An Experience of Running a MOOC on Information Technology

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ABSTRACT
The paper deals with designing and running a massive open online course (MOOC) used in Lithuanian course “Information technologies” for learners of all levels. The main problem of this course relates to lack of qualified and experienced teachers who could have time for providing a high-quality massive open online course for learners. The results of the experience provided on a national level can be used for planning, designing and running various MOOCs on different subjects and aimed at different societies. The presented quantitative research on the basis of respondents’ answers to survey questions can help designers and teachers to improve their courses.

KEYWORDS
Education, Information Technology, Lithuania, MOOC, Open Educational Resources

INTRODUCTION
Open educational resources (OER) and massive open online courses (MOOC) are considered as innovation drivers helping to improve education and forming the base for transformation of our secondary and higher education system.

Many authors (Yuan & Powell, 2013; Bates, 2013; Jansen & Sepe, 2015; Siemens, 2012) describe MOOC as a massive open online course (MOOC) and an online course aimed at unlimited participation and open access via the web. In addition to traditional course materials such as videos, readings, and problem sets, MOOCs provide interactive user forums that help in building a community of students, professors, and teaching assistants (Thompson, 2013).

MOOCs are online courses designed for a large number of participants, that can be accessed by anyone anywhere as long as there is an internet connection, are open to everyone without entry qualifications, and offer a full or complete course experience online for free (EADTU) (Read & Rodrigo, 2014; “Educause”, 2012; “Futurelearn”, 2012).

The open sharing of content, tools, technologies, models, experiences, etc. creates new opportunities for innovation and incubation. More than previously, universities can take into account the needs of business and public sectors and changes in students learning habits in the process of course or program development (“Open University”, 2012; Coughlan, 2012). Open and online education are seen as innovation drivers to improve education and/or seen as the base for transformation of our (secondary and higher) educational system.

Access to higher education for all is the main driver of open education on a national or global level (Belanger & Thornton, 2013; Bower & Christensen, 1995; Carey, 2013). It is perceived as extremely relevant and beneficial for Developing Countries and Emerging Economies with (1)
shortage of qualified teachers; (2) lack of high-quality learning materials and (3) evident need to really expand access to (formal) education. Also it reduces the costs of HE at a state or country level (e.g., 50% reduction by use of open textbooks) (Christensen, Johnson & Horn, 2008). OER and MOOCs have become a part of political issues (EU, Governments, UNESCO). However, the European reply to this is slowly and fragmented, and only some institutions and some countries are responding in announcing their own MOOC platforms.

The main driver on open education for institutions is mainly marketing, offering something for free to attract more students (Christensen, 2003; Daniel, 2012; “Educause”, 2012; Jarrett, 2012). MOOCs, for example, is used in competition for international students.

The world of open and online education does change the way we innovate our education system, our programs and courses (Daniel, 2012; “Educause”, 2012). Leveraging open as an economic driver involves developing and delivering open products and services in partnership with others around Europe and the world (Karolčík, Čipkova, Hrušecky & Veselsky, 2015, Siemens, 2012; Thompson, 2013; Read & Rodrigo, 2014). Open education does change the relation universities (Jarret, 2012; “JISC”, 2013) hold with service providers (e.g., test and exam centres, publishers, provider’s platform), companies for training offers (Gee, 2012; “Global Industry Analysts”, 2010), investors (to open education), governments and foundations.

To experiment with MOOCs and to promote a new distance education program, Kaunas University of Technology joined OpenupEd initiative of EADTU with MOOC on Management. Over 1500 interested students were registered and during the period of this MOOC delivery, about 600 of them actually took part in course activities but only 83 received a graduate certificate. We have developed a special portal (http://open.ktu.lt) based on Moodle principles as our main platform for the university offered MOOCs. We expect to provide more courses in relation to those opened in 2014. At the national level we have initiated the Moodle hub based platform (http://open.liedm.lt) where courses from http://open.ktu.lt and other universities are accumulated in one space. In order to promote open education resources, we are planning to develop the OER repository integrated with the development of user-friendly content and sharing tools. Lithuanian academic institutions use Moodle optionally. We are working on the development of several Moodle modules aimed at helping MOOCs authoring and administration. Moodle module for integration of the institutional Moodle platform with Video Presentation System (http://vips.liedm.lt) is supposed to help teachers easily broadcast and record lectures directly from Moodle, some other Moodle modules for learning analytics are also in the development by the partners of the LieDM consortium.

The aim of the paper is to present the research carried out in Lithuania during the testing of first Lithuanian massive open online course “Information technologies” to the general public.

**REVIEW ON INTERNATIONAL EXPERIENCE**

While MOOCs are a novelty in Lithuania, other countries have relatively deep traditions and practices in MOOCs. On the international level, MOOCs have become a major international focus of research and development in the area of learning technology (Onah, Sinclair, Boyatt & Foss, 2014).

Lately, many studies have provided insights and results from various perspectives of MOOCs delivery and applied pedagogical models (Brahimi & Sarirete, 2015). Zhou (2016) argues that delivery of MOOCs requires great preparation and technical base. It becomes a reason why many MOOC providers use the most popular platforms such as Coursera or EdX to deliver their MOOCs instead of creating their own. To deliver MOOC providers use tools and methods which increase the interaction among learners (Yousef, Chatti, Schroeder, Wosnitza & Jakobs, 2014). Authors note
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