Open Innovation in Spanish Education: the cMOOC case

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Abstract

Open education brings new opportunities for exploring new online learning models and innovative practices in teaching and learning. The landscape of education is changing thanks to the introduction of massive open online courses, also known as MOOCs. A type of this new phenomenon is cMOOC, in which students acquire a fully significant role in the process of formation and in which interaction is a key learning element. This kind MOOCs will be analysed in this paper.

Keywords: cMOOC, MOOC, Open Innovation.

Introduction

Open Innovation, a term coined by Professor Henry Chesbrough (2003), is a new innovation strategy under which companies go beyond the internal limits of their organization and in which cooperation with external professionals is fundamental. In this sense, Open Innovation means combining internal knowledge with external knowledge to take forward strategic and R&D projects. It also means that companies use both internal and external channels to put on the market their products and innovative technologies. This type of innovation appears because the possibility of occurrence of what it is known as collective intelligence.

Traditionally, companies have managed innovation in a closed system (closed innovation) through which research projects are managed exclusively with the knowledge and means of the organization. Under this classic model, projects can only begin within the company and end up in their own market. Nevertheless, under the Open Innovation model, projects can originate both inside and outside the company, they can be incorporated at the beginning or at intermediate stages of the innovation process, and can reach the market by the same company or through other companies (patent licensing, technology transfer, etc.) (Piñuel, 2014).

During the last 10 years, the business environment has changed dramatically. As a result, the basics of closed innovation collapsed. The changes includes: (1) the speed and ratio of the flow of talent is growing. (2) More and more people get education and training opportunities. (3) Venture capital has developed rapidly. (4) The life cycle of product and service is becoming shorter. Through the observation of these new phenomena, Chesbrough proposes the theory of Open Innovation. It is defined as “a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as firms look to advance their technology”. (Chesbrough, 2003)

Open Innovation in Education

When we speak about innovation applied to the field of education, different approaches appear. For example, Carbonell (2002, p. 11) assures that “educational innovation, used as a synonym for educational reform, is a complex and polysemic concept as are ‘educational quality’ or ‘freedom of teaching’, that lends itself to multiple readings and interpretations. Here we understand it as a set of ideas, processes and
strategies, more or less systematized, used to introduce and cause changes in current educational practices”.

It is a process of change that aims to introduce new developments from the perspective of improvement. This implies a critical and reflective positioning, through which not only tries to validate education, but also to transform it (Escudero, 1995) with the objective of improving improve the condition of the subjects and social progress (Kemmis, 1994).

Innovation develops a fundamental role in all levels of education, and in the university field is closely related to e-learning. In this sense, one of the basic ways of implementation is incorporating information systems, communication tools and media (Alarcon, Pradas, & Country, 2005).

The speed of technological change (Rui et al., 2008) and the need for adaptation to the market of the university degrees, means facing a complex scenario that involves innovating continuously in the "Product / educational service" to maintain profitability and competitive market position (Ali, 2000).

Today we could define emerging pedagogies as the set of approaches and pedagogical ideas, not well systematized, that arise around the use of TIC in education. These approaches try to take advantage of their communicative, informational, collaborative, interactive, creative and innovative potential in the new culture of learning. (Adell & Castañeda, 2012)

Virtual environments which are potentially identified as suitable for open innovation are the so called MOOC: learning spaces configured and managed from the creation of collaboration networks between universities and other actors involved in its development. These actors enrich the process with their contributions and the exchange of experiences that occur inside the courses. In this way, virtual environments are presented as suitable instruments for support the student participation.

In this way, the most appropriate relational capital is identified to encourage innovation performance. With this capital, institutions can both make use of its ability to incorporate stakeholders to grow as an institution, and modulate innovation from that new scenario (Iglesias Sánchez, Jambrino Maldonado, de las Heras Pedrosa, nd).

MOOC

The MOOC were originally conceived as a collaborative platform where the contents were dynamic and adapted and modified according to the users. These were also seduced by the idea of establishing networks of collaboration between them. Also, the participation of additional public companies, in addition to students, is feasible and is meant as a basic element to run this virtual environment.

Students participating in a MOOC ideally stop being individual actors in their learning, and become part of a much wider community of learning where knowledge does not come exclusively from a teacher (although it may have been originated or selected by him), but also from the participation and involvement of other students.

The use of social networks (Facebook, Twitter ...) to consolidate these learning communities is emphasized in the MOOC environment. In addition to social networks, those involved in the learning community can benefit from the aggregation of content (RSS, for example) to share information, materials about the issue, and learning strategies. (Garcia, 2013).

Within the term MOOC there is a particular type called cMOOC, which is even closer to the concept of Open Innovation. These type of courses are based on the connective learning, in which the initial design of the course is just one element in the learning network, and where the interaction of the participants, creating content through blogs, social networks, RSS… is critical
The cMOOC designed from this perspective are based on distributed learning network and are based on the connectionist theory and its learning model (Ravenscroft, 2011).

The importance that people have in the MOOC model of action and design, leads us to note that in the cMOOC, what is truly meaningful is: the people, the contributions they make regarding the topic being analyzed, and the collaborative discussion that takes place with the other participants for the construction of knowledge (Martí, 2012). MOOCs are therefore based on the idea that learning is generated through exchange of information and joint participation in education and through intense interaction facilitated by technology. In this case, we can find a close resemblance to a social learning network.

Conclusion

This conference paper tries to make a first study of the state of the art of the MOOC platforms. Due to the limitations of extension of the paper, it will be focused in the spanish platforms. It will also study the use of cMOOC courses in Spain.

Different conclusions will be proposed.

References


