HOW CAN E-LEARNING AND MOOCS REVEAL AND EXPLOIT THE HIDDEN TREASURES OF OPEN RESEARCH AND OPEN EDUCATION?

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What is the Current Situation?

Open and Openness are becoming more and more in vogue: It is not a fashion but an increasing requirement due to dramatic changes in societies. Therefore open education is raising interest as well as gaining adaptation, implementations and success. In parallel open research is getting popular through the opportunities for researchers to share their results among themselves. While these developments are taking root, another phenomenon suddenly appeared and changed the public discussion on open courses: Massive Open Online Courses, called MOOCs. This article outlines the relation between these movements and the ("older") E-Learning.

What is E-Learning?

The term E-Learning is controversial and ambiguous from the beginning: Its introduction is often assigned to Jay Cross but it normally remains unclear for which abbreviation E-Learning stands for. Therefore the term Technology-Enhanced Learning (TEL) is more precise but could not become broadly accepted. E-Learning has existed and been promoted by many experts, professional providers and associations at national, European and international levels (such as BITKOM AK Learning Solutions in Germany, EDEN in Europe and ICDE worldwide) for more than 20 years, but has not achieved the awareness and attention of a broad audience and society as a whole. The huge promises from the internet hype at the beginning of this millennium were not fulfilled as predicted: despite the continuous and slowly increasing success and implementations of E-Learning in enterprises, it was not recognized as a driver and enabler for innovation across all educational sectors. Meanwhile E-Learning is normal practice in lager enterprises (95 % penetration in companies with more than 500 employees) but not yet widely accepted in other educational sectors.

What are MOOCs?

The new term MOOC (Massive Open Online Course) has immediately attracted the masses even though it is just another label for a diversity of different online learning scenarios and methodologies that were already developed and implemented many years before. MOOCs can be considered and defined as a special type of E-Learning, raising a new interest and offering opportunities to (again) reach learners that are attracted by E-Learning solutions due to many reasons. Thus, MOOCs can be the enablers for a renaissance of E-Learning even though their completion rates are very low and their general quality is questionable and currently under lively debate. Nowadays, different types of MOOCs (so called cMOOCs and xMOOCs) are discussed but the focus is still on the masses, technology and promised innovations that are not easily to discover: Most MOOCs are lacking continuous tutoring and support for all learners who are expected to teach themselves. Only this year 2014, the international EIF / LINQ Conference has raised the question of quality for opening up education with a special focus on MOOCs for the first time.

What is Open Research?

Open Research is (like E-Learning and Open Education) an umbrella term that evolved from several initiatives: First, open access, open licenses and open repositories were key questions (not only) for researchers confronted with changing legal and institutional changes. Due to the general shift from the traditional openness paradigm to copyright regulations and protections in the 60ies of the 19th century, open access and open licenses became an important issue for international agreement and standards. The establishment of open repositories and their federation and harvesting facilitated easier search and retrieval across institutional and global borders and enabled the growth of a global community and initiatives for openly linking and sharing research results. The term Open Research is covering this diversity and still lacks a commonly shared definition.

What is Open Education?

Open Education is as manifold as the term openness: It can be related to quite diverse approaches and understandings. Generally, open education is related to learning innovations and learning quality changing the educational environments and offering selections of methodologies, tasks and resources by the learners. Learning innovations and learning quality are important and reflected topics for a very long time from the beginning of discussions and theories about learning processes: In Europe, Plato's Allegory of the Cave is one of the earliest examples. Their debate continued during the introduction of the first universities in the Middle Age and of the school systems in the 18th century. During the last years and the upcoming so called "digital age", many discussions took place (also in the fields of school and higher education, learning for work and at workplaces as well as non-formal and informal learning) due to the two main changes covering all sectors, branches and levels of the society: first, globalisation and second, establishment of the worldwide internet. In our days, the

European Commission has set a new milestone with its policy "Opening up Education" even though it focuses too much new technologies and Open Educational Resources (OERs) instead of new pedagogical methodologies and Open Educational Practices (OEPs).

The Hidden Treasures of Open Research and Open Education

Open Research and Open Education are two worlds which share the same vision, objectives and ideas, i.e. openness as the standard for the publication and (re-) usage of concepts and materials. But both worlds are not interconnected undertaking research, development and implementations in separate closed communities. Open Research focuses on the requirements for researchers to (peer-) review, publish and distribute their interim and final research results. This mainly leads to the upload and publication of the final results as scientific articles in the one's own repository or in journals and their repositories. Open Education addresses the need for the modernization of learning, education and training in general through the introduction of innovative methodologies and scenarios for opening up education and learning in all sectors. Both open worlds and their developments and results can be treated and described as hidden treasures because both worlds are not aware of each other and the (missed) opportunities which could result from their interconnection.

Why and How to Connect Open Research and Open Education?

Open Research and Open Education could and should be connected to mutually benefit from the potentials of the respective other world. Educators could benefit from all the research materials and resources that are normally published with open licenses as they can be adapted to their educational purposes and environments. Likewise, researchers could benefit from the broader (re-) usage of their research results, possible feedback and an improved reputation. For better awareness raising of these (not yet exploited) potentials and opportunities an international community was established in Rome on 15th of May 2013, the day before the international LINQ Conference (http://www.learning-innovations.eu). Experts and organizations from four continents assembled together to create ICORE, the International Community for Open Research and Open Education (http://www.ICORE-online.org). Consensus was achieved through open discussions, brainstorming, selecting and voting on ICORE objectives and statutes. Finally the following principles were defined and approved for fulfilling the ICORE objectives:

- ICORE aims to promote Open Research and Open Education as a fundamental social objective.

- ICORE aims to support the design and implementation of innovative strategies, instruments and services for facilitating Open Research and Open Education such as Open Access, Open Educational Practices and Resources.

- ICORE aims to foster co-operation among all relevant stakeholders in Open Research and Open Education such as policy makers, researchers, educators, students, learners, non-profit and commercial providers and users.

- ICORE aims to facilitate the continuous and rapid transfer of results from Open Research and Open Education into the deployment for future research and education and for the benefits of the general public and global society.

- ICORE aims at fostering research and development that leads to innovation when that will benefit the objectives of the association.

Within one year ICORE was able to attract and welcome more than 200 members, joining forces with all interested existing organizations to promote and support the connection of Open Research and Open Education. Common events at international conferences and recognition by the European Commission and other public authorities and associations number among the first successes of ICORE.

Conclusion

In particular E-Learning and MOOCs can support the connection of Open Research and Open Education through their (natural) inclusion of digital resources and materials. Technology-enhanced learning and online courses are the ideal instruments and vehicles for the adaptation of research results and for their broadest societal impact through the uptake by interested and progressive pupils in schools, students in universities, employees at workplaces and adults in lifelong learning. E-Learning and MOOCs possess the potential to foster the break-through of Open Education in all educational sectors and to transfer the results from Open Research into learning opportunities. Most important is the focus on the (innovative) pedagogical methodologies and the quality of the Open Education as well as of the (adapted) Open Research results. Then both open worlds can truly benefit from the outcomes and advantages of the respective other world to enable a strong impact for the lifelong learning of all citizens and in the whole society.

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