Conference Synopsis

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Keynotes

The conference's keynote speakers provided a broad palette of views. Opening keynotes summarised the role of the governments via **Micheline Scheys**, the Flemish Ministry's Secretary-General of the Department for Education & Training, and **Xavier Prats Monné**, the Deputy Director-General for Education at the European Commission. Both were cognizant of the fact that Europe needs to stay competitive in spite of the economic down-turn, and that financial investments need to be allocated to achieve the competitive strategies that secure Europe's place on the world stage of education. Scheys pointed out that the Flemish Ministry has a 40-item action plan with investments across school building that includes infrastructure as well as in-service teacher training. Monné explained how we are looking at a coming tsunami regarding the rapidly growing academic Asian community, specifically China and India, the aging teacher community across Europe, and the antiquated teacher training methods that are persistent in the EU. For the EU Commission, education has become a top priority, which is embodied in the goals to be reached within the growth strategy EUROPE 2020. EU funding in general has to provide incentives and clear definitions of policy priorities that strengthen the link between policy and spending, specifically in education.

Guus Wijngaards talked about the new trends indicated for K12 in the specialised Horizon Report of the New Media Consortium. He announced that talks were ongoing to create similar trend mapping reports for the European context, as this could inform a more effective approach to implement media usage in education.

Ilaria Merciai and **Ruth Kerr** from the University of Naples (who were standing in for **Rosanna de Rosa**) demonstrated a concrete application of a web-based model in higher education. The online resource, Federico II, draws 1,800,000 unique visitors per year that are able to frequent 13 faculties, 300 courses and 5,000 lessons - Europe's future of digital learning has arrived large-scale.

The broad selection of keynote speakers included voices of warning, expressed in the views of **Andrew Keen**, who drew on the political argument of how our digital technology is a form of ideology that is shifting us to a flatter global societal structure. This contrasts in the extreme with the hierarchies introduced in the industrial age. He emphasised this democratisation of society is not necessarily a positive shift considering the disappearing middle-class. He argued that such widespread democratisation in education is already leading to the radicalisation of education, most significantly in the extreme differences in the quality of education being offered. He pointed to the dangers of massive amounts of data and information that are un-curated and unverifiable, and are essentially shaping the end of education as we know it. Reputation is the score that teachers need to distinguish themselves with in the flat, radically democratised world of the 21st century.

More contrast between speakers was foregrounded by **Edith Ackermann** who gave a scholarly discourse on the merits of how children are helping us change the way we read and write, and how we adults can start to see through the misconceptions we have about children's development as digital natives. She gave us some insight into how children interact with IT, which is often not in the way we expect them to. She also pointed to how adults can support children effectively by providing them with a sense of self and grounding that complement their current activities in an ever-changing environment.

Pedro de Bruyckere on the other hand took an anecdotal bottom-up approach in analysing the current situation of mass online behaviour. He alerted to us to consider if we are not in a state of chronocentrism, the feeling that we are living in special times. He pointed out the discrepancies that are visible in the demographics encompassing changing nature of our cultural patterns propelled by the use of social media, and how education fails to pick up on accommodating these changes. He cautioned that the debate on technology in education often talks about generations as homogenous blocks of people, thereby losing sight of the differences between individuals. De Bruyckere's talk confirmed that analytics is the way forward, in how we must approach implementing a shift in education. Tracking people's data that details their behaviour over time, and learning to interpret and use this data, provides the key in understanding the underlying trends towards future developments.

Anton Bollen talked to us about the concept of Flipping the Classroom, a model in which the student is tasked with going through the material on their own, often through video, and where classroom time is used to discuss and target the questions that students are confronted with in their study of the subject. This inverted classroom model allows teachers to spend more time on the interaction with their students, augmenting the time that they can spend on individual tutoring.

Marci Powell talked about the opportunities that have become available to teachers in the new world of media-supported mass collaboration. The classroom can be anywhere in the world and take any form, which is underpinned by collaborative software environments. This also changes the social interactions between content providers, education providers and students across the world. Reacting to a question from the audience about the uncertainty in the educational sector, Powell indicated that much of the role of a teacher in this new world depends on the person and how they approach it. She indicated that you could fear the changes or embrace them and profile yourself as an educator as you have never done before.

Brian O'Neill talked about the role the European Commission can play in providing a safe environment for children on the Internet. He mentioned the policy space as a delicate balancing act between opportunities and risks.

Mapping Trends, Technology and Developments

A session on **transmedia** talked about the increasingly popular concept of providing content through multiple channels. Several examples were mentioned including "The Hitchhikers' Guide to the Galaxy", the BBC's Britain in A Day, and the educational example of "the case of Rufi Franzen" held as part of a course by Helen Keegan in the University of Salford. The discussion revolved around the concept of transmedia and how to exactly

define this phenomenon. Some key topics in the discussion were the ability of this format to engage the audience, allowing them to participate in a larger conversation, the need for a narrative going across channels, the fact if we rather need to talk about "experiencing a transmedia narrative" rather than accessing transmedial content. Some ethical issues were also brought up as with transmedial experiences in learning, students may not always learn to distinguish between the virtual and the real and if learners need to be told beforehand that the level of their participation will contribute to their evaluation. Finally, it was also noted that the role of public broadcasters in this changing media landscape is to provide people with the opportunity to participate in as many media channels as possible. In the end, it is about the people who are creating media artefacts. This session became an interesting contemplation about the complex interactions between media channels and their related social contexts.

One of the main topics of the conference was the issue of **media literacy** and how it can be implemented into mainstream education. There was a clear tension between media literacy as a literacy of tools and applications and media literacy as a critical thinking skill related to media and media use. This brought up the discussion topic that media literacy is in some ways all-pervasive, and needs to be implemented as such (across several subjects for example). This discussion also highlighted that often the teacher needs to be reminded that they are the experts in the classroom when it comes to the subject they are teaching, as they often feel overwhelmed by the technology. There was a clear feeling that as a society we do not yet understand media literacy to the extent that we can teach it and frame it within a larger social context.

The discussion led by the **VISIR project team**, mapped out the reasons for the slow uptake of digital media and media literacy by the teaching community. The discussion identified that the underlying fear of change, to fundamentally shift education to the 21st century, is due to the lack of appropriate infrastructures in schools; the lack of supportive initiatives that train teachers in technical skills; the lack of appropriate digital content for 21st century teaching, and the strict school standards that inhibit innovation.

Innovation was also the theme of the Creative Classrooms Session. Upscaling the classroom seems to be one of the ways that the EU commission is planning on facilitating more innovative teaching practices. **Yves Punie** of IPTS explained that creativity in teaching is not limited to a few components but must be an all-encompassing approach, whereby the physical infrastructure is just one aspect among many. **Riina Vuorikari** of the European Schoolnet further explained how implementation of a future classroom must bridge a development from successful locally conducted projects to a large-scale European-wide phenomenon.

The conference indicated that digital media in education is currently converging on the use of **video** in a number of ways. Approaches that include lecture capture and flipping the classroom were demonstrated across primary, secondary and university education.

Petro Michailidis from the 5th Primary School of Alexandroupolis, Greece, showed how students at a young age learn to use video to present themselves to others, and share their experiences with students of the Ecole Primaire de Rolampont, France. The concept of flipping the classroom, or the inverted classroom, was taken to the next level by **Bram Faems** from the portal site KlasCement. He presented a project with special needs children who learned to use video to teach others what they know.

Similarly, peer-to-peer teaching was successfully applied by **Steven Ronsijn**, winner at the MEDEA Awards in 2008. His students at the Sint-Lievenscollege Ghent, Belgium, who were about to graduate from the college, had a chance to design and create lessons for younger students entering the college. The use of video was one of the primary resources the students used to teach others. **Erik Woning** from Kennisnet, The Netherlands, an organisation that supports teachers in developing ICT applications for the classroom, laid out the benefits of flipping the classroom as a form of blended learning, which provides better social engagement by freeing up time and encouraging one-to-one student-teacher communication. The conference further demonstrated that these innovative uses of video in the classroom are certainly not isolated incidences but follow a general trend that has been picked up on by keen software developers.

The discussion on lecture capture in higher education environments covered topics ranging from the availability of facilities to the extent of user control given to the individual teacher. For larger groups as in the universities of Leuven and Manchester, the inverted classroom model is proving to be successful, by extending the access of material to students outside traditional meeting hours. Review of the captured lectures seemed to especially take place during and just before examination periods. Different technical lecture capture technologies were discussed, from out-of-the-box systems to fully open source packages, including their related business models. Manufacturers of lecture capture systems indicated that they are working on extending the flexibility of their solutions to allow capturing other forms of teacher-student and peer-to-peer interaction.

The value of a learning-by-doing pedagogical approach came equally to the forefront as a trend in the current paradigm shift of how we educate. As discussed above, students' video production featured as part of the flipping the classroom concept, but also film, websites and social media factored into this approach. One of the most polished examples came from the film school Next Station, Denmark, where **Susanne Wad** and **Torben Larsen** teach hands-on film production via the project filmlinjien.dk, focussing on the "making-of" aspects, to practically learn principles of film-making. The students use online social media to produce, track, organise and comment on their film clips. **Kate Shanahan** from the Dublin Institute of Technology, Ireland, presented Clicknews, a unique resource for and by students living in socially disadvantaged areas. The interactive online portal creates a community of young writers who exchange their views by presenting and commenting on articles.

Language also played a role in **Andreas Sexauer's** presentation. Representing the Karlsruhe Institute of Technology, Germany, he demonstrated the innovative use of MP3 players in a project with a local school where students produced their own audio clips to enhance and improve the study of English vocabulary.

Several **games** put students into maker roles for added value by spanning across digital competence, reasoning skills and creativity. Aiming at producing this type of added value, the European project MAGICAL is working with researchers to create a toolkit as an instance of a specific methodology that turns "game creation" into an effective educational strategy. **Jeffrey Earp** from ITD.CNR, Italy and **Kristian Kiili** of the Tampere University, Finland presented Magos, the game-authoring environment of MAGICAL, which is currently under development. **Steven Ronsijn** from the Sint-Lievenscollege Ghent, Belgium, introduced projects by genY, a group of 50 students aged 14-17, who work together after school on the development of games that centre on the topics of

sustainable food production and water management. In the production of these games, students metaphorically organise themselves as a company with various departments and roles that have to be managed and executed. The highlight of Ronsijn's presentation was the run-through by two students in the role of general managers, who detailed the team's strengths and weaknesses.

Regarding games in education, discussions led by **Lizzy Bleumers** of IBBT-SMIT and the Vrije Universiteit Brussel, Belgium, tackled questions on the expectation of learning outcomes and how to best assess learning in this context. A consensus was reached on the premise of **Harri Ketamo's** presentation. Representing eedu Ltd, Finland, he introduced an innovative approach to teach math concepts via the metaphor of cat and mouse game. He demonstrated the value of learning analytics, which allows the teacher to obtain the data the learner generates during game-play, reflecting learning difficulties during the game's decision-making events. Therefore, the focus shifted from assessing the outcome of the game to rather focus on how the students engage with the game-play.

In conclusion, integrating innovative educational approaches into existing teaching models and paradigms is a slow process. The conference showed the efforts of the educational community to integrate digital media into curricula on a large scale, in order to go past the stage of sporadic islands of excellence. Large integration into mainstream education however needs all kinds of other supportive measures such as evaluation procedures, accreditation and continuous professional development support. Additionally, another challenge is to reconcile the opposing forces of practical teaching methods with the bureaucratic nature of administrating education and educational funds - which requires a disruptive redesign of our existing educational systems. Any such endeavour needs to start from more in-depth knowledge and understanding of the nature of human interaction with media.

The diverse target group of the Media and Learning Conference provides an ideal starting environment for ongoing and effective knowledge sharing and creation around these issues and would benefit much from more interaction with researchers in media studies and human computer interaction. Additionally, the study of "big data" is becoming increasingly important. This brings with it many opportunities, but also some major challenges. Especially, data literacy and image literacy will join media literacy as key skills in education. As these issues are affecting all countries across the globe, extending the conversation further to more countries within the European Union, but also beyond, would be an interesting learning experience.