-centered learning?

M.H: There are all sorts of models and ways of doing this. I think it starts with understanding how much technology would really help my students for what I’m trying to achieve. It is figuring out what you think they need to experience, in order to hit the learning objective. And from a low-budget school’s perspective, absolutely. We see schools that will have one computer for every four to five students, and just do a rotation in a way that only a fifth of the class has to be on the computer at a given time. Often, technology is a way to be able to keep up with schools that have lots of resources.

E.L: How is blended learning going to develop in the next few years? What does it mean for the future of schools?

M.H: My sense is that, as blended learning continues to develop, a lot of schools are going to be transformed into much more of a community center, where students are coming to school for academic experiences that make sense for them, support around them, and so forth. Students will also do a lot of learning outside of school too, thanks to technology. The school as a community center, will offer mixed and matched services - everything from supervision and custodial care, to health and social-emotional needs. Learning experiences through online learning will be able to slide into the schools, to create the right experience for each individual student.

E.L: What about the future of student-centered learning?

M.H: We are going to see a lot more robust set of experiences over time, as personalization and student-centered learning march forward. I really want to see where the mobile technologies enter here. Right now, we say online learning, which is in some ways deceiving because, increasingly, mobile devices will be far more affordable and accessible to a much wider population. I think this is really exciting, and already under-encouraged apps like Smartly and Duolingo create unbelievable active learning experiences that are extremely engaging, and are some of the coolest ways to learn material now. In this new world of SCI, mobile learning will actually help advance us in the future.
Student-Centered Learning: The Driver of Our Learning Path

The concept of student-centered learning (SCL) goes back to 1968 when massive student protests took place against the elitism of universities demanding them to be open for all society.

Political recognition of SCL was gained in 2009 through the Leuven/Louvain-la-Neuve Ministerial Communiqué, where it was stated that student-centered learning requires empowering individual learners, new approaches to teaching and learning, effective support and guidance structures, and a curriculum focused more clearly on the learner in all three cycles. Later on, the importance of SCL and learning-outcomes based learning was reiterated in the Bucharest Ministerial Communiqué in 2012 and the European Commission’s Communication on Rethinking Education. In 2015, the Yerevan Ministerial Communiqué encouraged higher education institutions and staff in promoting pedagogical innovation in student-centered learning environments.

The approach of student-centered learning and teaching aims at empowering students to build their own learning experience and provide them with skills to challenge common knowledge. It is also based on the idea that students are not empty vessels waiting to be filled with knowledge, but they are in the driver’s seat of their learning experience.

The most important feature of the SCL approach is that it is not limited to a certain methodology but rather a cultural shift of the learning experience. Student-centered learning is based on flexibility and individualization of the learning process, meaning that teaching methods should be adjusted to the individual needs of a diverse student group.

The paradigm shift from teacher-centered toward student-centered learning brings frustration to some academics who assume...
that the application of SCL diminishes the role of the teacher. However, focusing on empowering students through SCL does not neglect the importance of the teacher, but shows his or her role as a facilitator.

SCL brings more functions to the role of the teacher, who has to facilitate the learning based on a process of constructing knowledge and new understanding, encourage an active approach to learning by doing, and guide students to self-directed learning with students taking increasing responsibility for their learning. This is the process where the student is encouraged to take ownership for his/her own individual learning path.

In order to map out a common understanding of the SCL concept by providing a common comprehensive definition, as well as guidelines and checklists for the implementation of the concept, European Students’ Union (ESU) and Education International (EI) jointly undertook the project Time for Student-Centered Learning (T4SCL), which ran from 2009 to 2010. The project led to the definition of SCL that is now widely used by educational stakeholders and policy-makers. This definition adequately captures the common knowledge.

At the conference launching the T4SCL project in May 2010, teachers and students examined the theory behind SCL. As a result, a list of nine general principles were outlined, as follows:

- **PRINCIPLE I: SCL Requires an Ongoing Reflexive Process**
  Part of the underlying philosophy of SCL is that no one context can have one SCL style that can remain applicable through time. The philosophy of SCL is that teachers, students and institutions need to reflect on their teaching, learning and infrastructural systems on an ongoing basis. This way, the student learning experience is continuously improved, and the intended learning outcomes of a given course or program component achieved in a way that stimulates learners’ critical thinking and transferable skills.

- **PRINCIPLE II: SCL Does Not Have a “One-Size-Fits-All” Solution**
  A key concept underlying SCL is the realization that all higher education institutions are different, as well as all teachers and students. Therefore, SCL is a learning approach that requires learning support structures, which are appropriate to each given context, and teaching and learning styles appropriate to those undertaking them.

- **PRINCIPLE III: Students Have Different Learning Styles**
  SCL recognizes that students have different pedagogical needs. Some learn better through trial and error, others learn through practical experience and some by reading literature.

- **PRINCIPLE IV: Students Have Different Needs and Interests**
  All students have needs that extend beyond the classroom. Some are interested in cultural activities, others in sports or in representative organizations.

- **PRINCIPLE V: Choice Is Central to Effective Learning in SCL**
  Students like to learn different subjects and hence, any offer of study courses/methods within the learning path should involve a reasonable amount of choice.

- **PRINCIPLE VI: Students Have Different Experiences and Background Knowledge**
  Learning needs to be adapted to the professional and life experience of each individual. For instance, if students already have considerable experience in using information and communications technology, there is no point in trying to teach them the same thing again; if they already have considerable research skills, perhaps it would be better to help them in theory.

- **PRINCIPLE VII: Students Should Have Control Over Their Learning**
  Students should get the opportunity to be involved in the design of courses, curricula and their evaluation. The best way to ensure that learning focuses more on students is by engaging students themselves in shaping their learning.

- **PRINCIPLE VIII: SCL Is About Enabling Not Telling**
  By simply imparting (telling) facts and knowledge to students, the initiative, preparation and content comes mainly from the teacher. The SCL approach aims to give students greater responsibility by enabling them to think, process, analyze, synthesize, criticize, apply and solve problems.

- **PRINCIPLE IX: Learning Needs Cooperation between Students and Staff**
  It is important that students and staff co-operate to develop a shared understanding of both the challenges experienced in learning, as well as their own challenges as stakeholders within their given institution, jointly proposing solutions that might work for both groups. Such a partnership is central to the SCL philosophy, which sees learning as taking place in a constructive interaction between the two groups.

The need to implement the SCL approach is very much in connection with the changes our world is undergoing.

The rapid developments of technologies and infrastructures transform the philosophy of education, which should not merely prepare us for our future life, but should be a meaningful driver in our present life. SCL is that very model that empowers us to shape the world starting on from one’s learning path.
UNITED KINGDOM

Tradition, Quality and Opportunities for International Students

Despite all of the concerns Brexit has raised for UK's universities, such as funding issues, the land of hope and glory remains a great choice for students who want to attend some of its most renowned and best-ranked higher education institutions.

BY: LEONARDO TISSOT

INFographics: TRIBU Studio

UK’S DEMOGRAPHICS

- LANGUAGE: English, Welsh
- POPULATION: 65.64 million
- GENDER: 50.7% female, 49.3% male
- CURRENCY: British Pound, Euro
- MEDIAN AGE: 40.1

BIGGEST INDUSTRIES: Accounting, architecture, construction, engineering, allied health, live-in care, nursing, teaching
**TOP 5 EDUCATION INDICATORS**

With excellent teacher pay, a fair number of universities in the World Top 100 rankings and more investment in education than the average of other countries, the United Kingdom is one of the best places to get a higher education degree.

**HIGHER EDUCATION PROFESSORS WAGES/SALARIES**

<table>
<thead>
<tr>
<th>Country</th>
<th>Male</th>
<th>Female</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>76,750</td>
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<td>63,525</td>
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<tr>
<td>France</td>
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<td>310,000</td>
<td>145,000</td>
</tr>
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<td>Germany</td>
<td>76,333</td>
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<tr>
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<td>281,391</td>
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<tr>
<td>Average*</td>
<td>64,750</td>
<td>230,000</td>
<td>147,375</td>
</tr>
</tbody>
</table>

*Average of the four European countries researched: France, Germany, Spain and United Kingdom

**FOREIGN STUDENTS**

With excellent teacher pay, a fair number of universities in the World Top 100 rankings and more investment in education than the average of other countries, the United Kingdom is one of the best places to get a higher education degree.

**NUMBER OF UNIVERSITIES IN TOP 100 RANKING**

<table>
<thead>
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<tbody>
<tr>
<td>UK</td>
<td>310,000</td>
<td>301,350</td>
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<tr>
<td>France</td>
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<tr>
<td>Germany</td>
<td>281,391</td>
<td>261,391</td>
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<tr>
<td>Spain</td>
<td>261,391</td>
<td>261,391</td>
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<tr>
<td>Average*</td>
<td>281,391</td>
<td>281,391</td>
</tr>
</tbody>
</table>

*Average of the four European countries researched: France, Germany, Spain and United Kingdom

**TERTIARY COMPLETION RATE**

<table>
<thead>
<tr>
<th>Country</th>
<th>Male%</th>
<th>Female%</th>
<th>Average%</th>
</tr>
</thead>
<tbody>
<tr>
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<td>50%</td>
<td>45%</td>
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<tr>
<td>France</td>
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<td>50%</td>
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<tr>
<td>Germany</td>
<td>37%</td>
<td>45%</td>
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<td>Spain</td>
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<tr>
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<td>45%</td>
<td>43%</td>
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</tbody>
</table>

*Average of the four European countries researched: France, Germany, Spain and United Kingdom

**GOVERNMENT EXPENDITURE IN RESEARCH AND EDUCATION**

<table>
<thead>
<tr>
<th>Country</th>
<th>Research</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>40.7 / 110.6 US$ BILLION</td>
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<tr>
<td>France</td>
<td>31.2 / 80.5 US$ BILLION</td>
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<tr>
<td>Germany</td>
<td>99.3 / 225.9 US$ BILLION</td>
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<tr>
<td>Spain</td>
<td>114.4 / 56 US$ BILLION</td>
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</tr>
<tr>
<td>Average*</td>
<td>43 / 110.3 US$ BILLION</td>
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*Average of the four European countries researched: France, Germany, Spain and United Kingdom

AS EARLY AS THE AGE OF 5, THE BRITISH START their journey in school. That’s when Primary Education begins for children in England, Scotland, Ireland, Northern Ireland and Wales and they take it very seriously since that early age. In 216, no less than 66% of pupils met or exceeded the expected standard in reading, 70% did so in mathematics and 74% achieved their goals in writing.

This was just the first year of the new national curriculum enforced in British primary schools. According to the UK’s Department of Education, the new assessments raised the bar on what students aged 5 to 11 must be taught, consequently preparing them for secondary school and beyond.

Then, from ages 11 to 16, comes the time for secondary education. Of course, not all students can go to Hogwarts, but all of them have a chance to get a great deal of learning. Over the past two years, the main goal is to prepare students for the General Certificates of Secondary Education (GCSEs), academic qualifications given for specific subjects. The GCSEs are highly valued by colleges and employers, so they are quite popular among young British students.

Out of all 50 available subjects, four of them are mandatory: English Language, English Literature, Sciences and Mathematics. Welsh and Irish Languages are also required in Wales and Northern Ireland, respectively. However, students are free to choose the other subjects they are going to specialize in – actually, they are encouraged to take a wide range of subjects so they can keep their options open for the future.

The UK has a 46% completion rate in tertiary education, which is a good rate when compared to other countries researched for this piece – although Canada, Japan, New Zealand and Singapore have superior numbers. The United Kingdom is ranked 18th in the System Education World Economic Forum ranking.

What is a matter of concern for British educators is the rise in the student dropout rate during the first year of college. In 2014-2015, 6.2% of students quit higher education even before getting to the second year.

**The UK Has Some of the Most Renowned Universities in the World**

With over 100 universities – and 13 of them being listed in the World’s Top 100 rankings – the United Kingdom is one of the best places in the world to get a university degree. However, it’s one of the priciest too: local students spend an average of US$ 5,900 per semester to study in their best campuses and international students pay more than twice that amount as the average cost is US$ 12,900 per semester if you come from another country.

After school, British students can continue studying or apply for jobs. Nevertheless, before going to a higher education institution, if they choose to, students are required to attend further education. Similar to the GCSEs, the A-level is a two-year program that develops their academic abilities before attending college.

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The UK is considered the most scholarship friendly country in the world. Top-ranked institutions, such as Cambridge and Oxford, offer scholarships that cover full tuition costs.

Business and administrative studies, biological sciences, subjects concerned with medicine, social studies and creative arts & design are considered the top five majors in the UK.

All universities in the UK demand a tuition fee – none of them is public or government-owned, like in most countries. They are independent organizations and the majority of them have some kind of government funding – still, students that want to get a degree have to contribute financially, unless they have scholarships.

Recently, the financing of universities has become a sensitive issue in the UK. With the country’s decision to leave the European Union (EU), and the subsequent inability to access EU funds for higher education, institutions are becoming increasingly more concerned that international students might not be able to go to the United Kingdom to get a degree anymore. The number of 438,000 international students is expected to drop in the near future, considering 127,000 come from other EU countries. As if this wasn’t enough trouble, Brexit could also have a bear on research funding, which is also seen as a major concern.
Improving the Quality

Although universities are capable of collecting a huge amount of data, they do not always put it to good use. That’s why they are being encouraged to impact students’ lives with information and data to support their studies, while helping them be more efficient.

The Teaching Excellence Framework (TEF) is a new way to improve the quality of British universities. As a government-based assessment of undergraduate teaching that includes all higher education institutions in England and also some in Scotland and Wales. They can be awarded with Gold, Silver and Bronze distinctions. In 2017, 42 institutions (out of a total of 134) were considered Gold in the TEF.30

As a way to improve students’ experiences at universities, schools like the University of Nottingham, for example, are also monitoring student attendance – which includes being present at all teaching activities, undertaking all assessments and informing universities when they’re not able to do so. The universities report non-attendance to British education authorities such as the Home Office and Student Loans Company when required.31

5 UK Highlights in Education

1. The United Kingdom is the second country with more universities in the World 100 Top Rankings (13 institutions), just below the United States.32

2. Proportionally, the UK is also #2 in number of universities on the Top 100, with Singapore taking the lead. It is worth noting that Singapore has only eight universities and two of them are on the list (25%).

3. The UK is also #2 on e-learning usage ($20,000 online students), just below the United States.33

SOURCES


17. DATOS 2015 CSCC Instituto Y Centro [PDF] (2016, October). Agenzia Estatale Consiglio Superior de Investigaciones Científicas


66 67
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Digital exams take about 25% of the time that it would take to mark a paper-based version, which is a significant saving. This time can be invested in creating a much better form of feedback for students.

Professor Richard J. Reece
Associate Vice-President for Teaching, Learning and Students at The University of Manchester

Learning doesn’t have to be monotonous. On the contrary. It has to be more organic, more fluid, more intuitive. It has to be compatible with our modern life and with ourselves.

José Cláudio Securato
CEO and Founding Partner at Saint Paul Business School

The definition of a disruptive innovation is of an innovation that delivers something far more affordable, convenient, accessible and simple than previously existed, and basically it is disruptive relative to a tutoring experience.

Michael Horn
Co-Founder of the Clayton Christensen Institute for Disruptive Innovation