Supporting Student Mobility with EMREX — a field trial on exchanging student achievement records

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1. BACKGROUND

The EMREX project, co-funded by Erasmus+, addresses the EU 2020 target that 20% of higher education students should be mobile during their studies. EMREX focuses on the exchange of student achievement records between higher education institutions. EMREX together with e.g. Erasmus Without Paper, FAIR and other similar initiatives is part of a wider set of activities on student mobility by EU. Academic recognition in higher education is seen as a challenge in learner mobility and also as a potential area for the improvement of a more efficient education system in general.

The EMREX field trial aims at testing new ways to make the administration of student mobility easier and thus promoting a higher attainment level to student mobility in higher education and also encouraging more effective recognition of prior learning and avoiding overlapping studies. In the first phase the trial is set up between Finland, Norway, Sweden, Denmark and Italy. Students in these countries may during the field trial log into their student portal at their home university and collect study achievements from the host university. Poland will also utilize the EMREX solution for its internal mobility.

This session aims at presenting the objectives for the EMREX project, demonstrates the solution for exchanging achievement records, and discusses the first preliminary findings from the ongoing field trial.

2. THE EMREX FIELD TRIAL

The tangible outcome of EMREX is a federated solution that supports the exchange of student data on achievements. The solution will be highly scalable and can thus be easily implemented in the whole European community. The field trial will test the hypothesis that the new functionality will lower the burden of administrative tasks laid upon students and lower involvement of the administration.

The solution was developed in 2015 and a live field trial is conducted in 2016. Each partner in the project has set up a National Contact Point (NCP) and a Student Mobility Plug-In (SMP) for the local Student Information System (SIS). Exchange students in the participating countries will use the EMREX solution to electronically retrieve their achievement records from the host HEI. The students, mobility coordinators and administrators will be asked to participate in surveys and the statistics from the exchanges will be collected and analysed. The first findings from the field trial will be presented in this session.

3. THE EMREX SOLUTION

The EMREX solution consists of several components. The idea is that they should be as independent of each other as possible. In this way, it will be easier to add new participants to the network.

Each SIS or institution, depending on local implementation, that wishes to fetch results via the EMREX network, must implement an SMP (EMREX-Client). The client provides the student with a secure login, enables the student to contact the host HEI and provides a way to store the retrieved results in the local SIS.

Each country that wishes to provide results to the EMREX network must implement an NCP. The NCP provides the student with a secure login in the host country and enables the student to select and fetch their results from the host HEI. The EMREX network will use the ELMO format to exchange the results.

The process is initiated by the student, logging into the SMP, which contacts a platform, EMREG register, to check which NCPs are connected and available. The student chooses their host HEI and the student data is verified by the NCP. An electronic transfer of student achievements via the NCP and SMP is performed as soon as the student has approved the course list at the host university.

The EMREX solution will be demonstrated in the session.

EMREX is based on open source code and freely available to all. The solution will be available for all HEIs in Europe from 2017. New countries can join the EMREX network through creating their own EMREX clients and contribute to the network by providing their own NCPs.

4. PRELIMINARY FINDINGS AND FUTURE BENEFITS AND OPPORTUNITIES

The biggest benefit coming out of this policy project will be the increased availability, quality and reliability of information about student records of achievement information. This will make student mobility processes easier, faster and more transparent for students. Students will also benefit from the recognition of previous academic studies and degrees because of increased eligibility, when applying for studies in higher education. The universities will benefit from a reduction of manual work. The field trial also supports the collection of measurable data on the rate of recognition that can then be analysed and used for improving the national policies on student mobility and rules for recognition of previous studies. The data will increase the quality of the learning mobility statistics.

In this session the first preliminary conclusions from the ongoing field trial will be presented and discussed.

Another benefit from the field trial will be the comparison of the transcripts of records in the participating countries. To fully benefit from an electronic transfer there is a need for a common format. The solution will also be evaluated from a technical perspective to smooth the path for newcomers to join the EMREX network.

One of the goals and benefits of the field trial is the peer learning of the authorities involved. The way to support this particular goal is making the results of the development process openly available through open source code. The up-scaling of the EMREX-platform will be provided by applying a decentralised management model: the higher education institutions in the European Community will be responsible for the operation and funding of their own part of the solution. The EMREX-platform will thus not be dependent on being coordinated by a central body or organisation nor on centralised funding, which will secure its sustainability. All institutions of higher education will be able to use the information from countries offering the functionality.

5. BIOGRAPHIES

Mats Lindstedt has a Master of Science in Business Strategy and International Marketing and a Licentiate in Applied Mathematics from the Helsinki University of Technology. He has over 15 years of experience from the ICT industry including program management and R&D development. Since 2012 he work for CSC Ltd in Finland and with developing support for student services. Previously he was the project manager for Tiptop, developing web based support for university students' personal study plans. Currently he is the project manager for the EMREX project.

Anders Bøgebjerg Hansen holds a master's degree in political science from the University of Copenhagen. He has worked with different student information systems at two universities and has 15 years of experience coordinating systems development on the customer side within higher education in Denmark. He is a special adviser at the IT Department of the Ministry of Higher Education and Science (UFM-IT) where he works with contract and project management with relation to the student information system STADS and the application system DANS. These systems are used at all 8 universities and several institutions of architecture and art in Denmark. Anders Bøgebjerg Hansen has been the project manager of many large EU tenders and has for several years been involved in Nordic forums in the area of student information systems.

Simone Stefano Russo has more than 15 years experience in developing nationwide software systems. He spent most of them at Kion, the company which is the leader in developing Students Information Systems for the Italian Universities, where he works as part of the group that manages the mobility module for the student information system "ESSE3" used by over 60 universities in Italy.

Geir Vangen has more than 20 years experience in developing nationwide systems within higher education in Norway. At USIT, the University of Oslo University Center for Information Technology, he works as development manager for the student information system FS. Geir Vangen is also responsible for architecture and methods for the section within USIT that develops systems for student information (FS), research information (CRIStin), national admission (SO) and data warehouse. He participates in national and international standardization work, and has been a member of the groups developing the MLO and ELM-standards. He is a member of the steering committee of RS3G. He has been member of national committees appointed by the Ministry of Education and Research, and has lead projects on behalf of the Ministry. Geir Vangen graduated from University of Oslo, Institute of Informatics in 1989.

Janina Mincer-Daszkiewicz graduated in computer science in the University of Warsaw, Poland, and obtained a Ph.D. degree in math from the same university. She is an associate professor in Computer Science at the Faculty of Mathematics, Informatics and Mechanics at the University of Warsaw. Her main fields of research include operating systems, distributed systems, performance evaluation and software engineering. Since 1999, she leads a project for the development of a student management information system USOS, which is used in over 40 Polish Higher Education Institutions, gathered in the MUCI consortium. In 2008, she started the Mobility Project with RS3G. Janina takes active part in many nation-wide projects in Poland.

Mattias Holmlund holds an Bachelor of Science in System Analysis from Umeå University. He has been working with IT since 2001 and held the position as Operations Manager of one of three Swedish national SIS-Ladok installations until 2011. He is currently involved in setting up the new operational organization for the next generation of the Ladok-system. In the Emrex project he is technical responsible for the Swedish part of the development and also as a Work package leader in the Erasmus without paper project (EWP).