Chapter 13

The Role of Virtual Worlds for Enhancing Student–Student Interaction in MOOCs

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ABSTRACT

This theoretical chapter attempts to clarify interaction role in Massive Open Online Courses (MOOCs) and increased emphasis on utilization the virtual worlds, as tools to a constructive process where the learner should be actively involved. An overview of the core concepts of the MOOCs and Virtual Worlds is provided and an explanation of how these environments can be used for helping in creation more authentic learning activities. The chapter presents an interaction model based on collaboration, so as to elucidate the major design differences. In conclusion, we want explore the changing role of formal learning in an era open education, where the Massive Open Online Courses can allow access, in many cases completely free of cost to the learner.

INTRODUCTION

MOOCs have intrinsic characteristics: to community feeling, peer-to-peer interactions and collaboration. These features lead to a large heterogeneity of participants that are often unmanageable and may cause high dropout rates of the courses.

One of the current challenges of the MOOCs is to reduce dropout rates by providing customized strategies and resources for the different profiles of participants (Nunez et al, 2014). The integration of external social tools in the training model of the MOOCS arises as an opportunity to perform that customization. The incorporation of virtual worlds may provide greater interaction between the students, increase collaborative process and give support to people with difficulties.
We believe if the MOOC course is developed in a rigid manner, the students can give up before the course starts. We believe that must exist activities, which facilitate collaborative learning, in other words, should be allowed students to learn while are associated with more experienced participants of the learning community. This is one of the key factors for the MOOC success.

Based on these points, this chapter begins with a brief history of MOOCs and sets them in the wider context of the evolution of educational technology and open/distance learning. It then describes the MOOC phenomenon, their advantages and their limitations; and also, describes the main concepts associated to Virtual Worlds. The next section discusses the role of interaction in engaging and supporting both learners and teachers in MOOCs. It then is discussed how Virtual Worlds can contribute to greater involvement of the participants in the teaching/learning process of MOOCS and presents a interaction model, a first step toward a theory in which the two main forms learning - collaborative and autonomous (independent) - are presented, with a brief discussion of the advantages and disadvantages of each. The chapter ends with a synthesis of the most relevant points of the work. It is drawn the findings with particular reference to the fulfillment of the proposed objectives.

BACKGROUND

MOOCs Overview

The development of the Internet and the Information and Communication Technology has enabled the creation of contents, expanding the learning through distance courses, most recently the MOOCs.

The MOOCs (Massive Open Online Courses - Open Courses Online Massive) are open courses developed by universities. Given its free nature, they have a large number of student’s subscribers, which are geographically dispersed and not affiliated with the education institution.

The MOOCs appeared in 2008 to describe a particular model of online course developed by George Siemens and Stephen Downes.

This concept has evolved through time. According Vizoso (2013) there are two streams of courses: the cMOOC and xMOOC. The cMOOC uses a participatory and collaborative methodology. These courses coming of the first initiatives of George Siemens are based on the principle of connectivism. In cMOOCs, the participants can have a feeling of disorientation; participation is timely, students are discouraged throughout the course and the participant need to have digital competence. The second current, ie the xMOOC have a more traditional view of knowledge and learning being “the student a duplicator and not a content generator”. In xMOOCs the interaction between the participants is weak: the course is focused on the teacher, the content and the assessment is traditional (MORGADO & SILVA, 2013). In summary, cMOOCs focus on the creation and generation of new knowledge, while xMOOCs aim to duplicate the knowledge to other students, whose education is based on traditional and is more likely to motivate discussions on innovation in higher education (Gaebel, 2013). However, both have the characteristics, systematized in Figure 1.

MOOCs Advantages and Limitations

MOOC is a new paradigm of education that came up with numerous opportunities both for students as well as teacher. Studies have cited several advantages and some limitation of which we emphasize: