

Chapter 31

MOOCs:

A Three Dimensions Analysis of Impact in Higher Education

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ABSTRACT

During the last decades universities and other higher educational institutions have been widely affected by the fundamental upheaval seen in organization of modern life. The phenomenon of xMOOCs can be seen as a catalyzer for changes in higher education institutions and its educational system. They are highly debated because they crystalize different trends and movements into one format. It can be interpreted at some point as a successful phenomenon in terms of popularity, but their educational success is strongly questioned. The debate they generate have a catalyzing effect on the development of higher education institutions. This phenomenon is analyzed at three different dimensions that belong to the core of formal education and specially higher education. The first dimension is the impact on the instructional design. With their broad reputation xMOOCs provide a blueprint for the instructional design of online classes, by chunking information, focusing on video lectures and accompanying them by the use of social media technologies to enable peer feedback and peer learning. The second dimension of implementing xMOOCs in higher education point at the faculty development demands in terms of competences required, a special technological setting and the discussion of individualized curriculum and learning paths. The third dimension analyses the implication in the higher educational system. Currently mainly internationally renowned academic institutions have the capacity and resources to offer xMOOCs, and the ones who provide a platform to host them are generating alternative institutional business models. They symbolize the trend towards a global market of learning and support the development towards the model of entrepreneurial universities.

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1. INTRODUCTION

During the last decades university as an institution has been widely affected by the fundamental upheaval seen in organization of modern life. This situation has created both the opportunity for and the necessity of questioning the meaning of ‘university’ and its societal role. In the same line one of the biggest global economic actors, Ernst and Young (2012), set a typology of change drivers for higher education: a) democratization of knowledge and access, b) contestability of markets and funding, c) digital technologies and d) global mobility and e) integration with industry. In this context, Massive Open Online Courses (MOOCs) appear as a result of a strongly questioned educational system. It is not surprising that MOOCs represent an aggregation of some of the Ernst & Young drivers. In MOOCs these trends become observable. MOOCs are using digital media to address a globalized market, representing cost-effective alternative ways of knowledge transfer and are using the underlying universities as brand and attractors. Moreover, they have claimed to symbolize a democratization of education, which has turned to be one of their controversial points, since it is reported that the type of students that take part in MOOCs are those who have already had access to higher education. The main hypothesis is, that MOOCs are highly debated because they crystalize and confront different interests into one format, at educational and at business level. They make new ways of learning visible and discussable and by this they have a catalyzing effect on the development of higher education institution. The paper develops a three dimensional analysis of MOOCs impacts for higher education:

- First dimension: impacts on the instructional design – MOOCs as disruptive experience and its potential implication on instructional design at universities.
- Second dimension: impact on the universities’ policies – MOOCs and their implication for more flexibility in universities
- Third dimension: changes in the higher educational system – MOOCs and their symbolic meaning for universities of the future

2. A BRIEF HISTORY OF MOOCs

MOOCs have been developed since 2008 but received worldwide attention since 2012. They are massive because their participant’s number is not limited and can easily grow into the thousands of students. In fall 2011 the Stanford University in cooperation with Google conducted an open online course on Artificial Intelligence, attracting 160.000 students from 200 countries. 20000 successfully completed the course (Rodriguez 2013). Shortly after, MIT and Harvard launched their MOOC on “Circuits and Electronics” with over 155.000 students initially registered in March 2012 (Breslow et al. 2013).

MOOCs are online courses but as we will see in the following section, not just taped video lectures but enhanced sometimes with a complex instructional design. The openness in the name usually refers to the unrestricted user access. There are no formal entry requirements and access is usually free of charge.

Although most xMOOCs share similar designs like described in the following section, Bali (2014) shows that “MOOC pedagogy cannot be evaluated as a genre, but each MOOC needs to be looked at individually.” (p. 44). Generally two types of MOOCs with a different pedagogical approach are distinguished in the literature nowadays (Siemens, 2013). Started in 2008 developed with the connectivistic theory of learning in mind, the so called cMOOCs “emphasis creation, creativimannnty, autonomy and social networking learning” (Siemens, 2012). In contrast xMOOC like the 2012 example “emphasizes a more traditional learning

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