EARN No.13

experience for everyone

MOODLEROOMS 3.0. a better learning









ACCESSIBILITY IN E-LEARNING:

WHAT TO KNOW,

WHAT TO **AVOID**

IMS GLOBAL LEARNING CONSORTIUM

simplifies education technology through interoperability

E-LEARNING TRANSCENDS TIME

and distance in Sharp's training goals **HIGHLIGHTING THREE DIFFERENT PERSPECTIVES OF ACCESSIBILITY:**

the student, the instructional designer, and the institution

P.28



The open source learning experience by **Blackboard**

Rediscover Moodle



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For more information please contact CAROLINA.PINTOR@BLACKBOARD.COM

PRODUCTION

Carolina Pintor

EDITOR

Manuel Rivera

CONTRIBUTING EDITORS

Tyler Stike

PHOTOGRAPHY

AFP

ART AND DESIGN

SPECIAL THANKS

Phill Miller, Foong Yee Leong,
Nicolas Albouze, Terri Ann
Bennett, Kelly Lemar, Anita
Hopper, Jaslyn Hughes, Karen
Underwood, Jason Hardin, Jarkko
Elo, Massimo Morigi, Andy
Holohan, Gleidson Medeiros.

PROYECTOS SEMANA

DIRECTOR

Mauricio Sojo Vásquez msojo@semana.com

JOURNALISM

Laura Orozco Castrillón, María Paula Triviño Salazar, Catalina Sánchez Montoya, Nicolás Peña Ardila, Natalia Perdigón Beltrán, Gabriela Restrepo Betancur, Ángela M. Palacios Giraldo and Christina Gómez Echavarría.

DESIGN

Camila Mejía Valencia, Miguel Ángel Sánchez and Catalina Losada Salgado

PHOTOGRAPHY EDITOR Mario Inti García Mutis

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From the editor

IN 2016. WE HAD THE OPPORTUNITY TO

discover and share the experiences of many Moodlerooms clients. Thanks to our global presence, there are now more than 1,400 clients with stories detailing how teaching and learning has changed and improved through various online learning technologies.



e are delighted to present **accessibility** as our main theme for this edition.

Accessibility is a fundamental feature of content development that makes education more inclusive for everyone, regardless of their conditions. We will also feature a special infographic with tips about what to do and what to avoid when it comes to creating accessible e-learning.

We also introduce the launch of Moodlerooms 3.0, the platform's latest version that offers better educational experience for everyone. In addition, we thank Drew Mirque from Simmons College in Boston, United States; Mari Jussila from the University of Helsinki (Finland), Valcenir do Vale Costa from the Centro Universitario Adventista de São Paulo — UNASP — (Brazil), KS Sze from the International College of Music (ICOM) in Malaysia and David Balfour and Bree Sigsworth from the Australian Film and Television Radio School (AFTRS), a school that has produced four Academy Award winners.

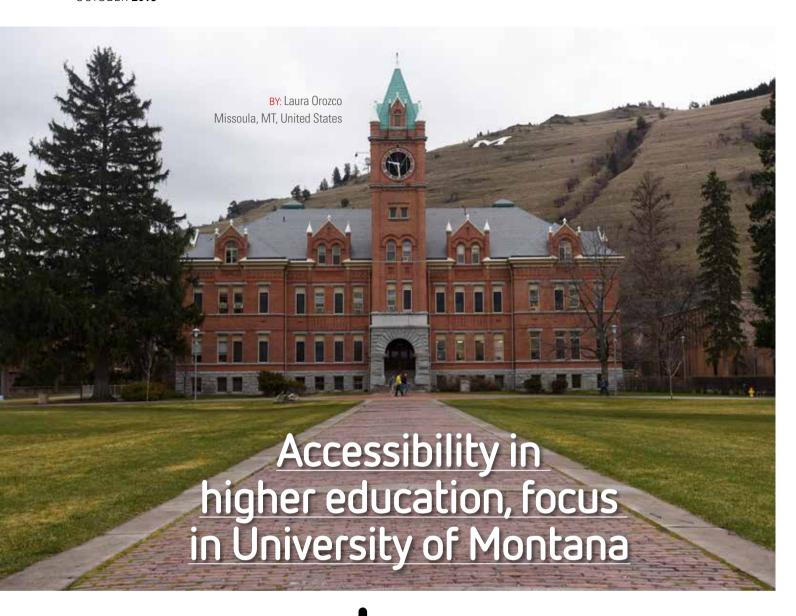
In this edition, we interviewed Rob Abel, CEO of IMS Global Learning Consortium, where we speak about the interoperability of educational platforms. We also want to thank Sharp's participation led by Raul Pastorfide, Assistant Manager for Marketing, Business Solutions Centre- Asia, Chiara Galli from American Institute for Foreign Study (AIGS), Kristin Harrison from Caldwell Community College & Technical Institute, Sean Moran from Independent Schools Foundation (ISF) in Hong Kong and Jim Fazzine from Baltimore County Public Schools. Thanks to Fréderic Dardel from Paris Descartes University for allowing us to interview him.

Before concluding, it is essential that we mention our internal heroes: Stuart Lamour, our "user experience expert" and creator of Snap, and Oleg Figlin, Vice-president of International Consulting at Blackboard, both of whom contributed and proved why we have the strongest technology solutions team for learning and teaching.

We would like to thank JoAnna Hunt, Nicolaas Matthijs, Marlene Zentz, Aaron Page, and Bevin Rainwater for their participation. They provided different and enriching perspectives on accessibility.

Sincerely, The E-Learn Magazine Team

04



FOR THE UNIVERSITY OF MONTANA.

innovation and accessibility go hand in hand. By working with Moodlerooms and the Moodle Accessibility Collaboration Group, the institution strives to provide an online learning management system that is accessible for all students, including students who are assistive technology users.

ocated in Missoula, the second largest city in Montana, the University of Montana welcomes around 13,000 students to programs covering various fields of knowledge, ranging from the humanities and the sciences to forestry and health. The university offers these programs through fully online, blended, and face-to-face courses. Any course with an online component uses the learning management system, Moodlerooms, for the delivery of electronic content.

In addition to facilitating communication between professors and students, supporting document sharing, and providing online working spaces, the Moodle-rooms learning management system also provides new accessibility features that improve the learning experience for all users, including students with disabilities. One of the major improvements has been the development of an accessible Advanced forum. Forums provide opportunities for online discussion, and Moodlerooms created the Advanced forum to be fully accessible and then

made it available to the open source community. According to Marlene Zentz, UMOnline's Senior Instructional Designer and Accessibility Specialist, "The Advanced forum now allows all students to easily participate in online discussions and fully understand the meaning being conveyed there. The forums we were using prior to the Advanced forum had both usability and accessibility barriers that posed major problems for screen reader users".

Moodlerooms also created a new "born accessible" course theme called Snap that makes it easier for faculty to create accessible online course content. This accessible course theme is responsive and intuitive for students to use. Moodlerooms has released this development to the open source community as well, for Moodle 2.7 and above.

"MOODLEROOMS ALSO CREATED A NEW "BORN ACCESSIBLE" COURSE THEME CALLED SNAP THAT MAKES IT EASIER FOR FACULTY TO CREATE ACCESSIBLE ONLINE COURSE CONTENT. THIS ACCESSIBLE COURSE THEME IS RESPONSIVE AND INTUITIVE FOR STUDENTS TO USE".

These improvements are in part a result of the collaboration between Moodle-rooms and the University of Montana. UMOnline accessibility specialists Aaron Page and Marlene Zentz both worked with Moodlerooms to provide usability testing and accessibility perspectives on the Advanced forum and the Snap theme. Page himself is an assistive technology user so he is able to test prototypes with his screen reader and provide highly valuable user information to product developers.

The University of Montana and Moodlerooms were also instrumental in creating the Moodle Accessibility Collaboration Group (MACG), an international group formed during the summer of 2013 to improve the accessibility of core Moodle. Core Moodle is the foundational open source system that Moodlerooms and many other Moodle partner systems are built upon so accessibility work with it is critical. The Moodle Accessibility Collaboration Group now includes individuals and universities from around the world and continues to welcome others to participate the group's efforts.

So far, the learning management system changes and improvements at the University of Montana have had a positive impact in the student community and also among faculty. According to Zentz, "The university has found that products designed with accessibility in mind from the beginning have a better 'look and feel' and work much better for all students, including students who are using assistive technologies to successfully complete their degrees in higher education".

Zentz has also worked to provide more information about accessibility to other universities around the state of Montana. In 2013, she founded the Montana Accessibility Interest Group (MAIG), which meets virtually on the first Friday of each month. During these one-hour meetings, accessibility experts from around the nation present on topics ranging from captioning to math accessibility to alternative text for complex images and much more. Participants now include members from other states and anyone interested in accessibility is welcome to join these conversations.





HOW DO YOU TEACH CREATIVITY? THIS IS THE MAIN QUESTION THAT THE AUSTRALIAN

Film Television and Radio School (AFTRS) has been asking itself from the very beginning, since it took on responsibility for fostering the country's film industry. AFTRS has a very high reputation, having had five students nominated for the Academy Awards and four who have actually won an Oscar. One of the winners was Andrew Lesnie, the cinematographer behind Lord of the Rings.

avid Balfour, who is the Head of Teaching and Learning, and Bree Sigsworth Pryce who is the Course Leader talked about what it's like to teach the passionate pursuit of excellence that AFTRS is known for and how online resources have helped in their efforts to impart knowledge.

When AFTRS was trying to take advantage of the new enthusiasm for e-learning in 2014, it was careful to understand that teaching online isn't necessarily better just because it's online. It wanted to make sure that online learning would be the best way to get information across to its students, and if it wasn't, it wouldn't use it. The first obstacle it came across was handling

equipment. Being so well known around the world, AFTRS is recognized for having some of the best equipment on the market, and students look for that when they enroll. It was impossible to send a student who signed up for an online class a high-end camera so they can learn. This made them think that teaching cinematography online wasn't a possibility.

What David and Bree realized was that teaching both the theory behind cinematography and the technical part on a camera in a classroom leads to information overload. Students don't fully understand either the theoretical or the practical part. They decided it would be best to teach things like color, composition, and movement online. That way, students would fully grasp the concepts and go back to the lesson, since it was online, to review them. Afterwards, they would be asked to make a recording of what they had learned using any camera they wanted, either their smartphone camera or a more professional one. That

way, they would focus on the theory they had learned instead of on the technology, and finding a low-tech solution would, in turn, fuel their creativity.

After students grasped the key concepts, they could go to their on campus class, put their knowledge to the test, and try out the equipment. It's outdated to think that the best alternative is for a student to sit in a classroom to hear someone speak for hours, since the classroom should be used as a workshop, for exchanging ideas and for practicing a skill. The same goes for radio and television, where students need to learn not only how to manage certain topics but also how to handle equipment. David and Bree have found that by far the best way to teach is via blended learning. When the school first adopted e-learning, it was nervous about whether it would be able to maintain its reputation and provide the best teaching while also teaching creativity without face-to-face interaction between teachers and students.

Both David and Bree agree that although it hasn't been an easy ride it has been interesting, even though they have faced some challenges. However, every time they have made an error, it has helped them to make the next decision in terms of their e-learning curriculum. AFTRS started its online program in 2015 with about 10 online courses. Some ran for only one semester and showed they didn't work well, while others lasted for the full two semesters. Based on that, they decided they would keep online teaching in 2016.

"AFTRS DECIDED TO ADOPT E-LEARNING BECAUSE THEY FELT IT REALLY OFFERED EVERYTHING THEY NEEDED".

Because of what **Moodlerooms** gave them in terms of technology and plugins, they decided to adopt e-learning because they felt it really offered everything they needed. One thing they had to keep in mind was that the production of screen and broadcast content is a highly collaborative art form. There is no way one person can direct, act, film and write. With this in mind, they needed the technology that would allow students to cooperate with each other. One important factor that they have found keeps creativity alive in classes that usually take place once a week is keeping an open forum all the time, where the dialogue between teacher and students never stops, so there's no break between classes and students are always alert to something that might enrich the conversation.





Something else that AFTRS has established is that it doesn't necessarily employ teachers who are very academic or who have a lot of teaching experience, but rather people who are coming directly from the industry, such as screenwriters who have just written a movie, to teach what it's really like to write for Hollywood and other industries. Through a process of induction and mentoring all industry practitioners are given the skillset to start teaching their craft. The same goes for students, who are accepted purely on merit. A portfolio that shows much creativity and potential is more likely to be chosen than one that illustrates perfect technique.

Even though the Australian Film Television and Radio School's online program is still in its infancy after 15 months, both David and Bree agree that there is enthusiasm for this mode of delivery. Basically, AFTRS takes three important things into consideration when planning its curriculum.

- 1. Prioritizing the outcome of the class. Figuring out what the student should look like by the end of the course, what the main parts of the class will be and what teaching method to use. That way, it can find out if the class should be completely online, blended, or if it would be better for it to be taught on campus.
- 2. Talking continuously with the industry. Knowing what is expected of students when they graduate, what steps the industry is taking next and preparing students to be able to handle them, and giving them sufficient practice so they are prepared for the workplace.
- 3. Having no fixed point of view when teaching creativity, as everything has to be evolving. Creativity is born through practice, through doing, through reflection and through a community. Creativity is about taking risks and losing the fear of failure. Creativity can't be right or wrong, it's an ongoing evolution of someone's idea.

Baltimore County Public Schools and the steps taken to improve opportunities for student success

BY: Christina Gomez Echavarria Baltimore, MD, United States

HAVING 174 PUBLIC SCHOOLS IN A

single system can seem hard to handle, even more so when there is a worldwide transition into digital and blended learning. 174 is the number of schools, centers, and programs in the Baltimore County Public Schools system, and together they educate over 111,000 students. It's a challenge to understand that each of those students has specific needs and specific interests, and that each has a different goal in terms of building his or her education and future.

im Fazzino is the Supervisor of E-Learning in Baltimore County Public Schools, and works with any BCPS middle or high school interested in allowing its students to access E-Learning. BCPS defines the E-Learning program as distance, blended learning. Students accessing E-Learning may (or may not) attend a traditional school for some classes and spend a different part of their day attending digital classes or virtual seminars on a variety of topics or subjects.

Just as writing on stone was the predecessor of paper, the telephone was the predecessor of E-Learning for Baltimore County. There used to be a model in Baltimore County where students would phone into a conference call with the teacher and have conversations about assignments and listen to a class. This was happening about five years ago, when people started thinking differently about meeting the needs of each student.

E-Learning in Baltimore County Public Schools works to provide innovative solutions to scheduling challenges. There are some students who want to take an advanced-placement class that is not offered at their school, so the need exists to create class options during and outside traditional school hours. Jim Fazzino works with schools and other central office leaders to identify student

course needs and develop solutions. Some students want to take additional math courses when they get to high school, so E-Learning runs additional math classes from mid- March until August to support middle school students' goals.

Some students may have personal or health reasons for not being able to attend a traditional school, and have the option of E-Learning classes. Others simply want to graduate earlier, and use E-Learning to increase their number of credits. BCPS uses a co-enrolment process, which enables students to attend traditional schools and take eLearning courses. To this end, a central office for E-Learning was created.

Jim says that teachers see the value in providing students non-stop access to education. Although the day can't be longer than 24 hours, the fact is that learning never ends. With this model, students are able to meet and interact with teachers and classmates during regularly scheduled live webinars, access digital content at any time of the day or night, message teachers throughout the day, and submit work when they are confident that they are ready. Teachers are able to customize learning based on students' needs, and often allow students flexibility in how they want to explore material or demonstrate mastery.

Jim has 13 full-time E-Learning teachers on staff, and demand is so high that another dozen teachers from traditional schools teach E-Learning classes as an extra-pay duty in the afternoons or weekends. Some retired teachers with vast experience in education also wanted to get in on the movement, and teach a couple of digital classes per year. In all, there are about 35 different classes delivered through E-Learning, and many of them have multiple sections.

JIM FAZZINO IS THE

Moodlerooms is one of the platforms they use to host content and facilitate coursework, and they have been using it since 2011. Jim explains that Moodlerooms allowed them to negotiate as a team how best to structure digital content and discover best practices in delivering content to students. He says it represented a great learning opportunity for them, as an E-learning office, to have serious conversations and determine some best practices in blended learning.

"MOODLEROOMS ALLOWED THEM TO NEGOTIATE AS A TEAM HOW BEST TO STRUCTURE DIGITAL CONTENT AND DISCOVER BEST PRACTICES IN DELIVERING CONTENT TO STUDENTS."

Education and opportunity are definitely the backbone of E-Learning, but along with them comes a responsibility to allow all students to have the same tools. If a student doesn't have a device or internet access to attend E-Learning classes, BCPS will loan him or her one and provide the necessary resources to make it happen. And this doesn't stop at students. BCPS also gives teachers in the county professional development to support the use of blended learning practices. E-Learning is one of the many programs BCPS embraces in its STAT initiative—a system wide digital conversion where students and teachers in traditional schools are moving toward blended learning in student-centered environments. Jim adds, "BCPS E-Learning services about 1,000 students a year, and it's great to be part of the BCPS Team where we are all working together to increase achievement for our 111,127 students. We are constantly learning from our partners in the classrooms, and sharing our digital teaching experiences with them."

This is a constantly evolving program, and the beauty of it is that education will never stop, neither after high school nor after college. The implementation of E-Learning is just one more step that Baltimore County Public Schools has taken to improve opportunities for student success.



TODAY, COMPANIES UNDERSTAND

that managing human talent increases their productivity levels. Personnel, who are being properly motivated, well-trained and informed, will help sustain the momentum of any business. Sharp is one of them.



BY: Catalina Sanchez Singapore, Singapore

MOVING FORWARD WITH ELEARNING

The Business Solutions Company of Sharp Corporation, whose main products are Office Solutions (Multi-Function Devices -MFD) and Visual Solutions (Interactive White Boards and Professional Display Panels) kept expanding its operations, specifically in Asia Pacific and the Middle East.

IN 2016

It is with this reason that the regional organization, Business Solution Centre — Asia, decided to give the business an additional boost, by focusing on the area of human capital development. They started to look at incorporating eLearning tools with the purpose of disseminating business critical information, training employee's skills to improve the quality of customer service that meets customer's expectations and improving its brand value in the region.

It was precisely with a view to guaranteeing that its growing customer's expectations would be satisfied, that Sharp came up with the initiative of introducing online training programs, so that its technical and commercial staff could fine-tune their knowledge, boost their skills, and thus become the best representatives of the brand.

HOWEVER, LIKE MANY INITIATIVES, THIS COMES WITH A FEW CHALLENGES

The biggest challenge was how to reach the thousands of its employees covering the Asia Pacific and the Middle East — not all of whom speak English. Another challenge was how could they get people from different cultures to connect to the same knowledge inherent to the Business Solution Company products? And — How do you measure the competence of these participants and be certain that they acquired the skills expected of them?

Easy: via **Moodlerooms**. This learning management system covers everything at once: practicality, closeness, ease of understanding, timelessness and, above all, collectivity. This online tool is one of the few tools that transcends time and distance.

AND SHARP KNOWS THAT!

When the organization started creating content, they prioritised a clear purpose of reaching as many employees as quickly as possible, through information blocks that could also be used to corroborate previously acquired knowledge and, at the same time, do practical exercises. According to Raul Pastorfide — Assistant Manager for Marketing, Business Solutions Centre- Asia, whose team handles eLearning content "The eLearning Site is run pretty much like a school. These courses are offered every 15 days to all registered members. All participants are encouraged to complete the said course and examinations on those stipulated dates. This process has created a sense of urgency and importance"

For the moment, they have started out with Technical Training for Office Solutions, which comprises of Multifunction Devices (MFP's) targeting their service engineers. They are now in the process of expanding their academic portfolio to include courses for Sales. Very soon, they will start the development of courses that will cater to the needs of the Visual Solutions, which comprises of Interactive White Boards and Professional Display Panels.

At the moment, all courses are written and administered in English. But there are plans to expand it into languages that support the region.

So far, the response has been extremely positive. Among the immediate positive effects are that employees who have undergone the courses have become more confident in themselves and in their abilities, which is fundamental to achieving any company objective. Interaction with customers has been more formal and informed and this is clearly reflected in results of their service calls. Lastly, they are able to steadily meet customer expectations — all essential in sustaining the growth of the Business Solutions Company in the region.

SHARP CORPORATE OVERVIEW

At Sharp Corporation — a company known worldwide for its unique one-of-a-kind electronic products and solutions, our challenge is to create a balance between work time and personal time, with products that can benefit people's lives at work, at home, and everywhere in between.

While Sharp Consumer Electronics can enhance your enjoyment, add to your comfort and open new perspectives — Sharp Business Products can boost your office productivity at the same time reducing operating costs.

Sharp products are designed to help individuals, families, and corporate teams connect effortlessly, communicate clearly, and unleash creativity like

never before. Furthermore, Sharp is dedicated to improving people's lives through the use of advanced technology and a commitment to innovation, quality, value, and design.

SHARP BUSINESS IDEOLOGY

Sharp Corporation is dedicated to two principal ideals:

- "Sincerity and Creativity"
- By committing ourselves to these ideals, we can derive genuine satisfaction from our work, while making a meaningful contribution to society.

"MOODLEROOMS IS A
LEARNING MANAGEMENT
SYSTEM THAT COVERS
EVERYTHING AT ONCE:
PRACTICALITY, CLOSENESS,
EASE OF UNDERSTANDING,
TIMELESSNESS AND, ABOVE
ALL, COLLECTIVITY".

"MAKE PRODUCTS THAT OTHERS WANT TO IMITATE"

Sharp's founder Tokuji Hayakawa, coined this phrase to embody the management concept at Sharp. In 1912, he invented the snap belt buckle and three years later brought the Ever-Sharp mechanical pencil to the market. Since then and for over 100 Years, Sharp has been on the cutting edge of technology, consistently innovating new appliances, industrial equipment and office solutions, thus changing the lives of people around the world.

*For more corporate information visit: http://www.sharp-world.com/

*For more information about Sharp Office Solutions in Asia visit: https://www.sharpsolution.asia/

SHARP BUSINESS PHILOSOPHY

We do not seek merely to expand our business volume. Rather, we are dedicated to the use of our unique, innovative technology to contribute to the culture, benefits and welfare of people throughout the world. It is the intention of our corporation to grow hand-in-hand with our employees, encouraging and aiding them to reach their full potential and improve their standard of living. Our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders... indeed, the entire Sharp family.





A better experience for everyone

MOODLEROOMS ANNOUNCES A NEW VERSION OF THE PLATFORM WITH

enhancements that enrich teaching and learning experiences for teachers and students. With this new version there are 3 main topics to cover: Moodle 3.0 core improvements, Moodlerooms 3.0 improvements, and new Mahara 15.10 features.







ENHANCEMENTS AT THE CORE OF MOODLE:

Moodle undertakes improvements at the core of the platform each six months. These enhancements are available to any Moodle user with version 3.0, including all Moodlerooms users. In this new version, the most prominent enhancements are for Moodle Mobile, specifically with the Chat, Survey and Query features. These activities have been improved to increase their functionality on mobile devices.

Another important enhancement to Moodle 3.0 is the expansion of the Questionnaire activity with four new questions types. The new question types increase the possibilities of Questionnaires and support teachers' work when assessing them. The four new types of questions are: Select missing words, Drag and drop text, Drag and drop over an image, and Drag and drop markers. All four are oriented towards evaluating students' ability to associate and relate concepts.

Accessibility has played a defining role in the new version of the Moodle platform. Blocks' structure has been improved so that screen readers can read them more easily. Likewise, Moodle 3.0 also contains an important improvement related to math, which is difficult for screen reader software to interpret. Thanks to new compatibility between Mathjax and JAWS, equations can be exported to Moodle and JAWS, a popular screen reader program, will process them for users. These improvements reinforce the objective of making Moodle an accessible platform for everyone, irrespective of physical disabilities.

MOODLEROOMS 3.0

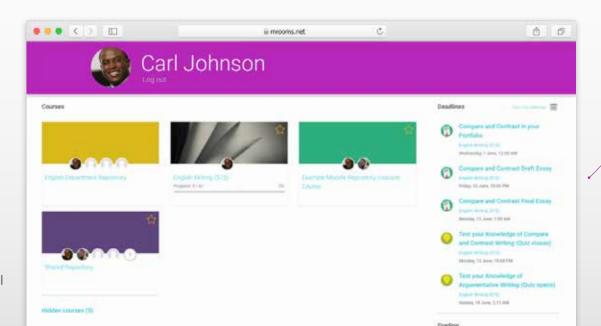
In Moodlerooms 3.0, the powerful predictive analytics technology behind X-Ray Learning Analytics supports a new feature that allows instructors to see main course data quickly and easily. This new feature is presented in form of a data bar located at the top of the page and provides key data to instructors at-a-glance when entering a course.

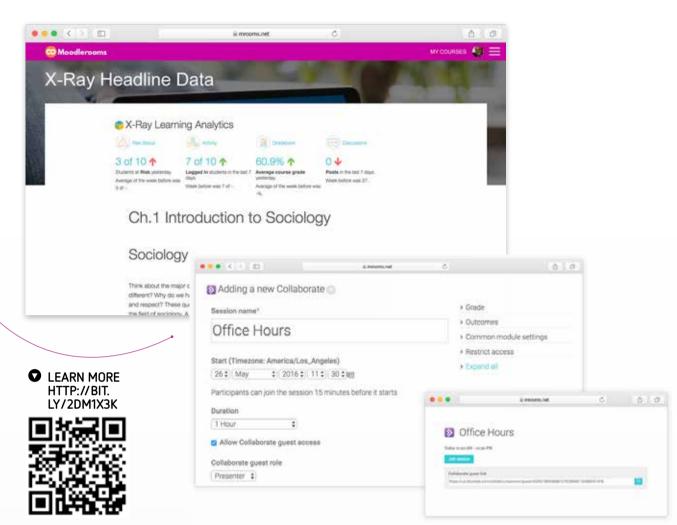
With this, X-Ray Learning Analytics improves the presentation of its reports, making large-scale data analysis easier for teachers to interpret.

In addition, Blackboard Collaborate, the market-preferred videoconferencing tool (available as an activity within Moodlerooms), supports two new features: a link for guests that facilitates third-party access to a videoconferencing room, and the ability for students to download recordings, allowing them to have a record of every class/discussion they view on Collaborate.

The user experience gets an upgrade as well. In the 3.0 version of Snap (developed by Moodlerooms), users will benefit from improved presentation of content, including the ability to see key data, such as deadlines and grades, on course home pages. Also, users can now mark a course as a favorite and rearrange the order courses are displayed in. Teachers will see course that are active first and inactive courses will be hidden unless they want to view them improving the ability to engage with the most important courses.

There are also improvements for the mobile version of Snap: every page in the "My courses" area has been collected under a button at the bottom of the screen, allowing the user to easily navigate between pages. At a tap of a finger, students can see deadlines, feedback, items pending grading, messages and new forum posts. This reduces the amount of scrolling and taps users must make to access the information that is most important to them.







MAHARA 15.10

Blackboard is now a Business Partner of Mahara, and thanks to the Open Source division of Blackboard will be able to access the e-portfolio services (version 15.10 is known for Bootstrap-based themes) through Moodlerooms. Additionally, this new version offers significant enhancements to the administrator's reports, increased workflow performance and ability to give direct feedback. Finally, it displays collections and work diaries in a more convenient way.

To find out more about the enhancements included in Moodlerooms 3.0, visit www.moodlerooms.com. $\pmb{\omega}$







IMS Global Learning Consortium simplifies education technology through interoperability

THE IMS GLOBAL LEARNING CONSORTIUM (IMS

Global) is an international non-profit organization that develops and supports interoperability standards to promote collaboration between education technology organizations and applications. Since its founding in 1995, the IMS Global Learning Consortium has approved and released more than 20 open standards for the community.

iven the countless options surrounding learning technologies (LMS platforms, applications, etc.), teachers, trainers and instructors are understandably baffled when faced with the infinite possibilities of programs and content. IMS Global's goal is to standardize the interoperability of educational applications and platforms.

Interoperability renders education technology more affordable and multiplies participation and educational achievements. The standards set by the IMS Global are underpinned by the idea that open education technology standards grant institutions greater access to tools and

products with which they can innovate. Because of this, we will take an in-depth look at how the IMS Global uses certain parameters—such as usability, scope and educational impact—to encourage innovation.

HOW DOES IMS GLOBAL FUNCTION?

We can refer to three aspects that allow IMS Global to enabler better digital teaching and learning experiences.

ADAPTATIONS OF INTEGRATIONS AND PLUGINS:

IMS Global's interoperability standards save time, cut costs and improve integration between systems, because all applications certified by IMS use the open standards to connect and exchange data. The low cost and the swift integration mean that institutions have the flexibility and facility to securely add learning tools, digital content and applications to meet the different needs of their learning programs.

A LARGE ECOSYSTEM AND AN OPEN ARCHITECTURE:

IMS provides an open architecture that is contributed to by world leaders in education technology. In this environment, learning and teaching platforms—as well as tools, resources and applications—can evolve based on the necessities of institutions, teachers and students.

Moreover, IMS conformance certifications guarantee that products have implemented the standard correctly for which they have passed testing. If an organization experiences an integration issue with a product that is IMS certified, it will work with the supplier to resolve the problem.

EFFECTIVE COLLABORATION BASED ON MEMBERS:

IMS Global has demonstrated that major educational institutions and education technology providers can make high-impact progress when they collaborate. To achieve this, IMS creates a flexible, innovative and sustainable learning technology ecosystem among its members. Because of this powerful collaboration, IMS member organizations also have the individual opportunity to help shape the future of these technologies.

WHO IS INVOLVED?

Leaders in learning technologies from all sectors belong to IMS GlobalL. Some experts represent organizations that contribute to educational communities and promote the positive transformation of education. Some organizations that support interoperable standards between platforms and applications include Blackboard, Educause, eLumen, IBM, Harvard Business for Educators,

Intel, Microsoft, McGraw Hill Education, Moodle, Oracle, the University of Michigan and the University of Toronto, among many others.

Organizations that participate in IMS Global also promote the use of standards internally.

E-Learn Magazine had the opportunity to talk to Rob Abel, the CEO of the IMS Global Learning Consortium, and Sandra DeCastro, Vice-President of Community Programs at IMS Global Learning Consortium.

E-Learn Magazine: WHAT IS THE IMPORTANCE OF

IMS'S PRACTICES AND INITIATIVES?

IMS Global Team: IMS Global is focused on the future of education technology and learning. IMS provides an architecture and an ecosystem of plug and play technology, where a base is created on which innovative products can be rapidly deployed and work together.

IMS GLOBAL'S INTEROPERABILITY
STANDARDS SAVE TIME, CUT
COSTS AND IMPROVE INTEGRATION
BETWEEN SYSTEMS, BECAUSE ALL
APPLICATIONS CERTIFIED BY IMS
USE THE OPEN STANDARDS TO
CONNECT AND EXCHANGE DATA.

With the adoption of IMS standards, organizations save a substantial amount of time, cut costs and improve system integration by a factor of 10 to 1000, as compared to connection customized Application Programming Interfaces (APIs), because all applications certified by IMS use the same open standards to connect. These savings are evident for providers and for the staff of the institution responsible for EdTech integrations.

Low costs and swift integration mean that institutions have the flexibility and facility to add learning tools, digital contents and applications to meet different needs in a quick and secure manner. These digital resources can be organized as the institution desires, either through a single repository or by means of multiple access points (for instance, a learning management system, a content portal or a repository of learning objects).

When applications use IMS-certified standards, a productive and innovative experience is created: teachers and students can seamlessly access digital resources in their learning environment through a single sign, and relevant data, such as lists and analysis results, can be exchanged automatically. This means that teachers, students and parents can follow the progress and skills of a student, derived from multiple tools and digital resources at a single and the same place. A directory of IMS-certified products is available at www.imscert.org.

E.L.M: HOW CAN EDUCATION BE IMPROVED WITH IMS'S INITIATIVES? WHAT ARE THE PEDAGOGIC AND EDUCATIONAL BENEFITS FOR HIGHER EDUCATION AND BUSINESSES?

LEADERS

OCTOBER 2016

IMS: The global challenge of having a better education and learning for all citizens worldwide is a great task we will face in the future. More effective educational models. better access to digital resources, opportune information on students' progress, and the ability to customize learning according to each student's needs: all of this contributes to the improvement of teaching and learning. To firmly move forward in teaching and learning, it is necessary to allow innovative technologies to be integrated easily and collaborate smoothly.

IMS is leading a collaboration initiative to implement an interoperable technology platform based on open standards to bolster educational innovation aimed at improved teaching, the adoption of new pedagogic models, access to the most opportune information and personalized learning.

ELM: WHAT ARE SOME CHALLENGES IMS WILL FACE IN 2016?

IMS: The educational community is concerned because providers are not worried about adopting the most recent IMS standards, such as Learning Tools Interoperability® v2 (LTI® v2)and Caliper Analytics. Only a few organizations have adopted these standards to date, which leaves many benefits unrealized. Of course, these standards alone aren't critical, but they do make things easier. Thus, in higher education, providers are contributing new capabilities such as analytics and consultancy. In K-12, they are bringing recommendation and evaluation engines, all of which are scalable and function with interoperability standards.

Institutions can help speed up the adoption of IMS

certification for IMS standards. You can see who has been certified by searching the IMS Conformance Product Directory at www.imscert.org. By doing this, institutions are not only helping to speed up standardization, but also providing themselves with a better learning experience, thanks to better learning technology, and avoiding over-dependence on providers.

E.L.M: WHAT ARE THE MAIN PROBLEMS ON WHICH

IMS SHOULD FOCUS ITS EFFORTS?

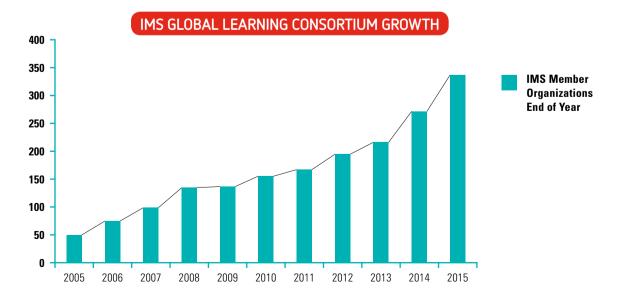
IMS: IMS's priorities are defined by our members, based on pressing interoperability challenges for the adoption and evolution of a fully integrated digital learning environment. Our current set of institutional initiatives are focused on:

- Helping institutions in the transition toward a fully digital and effective curriculum
- Implementing the plug and play ecosystem across platforms, applications and tools
- Transitioning to a truly integrated and interactive E-Assessment tool to facilitate personalized learning
- Improving real-time access, data and analysis applications to improve transverse educational results
- Leading the future in digital accreditation and competence-based education

E.L.M: WHAT CHARACTERISTICS SHOULD AN INSTITUTION POSSESS TO BECOME A MEMBER OF IMS?

IMS: IMS Global membership is open to schools, universities, school districts, academic technology providers, educational associations and government institutions interested in developing and launching onto the market a set of open standards to make applications, content and data to "plug and play."

After 10 years of spectacular growth, IMS Global has become one of the largest and most influential standards consortium worldwide, with about 360+ member organizations. In short, there is no bigger collaboration of EdTech organizations—all of them engaged in creating an open platform to facilitate standards by requiring their providers to adopt and achieve more efficient teaching and learning innovations—anywhere in the world.





E.L.M: WHAT ROLE DO ORGANIZATIONS PLAY IN SUPPORTING IMS?

IMS: The role of organizations consists of actively contributing to collaboration to advance the interoperability revolution in the educational sector. IMS has three types of membership: voting members, known as Contributing Members (CM), Affiliates and Alliances.

Contributing Members provide 90% of financing and leadership to advance IMS initiatives. The Affiliate membership level is ideal for organizations that wish to get involved with IMS, but have just started to implement IMS standards. Alliances provide organizations implementation support and certification for one standard.

E.L.M: HOW CAN THE E-LEARNING COMMUNITY BE INFORMED ABOUT IMS' WORK?

IMS: Fortunately, we are experiencing an increased interest in the work of the IMS community as a result of the base efforts of our members to help raise awareness through presentations at conferences, publications and webinars.

We also rely on close collaboration with organizations in the industry to generate greater awareness about how IMS standards may facilitate next-generation digital learning. In the sector of higher education, this includes organizations like ED-UCAUSE, Online Learning Consortium, WCET, Collective Shift, C-BEN and APLU, K-12 collaborations include ISTE, CoSN, Ed-Fi and The Learning Counsel, among others. We also host the annual Learning Impact Leadership Institute, which is a global program recognizing the impact of innovative technology on access to, affordability and quality of education.

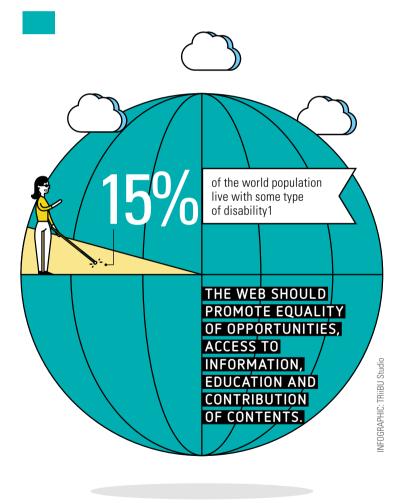
IMS envisions and works toward a future where education innovations are not driven by profit but by necessity. In a world of non-traditional students and increasingly global access to education materials, their standards are of the utmost value, as they allow institutions everywhere to share knowledge, ideas, and innovation.

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Accessibility
NOWADAYS, WE ARE LIVING IN A
multicultural world, where globalization has provided
us with the possibility to interact with people from
all over the world and know about their ways of life, beliefs and customs. We are living in a world where everybody is different; some of us like warm weather, know, what while some others prefer cold weather; some prefer dress in white and others in black. All this has dress in white and others in black. All this has resulted in the development of products, services, and environments in line with different to the development of products. environments in line with different types of needs.

onetheless, instead of thinking about differences in preferences, it is necessary to think about the physical differences we may have, and being aware that everything around us should be designed in order to allow us participate in our environment without any obstacles. At this point, inclusion and accessibility began to play a leading role in the development of products, services and environments. Physical differences go beyond the size or eye color; in this particular case, we are referring to the different types of disabilities people may live with.

According to the World Health Organization (WHO) more than one thousand people in the world, which means, 15 percent of the world population, live with some type of disability¹. This provides a very big opportunity for inclusion, which is, at the same time, an opportunity to improve these people's wellbeing. The field of action for the improvement of their quality of life ranges from the physical access to rural and urban infrastructure to, for instance, access to education and citizen participation.



Accessibility is the ability for people to access to and WHAT IS participate in any product, service or environment ACCESSIBILITY? regardless of their disabilities or special needs.

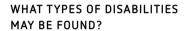
PRODUCT

SERVICE

ENVIRONMENT

WHY IS WEB ACCESSIBILITY SO IMPORTANT?

Because browsing in internet and using the web is currently an indispensable matter for many aspects of life: academic training, work, politics, shopping, health, recreation, among others. Moreover, the web should promote equality of opportunities, access to information, education and contribution of contents.



A disability is the impairment or limited ability of a person in relation with the usual standard of an individual or group. There are different types of disabilities which, generally, limit a person's involvement in specific environments. Disabilities may be comprised as follows:



VISUAL IMPAIRMENT: partial or low vision, blindness or color blindness.



HEARING IMPAIRMENT: hearing loss and deafness.



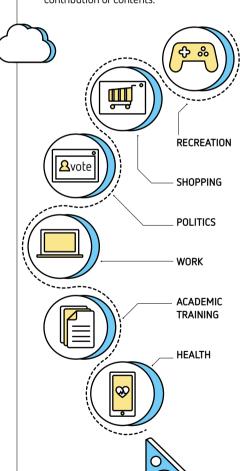
MOTOR ACTION IMPAIRMENT: loss or functional limitations in muscular control or movement limitations.



SPEECH IMPAIRMENT: speech language disorders and vocalization and articulation difficulties.



COGNITIVE IMPAIRMENT: limitations in the ability to think or reason, which affect the execution of tasks.



WHAT IS WEB ACCESSIBILITY?

"Web accessibility refers to the ability of people with disabilities or special needs to understand, perceive, browse, interact, and contribute in the Web. Web accessibility also benefits people whose abilities have changed due to aging".3

1 WORLD HEALTH ORGANIZATION, PRESS CENTER, IN: HTTP://WWW.WHO.INT/MEDIACENTRE/FACTSHEETS/ FS352/ES/ . CONSULTED ON: SEPTEMBER 8TH. 2016

2 DISABI ED WORLD, DISABILITY DEFINITION, IN: HTTP://WWW.DISABLED-WORLD.COM/DISABILITY/ TYPES/, CONSULTED ON: SEPTEMBER 19TH, 2016

3 WEB ACCESSIBILITY INITIATIVE. WHAT IS WEB ACCES-SIBILITY. IN HTTPS://WWW.W3.ORG/WAI/INTRO/ACCES-SIBILITY.PHP. CONSULTED ON: SEPTEMBER 7TH, 2016

ACCESSIBILITY

OCTOBER 2016

ACCESSIBLE EDUCATION IS SYNONYMOUS WITH WELLBEING

Let's focus on the teaching and learning fields, a scenario where inclusion of everyone should be an essential requirement. Currently, the

education portfolio is so wide that we might be learning something even if we are, for instance, in the top of a mountain, just requiring technology

(an LMS platform), contents and the proper device. These three elements should avoid, however, falling into accessibility errors.

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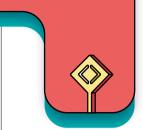
COGNITIVE IMPAIRMENT

- Complex browsing mechanisms and page designs that are difficult understand and use.
- Complex phrases that are difficult to read and with unusual

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words, long text passages without images, graphics, etc.

· Webs and media players not providing mechanisms to suppress animations or audios. · Page design not adaptable to different types of browsers or devices.



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elearnmagazine.com

COMMON **ERRORS IN** THE WEB, **PLATFORMS AND** CONTENTS:45

Software developers, program designers, and teachers alike usually fall into errors that are against the accessibility standards for every type of disability. Some of common errors are: (1)

HEARING IMPAIRMENT

- Content supported on audio only, such as videos with voices and sounds, without subtitles or transcriptions.
- Media players not showing subtitles and without volume controls.

· Web-based services, including web applications, based on interaction through voice only.

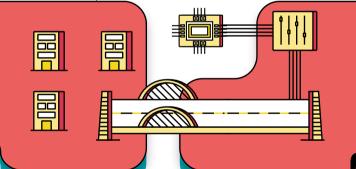
 Absence of sign language to complement important information.

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SPEECH IMPAIRMENT

- · Web-based services, including web applications based on interaction through voice only.
- · Web sites offering telephone numbers as the only way to communicate with the organization.



VISUAL IMPAIRMENT

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- · Images and other structural elements without text equivalent alternatives.
- Designs, images, and pages where size cannot be changed or lose information when rescaled.
- · Absence of visual and nonvisual signs for orientation, page structure, and other browsing aids.
- Media players that do not offer options to adjust text size and colors.



- · Web sites, web browsers, and creation tools that do not provide support for a full keyboard.
- Insufficient terms to respond or complete tasks, such as filling out questionnaires online.
- Video content with no text or audio alternatives, as well as descriptions on those.
- · Web sites, web browsers, and creation tools that do not provide support for a full keyboard.

WE ALREADY KNOW WHAT ACCESSIBILITY PRACTICES SHOULD BE AVOIDED. NOW, LET'S LEARN **ABOUT SOME GOOD PRACTICES** TO HAVE **ACCESSIBLE LMS**

AND CONTENTS.

4 W3C. WEB ACCESSIBILITY INITIATIVE. DIVERSITY OF WEB USERS. IN: HTTPS:// WWW.W3.ORG/WAI/IN-TRO/PEOPLE-USE-WEB/ DIVERSITY. CONSULTED ON: SEPTEMBER 8TH, 2016

5 COOLFIELDS CONSUL-TING. WEB ACCESSIBILITY, TYPES OF DISABILITY. IN: HTTP://WWW.COOLFIELDS CO.UK/2010/11/WEB-AC-CESSIBILITY-TYPES-OF-DISA-BILITY/. CONSULTED ON SEPTEMBER 8TH, 2016.

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TIPS TO RENDER THE WEB, LMS AND CONTENTS ACCESSIBLE⁶



CHOOSE AN ACCESSIBILITY-FRIENDLY CONTENT MANAGEMENT

SYSTEM OR LEARNING MANAGEMENT SYSTEM: it is advisable to know how to choose the theme, make sure that content players or tool bars are able to run

accessible contents.



LINKS SHOULD HAVE DESCRIPTIVE AND **EXCLUSIVE TITLES:**

it is advisable to name links with more information than the usual "click here".



GAME

↑ ↓ □ → ←

ABOUT OUESTIONNAIRES:

when fields in a questionnaire are not properly labeled, it may cause difficulties for the learner. A suggestion is to use descriptive names on the labels and use the ARIA specification (a set of special attributes for accessibility that may be added to any label, but especially adapted to HTML)7.

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USE TABLES TO TABULATE DATA:

using tables instead of fixed images with charts is extremely useful as screen readers are able to provide information on the number of columns and rows as well as on the information that they display.



CONTENT MUST BE ABLE TO BE ACCESSED THROUGH THE KEYBOARD IN A LOGICAL WAY:

Users with motor disabilities should be able to access contents by using a keyboard and clicking the "tab" key or the "arrow" keys, including people who only use their mouths and a stick to access. As a result, the presentation order and the visual order of the content must coincide.









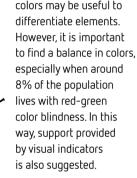
USE TITLES CORRECTLY TO ORGANIZE THE CONTENT STRUCTURE:

screen readers are capable to play content if this is well organized by hierarchies. It is recommended to have a clear label structure - h1, h2, h3, h4 - etc.



USED CAREFULLY: colors may be useful to differentiate elements. However, it is important especially when around 8% of the population lives with red-green color blindness. In this way, support provided by visual indicators

COLOR MUST BE





USE ARIA FEATURES:

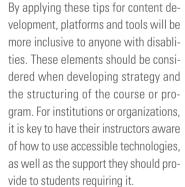
this set of attributes enables accessibility to the web structure; it is screen reader-friendly and improves the browsing experience. Attributes are easily





MAKE THE DYNAMIC CONTENT ACCESSIBLE:

video players should be handled from the keyboard, as well as to have the subtitles and voice transcription options. Moreover, when contents are updated, the ARIA features will issue alerts that may be taken by screen readers.



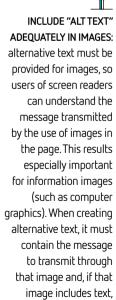
Access to an inclusive education is a development goal that should involve organization at all levels and sectors, regardless their regional context. Reality shows that we are all different and that we need to provide the same opportunities, to ensure that accessibility is a requirement we should be reflect on in all the areas of our life.

The matter is not about "understanding persons with disabilities" as they are not unprepared to assume the challenges of the today's world; it is about society developing any accessibility components that may affect people's lives.

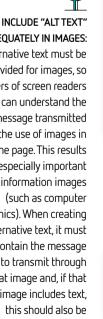




7 MOZILLA DEVELOPER NE-TWORK. ARIA. IN: HTTPS:// DEVELOPER.MOZILLA.ORG/ ES/DOCS/WEB/ACCESSI-BILITY/ARIA. CONSULTED ON SEPTEMBER 9TH, 2016.



included in the alt.



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BEVIN RAINWATER ACCORDING TO THE INSTRUCTIONAL **AARON** PAGE THE STUDENT MARLENE ZENTZ ACCORDING TO THE INSTITUTION

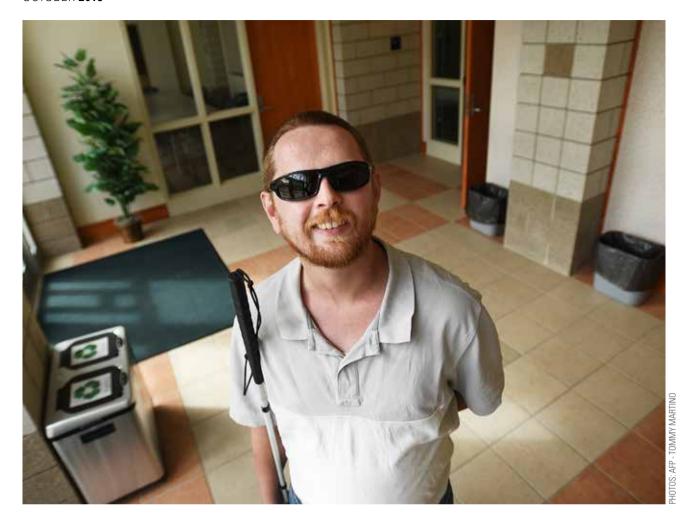
HIGHLIGHTING THREE DIFFERENT PERSPECTIVES OF ACCESSIBILITY:

the student,
the instructional
designer, and
the institution

E-LEARN MAGAZINE WANTED
TO KNOW THE PERSPECTIVE
AND EXPERIENCE OF
THESE THREE PROFILES.

ccessibility impacts educational experiences differently for everyone. For educational institutions, it is about a commitment from the community to ensure that everyone, regardless of their disability or condition, has access to academic training. For teachers, instructors, lecturers, instructional designers and other profiles engaged with teaching, the commitment is in creating educational programs that are inclusive and integrated, as well as supporting disabled people's academic success. Ultimately, the goal is for disabled students to have the same educational opportunities and experiences as their peers. ∞

IGN: TRiiBH Studio



Leveling the playing field for students with disabilities

ccessibility according to the student
Accessible technologies are the key
to truly leveling the playing field between students with disabilities and their non-disabled
peers. While pursuing my undergraduate degree I had
the opportunity to experience a wide array of courses
– courses that leveraged the power of accessible technologies, courses that used inaccessible technologies,

and courses that used no technology at all. My experience in class and the resulting final grades clearly proved that courses using accessible technologies provide a level playing field and the opportunity to learn and participate in the same experience as other students.

Let me start by providing some background information. I am a blind assistive technology user, I use a long white cane, a laptop with screen reading software, and an iPhone with an assortment of useful apps for the blind including optical character recognition and accessible electronic texts. The

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AARON PAGE IS AN ACCESSIBILITY SPECIALIST AT UMONLINE

AND IT'S ACCESSIBLE TECHNOLOGY SERVICES AT THE UNIVERSITY OF MONTANA, MISSOULA, MONTANA. AARON RECENTLY GRADUATED FROM THE UNIVERSITY OF MONTANA WITH A BACHELOR'S DEGREE IN BUSINESS ADMINISTRATION, MANAGEMENT INFORMATION SYSTEMS MAJOR.

courses that leveraged accessible technologies allowed me to use these tools

– my particular set – to access course content freely.

One of the earliest courses I attended as a student was a government course. This class used no technology, consisting of a textbook, occasional hand-outs, and in-class lectures. The simplistic text format of the textbook was easily converted to electronic format, which could be accessed via both the screen reader on my phone and my laptop. The in-class discussions were accessible to me—as it was simply lecture—and the hand-outs could be accessed via optical character recognition.

While this Government course did not leverage the power of accessible technologies, the content did not create new barriers in and of itself. Using the tools that I was familiar and comfortable with, I could still access the materials and participate in the course, which allowed me to earn a grade of B+ in one of my first college courses.

" ACCESSIBLE TECHNOLOGIES ARE THE KEY TO TRULY LEVELING THE PLAYING FIELD BETWEEN STUDENTS WITH DISABILITIES AND THEIR NON-DISABLED PEERS."

Several semesters later, I took Intro to Statistics — a required course for my major — which epitomized an inaccessible course. All of the material in the course, including the textbook, calculator, clickers, course notes, whiteboards, exams, and online homework were inaccessible. The only solution available was to work with a sighted tutor/reader/scribe — for 15+ hours a week — in order to get through the course.

Intro to Statistics was an example of using inaccessible technology and its impact on students. The inaccessible technology created more barriers than no technology at all. Tools such as clickers and the online statistics platform provided great value to my peers, but created impossible barriers for me, including uncomfortable group assignments and labs. While the instructors were very kind, there wasn't much that they could do to make the content more accessible. At the end of one of the most strenuous semesters of my college career, I barely managed to earn a passing grade of B-.

Two years later, one of the last courses I attended before graduating was a Consulting course. This class was one of the first classes I attended that fully utilize the power of accessible technologies. The instructor used Moodlerooms to share all of the course materials and to administer exams in an electronic format. Multimedia content within the course was available on YouTube, which could be accessed on all my devices. The platform Advanced Forums, which is accessible to screen readers, was used to facilitate class discussions, and all homework was submitted electronically through the platform.

This Consulting course demonstrated how using accessible technology can put all students on a truly equal footing. By providing content electronically on

an accessible platform, everyone in the course had access to materials at the same time. The accessible electronic exams administered via Moodlerooms quizzes were the first exams I performed at the college level without requesting any accommodations from Disability Services for Students. Thanks to the use of accessible technologies throughout the course, I had the opportunity to earn the grade of A.

The use of accessible technology improved the experience for students without disabilities as well as they were able to access course materials from their mobile devices, had electronic access to their grades, and did not have to manage paper documents.

As new accessible technologies are developed and existing technologies proliferate, the experience for all students will benefit. One example of this are new developments in support for mathML, which allows blind/low-vision users to access math content via magnification, speech, and Braille — rather than being forced to work with sighted readers or paying \$10,000+ for Braille math texts. Developments in MathML provide benefits for non-disabled users as well, by providing additional functionality and the ability to view math on mobile devices.

By leveraging the power of accessible technologies, institutions can save the time and cost of ineffectual accommodations, instructors can improve the educational experience and better reach all students, and students with disabilities can finally have the same inclusive experience as their peers.

"THE PLATFORM
ADVANCED FORUMS,
WHICH IS ACCESSIBLE
TO SCREEN READERS,
WAS USED TO FACILITATE
CLASS DISCUSSIONS,
AND ALL HOMEWORK
WAS SUBMITTED
ELECTRONICALLY THROUGH
THE PLATFORM."

instructional designer's perspective on accessibility

BY: Bevin Rainwater, Instructional Designer, University of Hartford

ccessibility according to the instructional designer

As an instructional designer who also teaches in higher education, I am in the unique position to fully understand the constraints of and empathize with faculty who are faced with the task of redesigning courses to make them accessible. It takes time, can incur costs, seems like an enormous amount of work, and requires learning a lot of new skills in the process. At the same time, it is also part of my job to inform faculty about the law and to assist and encourage them to meet accessibility standards. My message is often met with resistance, but over the years, I've discovered some tips and tricks that can make this process seem less daunting and that secure better cooperation from faculty

First, identify and use an Accessibility Checklist. There are plenty of them out there, such as those at: http://www.hhs.gov/web/section-508/making-files-accessible/checklist/. An Accessibility Checklist helps instructors identify potential accessibility areas of concern and provides easy solutions while instructors are building course content. When instructors prepare a document for distribution online, whether it is submitted in the learning management system (LMS) via email or on a website, following an accessibility checklist helps to ensure they are meeting Section 508 guidelines. Some of these guidelines include using standard font styles and headers; color contrast; alternate text; and a course organization structure that is easy for students to navigate.



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BEVIN RAINWATER IS AN INSTRUCTIONAL DESIGNER AND ADJUNCT FACULTY MEMBER AT THE UNIVERSITY OF HARTFORD. SHE ALSO

TEACHES ONLINE

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STATE COLLEGE.

Second, be proactive not reactive. Instructors need to be proactive about creating accessible content because more students with disabilities are entering higher education than ever before. They are coming from high schools where they received services into universities and colleges where it is up to them to self-disclose and many of them do not. Additionally, more online videos and multimedia are used in educational programs than ever before. More and more online courses are being offered by institutions making

accessible content extremely important. Just one complaint can put your institution on notice. There have been recent lawsuits against universities and colleges for insufficient accommodations (Lewin, 2015). These accommodations could have been as simple as providing equal access to materials in a timely fashion. Planning and doing ahead is necessary because, most of the time, it's not realistic to redo online course content on the fly while simultaneously teaching the course.

Third, take baby steps. If you are an instructional designer, provide a list of doable items for instructors that will make the task seem like just making simple adjustments to existing documents. There are simple things that can be done during the winter or summer breaks and once a course is built out, it can be copied forward from semester to semester. Five key pointers I share with faculty are:

- 1. All images need title and description text (alt text). When inserting an image in the LMS, it will prompt you to add these. All images that convey meaning should have alt text. Images that are purely decorative and have no meaning can be left blank. Images inserted into Word, Excel or PowerPoint should also have alt text, as should PDFs.
- 2. Use headers for dividing content. Students with vision impairments use screen readers for navigating content. The screen reader will call out the headers so students can tab through them to get to the content they need. Use the built-in header styles in your LMS or within Microsoft Office documents with any documents you upload online.
- 3. Use appropriate colors. Make sure there is good color contrast between the background and foreground text. Colors should not be used to solely convey meaning (use bold, caps, italics to do this). Do not use too many colors. Keep it simple. Ensure good text/background contrast (example: don't put yellow letters on a white background).
- 4. Find a captioning solution for videos and audio. This could be anything from a homegrown solution (auto-captions in YouTube) to purchasing a solution either way, ensure videos are captioned. Talk to the disability services provider on campus or to the deans/department heads. They may have funds to help cover the costs. Your institution may already have a captioning solution. If they don't, consider using student workers to help with some of the load.
- 5. Use the Adobe Acrobat or Microsoft Office Accessibility checker. Microsoft Office products and Adobe Acrobat Reader Pro both have a built-in accessibility checker that will run through your documents and flag areas of concern. Scan your documents before uploading them to your LMS or online. This tool is very helpful and beneficial to both instructional designers and to faculty as well.

So how do we convince faculty of the need for accessibility? Remind them that it's the law and that, based on what we know today about learning, it makes sense. According to the Rehabilitation Act of 1973, everyone should have access to the same educational experiences (OCR) and the ability to learn in ways that best suit them. Student A learns in different ways from Student B. Accessible design is universal design, a concept in which faculty design and compose learning spaces (including online) so they can be accessed, understood, and used by all regardless of age, sex, disability or learning style (NDA).

" AN ACCESSIBILITY
CHECKLIST HELPS
INSTRUCTORS IDENTIFY
POTENTIAL ACCESSIBILITY
AREAS OF CONCERN
AND PROVIDES EASY
SOLUTIONS WHILE
INSTRUCTORS ARE BUILDING
COURSE CONTENT."

Accessibility benefits all — not just students with disabilities. Think of ESL students. They may not fully understand lectures while in class, but if PowerPoints or class notes are provided, they can be reviewed. The same is true of captioned videos which have both text and audio. Instructors must be mindful and make learning spaces (both face-to-face classrooms as well as online classrooms) as access-friendly as possible.

As an instructional designer, I know that it can be challenging working with faculty who are already overloaded. They don't have time to go back through all of their materials and it's frustrating to them. I completely get it. That's why I try to allay their concerns and let them know that we are here to help them. Many times, it is just a subtle mind shift that needs to occur along with a lot of hand-holding before faculty are comfortable flying on their own. I have faith that they all will get there with our help and support.

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The institutional accessibility journey

ACCESSIBILITY ACCORDING TO THE INSTITUTION

ELECTRONIC ACCESSIBILITY HAS

strong legal implications for educational institutions, the most notable legislation we are required to comply with in the U.S. being the Americans with Disabilities Act of 1990 (ADA), Section 508 of the Rehabilitation Act, and state and local laws. These laws quarantee equal access to educational opportunity, so students with disabilities are speaking up and demanding that educational institutions provide them with accessible technologies. These laws are enforced with authority by the Offices for Civil Rights (OCR) within the U.S. Department of Justice and the U.S. Department of Education, and public sector institutions are being held accountable through official complaints and lawsuits.



MARLENE ZENTZ SERVES AS SENIOR

INSTRUCTIONAL DESIGNER AND ACCESSIBLITY SPECIALIST FOR UMONLINE AT THE UNIVERSITY OF MONTANA IN MISSOULA, MONTANA.

RAMING THE DISCUSSION

Due to this legal black cloud of OCR Complaints, professionals in higher education might be tempted to view accessibility as a check-list of 1) what you need to do keep from getting an OCR Complaint or 2) what you need to do to resolve an existing OCR Complaint. That OCR checklist includes critical items, such as captioning videos, making websites and documents accessible, procuring accessible hardware and software, etc. The checklist is helpful, but the peril to seeing accessibility only in terms of this list is that we may fail to reap the full benefits that embracing accessibility brings to the culture of our campuses, benefits that I believe are deeply tied to innovation and opportunity. And with that checklist way of thinking, people invariably start thinking short cuts, with excuses like "There's no time right now," or "We don't have funding for that," or "I don't have a student with a disability in my class," or worst yet, "If I just quit providing my course content electronically, then none of this pertains to me, right?"

So it's helpful if we shift our approach to accessibility away from the purely legal compliance checklist way of thinking and instead frame our thinking around civil rights. When we look at accessibility as a civil right, resistance from the campus community goes down and we start asking some very different questions. "How can we make sure that all individuals on our campus have full access to an education that is empowering and transformative? "How could our campus environment be a more socially just place for everyone to work and learn?" When we start asking deeper questions, then we are better able to embrace the spirit of accessibility and the principles of universal design for learning¹ where diversity and the diverse learning needs of all learners are respected and in play.

DEVELOPING A POLICY

For the University of Montana and many other educational institutions, defining an accessibility policy is a major first response to the legal and social realities. In 2012, the University of Montana formed an Electronic and Information Technology Accessibility Task Force that began writing our **Electronic and Information Technology Accessibility Policy**¹. This policy now provides campus with clear guidance and direction. Writing the policy helped us solidify our thinking and allowed all stakeholders on campus to speak up about what we thought were both important and lofty ideals, but also what we thought was reasonable and do-able. I think we managed to include both "lofty" and "reasonable" within the reach of our policy and raise the bar for our campus, emphasizing throughout that accessibility is a "shared campus responsibility," not just the business of IT or of the Office of Disability Services for Students.

EDUCATING THE CAMPUS COMMUNITY

Educating the entire campus community about accessibility is another important step in the accessibility journey and our general message has been that if you design your content to be accessible to students with disabilities, your content will provide a better learning experience for all students. Training is really key to building deeper awareness in your organization and that takes ongoing time and effort. Our larger cross-campus team has worked to provide trainings on many different topics and in a variety of formats — some trainings are face-to-face, some are online, and then there are just-in-time resources for everyone's access.

At first, there was a tendency to see accessibility as a new initiative so in our trainings, we tied accessibility to things that were already in place, like our institution's mission and vision statements. For UM, our core values center around leadership, engagement, diversity, and sustainability and we wanted people to understand that accessibility is deeply tied to each of these values. Connecting accessibility to fundamental principles that already exists on your campus is key. Accessibility is never a new topic.

BUILDING PARTNERSHIPS

Developing strong partnerships, both internally across campus and externally beyond campus, is another important step in the accessibility journey. For UMOnline, networking with other institutions around the nation accelerated our adoption processes and helped us learn from the efforts of others. We also established working collaborations with key vendors, such as Blackboard and its products Blackboard Collaborate and Moodlerooms. These types of collaborations allow educators, assistive technology users, and instructional designers out in the field to test with product developers and improve both the accessibility and the usability of key systems.

As a result of this type of vendor/client collaboration, the University of Montana and Moodlerooms worked together in 2013 to create the **Moodle Accessibility Collaboration Group**³, an international group formed to improve the accessibility of the larger open source learning management system, Moodle. This collaboration continues and now includes individuals and universities around the world in ongoing accessibility efforts.

CONCLUSION

Building an accessibility initiative can seem like a daunting task, so it's important not to be paralyzed by the overall goal. There will always be new technologies and new challenges, but it's important to get started. Embracing accessibility can create many exciting opportunities for your institution and it's well worth the effort.

¹ CAST. ABOUT UNIVERSAL DESIGN FOR LEARNING. FROM: HTTP://WWW.CAST.ORG/OUR-WORK/ ABOUT-UDL.HTML#.V-QKFJN97BJ

² UNIVERSITY OF MONTANA. ETA IMPLEMENTATION PLAN. FROM: HTTP://WWW.UMT.EDU/ACCESSIBILITY/IMPLEMENTATION/

MOODLE ACCESSIBILITY COLLABORATION GROUP, FROM:
http://collaborate.athenpro.org/group/moodle/

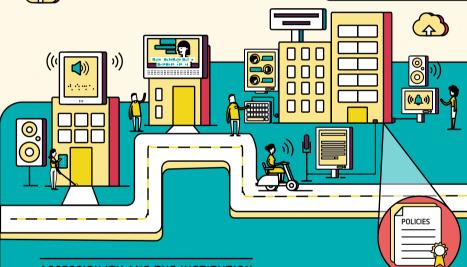
OCTOBER 2016

Accessibility according to students, teachers and institutions

WEB ACCESSIBILITY MUST ENSURE THAT

individuals with any type of disability are able to perceive, navigate, interact, learn, communicate, teach, and contribute to the web. Both the Web and any educational initiatives online should be inclusive for everyone and should promote equal opportunities to access the information and manage contents.





ACCESSIBILITY AND THE INSTITUTION

In many countries, accessibility is a government policy and in many educational institutions around the world, accessibility is an internal policy. However, beyond thinking about the policy, it is necessary to think about the Right to Education. Educational institutions should:

- Transform campuses in order for them to become accessible.
- Evaluate how the social environments

are proper spaces where everyone can work, teach, and learn.

- · Design an action policy that responds to legal and social realities.
- Educate and train the academic community on the importance of accessibility. This requires time, effort, and strategy.
- · Raise awareness through general messages saying that everyone can

have access to all infrastructures and contents.

- Develop alliances with other campuses and create a community around the adoption of accessibility strategies to share experiences and learn from the efforts of others.
- Be updated on the possibilities of technology and its evolution to improve processes and initiatives.

There are many technologies that help mitigate limitations in accordance with the type of disability

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VISUAL IMPAIRMENTS

Screen readers, listening feedback tools, touch interfaces or with Braille system, screen enhancement tools.

HEARING IMPAIRMENTS

Technologies that incorporate visible signals in audio alerts, subtitling, closed captioning, and text-to-speech tools.

SPEECH IMPAIRMENTS

Keyboards, voice synthesizers, syntax systems to form phrases, word and phrase prediction systems, etc.

MOTOR IMPAIRMENTS

Special keyboards, voice recognition software, ocular movement systems, mouthstick.

COGNITIVE IMPAIRMENTS

Technologies such as alarms and task reminders.



OPERABLE

The Web Content Accessibility Guidelines 2.0, (WCAG2.0) organized the

guidelines and success criteria around four principles to ensure that the

contents and platforms are accessible to any person around the world¹:

navigation and interfaces should be operable. This suggests that users should be able to handle tools and should not be tied to only one direction - all actions should be available to all users. This is in terms of tools.

UNDERSTANDABLE

all users should be capable of understanding the contents and how the tools work. This refers to an intuitive and easyto-use topic, as well as readable and predictive interface.

ROBUST

contents should be robust in order to be interpreted, also by assistive technologies. In addition, contents should adapt to the evolution of technologies and continue to be assistive. This refers to the compatibility that a content should have with other types of tools or technologies.

ACCESSIBILITY AND THE TEACHER

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PERCEIVABLE

the contents and

should not depend

on a single form of

perception, i.e. the

contents must be shown

in a way that users can

understand them - this

is in terms of contents.

components and

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developed technology

should undergo training on how accessible technologies work, and how to provide assistance to students with any disability. The inclusion of accessible technologies in the classroom results beneficial to teachers for the following reasons:

- They pose new educational and teaching challenges.
- · Diversified groups of students allow teachers to improve the learning

experiences of all the

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- They create supplementary information.
- contents can be fast and easy even throughout all the modules of a course.

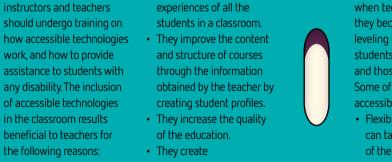
when technologies are accessible, • The possibilities for they become the best allies in leveling the interaction between

ACCESSIBILITY AND THE STUDENT

students with any disability and those without disabilities. Some of the advantages of accessible technologies are:

- · Flexibility in learning that can take place regardless of the time and place.
- Equal participation in learning processes and pedagological experiences.
- · Handling difficult material is avoided thanks to accessible devices.

- professional education and work contribution are increased
- Better social practices and relationships with other students.
- Experiences and good teaching practices are shared with peers.
- · Promotion of inclusion in other social and educational spaces. forums, debates, seminars, etc.
- New possibilities of communication among the entire academic community.



- Updating on accessible

How does accessibility apply to education in today's world?

THE WORLD HEALTH ORGANIZATION REPORTS

that, approximately, one billion people in the world have some form of disability. That, and because they recognize that everyone learns in a different way, is a key driver behind Blackboard Inc's focus on designing products that conform to the highest levels of global accessibility standards. JoAnna Hunt, its Accessibility Manager, explains how they achieved it and what the impact is on the learning environment.

isabled World defines accessibility as the design of products, devices, services, or environments for people with disabilities. To apply this to education, face-to-face and online courses must be designed and built in a way that doesn't exclude anyone from participating because of a physical or cognitive disability. "But it's more than that; it's about making sure that we can enable everyone to be successful, that we consider the needs of students with all abilities and what it means for them to learn successfully. Then creating environments to enable that", JoAnna Hunt claimed in an interview with E-Learn Magazine.

She defines herself as a design thinker, a storyteller, and an avid rock climber. And she is focused on setting and driving forward the company's vision around accessibility, with a goal of providing tools and services that meet the needs of users with all abilities. As one of the leading providers of educational



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JOANNA HUNT, TECHNICAL PROJECT MANAGER, R&D USER EXPERIENCE AT BLACKBOARD INC technology, Blackboard Inc. has the responsibility to deliver the best for all users, including those with disabilities. And they have accomplished it. All Blackboard products

are designed and developed using the Web Content Accessibility Guidelines version 2.0 at Level AA.

But, what does it mean for someone to have a disability?
There are four major classifications: a visual impairment, a hearing impairment, a physical or motor impairment, and a cognitive impairment. Some disabilities like blindness or deafness are pretty obvious to any on-looker. But others, like autism, attention deficit disorders,

color blindness, and dyslexia are what are refered to as invisible disabilities. "You may not know a person has these challenges, unless that person chooses to disclose that fact to you", JoAnna explained.

Many people with disabilities rely on technology to help them interact with the world. But instructional designers, or teachers, do not need to design their courses with something special just for these students. "It's about being aware of how students with disabilities learn; how they interact with technology; how they communicate. With a few small changes to the way teachers build content, they can ensure that a wider audience can successfully meet the objectives".

"IT'S ABOUT BEING AWARE OF HOW STUDENTS WITH DISABILITIES LEARN; HOW THEY INTERACT WITH TECHNOLOGY; HOW THEY COMMUNICATE."

Teachers can learn about accessibility in the Moodle Accessibility Collaboration Group, on Blackboard's help site, and in the Blackboard Accessibility Community. The first is a group of accessibility-minded individuals who have organized themselves to discuss topics related to the accessibility of Moodle products. They work directly with the Moodle development teams (and Blackboard's Moodlerooms team) to prioritize the most important issues to resolve.

Additionally, JoAnna gave us a few tips about how the content should be developed to make it accessible:

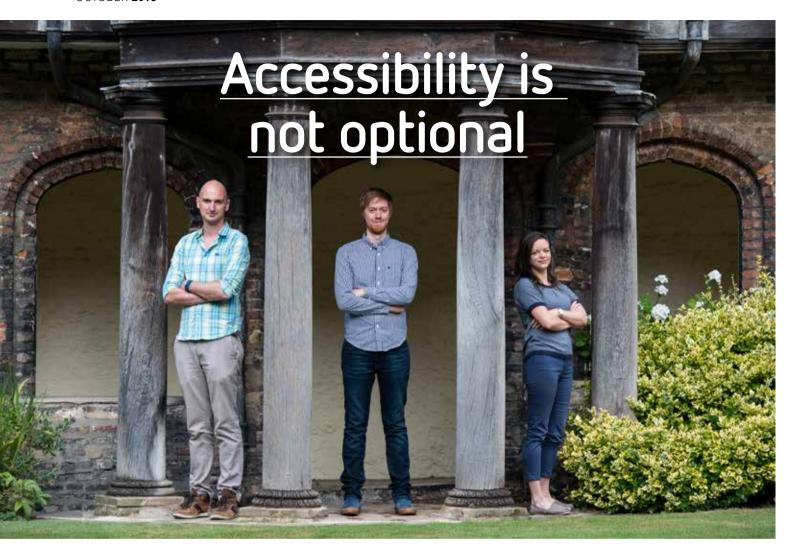
- 1. For documents (Word, PPT, PDF), you need to start by ensuring they are well structured; that you're using headings, and lists, and tables appropriately to provide organization to your content.
- 2. For video, you want to ensure it is captioned.
- 3. Simple images need to have alternative text or on screen image captions.
- 4. Complex images, like infographics, need comprehensive on screen narratives to help people understand the information being presented.

She knows a great deal about these topics because of her personal experience. While she was researching accessibility and disabilities in education, her nephew was diagnosed with severe ADHD. "I also met a deaf lawyer who would become one of my closest friends. As I started to observe first hand some of the struggles both of them went through, it made me even more motivated to make a difference for people with disabilities. It still does", JoAnna told us.

According to figures presented by the company, about 16% of students in the United States have a disability. Industry experts suggest that between 60-80% of students with disabilities in Higher Education are choosing not to disclose that they have a disability.

Blackboard Inc. fundamentally believes that accessibility is an imperative and not an afterthought; for that reason its short term roadmap for accessibility in Moodlerooms is all about shoring up as many remaining gaps as they can, and working to get as many known issues around accessibility resolved in the core Moodle platform. "But, we are also researching ways to provide more tools that can help faculty and institutions understand more about the current state of the accessibility of their course content. This research is in the early stages right now, but it's definitely an area of great need in education", she concluded.





xtremely rare" is the term Nicolaas Matthijs uses to describe the possibility of bringing together a group of people with the knowledge and experience needed by Fronteer, a company engaged in creating technology products and services for education.

The five members of the group bring a series of characteristics that really do make them a dream team: almost a decade of first-hand experience at institutions like Cambridge. Berkeley or Georgia Tech, previous work designing and developing products with teams on the five continents, and recognized consultancy work on educational technology. Ironically, the hardest thing when they got together was agreeing on a name to identify them, after which "coming together on vision and identifying problems to solve and products to build has been really easy and productive," points out Matthijs.

He believes this is fully reflected in the rise of Ally, a course content accessibility service that seamlessly integrates into the learning management system. "Accessibility, and especially the accessibility of course content, has been a significant problem in education for a long time. It is widely recognized as a big problem, but has required lots of manual work at every institution and is even frequently ignored because of a lack of good solutions," he adds.

ALLY FOR DIFFERENT NEEDS

Instead of being a separate platform that people have to turn to, Ally is integrated into the systems that students and instructors already use such as the learning management system. Ally scans the entire content of the course (documents, presentations, images, etc.) in order to identify accessibility problems, and from this comes a full institutional report that provides deep insight into how the institution is doing with regards to the accessibility of their course content, insight that they currently



SIMON GAEREMYNCK, COFOUNDER OF FRONTEER, NICOLAAS MATTHIJS AND ANNE-SOPHIE DE BAETS, UX RESEARCHER AND DESIGNER.

WITH HIS PRODUCT, ALLY,

Nicolaas Matthijs and the Fronteer team are aiming for more accessible course materials and raising awareness of accessibility with instructors.



don't have access to. This feedback is also given to teachers, with immediate advice being offered so that accessibility problems in the course material can be corrected.

However, its immediate advantage, as far as students are concerned, lies in the product's automatic learning algorithms (machine learning algorithms), which extract information in order to automatically generate a series of accessible formats, such as epub, electronic braille or audio versions of content, something which previously required a request to be made by the student and could take, in the best of cases, a couple of days. It should be stressed, as Matthijs acknowledges, that "Ally's goal is not to create new assistive technologies, but generate content that works well with these assistive technologies".

A RIGHT AND A DUTY

Matthijs is blunt when it comes to explaining the great interest the Fronteer team has shown in accessibility, "Education is a basic human right. Ensuring that everyone has access to it and that it's accessible to everyone is part of that basic human right. Therefore, accessibility should not be considered as something optional"

In fact, he recognizes that course content accessibility is closely linked to the quality of that content, even if it comes about in a more subtle way. Simple things like having descriptions of images, providing digital versions of articles instead of scanned documents or having a transcription of a video, are of particular benefit to students with some kind of disability but also to the whole course in general. For example, "an image with a proper description will not only allow someone with vision problems to understand what the image is, it will allow all students to better understand how the image relates to its context or a video with captions will not only allow a person with hearing problems to understand what's being said, it will allow all students to easily go to a particular section of the video", says Matthijs.

It is for this reason that Matthijs insists that there is a need for a broader perspective of the concept to be adopted. "We believe there's a need to move away from connecting accessibility to disabilities only. The lack of someone with a clear disability in a class can not become an excuse to not have to worry about accessibility. First of all, having a disability is not an easy yes or no question and there are many people with hidden disabilities. More importantly, though, accessibility is not the same as providing access to people with disabilities only. Accessibility is about providing better access to everyone, and will allow you to improve the quality and experience for everyone".

DIFFERENT PERSPECTIVES

Based on his vast experience on the subject, Matthijs believes that designing more accessible learning management systems should be viewed from two essential angles. The first refers to the design of the system and its interface, while the second relates to the use of the content applied to courses. "This really is the most important part as that's what the students are ultimately after, yet is the biggest problem with regards to accessibility," he says. Meaning the system provider has much less control over the education content, while this. in turn, is what matters most to the people taking the course.

It is at this point that one of Ally's principal characteristics becomes particularly relevant, namely that it can effectively inform teachers of accessibility faults in content and, above all, how this can be improved. "Overall, creating accessible content is mostly about following a set of guidelines that will result in more accessible content. Most of these principles are fairly straightforward, and getting instructors and instructional designers to be aware of these principles is the first challenge that Ally is trying to address," he says.

With accessibility as one of its cornerstones, the Fronteer team is aiming to create, in its own words, education experiences that are 'awesome'. For them, it's not so much a formula as it is a series of factors based on their knowledge, but also in the context of which they work and, above all, the fact that transcending appearances, "is not just creating something that's visually pretty," says Matthijs. And he adds that, "It's about creating an experience that's understandable and pleasant and avoiding tunnel vision to make sure that you keep the user's entire experience in mind. It's not just about your product, it's about how it interacts with everything else," something that justifies his broad view of accessibility as a priority for the entire education experience.

FOR MORE INFORMATION VISIT HTTP://WWW.ALLY.AC

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Three principles of accessibility in online higher education that delivers enriching learning experiences to students with disabilities

BY Manuel Rivera

ccess to higher education for individuals with disabilities can be approached with two scenarios: Its benefits: access to higher education is an opportunity for young and adult persons (regardless of any

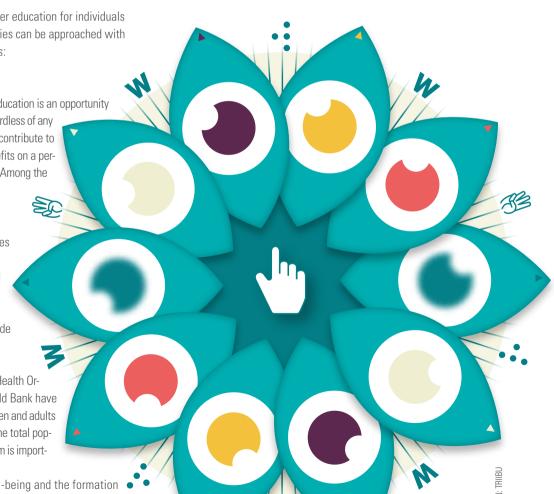
type of condition) to obtain and contribute to socio-cultural and financial benefits on a personal level and within a society. Among the benefits, the most important are:

- Higher social cohesion and tolerance
- Decrease in crime and felonies
- Political stability
- Higher and better social capital
- Financial growth
- Higher work productivity
- Higher entrepreneurial attitude
- Better quality of life

Entities such as the World Health Organization (WHO) and the World Bank have stated that the inclusion of children and adults with disabilities (about 15% of the total population¹) in the educational system is import-

ant for **four main reasons**²:

- 1. It contributes to better well-being and the formation of human capital
- 2. The high economic and social cost of excluding disabled persons from the job market.



- 3. The difficulty of achieving the Goals of a Sustainable Development.
- 4. The compliance with that established in the international convention on the rights of persons with disabilities.

SECOND:

Education is a right. As stated in the Universal Declaration of Human Rights in its Article 26, all governments and educational institutions should break any barriers blocking the access of their citizens to education. Although there are systems such as that of the United States or of France with very clear action policies, it is necessary to globally promote the inclusion of persons with disabilities in educational environments, as well as the design and construction of completely accessible surroundings.

HIGHER EDUCATION ONLINE AND ACCESSIBILITY

The universal access to education is largely supported on e-learning, is inherently inclusive due to its flexibility in terms of times, costs, and movements. Also, e-learning integrates easily with accessible technologies, which facilitate the learning processes of individuals with disabilities.

Based on a study conducted by the South Carolina Technical College System, we have identified 3 *keys*³ to promote the accessibility to online higher education and provide an enriching experience to the disabled student.

1. The hardware, software, and contents should function together and in harmony

Both teachers and technology developers should be aware that any initiative they undertake must be accessible to students and users with any disability. There are three agents that should be considered at all times:

- **Hardware:** computers, tablets, smart phones, which have been incorporated 5. Perceivable information that communicates with accessibility functionalities.
- **Software:** accessibility-friendly programs, tools, and platforms. It is important to educate teachers in the use of these tools and how to configure them to make them accessible. It is also important for instructors to know how and which assistive technologies can complement the software.
- **Content:** it must be accessible and therefore easy to process with assistive technologies, such as screen readers. The content must be characterized by the richness of options it provides. For example, all images should be provided with an "Alt Text" with the description of what is being displayed: there should be a hierarchy in the structure; readable sources should be used; there should be a balance in the colors; videos and audios should be provided with subtitling and closed captioning, among other conditions.

2. Courses should be designed in accordance with the persons' profiles Having students with any disabilities in a class requires a teacher to have certain ability features in order to provide proper assistance.

If the profiles of persons with disabilities are assessed previously, the probability of their academic success will increase. It is ,advantageous for instructional designers to have these profiles prior to structuring a course in order to avoid creating barriers.

An activity that is recommended to prepare profiles of persons and understand their needs is recording and communicating information such as:

• Age range: to know their level of studies and their learning expectations.

- Type of disability: whether visual, hearing, speech, cognitive, motor, or psychological.
- **Likes and preferences:** to support teaching strategies and promoting academic success.
- Problems within the surroundings: knowing which problems are faced by these persons in their surroundings will mitigate the potential creation of gaps.
- Technology and learning environment: to evaluate which is the best teaching and learning tool option. In the case of an LMS, to know the scope of the resources, activities, and assessments, and verify that all of the elements are accessible.

3. Implement the universal design rules

Learning online, among many advantages, allows persons with disabilities to conceal their disabilities when they do not wish to reveal them. Thus, the design of technologies, of programs and courses, as well as their contents should be based on the principles of universal design, namely:

- 1. Equal opportunities that allow everyone to use them.
- 2. Flexibility to accommodate the preferences and abilities of the persons.
- 3. Simple and intuitive user experiences that are easy to understand.
- 4. Low physical effort comfortable, without causing any kind of fatigue.
- information effectively.
- 6. Tolerance of errors that minimize the risk of making mistakes.
- 7. Ideal size and space to handle a device in a positive manner considering any condition of a person.

Educational institutions throughout the world are committed, before their societies, to promoting the access to higher education and having accessibility strategies that abide by institutional or governmental policies. The challenge is to build inclusive societies where equal opportunities and participation possibilities prevail for everyone, regardless of their condition.

WORLD HEALTH ORGANIZATION. 10 FACTS ABOUT

WORLD HEALTH ORGANIZATION, DISABILITIES WORLD REPORT. CHAPTER 7, EDUCATION. IN: HTTP://WWW.WHO.INT

3 2015 ROADMAP TO WEB ACCESSIBILITY IN HIGHER EDUCATION. SOUTH CAROLINA TECHNICAL COLLEGE SYSTEM. IN: HTTPS://WWW.SCTECHSYSTEM.EDU/DOWNLOADS/ WEB-ACCESSIBILITY/2015-ROADMAP-TO-WEB-ACCESSIBILITY-IN-HIGHER-EDUCATION.PDF. CONSULTED ON SEP. 20, 2016

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hen **Moodlerooms** decided to offer Massive Open Online Courses (MOOCs) for Higher Education institutions. the objective was to create an alternative that was reachable by everyone interested in furthering their education with the possibility of having interaction with instructors, peers and other experts globally. Since then, many schools and universities around the world, such as The University of Helsinki in Finland, have included these courses in their curriculum.

The University of Helsinki is the oldest and largest academic education establishment in Finland, and through the power of science, it has contributed to society, education, and welfare since 1640. It has an international scientific community of 40,000 students and researchers. In 2015, the University was 76th in the Times Higher Education World University Ranking, 96th in the QS World University Ranking and 67th in the Shanghai Ranking.

This university seeks solutions for global challenges and creates new ways of thinking for the benefit of humanity. As time passes, platforms

therefore have to develop in order to improve education and help students feel comfortable with their learning process. But this process involves both students and teachers because both are equally important. This means that with new tools available to do everything they need, it is only a matter of time until everyone uses online platforms as one of the main ways to learn.

Finland's welfare is built on education, culture, and knowledge. The flexible education system and basic educational security make for equal and consistent results. They believe that everyone wants to study, regardless of age; maybe they take only one course or perhaps they follow a whole degree program, but a life of learning is a very important thing there.

Consequently, the University has used technology in education for quite some time. Moodle has been predominant there

since 2007 with two platforms: first, what they call "Normal Moodle", with 15,000 courses to blend the online learning process with face-to-face teaching, lectures and group meetings, and then Moodle for their MOOCs.

In August 2015, they launched six MOOCs. At the time, they had one they have to build it themselves. They choose the appearcourse in English, but now they have two. The first one, Political System in Finland, is aimed at people who are interest in the Finnish political system and culture. The second course is Sustainable Energy in Education. Each of these MOOCs is free to everyone. Hopefully, they will have more courses in English, but currently the majority are taught in Finnish.

When they started to work with Moodlerooms and set up their MOOC platforms, some teachers said they wanted to have the course in Finnish because all the material they had was in that language and it therefore wouldn't be very wise to have the course in English if nothing was in English. "It's more about the resources the teachers have, and if they have them in a certain language, the logical thing to do is to teach the course in that language", says Mari Jussila, the university's Educational Technology Specialist.

"THE MOST IMPORTANT CHALLENGE FACING THE EDUCATIONAL TECHNOLOGY CENTER TODAY IS TO HELP TEACHERS DESIGN COURSES IN A PEDAGOGICAL WAY".

94% of those who completed our MOOCs were satisfied with the course. 75% thought that the platform was easy to use, even though this was the first online course for 60% of learners. 25% would want more personal guidance.

Students don't complain very often, as they are familiar with many online platforms. It's easy for them if the course is designed in a clear and informative manner. Teachers, on the other hand, are sometimes lost with Moodle because if they start by uploading pieces, it's guite easy, but if they don't know how to choose the right tool or activity, it gets more complex and potentially complicated. Teachers are struggling



more with online teaching. This is why the Educational Technology Center at the University offers plenty of training for them.

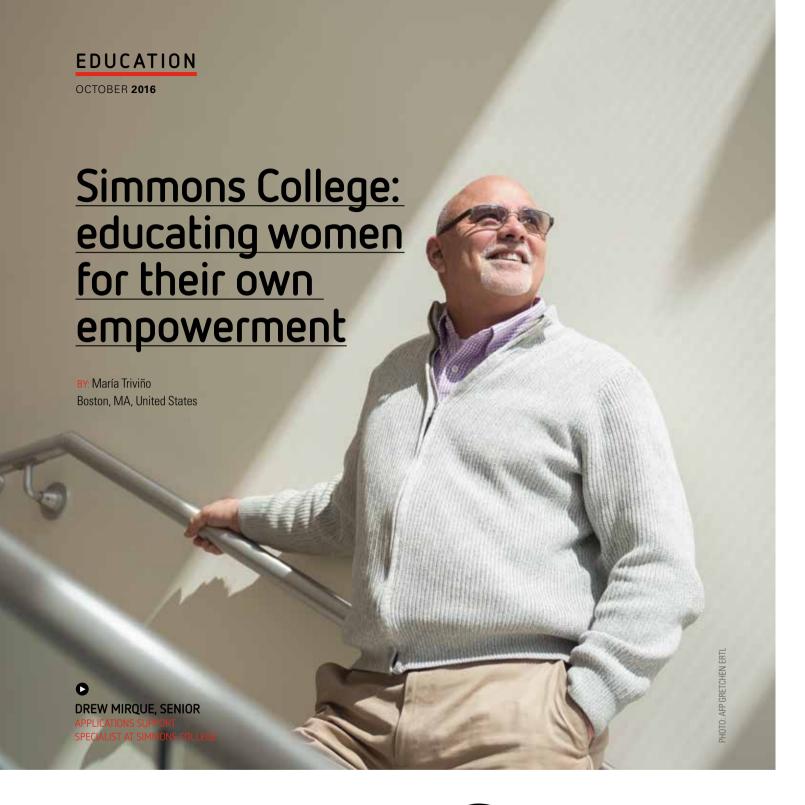
When teachers get a Moodle course, it's empty and ance and what tools they will use, and while some teachers use guizzes, while others upload videos and more dynamic materials. But "It's very important to motivate teachers to try something new, for them to see examples from other teachers and to show each other what they are doing and what kind of things they have created. It doesn't come from us –administration–, it comes from their peers, so they see the advantages of using these tools", says Mari.

Mari mostly helps teachers understand the platform and how to make courses clearer for students. Students are guite demanding and want to use online platforms to do their assignments; they often go to their teachers and say "can we do this on Moodle, why do we have to come if we can do it online, could we use Moodle instead of email?"

There is no doubt that some teachers are still reluctant to use online platforms, but it is not a major problem because most are already using them. The most important challenge facing the Educational Technology Center today is to help teachers design courses in a pedagogical way. Every faculty has at least one person helping teachers with Moodlerooms. The aim to give teachers all the support, resources, and freedom they will need to effectively use course tools.



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DREW MIRQUE IS THE SENIOR APPLICATIONS

Support Specialist at Simmons College, in Boston, Massachusetts, United States. He has extensive experience in e-learning dating back more than 20 years, and he faces challenges every day in improving the quality of online education at this women's college. immons College has been working to empower women through education in the arts and the sciences for more than 115 years. It boasts the only MBA program designed especially for women, and every year it features on the widely-acclaimed lists of the best universities in America, such as *Princeton Review's Guidebook*.

This focus on women's education began with the founder John Simmons' revolutionary idea — that women should be able to earn independent livelihoods and lead meaningful lives, and the numbers says that women's college graduates comprise more than 20% of women in Congress of United States and 33% of women on Fortune 100 boards. To achieve this goal, technology in education at Simmons College is seen as one way to improve the service learning experience and promote social change.

THE STUDENTS HAVE HIGH EXPECTATIONS BECAUSE NOW, THANKS TO TECHNOLOGY, THEY HAVE ACCESS TO KNOWLEDGE ALL THE TIME.

Online education is one of the college's more important endeavors; teams of employees in several units in Technology work together to support academic technology efforts: some staff work on networking; others on networking and infrastructure, while others assist instructors in the classrooms. There is also a Help Desk for Students and Instructors who need assistance with various hardware and/or software issues.

Additionally, there is the Enterprises Applications unit, from which Drew Mirque provides the teaching and learning community with various forms of training, user support, and technical administration for a number of learning or academic technology softwares, Simmons Moodle among them.

"I've worked at Simmons College since 2007. Before that I worked at the University of Colorado and helped develop and support the online courses for the Nursing school. When I knew I was going to work here, I was already very familiar with Blackboard and several other learning management system", says Mirque.

The college formerly used two Moodle platforms: one was called CE Moodle and was part of the School of Library and Information Service (SLIS), however, its content has gradually migrated to the other installation, the main, **Moodlerooms**-hosted system, Simmons Moodle, which Drew Mirque administers and supports. This system is used throughout the college by the undergraduate and graduate students.

"The whole college uses the platform, but in different ways. The School of Nursing and Health Sciences, for example, is highly dependent on Simmons Moodle for its assessment tool and the discussion forums. Nursing Instructors also record lectures there and deliver them using the Tegrity plugin, so that all students can access critical lecture material online and at their convenience"

The Journal tool is another tool recently added to Simmons Moodle and School of Management and the School of Nursing and Health Sciences have begun using it. Drew is currently working with the schools on using the Journal plugin because Instructors wanted its students to keep a journal for weekly reflections or to share weekly project updates but didn't want students to be able to see what their colleagues wrote. The Journal plugin has been the perfect fit for this need.

Because Drew helps teachers and students understand and use these various academic technologies, his work is very challenging. The college has almost 5,800 students. "The students have high expectations because now, thanks to technology, they have access to knowledge all the time. One of the challenges we therefore face is keeping up-to-date with changes, because Moodle makes changes every semester. I don't think only of how I can educate myself about the changes, but also of how to inform other teachers about them. Training for them is an everyday challenge".



More than a LMS, an open community

Pre-K to 12 school, courses are delivered using Putonghua (also known as Mandarin Chinese) and English using inquiry-based and collaborative learning in Hong Kong's highly competitive education market.

But these goals are not that easy to achieve, unless you have the right tools. Education is a journey that has changed over the years, and students and teachers all over the world are now more demanding.

Faced with the challenges of delivering a high quality education covering a wide range of learning styles, needs and cultures, The ISF Academy recognized it needed flexible tools capable of meeting these demands. After conducting research and evaluating several platforms it was decided **Moodlerooms** meet these needs.

Technology is used by everyone at The ISF Academy, from the youngest to the eldest and by all the teachers. Primary school children use school provided iPads, laptops and desktop computers while Middle school students (Grade 6 to 8) participate in a One-to-One Laptop program. They are required to purchase a 13" Apple MacBook Air or Pro. The ISF Academy finds that a dedicated, personally owned laptop makes the students responsible for both its care and use in support of their learning. Senior school students (Grade 9 to 12), being more mature and technically capable follow a BYOD (Bring Your Own Device) laptop program. They are allowed to purchase any laptop (Windows or Apple) that suits their individual needs.

"Using technology with education is great." asserts Sean Moran, the Head of Educational Technology for The ISF Academy, "It allows teachers to access a wide variety of digital resources that enhance classroom learning." However, Sean found his teachers struggling with the organization and sharing of these resources and had a hard time collecting work from them.

Moodlerooms solved this problem. "Our Moodlerooms website was launched three years ago, and ever since it has been the center of our online resources. It is an easy to use platform, where resources of any kind, documents, PDFs, audio files and more can be shared with students. It's also great because teachers can put links to the websites or videos they want their students to use."



In the case of their younger students, parents are more involved in their child's education. The ISF Academy wanted a tool that made it easy for Primary school students to access the resources their teacher wanted them to use at home while being helped by their parents. According to Sean this is one of the reasons why they chose to use Moodlerooms with their Primary school. As the children get older they can work towards the objective of becoming more independent.

Moodlerooms is therefore the perfect Learning Management System (LMS) for delivering course content. Students and teachers have one platform that is familiar and consistent. Once a student has logged in and accessed their courses the teacher can take them to any place they like. Students become familiar with the layout of **Moodlerooms** so they do not have to learn a new tool every day. Additionally, Moodlerooms offers sufficient flexibility to connect users to additional tools that meet their many different needs.

While Moodlerooms is used with the Primary school, at The ISF Academy the majority of hosted courses in the platform are for Middle and Senior school students (Grades 6 to 12). Courses offered include Science, Maths, ICT, Humanities, Chinese and English classes. Teachers make use of guizzes, assignments, attendance and the gradebook to make managing their courses easier.

Additionally, there are hosted courses that support the teacher's professional development; everything from how to use Moodlerooms, Google

Moodlerooms works closely with the open source community that supports and develops the Moodle platform. They noticed that if there was a problem or perhaps a new idea, the Moodle platform was flexible enough to allow

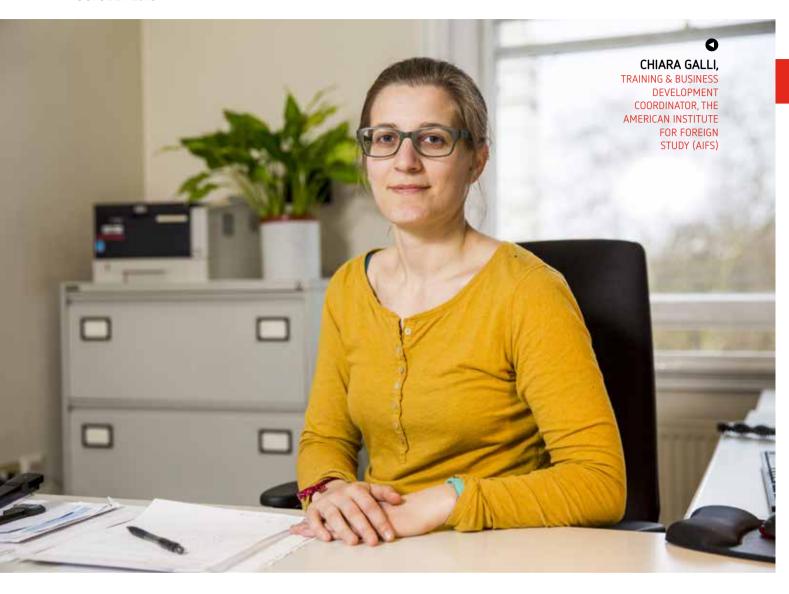
SEAN MORAN, people to create solutions and to share them so everyone could benefit. "Other platforms have great resources and **EDUCATIONAL** support too, but often you have to work through a lot of TECHNOLOGY, THE processes and then you have to pay for the solution, so it **INDEPENDENT SCHOOLS** becomes a big and complex problem", said Sean. **FOUNDATION ACADEMY**

Building a strong sense of community is one of The ISF Academy's main objectives. It considers students, teachers, staff, governors and parents to be equal participants in the community. And the school maintains that a learning community is one in which the pursuit of knowledge is valued by all and mutually supported. Moodlerooms is ideal for them, because being able to connect with a community of other teachers, peers and experts really helps the school grow, develop and innovate.

In today's world we need to work together, to work with a community and to be able to collaborate and share, to give and receive, and "Moodlerooms embodies the philosophy we are trying to teach our kids".

Apps, and iPads to the school's information management system. There is even a course for new teachers helping them as they move to Hong Kong. Choosing an LMS is not an easy task and when it came to making the decision The ISF Academy took many factors into account: flexibility, extensibility, ease-of-use, cost, and support. What proved to be the turning point is that

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Online training helps bring the world together

BY: Gabriella Restrepo

FOR OVER 50 YEARS, THE

American Institute for Foreign Study (AIFS) has been committed to cross-cultural exchange. Under the guidance of founder Sir Cyril Taylor, AIFS operates as a social enterprise based in Stamford, Connecticut. The organization maintains a double bottom line: financial results and social outcomes.

London, England

IFS has global offices in six countries. It has expanded the programs it offers to include the study abroad College division, Camp America, Au Pair in America, Academic Year in America, Summer Institute for the Gifted and Cultural Insurance Services International, as well as summer work and travel programs in Australia and New Zealand. Since 1964, more than 1.5 million students and teachers have participated in AIFS programs worldwide.

Its goal is to bring the world together, and technology plays a big role in that vision; it has acquired online platforms such as **Moodlerooms** to help connect with the world. Investing in technology can provide companies with a wealth of benefits, especially those that provide a broad spectrum of services not only to clients but also to their employees. AIFS can also provide efficient alternatives to more traditional methods of record keeping in internal processes.

One example of this is the Au Pair in America program, where applicants need to be interviewed as part of their application. **Moodlerooms** is therefore used in this program as a training platform for the staff (interviewers) who interview applicants from about 60 countries worldwide. Au Pair in America celebrates its 30th anniversary this year and since the mid-80s, the idea has been to send girls who want to travel and have an experience in the United States on a J-1 Visitor Exchange Visa to acquire a better understanding and appreciation of American life while living with an American family and taking care of their children.

As well as the applicants, the interviewers also come from all over the world, so AIFS needs to make sure they are properly trained. Until not long ago, each one of them was trained by phone, face to face where practical and

"ITS GOAL IS TO BRING THE WORLD TOGETHER, AND TECHNOLOGY PLAYS A BIG ROLE IN THAT VISION; IT HAS **ACQUIRED ONLINE PLATFORMS** SUCH AS MOODLEROOMS TO HELP CONNECT WITH THE WORLD"

via printed handbooks in order to ensure that they understood what needed to be done, "but a year ago we saw that having an online training program makes things easier because we work in so many countries and we need to make sure they have easy access to the same content, rules and regulations", said Au Pair* in America Training & Business Development Coordinator, Chiara Galli,

They launched the platform in September 2015. They have had it for longer, but it took time to set it up, carry out the internal training and prepare the content for all the different partners they have around the world. According to Chiara, this wasn't easy; it's still taking time to get everyone to sign up and do the courses because they work with a lot of countries and in some, people aren't used to online training.

Even though they don't have problems with the language of the courses - it's a requirement that all interviewers and applicants speak English -, the hard thing is to get them there. "It's normal that you are skeptical if you've done something for 25 years and if, after that time, someone tells you to do your training online"

However, once they understand what it is and are able to log in and do the training, they are very happy because Chiara and her team try to make it as interactive and easy as possible. The fact that the videos and activities are more visual and interactive has had a favorable impact on the interviewers. "We have done a couple of surveys to see if they think the content we are providing is good and helpful. Most of them replied positively", explains Chiara. They started out with 500 users, but the number has now increased to 800. co

* Au Pair: "on par" or "equal" in French, is a term for a child care provider who lives with a host family as part of an international cultural exchange program.



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TECHNOLOGY IS A FIELD THAT

has changed the way we see, do and think about various aspects of everyday life, one of which is teaching. This is the case at UNASP (Centro Universitario Adventista de São Paulo), which has expanded its learning experiences thanks to e-learning platforms such as **Moodlerooms**.

NASP is a further education establishment that has been in existence for more than 100 years and which has four campuses in São Paulo: São Paulo (central headquarters), Engenheiro Coelho, Hortolandia and Virtual. Each of these offers a range of technical, undergraduate and postgraduate courses and programs.

Its philosophy is based on respect for and the fostering of Adventist beliefs, and covers much broader areas than knowledge itself, such as a spiritual, intellectual, physical and social balance, through faith in God and respect for the dignity of human beings.

The study plan has the transverse objective of promoting academic excellence while not overlooking values, justice and responsibilities. And although it might be thought that these precepts strictly dictate the university's educational content and its teaching methods, UNASP boasts innovative learning strategies using online tools.

It offers distance courses, a challenge which, according to UNASP's Virtual Campus Director Valcenir do Vale Costa, encourages them to break away from paradigms that have been established about education in Brazil and in other parts of the world, where the teacher is the main figure in a classroom because he or she is the one who "has the knowledge and knows everything".

This way of thinking changes with distance education, because attention is focused on the student, who plays a more active and participative role in the content. This has meant that the myth that the quality of the education the student receives is not the same as it is with face-to-face classes has had to be overcome, which has been done by virtue of the significant results that have been achieved since 2005, when distance education was introduced, supported by the Moodlerooms platform.

"TECHNOLOGY ISN'T GOING TO REPLACE THE TEACHER, BUT IF THE TEACHER DOESN'T LOOK FOR TECHNOLOGY, HE'S GOING TO BE OUTSIDE THE CLASSROOM".

This has been a fundamental part of the process, because it is "the communication channel between the institute and the student, quite apart from being where all our material is posted", explains Valcenir.

Currently, the students can do 20% of their academic load in the online platform. There are approximately 15,000 students on face-to-face courses, who also study various distance programs, and 300 students on postgraduate courses. Additionally, there are low cost courses for anyone who might be interested in a short term experience (10 to 40 hours).

The use of miscellaneous online IT resources for education has opened up new opportunities for learning, cooperation and participation at the university. Brazil is also benefiting greatly from this method, because teaching and education are democratized and hitherto unheard-of things are starting to be done, things that have already become a reality in the field of further education in other countries. It also brought a benefit in terms of time, because distances are great in São Paulo and when a person has to travel from home to work and from work to university, and vice-versa, getting around can sometimes become complicated, whereas with distance education, schedules can be arranged better.

ONLINE TEACHING

The teaching staff felt somewhat reluctant when a start was made on implementing the project at UNASP, because they thought it was something very new and they weren't clear what they would be up against. However, as online classes developed, their perception changed radically. Three key elements began to come together: having, mastering and making proper, ideal and harmonious use of online tools.

Each teacher is trained and is constantly learning and getting to know the applications and other digital matters, because "technology isn't going to replace the teacher, but if the teacher doesn't look for technology, he's going to be outside the classroom", maintains Valcenir.

Every effort is therefore being constantly made to train and motivate the teaching staff and ensure that they are fully aware of and understand the possibilities that technology offers in terms of valuable results and products in teaching processes.

WHERE IS UNASP AT IN COMPARISON WITH OTHER INSTITUTES?

There is great diversity in the field of education in Brazil, and many universities had already introduced online education by the time UNASP made the decision to do so. It has taken full advantage of this, since it has learned from the processes used by other colleges and has thus been able to improve its own and ensure quality in its programs. ∞





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VALCENIR DO

VALE COSTA,

DIRECTOR, CENTRO

UNIVERSITARIO

ADVENTISTA DE

Oleg Figlin: making institutions successful beyond technology for learning



that SAP has over 60,000 employees and has a presence in every country in the world, this was a big opportunity. Without hesitating, he applied for the job along with three thousand other candidates, and ended up getting chosen. His job consisted of evangelizing new technologies, selling the newest solutions and providing direction and leadership to other consultants in Europe. He became Senior Consultant, and started to pave his path to **Blackboard**.

After 14 years with SAP and after taking a number of senior management positions in pre-sales and consulting, Oleg felt he needed a change. His professional journey will lead him to another big company: Blackboard. Before Oleg joined them, Blackboard had no international consultancy team. That is when he realizes there were plenty of future opportunities, choosing to manage it as if it were a startup, rather than a huge company, so he could mold it into what it has become in the last year.

On his daily basis at Blackboard, Oleg has to deal with new tasks and face new challenges. As Head of International Consulting, his key priority is to deliver the highest customer satisfaction and to enable institutions to successfully envision, prepare and succeed in achieving their strategic goals.

Although technology plays a very important role in what Blackboard is, having the technology combined with the right expertise is a winning factor for every institution. And Blackboard Consulting's' claim of expertise is not something they take lightly. The team doubled in size during the last year and it encompasses highly specialized practitioners, many of whom joined Blackboard after holding roles in educational institutions, with personal experience in developing, managing and delivering institutional strategies to drive digital initiatives, academic portfolio development, enhancing the student experience and process improvement.

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During the last year Blackboard International Consulting became one of the leading education and technology consulting organisations. Its goal is to help institutions focus on their core business of enabling the learner.

Probably that is why he is a fan of **Moodlerooms**, because is the right tool to achieve that. "You know, I really love

Moodlerooms. It has lots of potential (...) and Moodle is such an interesting product: its key advantage is that is a product developed by the community, which makes it so attractive" said Oleg. In fact, the man behind the VP desk of Blackboard is convinced that the benefits of open source LMS are palpable and tangible. "Is not only a technology or learning system for students and employees but also to analyze results, to see what can be improved, and to provide some strategic advice on how to make it even more successful in time".

In order to reach what he has in mind, one of the fist tasks that Oleg took on as Vice President of International Consulting was to simplify the portfolio of services. When he joined the company, Blackboard offered 250 different services. That might sound impressive, but Oleg believes that things should be as simple as possible. He reduced it to 50 services only, so that it is simpler to offer clients a solution that will work for them. Along with this, his team has also introduced many new attractive offerings.

In terms of what he has planned for Blackboard in the future, there are three main things he hopes to achieve this year. The first is to extent the services portfolio for existing clients. Until now, Blackboard's main focus has been to bring in new clients, but what Oleg wants to do is to make sure that existing clients get all the support they need to keep up with new challenges and market trends. The second task for the future is to make sure that companies that work with Blackboard are totally successful and that's why every single service in Blackboard services portfolio is to be revised to support specific institutional goal, for example increasing student enrollment, increasing student retention, increasing student satisfaction etc... The third objective is to provide ongoing support after project go live and making sure that every client has high satisfaction and high adoption of Blackboard products. Every customer to be as-

signed Customer Success Manager who will work with them on ongoing basis and will focus on measuring technology adoption in the institution, defining a clear roadmap for achieving the goals and supporting them on ongoing basis.

Oleg knows that being a 'techie' has definitely helped him reach the point he is now at his life, because you can't be successful on the business side if you don't understand the

elementary technology part of what you are working with. "Working at Blackboard has been very challenging and rewarding at the same time", he said, even though he is happy collaborating in an industry with so much potential and that can make such a huge impact on the lives of so many different people through something basic but complex as education. ∞

Caldwell Community College & Technical Institute: Moodlerooms as the teacher's ally

THE USE OF A DIGITAL PLATFORM

like Moodlerooms at Caldwell Community College & Technical Institute (CCC&TI) has allowed education programs to be complemented and expanded beyond daily classroom sessions, and this has also increased the college's impact on the community it is part of.

BY: Nicolas Peña

Hudson, NC, United States

KRISTIN HARRISON,

DISTANCE LEARNING DIRECTOR, CALDWELL COMMUNITY COLLEGE & TECHNICAL INSTITUTE



he programs at this college serving Caldwell and Watauga counties in North Carolina, in the United States, include daytime and evening face-to-face courses as well as online courses and a number of hybrid ones that use both environments to complement their teaching activities.

A significant percentage of its students are adults, for whom distance learning and evening courses are a great help because they allow them to keep their day jobs. "E-learning helps students who work full-time or have other commitments but who are trying at the same time to further their education. They have access to courses that offer them flexibility when it comes to choosing when and where to learn and work on their studies", says Kristin Harrison, the college's Distance Learning Director.

THE TEACHER'S ALLY

Caldwell offers hundreds courses, including technical programs, degree programs, college transfer, and adult education. In each of these scenarios it is the directors and department chairs who decide which courses should be face-to-face, which ones can be online and which can be hybrid. However, Harrison acknowledges that the platform is being used by faculty even on purely face-to-face courses, because of the numerous advantages it offers. They use it for communicating quickly and effectively with students, for publishing and disseminating grades, and also as an extra learning aid.

As far as courses where Moodlerooms is used are concerned, the Distance Learning Department has received highly positive feedback from faculty, who point to such things as the advanced forums, and the possibility of creating and editing quizzes and accessing all the tools they need from the main page. In addition to all this, the technical assistance they receive for answering their queries and meeting their needs is excellent. "They are devoted to providing the customer with good service, and when problems arise with the courses





"E-LEARNING HELPS STUDENTS WHO WORK FULL-TIME OR HAVE OTHER COMMITMENTS BUT WHO ARE TRYING AT THE SAME TIME TO FURTHER THEIR EDUCATION".

and help is required from Moodlerooms technicians, their response time is usually 24 hours or less", adds Harrison.

The Distance Learning Director is always on the lookout for new developments and technologies that will support the use of e-learning in the college's classes. Currently, for example, she is concentrating her efforts on developing a new instructor training course that will provide **Moodlerooms** training from the digital environment, which shows that online learning has become a cornerstone of education activities at CCC&TI.



-LEARN MAGAZINE: COULD YOU BRIEFLY PRESENT PARIS DESCARTES UNIVERSITY TO OUR READERS?

Fréderic Dardel: Paris Descartes University is part of the COMUE Sorbonne Paris Cite. We mainly teach careers related to the health sector (medicine, pharmacy, etc.), but we hope to introduce other subjects like literature and languages.

E.L.M: FRENCH UNIVERSITIES ARE RENOWNED FOR SHOWING CERTAIN AMBIVALENCE ON THE ROLE THAT PROFESSORS PLAY, ESPECIALLY THOSE WHO ALSO DO RESEARCH ON THE SIDE. DO YOU THINK THIS HAS A NEGATIVE OR POSITIVE IMPACT ON PEDAGOGY?

F.D: I don't think that this problem is tied specifically to the professor-researcher. On the contrary, professors are mainly assessed on the basis of their research activity and the development of their career depends on their publications. This leads to a paradox: although both activities are fundamental, research-related issues take precedence over pedagogical ones.

We have taken a number of steps within the University to lessen this. For example, we often organize tours around various faculties to propose pedagogical "snacks." The objective is to address teaching-related issues amongst professors and learning engineers over a meal—a voluntary and informal setting. These kind of encounters allow us to take stock of how much interaction takes place in courses, the possibility of combining disciplines, pedagogical innovation and even new assessment formats.

Another initiative that we make available to professor-researchers is to take some "research leave," which they dedicate to developing innovative projects as well as improving pedagogy.

These measures tend to increase our professors' performance and the quality of teaching in general.

E.L.M: WHAT ARE YOUR GREATEST CHALLENGES FOR THE NEXT FEW YEARS?

F.D: University education in France must be open to all. However, we have no means of early-stage selection. This causes us to have a failure rate that is too

high in various disciplines. For example, for the second year of medicine, we only have 500 vacancies but more than 2,500 registered students. And in law school, close to 60% of students repeat their first year.

I believe the source of this problem is mainly that there is no previous preparation in secondary school and so first-year students start with false ideas about their degree that do not correspond to what it ends up being.

We have taken certain measures to respond to this. For example, some second- and third-year students visit schools to talk about their degrees and their university experience. In this way, we develop a communication strategy that allows applicants to quickly identify if the career and study methodology that they plan to choose suits them.

Nonetheless, the greatest challenge is students coming from unconventional courses. For the last three years, all medicine graduates came from a scientific baccalaureate course. For this reason, our duty and responsibility was to seek alternatives for students who fail and yet have the will to study. We have put forward innovative proposals, such as direct enrollment to the second year, the offer of a supplementary year for students to have the possibility of catching up and parallel streams (often unknown) that offer students professional possibilities that are more aligned with their expectations.

"OUR DESIRE AT THE UNIVERSITY IS
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THOSE OF A SINGLE DISCIPLINE".

We have implemented tools so professors can view their course in different ways. The use of platforms is fundamental and must be an extension of the course instead of a mere duplication. All in all, the principle of the inverted class correlates positively with many concerns of professors and students alike: both roles receive more flexibility in regards to time, absences become less of a problem and course content is permanently available.

E.L.M: IN REGARDS TO DIGITAL TECHNOLOGY, WHAT NEW DEVELOPMENTS DO YOU PLAN TO IMPLEMENT AT PARIS DESCARTES UNIVERSITY?

F.D: We are under the impression that some of our students share course content in a non-controlled manner, which causes the quality of said content to be highly varied. Because of this, we would like to standardize the digitization of content in a similar format to that of an ePub (eBook format).

I am also sure that collaborative work allows students to assimilate information better. Therefore, we will seek tools to strengthen this facet of education.

Finally, I hope to change assessment methods so that they are more in line with current reality. In fact, it is possible that we will soon be able to administer exams over the internet. The objective here is to allow students to search for information and maintain their critical sense on everything they

find. When they move on to being active members of culture, this type of competence will be demanded, and is currently being taught very little or not at all.

E.L.M: WHAT WOULD YOU SAY TO FOREIGN STUDENTS TO ENCOURAGE THEM TO STUDY AT PARIS DESCARTES UNIVERSITY?

F.D: Our desire at the University is to encourage innovative careers, especially double degrees that cover a broad array of topics and reach superior levels of knowledge compared to those of a single discipline. Also, thanks to the Betencourt Foundation, we now have updated and competent simulation tools so that students can apply theory in an immediate manner. Last but not least, Paris remains the most beautiful city in the world.

The Paris Descartes University is a perfect example of a school in transition. As they implement new technology to address student, faculty, and government demands, they provide valuable insight into the real-world value of education technology.





International College of Music: learning Technology for Musical Performance

BY: Christina Gomez Echavarria Kuala Lumpur, Malaysia

usic is a discipline that requires precision, a good ear, lots of practice and detailed technique, all of which demand time. For all these reasons, it might seem strange to teach music via e-learning. However, the International College of Music (ICOM) in Malaysia is taking on the challenge of teaching students through a computer screen. KS Sze is the Associate Course Leader and

administrator for the ICOM Online platform, which teaches a range of music and audio courses to people all around the world.

ICOM enjoys very high reputation in Asia for providing high quality contemporary music education, and also has a partnership with the Berklee College of Music in Boston, one of the most prominent music colleges in the world. ICOM has won a number of awards and has several well-known musicians and music producers in Asia. Launching e-learning while having such a high reputation to uphold was therefore a very bold move for ICOM.

ICOM Online has existed for a little more than a year 100% online, with plans to integrate on-campus classes to the online platform to enable blended learning in all fields. At the moment, it has some performance classes which require the playing of an instrument, as well as courses in music theory and music production. One of the key tasks for faculty apart from teaching classes, is engaging with students and providing well-considered feedback to help students do better every day.

"MOODLEROOMS ALLOWS FOR **ALL THE FUNCTIONS THEY NEED TO MAKE THE CLASSES** WORK WELL, AND IT PLAYS A MAJOR ROLE IN ENABLING ICOM ONLINE TO MAINTAIN ITS HIGH REPUTATION IN THE ONLINE SECTOR".

The method ICOM Online uses is that the faculty uploads a video or other media-related content to introduce the theory and practice of a certain topic, such as a chord progression on the piano. Afterwards, the student reviews the lesson and can watch the video as many times as s/he needs to, before recording themselves practicing what has been taught. The student's video is uploaded as an assignment, and the faculty will review it and give feedback on what was done correctly and what needs to be improved on. In the end, it is not much different from a face-to-face class where the faculty sits in front of his/her students and also reviews their work.

The next question that arises when thinking of a student who is practicing an instrument alone in front of a camera, is whether this is a disadvantage. This is considering that later in life, s/he will have to play the instrument in front of an audience. KS explains that what they try to do to avoid students from getting stage fright is hold forums and encourage students to upload their videos. This way, they get feedback not only from the faculty but also from other students in the class. Moreover, when students record themselves, they can see the errors they are making. This, in turn, teaches them something new. Diligent students will record the video as many times as it takes until they are happy with the results.

Moodlerooms is the e-learning platform for ICOM Online and it contains and currently offers only short courses that are taught all the lessons and materials for the class. KS says that Moodlerooms allows for all the functions they need to make the classes work well, and it plays a major role in enabling ICOM Online to maintain its high reputation in the online sector. ICOM Online's tagline is "Learn anytime, anywhere", because it believes that learning should not be restricted to certain times or be limited by geographical locations. KS thinks that this is the most innovative way of teaching and is definitely the education of the future. He believes that education is abandoning the campus a little bit more every day, and adds that ICOM would like to be there first when it happens. He also stresses that these online courses are very different from what someone might learn through YouTube tutorials, because having a structured syllabus and a qualified faculty to give you feedback is invaluable.

> Even though theoretical classes like music theory might seem simpler to teach, KS says the real challenge a faculty faces is motivating students to remain focused and be disciplined amidst so many distractions out there on the Internet.

> In terms of employability, KS says that ICOM has traditionally been strong in preparing graduates for music careers in the professional music industry. Among the graduates are recognizable names on the Asian market, such as, Rithan of Deja Voodoo Spells who sells his records on iTunes, JD of Pop Shuvit, and Gin Lee, a vocalist who is in very high demand in Hong Kong. KS hopes that ICOM Online will enjoy the same success as the on-campus programs and allow great talents to build their careers in the music industry. •



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POET: a powerful non-profit resource for Moodle



OET is an acronym that stands for Partners of Open Education Technologies. This non-profit organization was founded two years ago with the aim of orienting and explaining the benefits of Moodle to those interested in using LMS, as well as helping them integrate it into their existing systems. E-Learn Magazine had the opportunity to talk with Mike Churchward, POET's Executive Director, who told us more about this group.

E-Learn Magazine: HOW DID THE IDEA OF CREATING THE POET PROJECT COME UP?

Mike Churchward: About two years ago, several Moodle Partners at the time, met about ways to streamline shared processes. One of the more laborious tasks each group was doing, was reviewing and approving Moodle plugins for use by their various installations. So a decision was made to pool resources together and create a Moodle plugin quality program as a separate organization.

ELM: WHAT WAS THE PURPOSE OF POET AT THE TIME OF ITS FOUNDING?

MC: POET's number one goal was and is, to create an open, publicly facing program that evaluated [Moodle] plugins

and provided the results of those evaluations for its **MIKE CHURCHWARD.** members and the community to use. We also wanted to use the same program as a development resource

that could be utilized by plugin developers on their own, to help meet quality standards before the plugins were released.

ELM: WHO ARE THE MEMBERS OF POET?

MC: The members are: Blackboard, Lambda Solutions and Remote Learner as well as UCLA, Oakland and Minnesota Universities in the US.

ELM: WHAT DO YOU NEED TO DO TO BECOME A MEMBER OF POET?

MC: We have not put a lot of effort into increasing the current number of members, but it's something we want to do; however, at the moment, plugins are our priority. Other companies have approached us and expressed their interest to join, and we are still designing terms for this kind of membership Currently, our members are focussed on contributing resources to plan and develop the plugin quality program, as well as planning the roadmap for the next phases. We will develop a set of guidelines explaining how and what is required to become a member of the POET community, in an open fashion, and invite new members down the road.

ELM: WHERE DO THE RESOURCES TO PROMOTE THE POET PROJECT COME FROM?

MC: Funds and resources come from the community and three of the six founding partners, primarily Blackboard, Lambda Solutions and Remote Learner. We are

working on establishing ourselves as a non-profit organization with appropriate funding sources. As a member of the Apereo Incubation program, we are working with Apereo to help define how life as a non-profit will look.

ELM: HOW IS POET RELATED TO THE MOODLE COMMUNITY?

MC: We want to be an additional resource to the Moodle community. Providing our plugin quality program openly to the Moodle community is our first step. We also want to begin co-development of Moodle plugins, and hope to demonstrate that this same kind of development process can contribute to the core Moodle codebase.

ELM: YOU MENTIONED POET'S AIM OF "ORIENTING AND EXPLAINING THE BENEFITS OF MOODLE TO THOSE INTERESTED IN USING LMS." DOES THIS MEAN THAT THE PLUGINS YOU'RE TESTING ARE AVAILABLE ONLY FOR MOODLE OR ALSO FOR OTHER OPEN-SOURCE TECHNOLOGIES?

MC: At this time, we're primarily focused on Moodle. However, our mandate is not strictly Moodle. We want to be able to expand to other open technologies, especially where they integrate with systems like Moodle. Our membership in Apereo can help us there, by connecting us to other open technologies used in education. In the end, it will be our membership that decides what technologies we should embrace.

ELM: WOULD YOU SAY THAT ONE OF THE MOST IMPORTANT ASPECTS OF POET IS EVALUATING PLUGINS THAT ARE GOING TO BE DELIVERED TO A PLATFORM TO INCREASE ITS FUNCTIONALITY?

MC: At the moment, yes. And we want to be able to help determine what functionality is in demand, and help find the right development to provide that, if it's not already provided or planned. So, more importantly, we want to be able to help our members get the right functionalities they need for their open educational platforms.

ELM: WHAT DO THE PLUGIN SCORING SYSTEM AND AUTOMATIC TESTING CONSIST OF?

MC: Our current plugin quality program consists of a number of parts; some automatic and some manual. We also provide a "score" for various areas such as security and performance, to help gauge the reliability in those areas. The automatic testing process helps validate the plugin to specific Moodle coding and structure standards, as well as identifying areas that should be looked at more closely for security and performance issues. We use the results of these tests as well as our manual reviews to assign scores to various review areas. And we post the results of these tests and reviews, both positive and negative, for anyone to see. This helps plugin consumers to judge whether or not they feel confident using the plugin. Lastly, we provide functional usage reviews to help show how the plugin is used and how well it solves its intended purpose. We have provided several of these initial reviews to the Moodle plugins database already.

ELM: HOW EXACTLY DOES THE PLUGIN SCORING SYSTEM (PSS) WORK WITH THE AUTOMATED TESTING (AT)?

MC: The Plugin Scoring System evaluates the testing results of tested plugins using a three-point system. Moodle's plugin database evaluates plugins with a 10-point

score. But we feel the difference between 6 and 9, for example, isn't very clear and may lead to ambiguities. We prefer to use a simpler system in which 0 is total failure. 1 suggests things that have to be improved, and 2 reflects that tests were perfect. The philosophy behind this scoring system is based on reward: we want to reward those who make an effort to provide and develop the best quality plugins.

But the score isn't just a number; it's also accompanied by informative comments that are supplied by POET's members. We want to provide valuable, collaborative feedback and work with the developers to solve identified problems.

ELM: WHAT KIND OF PLUGINS HAVE YOU TESTED?

MC: We are doing tests for a large variety and series of plugins, including activities, blocks, feedback, authentication and others. Our goal is to test as many plugins as possible so that our processes and workflows become more robust and reliable.

ELM: WHAT KIND OF TECHNICAL AND SECURITY REVIEWS ARE BEING CARRIED OUT BY POET WITH MOODLE PLUGINS?

MC: We have based our automated tests on the "moodle-plugin-ci" suite of tests developed in the community, and have added more tests as part of POET. These tests look for code quality, standards adherence, plugin API validity as well as identifying points of concern for security and performance. If the plugin has provided unit tests and Behat tests, the automated process will run them and provide the results. We prefer, and encourage developers to provide unit tests and Behat tests with their plugins and score them higher when they do. We have also done some work to provide unit test and Behat test templates, so that developers who do not have these can start with some and build them out.

We're still working on improving and expanding our security and performance testing tools. We're developing automated code tests to locate and identify known problem areas. At this time, those tests cannot state that a plugin is 100% safe; but they can help identify areas of concern and allow a human reviewer to further inspect and assess. ex

LEARN MORE



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hen Mahara started out in 2006, it was a joint venture between a number of universities in New Zealand who wanted to create a personal learning environment that integrates with their base LMS. Led by Catalyst IT (http://catalyst.net.nz), it has grown into an electronic portfolio in which students and professionals can place their learning evidence and demonstrate work experience.

"Learners can create a portfolio to demonstrate their progress in a learning area over time and also create a portfolio to complement their job search, as they can

include real evidence of their achievements. They can upload files from their devices, create reflections in learning journals directly in Mahara, and embed

content from other websites, such as audio and video sharing services, animation generators, presentation services and cloud storage. In that way, they can curate all their learning in one place and make it available to different audiences", explains Kristina Hoeppner, Mahara Project Lead and Community Facilitator at Catalyst IT.

KRISTINA HOEPPNER.

COMMUNITY FACILITATOR

AT CATALYST IT

MAHARA PROJECT LEAD AND

Mahara is perfect for those who need to keep a record of their professional development, such as nurses, social workers, hairdressers, teachers, artists,

and many others. Portfolios can be accessed and updated anywhere, at any time. Along with all these benefits, Mahara also functions as a social network and allows people to discuss various topics in one safe, secure place.

According to Hoeppner, "Mahara is not just used by learners to create their individual portfolios. They also engage in social learning practices. Learners can collaborate on portfolios with others and work on group projects. They engage with viewers of their portfolios through the commenting functionality and gain further insight into what they have done well or could improve".

INSTEAD OF CARRYING MESSY BINDERS

around or making paper copies of your work, Mahara, which integrates perfectly with Moodle, is an open source and social learning web application that allows you to set up your digital identity and show it to others.



Mahara and Moodle complement each other in many ways. While Moodle does a great job providing teachers with tools and helping them guide their students through different resources, Mahara, on the other hand, is for learners. This means it is the learners, who decide what content to include in their portfolios and what not to. For example, by exporting learning content from Moodle to Mahara, learners can keep that information safe in their ePortfolio, even if the teacher deletes it from Moodle.

MAHARA IS NOT JUST USED BY LEARNERS TO CREATE THEIR INDIVIDUAL PORTFOLIOS. THEY ALSO ENGAGE IN SOCIAL LEARNING PRACTICES. LEARNERS CAN COLLABORATE ON PORTFOLIOS WITH OTHERS AND WORK ON GROUP PROJECTS.

"Because Moodle and Mahara are closely integrated, an educational institution can offer its learners and teaching staff a single sign-on for the two applications, as well as allow learners to send their learning evidence from Moodle, such as submitted assignment files, forum posts, and glossary entries, straight to Mahara".

The Mahara Partner Programme, managed by Catalyst, gives its members the opportunity to work more closely with the Mahara core project team, be informed about new initiatives early, and receive advance notification about upcoming releases so they can schedule updates and be featured on Mahara's website. All of this is without paying any kind of base-fee and, instead, being active contributors to the Mahara project.

Recently, in early April 2016, Blackboard became a business partner with Mahara and showed its commitment to the Mahara project. Knowing that many of their clients use Mahara as part of their Moodlerooms operations, Blackboard is planning to support the community via issue resolution and feature development.

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EVENTS

OCTOBER 2016



he Teaching and Learning Conference for Australia and New Zealand (TLC ANZ) 2016 took place on August 28-31 in Sydney, Australia. With more than 230 attendees and 60 working sessions, the event demonstrated how Blackboard is the leading company for teaching and learning technology solutions. The event gathered the region's educational thought leaders, providing the ideal venue for deans, heads of educational technology departments, educators, course designers, system administrators, and e-learning project managers to share experiences, exchange ideas, and network with their peers.

At the event's opening keynote, Dr William (Bill) Ballhaus, Chairman, CEO and President of Blackboard, shared his vision on developing and delivering high-quality enterprise solutions that are rooted in innovation as their main characteristic, in order to be a vehicle for the success of their users. Speaking at the same keynote, Katie Blot, Blackboard's Chief Strategy Officer, also made several important announcements focused on improving Blackboard's teaching and learning solutions:

The Moodlerooms 3.0 launch, which will incorporate the latest enhancements by Moodle, also obtained the IMS Global certification for Caliper Analytics™. Moodlerooms 3.0 also improved Snap and X-Ray Learning Analytics features.

- Blackboard Learn will be available as Software as a Service (SaaS), via the regional data centers of Amazon Web Services (AWS).
- Once the transition to SaaS is complete, clients will be able to switch over to Learn's Ultra experience, defined by an easier-to-use interface, simplified workflows, personalized user experiences, among other features.

For open source users in attendance this year, the annual event stood out in particular with an entire day dedicated to Moodlerooms, Blackboard's open source solution. The four Moodlerooms streams held on August 29 came together for the keynote presentation by Martin Dougiamas, founder and CEO of Moodle, who endorsed Blackboard as the Moodle partner with the largest global presence. Dougiamas, besides sharing the road ahead for Moodle during his keynote, also co-hosted a Ω A panel session with the attendees.

The Moodlerooms Client Day, one of the four Moodle streams held, also saw several Moodlerooms team members presenting on the platform's full potential, for example, its integrations with Microsoft Office 365 and Blackboard Collaborate. Additionally, there was a session on X-Ray Learning Analytics for Moodlerooms, a research-based approach to improving learner engagement and long-term learner success, through Blackboard's latest predictive analytics technology.

Undoubtedly, events such as TLC ANZ are ideal settings for sharing within the education and training community, which constantly works to enrich and optimize the possibilities that today's educational technologies have to offer. From Blackboard's standpoint, the commitment to reimagine education lies in a collective effort of innovation and the feedback of best practices that lead on to better experiences for learning. ∞

























AVIATION















