Media & Learning Brussels 2014:

From passive to active use of media in teaching and learning

The Media & Learning Brussels 2014 Conference was organised by the Flemish Ministry of Education and training and media company ATiT with the support of the European Commission, DG Education and Culture. It took place on 20-21 November 2014 in the Ministry Headquarters in Brussels and involved 298 participants from 42 countries who came together to discuss the impact of media in teaching and learning.

Twelve core themes were chosen to underpin the programme:

- Effective media literacy schemes

- Embedding film literacy in education

- Programming as creativity

- Best of research outcomes related to media literacy and education

- Incorporating video in the design of Higher Education courses, including MOOCs

- Media supported language teaching

- Games – an educational media phenomenon

- Competent and safe use: teaching and assessing digital competence

- Media supported science teaching

- Media archives and teaching

- Cultural education and the role of media

- Curating OER and OER Repositories

The main theme for 2014 was *From passive to active use of media in teaching and learning*, with the idea of active engagement with media being at the heart of a unique conference programme aimed at exploring the role of media in fostering creativity and innovation at all levels of education and training.

Aimed at policy-makers, service-providers and practitioners, this fifth annual conference featured inspirational talks, broad-ranging discussions, specialist master classes, and practical demos in relation to media-supported learning as well as the awards ceremony for the annual MEDEA Awards.

The organisation of the annual MEDEA Awards prize-giving ceremony to coincide with the Media & Learning Conference provided an opportunity for participants to see for themselves excellent examples of media-supported learning which include both professionally produced as well as user-generated examples from all over the world.

Media & Learning 2014 was sponsored in part by Kaltura, LEGO Education, Mediasite by Sonic Foundry, IRIS Connect, Ubicast, Entwine, TechSmith, and supported by the Media & Learning Association, MEDEAnet, and Visit Brussels.

The programme

The 2014 conference programme included *screenings* of educational media productions, *discussion opportunities* and *presentation sessions* where leading experts and practitioners shared their experiences, insights and know-how. A *pecha kucha session* featured European projects and initiatives actively engaged in developing products and services related to the conference themes. Five *master classes* were also included, providing participants with an excellent opportunity to go in depth into a particular subject. A total of 136 people from 22 countries contributed to the programme in 38 different sessions. *Sessions in the main auditorium were streamed* allowing people to follow parts of the conference online.

All 8 finalists in this year's MEDEA Awards showcased their entries in four different sessions and many conference participants joined invited guests for the MEDEA Awards Ceremony where this year's winners were announced with '**Un autre monde / Eine andere Welt**', a joint submission from Albeck Gymnasium Sulz in Germany and Collège Frédéric Hartmann from Munster, in France, winning the MEDEA Award for User-Generated Educational Media, and '**Digital Prevention Platform**' produced by Saffron Interactive Ltd for the Against Violence and Abuse (AVA) service in the UK winning the MEDEA Award for Professionally Produced Educational Media. Three special prizes including the Audience Favourite Prize were awarded as well.

The conference featured a very popular *Display Area* featuring stands where several sponsors, organisations, and project teams active in the media and learning sector presented outcomes and information about their activities. This area included the presence of Kaltura, LEGO Education, Mediasite, EU Screen, European Schoolnet and several European projects, including LeHo, NEST, ENViL, iPro and TALOE on Thursday, and JamToday, Video for All, DigiPlace4All, Camelot, eLene2learn and ViduSign on Friday.

There were two popular *pre-conference events*. The first, organised in collaboration with the Media & Learning Association, was a workshop on the use of *Video in Higher Education* which attracted over 60 participants. The second was a visit to the *Future Classroom Lab* which was organised by European Schoolnet.

Keynote speakers and main themes

The main themes of this year's conference were brought to the fore by the first speaker on the first day, **Simon Van Damme**, on behalf of **Hilde Crevits**, Vice-Minister-President of the Government of Flanders, Flemish Minister for Education, who addressed the importance of digital aspects of *Remembrance Education* as well as *Science and Technology Education* (STEM).

Vitor Reia-Baptista spoke about the importance of working towards media pedagogy, where a move is warranted "from passive to active use of media in teaching and learning". He indicated that media education, using popular media that is not purposefully made for education, leads towards media literacy, but needs to be given shape via a media pedagogy. Citing examples from Bob Dylan's lyrics to Bob Marley's use of English in 'No woman, no cry', Reia-Baptista showed how popular media has shaped perceptions of history, language proficiency and empowerment. He concluded that a more conscious use of media pedagogy would lead us from a "Pedagogy of the Oppressed" to a "Pedagogy of Liberation or Literacy".

REMEMBRANCE EDUCATION

As a curator of the Huis van Alijn, **Brecht Demeulenaere**, spoke about how humans construct meaning to deal with anxiety, against the backdrop of the use of media for *Remembrance Education*. This development starts from childhood, in the form of memories embedded in a culture. The experience of difference between meaning and actuality creates emotions. He indicated how media offers us a way to deal with or give meaning to the Real (Birth, Procreation and Death), making use of Imagination (e.g. Art, Photography). A conscious user of media can create constructed meaning, to achieve a particular effect, or to represent a particular ideology. This constructed meaning can change depending on the experience and background of the beholder. Demeulenaere also discussed how we use landscape to deal the memories of the war and how these differ in different cultures (e.g. the cemeteries of the German Forces and the Allied Forces). This creates a sense of cultural self-awareness. Finally, he pointed to the importance of remembrance education: as children don't have memories on their own, they need support and history as framing to make sense of memories.

Remembrance Education was a newcomer at this year's Conference, a theme that is linked with the many commemorative Centenary projects taking place this year at international level. A showcase session illustrated how media can make history relevant for today's students, from different perspectives. A TV Series from the BBC was presented by **Tim Plyming** based on the true stories of those who fought on the front line. Using modern techniques including head-cams and thermal imaging, the hour-long drama, is

based entirely on the 100-year-old testimonies of the soldiers. Other productions that recreate battle atmospheres include an interactive application game shown by **Mike Ptacek** and named after a WW1 event- *Hill 60* - which aims to put the player in the shoes of the soldier and feel what was going on during the actual battle. Digital archives have played a capital role in activities and initiatives about the Great War building ways to "Rethink the Remembrance". The *Name List* as a tool of commemorative education was shown by **Pieter Trogh**, working in the In Flanders Fields Museum, while **Jill Cousins** presented the *Europeana 1914-1918* project. Narrating a family story through an object, she illustrated how memories and memorabilia can get individuals engaged with the archives and help tell our European history.

Other issues that have been brought about in discussions about media-supported remembrance education, involved the use of media for educational purposes. As WW1 is part of the curriculum in most European countries, it is important for educators to ask, what they want to tell students. A basic step towards remembrance education would be to remember not just the lives lost, but full life experiences. Pictures, digital archives and films are engaging but teachers need to work more with questions and critical thinking in order to be able to "read" images and contextualise them. They have to look for active ways to engage with students and let them manipulate images which is an important feature for media education.

COMPETENT AND SAFE USE: TEACHING AND ASSESSING DIGITAL COMPETENCE

Lieve Van den Brande presented the common European reference framework for digital competence for citizens and a related online assessment tool, which has been commissioned to promote a common understanding of the different competences needed by citizens. She made a case for the huge and increasing demand for digital skills, which is currently not met by education. Digital competencies are a must for employability, which will be required by 90% of all jobs across sectors in 2020. The DIGCOMP Framework for Developing and Understanding Digital Competence in Europe covers 5 competence areas of digital competence: information, communication, content creation, safety, problem-solving. It has identified 21 competences, at three proficiency levels. These have been linked to the 8 levels of the European qualification framework, as this makes the link to national frameworks and also the labour market. Learners will be able to self-assess themselves through standardised questions and descriptors, and take up the results of their self-assessment in their Europass. The framework is already in use in several European countries including Spain and Belgium. Van den Brande also mentioned that a similar idea is being implemented on entrepreneurship, where we can see a shift from the tool to the use of the instrument.

PROGRAMMING AS CREATIVITY

A major theme of this year's conference was *programming as creativity*. **Frank Neven** put forward a short but very much to the point argument as to why programming is an important skill for children. As the many initiatives to introduce programming in educational curricula around the world have shown, the common goal is to raise effective and responsible citizens of the digital world. The problem is that technology changes rapidly and unpredictably. However, although the technology changes, the underlying computer principles do not change. Therefore, it is more effective to teach youngsters about how digital information is used by computers, and the related communication algorithms and computational thinking. The solution therefore is to provide basic computer science education for all in support of future-proof digital citizens. The educational value of programming is that it provides insight into how digital systems work and promotes creativity. Already 12 EU countries have it as part of the curriculum, 7 others plan to make it part of curriculum. Some countries only see it as programming, others include algorithms and computer science.

René Tristan Lydiksen gave a more detailed perspective on Europe's needs for technically skilled creative people. He stated that 48% of people who in China have been exposed to STEM education end up in a technology profession, whereas in Europe that is only around 8 to 22%. The labour market in the UK is in need of 100,000 engineers immediately and there is a forecast that the European economy will need 1,300M people with technical skills, which comes to 5% of the workforce. So, the greatest educational challenge now, according to Lydiksen, is to make kids coders - and to make teachers help kids in coding, even though they don't know how to do it themselves. He illustrated the importance of the difference between being the consumers of technology and being the producers of technology with a popular code, namely the notation of music. The emphasis on the outcome of the notation of music (music itself) rather than on the production and creativity related to production has led to the fact that many people now do not read the code of music anymore. He stated that the teacher is the single most important factor in the development of children's skills, but not necessarily as the expert, but rather as a facilitator.

Matteo Zacchetti looked at coding against an economic background, as a measure to youth unemployment. He wondered why we in Europe are again reacting against a pressing need instead of foreseeing and planning. He posed the challenge as how we as a society are able to implement the changes that have taken place.

Turning to the practical side, **Stephen Howell** wanted to promote STEM reform even from kindergarten to post-graduate level. He said that everyone should have the opportunity to experience coding, but should not to be forced to learn coding. The basic skill here is learning problem solving. He proclaimed that the 3Rs of reading, (w)riting and (a)rithmetic have been replaced by the 3Ds: design, develop and debug (and deploy). The challenges are not about what coding language to teach (which is like discussing which font to use when teaching literature), but rather how to train teachers to provide suitable support, how to fund the equipment needed and mainly, how to fit in coding in already busy timetables. He then introduced Project Spark as a platform to learn programming through games and world building.

Wietse van Bruggen noted in the discussion that the economic argument is not always the right argument to work with schools. They are more convinced by the importance of the skill for being better citizens. Also the choice of the tool to teach programming plays a role: some tools take away a lot from teachers. These tools can be a good stepping stone, but they may not be enough in future. The danger is that we might go towards a one-size fits all solution for coding.

This theme was also discussed in the parallel sessions, where **Karien Vermeulen** indicated that we need (and our students need) a hacker mentality, where we can "open up stuff, understand the systems behind it, change stuff and take action". She saw the development of this mentality as vital in education. Many initiatives were presented that promoted programming and "making things",

such as CoderDojo, Devoxx4Kids, Fab School and the Fab Labs, the LEGO toolkits from preschool to higher education, etc. The discussions also took on the question of where to introduce coding in the curriculum. Some participants were of the opinion that almost every subject at school can be used to integrate technology, as long as you have teachers who are not afraid of touching a computer. Several speakers nuanced that introducing students to programming does not necessarily mean everyone will be or has to be a developer. In the same way, teaching someone to write does not necessarily mean that this person is going to be a writer. Another discussion point was also how to go from a seemingly leisure activity of gaming to being a developer.

Creativity skills were highlighted in two other talks during the conference. **Stéphan Vincent-Lancrin** presented the outcomes of a study conducted by the OECD on innovation in STEM education. He said the next study will be focused on mapping creativity and critical thinking skills. The aim would be to better understand how to develop creative and critical thinking skills and how to assess them in practice. This new project will be conducted in 2015.

Brian Holmes pointed to the role of the teachers and educators who are the gatekeepers of innovation. He stated that teachers will push the change through, if they are convinced of its benefits. Also, he drew attention to the importance of emotions that are at the heart of teaching. He posed that technology is working now, unlike years ago, because it is enabling us to reintroduce the social aspects of learning. It is therefore imperative not to minimize the role of teachers, in ensuring that learning is critical. They are the ones who pace the learning process, draw attention to important elements and offer moments of reflection. Through this, they engender self-confidence and self-esteem in their students. The role of the teacher is key in ensuring effective learning experience.

INCORPORATING VIDEO IN THE DESIGN OF HIGHER EDUCATION COURSES, INCLUDING MOOCS

Another theme was the aspect of *video in education*. **Michal Tsur** from Kaltura spoke about the results of a survey on the state of video in education. Video in education is growing rapidly, from taking courses online, to parents buying devices for the education of their children. Video usage, however, is mostly driven by individual faculty members in schools and universities. She advised the audience to think about where video adds the greatest value to the learner, and to start simple: using a webcam, good lighting and a tripod and by doing simple editing. **Matt McCurdy** talked about how much more can be done with video than just lecture capture. He said we are moving from lecture capture to knowledge capture. The challenges posed now related to management of videos on all levels (institution level to individual lecturer) - and search plays a big part in this. Technical challenges that are being tackled now are phonetic search within video (through the Informedia project at Carnegie Mellon University) and far-reaching analytics within video files, which would offer lecturers more detailed feedback on their course material.

Two keynote speeches stood out in terms of their ability to combine the themes of the conference by focusing on their personal approach to creativity and technology.

Lord David Puttnam spoke about his approach to teaching in general, and his use of video in teaching. He remarked that learning is "like embarking on a journey, without a map." The unknowns are frightening and demoralising, but the journey helps you fill in elements of a map. He spoke about the importance of resilience, which is the main life lesson that students need to learn (but that no university teaches). He also posed that "creativity is a muscle", that needs to be exercised to be strong and resilient. His use of video clips in his teaching was inspired by memory maxims, where short sentences are made up to remember an important message. A clip from the film War Horse, showing the rise of the machine gun against the use of the horse in war, brought to the fore how digital technology is changing civil society, with an increasing sense of urgency and a sense of opportunity. Although new technologies have infiltrated and changed the workspace drastically, the practice of teaching has hardly changed

in the last 70 years. This is being viewed more and more critically as an increasing number of students and business leaders question the suitability of the educational system for the workplace.

Jan De Coster gave another insight into creativity from his perspective as character designer and robot builder and his experience in advertising. He introduced us to a whole range of robots such as Yummy, Rachel and Steve - each created for a specific purpose, but each having their own personality and presence. Jan De Coster asked us to have an eye for the robot soul and the importance of the human likeness. The conservative fear for robots, who will "steal our jobs" and "kill us all", might them be replaced by "robots will have adventures human are not capable of" and "robots will be here long after all humans are gone." Finally, he stated that to be able to raise tomorrow's robots, we need to nurture tomorrow's artists.

Master Classes

In addition to the pre-conference workshops, 5 Master Classes were included in the conference programme. These classes provided participants with an opportunity to go in-depth into a specific subject. They covered the following topics: Teaching Programming to Students, Learning Analytics and Visualisation of Data, Creating Animated Videos with Students, Creating Accessible Video, and Small Media Productions in all Subjects in School. The participants also had the chance to try out Google Glass and Oculus Rift, the upcoming virtual reality head-mounted display, in a collaborative learning demonstration.

The Media and Learning Association AGM

The Media and Learning Association launched in 2013 had its second Annual General Meeting during the conference. It was attended by the members of the Association who voted to adopt the association bylaws and budget for 2015. The plan of activities for 2015 was also presented and accepted. This plan focuses on 4 main areas of activity: promotion of membership services amongst members, extension of membership, provision of opportunities for collaboration and ensuring the viability of the association.

Youth Media Team

The Youth Media Team was back this year and did a great job sharing their reports and impressions of the conference on their blog. Members of this team were all aged between 14 and 15, and came from the European School in Mol, Belgium, where they study ICT and Media. They published regular updates about the conference including interviews with speakers, impressions from participants and short reports about some of the main findings of the conference, providing also a student's perspective.

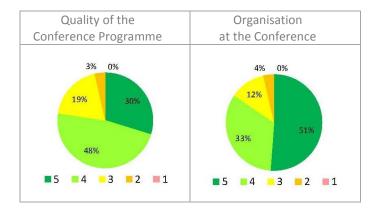## Participants

The Media & Learning Conference 2014 attracted people from different backgrounds, with experience across all levels of acquaintance with digital media, ranging from novices to media-literate educators and broadcasters.

Vietnam 2 — Austria 7 — Bangladesh 1
United States 5
United Kingdom 36
Tanzania 2
Switzerland 5
Sweden 1
Suriname 1
Sri Lanka 1
Spain 6
Serbia 1
Romania 3
Portugal 3
Philippines 1
Norway 3
Nigeria 2
New Zealand 1
Belgium 100
Netherlands 35
Montenegro 1
Malta 1
Luxembourg 2
Kenya 2
Italy 6
Israel 1
Ireland 11
Indonesia 2
Hungary 1
Greece 8
Ghana 1
Germany 8
Finland 2
France 17
Bulgaria 3
Canada 1
Croatia 2
Cuba 2
Czech Republic 2
Denmark 3
Ecuador 1
Estonia 6

Austria
Bangladesh
Belgium
Bulgaria
Canada
Croatia
Cuba
Czech Republic
Denmark
Ecuador
Estonia
Finland
France
Germany
Ghana
Greece
Hungary
Indonesia
Ireland
Israel
Italy
Kenya
Luxembourg
Malta
Montenegro
Netherlands
New Zealand

Participants were asked for their feedback after the conference and the responses have been very positive. When asked about the quality of the programme, 77% responded that it was excellent or very good and when invited to assess the quality of the organisation of the conference, 85% rated it as either excellent or very good.

Quality of the Conference Programme	Organisation at the Conference
0% 30% 48% 19% 3%	0% 51% 33% 12% 4%
■ 5 ■ 4 ■ 3 ■ 2 ■ 1	■ 5 ■ 4 ■ 3 ■ 2 ■ 1

Participants were also asked for their general comments about the conference and here are some of the comments they made:

"I enjoyed the conference very much. It was a really interesting programme and I met a lot of nice people." Karien Vermeulen, Waag Society, The Netherlands

"My key takeaway was seeing how other people solve problems around using video in HE education. The round table sessions were nice, interactive and a good way to exchange experiences and the networking of course! Catering was excellent!" Christje Nieuwenhoven, Tilburg University, The Netherlands

"I really enjoyed getting to know other European projects and their activities & outcomes that are involved in the same topic." Anne-Marie Lipphardt, University Erlangen-Nürnberg, Germany

"The remembrance theme was very effective and appropriate." Jim Devine, JD Policy | Projects | Innovation, Ireland

"My key takeaway was that the issues I see at my own university in terms of top down and bottom up implementation are quite universal but that there are a number of platforms and strategies we haven't considered which could help. I liked the opportunities for networking - plenty of available time and great catering." Lyn Collie, University of Auckland, New Zealand

"I liked the mix of interesting topics that one could choose to listen to in different rooms, and especially the key presenters like Puttnam and the video games for learning and LEGO in education presentations." Jelena Perovic, Sapienza University of Rome, Italy

"The opportunity to listen to a cross-section of high quality presenters (they seemed particularly good this year)." David Seume, The Ashcombe School, UK

"My key takeaway is network contacts after my presentation. I liked the new theme of programming at schools best." Sandra Wormgoor, Taaltutor, The Netherlands

Recordings and presentations available online

Most presentations, as well as recordings of all of the presentations given in the Hadewych Auditorium during Media & Learning 2014 are available for viewing on the conference website.