

Summary

Seminar: “Opportunities and Challenges of Learning With Technologies: Evidence-based Education”

On 12th of November, Estonian Liaison Office for EU Research and Innovation held another successful event in cooperation with Tallinn University (TLU) and Estonian Ministry of Education and Research, focusing on the opportunities and challenges related to the increase of ICT-based learning technologies. Held in the Estonian Permanent Representation to the EU, the seminar brought together policymakers from European and national level. As policymaking and strategies should be accompanied by examples of possible implementation, current EU and Estonian developments from the field of technology and methodology were introduced by scientists from Tallinn and Leuven universities. The seminar was divided into two sessions, each covering 3 presentations, which are available at:

<https://www.dropbox.com/sh/l2itrxtz4nupa5b/AADYdkB9DmSQOpbJE67tKNxia?dl=0>

Tobias Ley’s presentation: <http://www.slideshare.net/tobold/learning-analytics-and-sensemaking-in-digital-learning-ecosystems>

Katrien Verbert’s presentation: <http://www.slideshare.net/kverbert/learning-analytics-dashboards>

The opening speech was given by Professor Tiit Land, Rector of Tallinn University, who gave a brief introduction about the competences and priorities of TLU. University is currently in the process of restructuring to create 5 interdisciplinary institutes, including the Educational Innovation institute as one of the core parts for TLU’s strategy as the “Initiator of Smart Lifestyle”.

Session 1, Reflections on European Commission’s initiative “[Opening Up Education](#)” introduced the current state of affairs on the policy side of European Commission and Estonia.

Mr **Juan Pelegrin**, representing DG Connect, stressed the importance of modernizing our education in accordance with teacher training – pedagogical approaches in schools and universities are slowly following the rhythm of change, but this process needs to be speeded up. Member States are expected to promote excellence in education and skills development through access to digital learning. The European Investment and Structural Funds being used, for example to build more broadband connections and fund teacher training in ICT, are very much encouraged examples. The expected impact of fostering ICT-based education should not only translate into shortening the gap between skills and labor market needs, but also lead to the creation of more innovative businesses and increase technology adoption.

Mr **Frank Petrikowski**, from DG Education and Culture, introduced the conclusions drawn from the report “[New modes of learning and teaching in universities](#)” created by High-Level Group on Modernizing the Higher Education. Recommendations given out by the group included the need for developing comprehensive national frameworks for integrating new modes of learning and teaching across the higher education system, including skills development, infrastructures and legal frameworks, quality assurance guidelines, recognition and funding incentives. Member States are encouraged to develop frameworks and support structures for innovative learning activities in schools and HE institutions, which in turn should have training programmes and quality guidelines available for teachers and students.

To wrap up the opening session, good examples from Estonia were given by Mr **Jaak Anton**, IT advisor from Ministry of Education and Research of Estonia. Mr. Anton introduced the Estonian IT-platforms for managing school and university curriculums and

administrative tasks, connecting the information systems with the wider unique Estonian public key infrastructure. Only 37% of nine year olds in Europe are studying in a highly digitally-equipped school. In Estonia, the number is higher, but a lot still needs to be done in relation to new learning methods, as infrastructure part is already well-covered.

Session 2, “Opportunities on learning with technologies from European Universities” gave a chance to learn more about the latest applications and methods being developed in Tallinn and KU Leuven Universities.

Professor **Tobias Ley**, from the [Centre of Educational Technology](#) at Tallinn University introduced the latest trends in educational field – digital personal learning environments, for example blogs, MOOC’s and apps based on learning analytics, that all together create a Digital Learning Ecosystem. Currently, Europe is buying its ICT-based learning hardware from East, software from the US, while being just the end-user. The FP7 “Learning Layers” project aims to change the status quo, developing informal learning solutions for workplaces, for example in constructon and health care. The Educational Technology Centre is also working on blog-based e-courses and MOOCs management systems.

Despite that, Learning Ecosystem without the proper guidance is insufficient, as stated by Ms **Grete Arro**, PhD from the [Centre for Innovation in Education](#), at Tallinn University. Tablets and apps alone are not enough to make students and teachers learn effectively – proper methodology needs to be taken into account in order to make the best use out of the gadgets. Educational psychology and cognitive analysis for student-teacher adaptation to new learning methods and tools needs to be covered in relevant policy documents.

Professor **Katrien Verbert** from the [Human Computer Interaction Research Group](#) at Leuven University further introduced the field of learning analytics. Ms. Verbert presented the use of dashboards – apps that collect data from different sources, for example Moodle learning environments, in order to give feedback to the users. It’s a good opportunity for the students and teachers to observe and analyse learning processes. The combination of social media tools and learner feedback can have interesting visual application methods, and provide a lot of data on the productivity of the learning process.

We thank you for joining us and hope to meet you again in our upcoming events!

