MOOC at universities

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Massive open online course (MOOC) is a trending topic in Higher Education Institutions to create online courses for wider student communities. This initiative offers free enrolment on good quality courses for all. This talk discusses this evolution, different approach taken to adopt MOOC courses, different point of views for analysis and future trends.

Keywords: xMOOC Vs cMOOC, Bussines model, methodology, publishing, authoring, certification

Introduction

Massive Open Online Courses, MOOC, is a trending topic with more than 3.160.000 results using the Google search engine, more than 10.000.000 registered users in platforms, and more than 50millions$ of investment (only for EdX and Coursera) (Daniel 2012; Downes, 2012). These figures are growing from 2012 and represent an important issue in current Higher Education Institutions. The roots of this new wave are based on e-learning culture enriched with new (audiovisual) media and participation (peer to peer, badges) methodologies. On the other hand, the open initiative of this kind of courses (free cost for the enrolment) is based on previous trends of creating Open Educational Resources (OER) (Camilleri et al., 2012), (i.e. the Open Courseware repositories OCW) and the Creative Commons licensing.

F I G U R E 1 . M O O C PROVIDERS

Provider distribution

- 48 -

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MOOC has stimulated teachers and universities to change in some ways the teaching methodologies, gaining popularity in Higher Education due to the ability to create online contents for wider student communities. This model has been conducted through inter-institutional platform of courses, where most relevant are Coursera (Coursera, 2011), EdX (EdX, 2012) and Udacity (Udacity, 2012) for English speakers, and MiriadaX (MiriadaX, 2013) for Spanish speakers communities, but there are other alternatives as shown in Figure 1 (EdSurge).

Adopting MOOC strategies

MOOC represents a relatively new model for open learning, and the origin of this trend was in 2011 where the Artificial Intelligence course at Stanford achieved 160,000 online registrants. This relatively recent model of teaching has many similarities with the adoption of e-learning methodology (distance learning or mixed models) for universities. But in this case, 17 of the top30 universities in the world are pushing this MOOC offer, but at the same time maintaining their prestigious Campuses. Instead of changing the methodology of teaching of these Universities, it is conceived as a new offer (based on their experience) and articulated on a common (commercial) platform where the consortium of universities supporting them offers their courses, expanding academic access to an unprecedented scale and thinking on business model to return fees for certifications, fermium access, etc.

![Figure 2. SWOT analysis for adopting MOOC at Universities](image)

But these approaches may overcome the following issues:

- How quality and success of these courses are measured. Sometimes these aspects are focused mainly on the number of student enrolment and completion rate, but no information about satisfaction, skills, or utility of these courses is given, problems such as the high dropout rate, the sustainability, and the feasibility of skill certification. Thinking about MOOC just only for visibility, marketing or branding is not enough to adopt it as a strategic issue.

- Purpose, model and outcome of these courses. These methodologies are the same as campus-based courses (content and assessment methods), but loosing innovative
practices in online education (Knox, 2012). Different pedagogical methodologies should be addressed (Conole, 2013): the xMOOCs are primarily based around interaction with content and essentially adopt a behaviourist learning approach; and cMOOCs, which focus on harnessing the power of social media and interaction with peers, adopting a connectivist learning approach. In both cases, a software facility has to be present.

- Recognition and connection with the pedagogical model of higher education institutions. These courses should be connected with other formal learning strategies offered from universities.

This is a SWOT analysis of adopting MOOC at University by our research group (Gea, Montes-Soldado, Rojas, 2013).

These are some issues to be addressed for Universities for adopting MOOC strategies, and there are lots of open debates thinking about that (LinkedIn, EFQUEL). One of the most interesting is a help for universities to support the mission of transferring knowledge to society, supporting lifelong learning and adopting some kind of internationalisation strategy.

Our experience

University of Granada started last year a piloting initiative to measure the impact of MOOC at Universities. There are some offers to be part of shared platform like MiriadaX, but we choose to test our own initiative to explore the methodology, controlling data and measuring effort for teachers and community managers. The result of this approach was abiertaUGR (Montes et al., 2013) a good example as a case study to understand the relevance of involving universities at MOOC strategies. This proposal has been developed using features that should be taken into account in this scenario:

- Use OER for learning activities and promotion of user-generated contents
- Creation of online learning communities (Gea, Montes, and Gámiz, 2011)
- Recognition at Universities (studying how to integrate in the student curricula).

Technically, it is difficult to select features to define a good platform. In this case we have selected these issues, because it is important for this study. The Elgg library was adopted for MOOC courses because this platform is oriented to social network. This feature allows the management of social interactions and enables collective learning experiences based on the content created by teachers and the students themselves. Our aim is to focus in the part of collective learning, which is not a build-in characteristic of Elgg core. Besides, Elgg is a free open source platform that runs on LAMP, with many developed features through the developer community of plug-in. We also included new plug-in to fulfil the requirements of these methodology of courses.

The courses have been developed to a wide community in order to acquire transversal competences and skills currently required in graduated titles. Some of the most relevant competences are the following:

- Knowledge and skills for an autonomous learning by creating their own personal learning environment
- Enhancing the collaboration and work in groups
- Enhancing the creativity, Leadership, and reputation in a online community of learning.

These abilities are engaged in a context of social learning enhanced in the abiertaUGR platform using common technologies (blogs, twitter, groups, bookmarks, debate, etc.). It is conceived as a social community: each user is shown in the platform (Figure 3) as a living community with his/her own personal learning environment (Figure 4)
FIGURE 3. ABIERTAUGR SOCIAL LEARNING PLATFORM

La Universidad de Granada, a través del Centro de Enseñanzas Virtuales, se integra en la iniciativa global de formación abierta en línea a través de la plataforma abiertaUGR (figura 3).

FIGURE 4. USER PROFILE WITH THE PERSONAL LEARNING ENVIRONMENT
This initiative was run during three consecutive months (from April, 2013 to June 2013) oriented to Internet technologies for learning, each one has 4 week duration with recognition of 1 ECTS credit:

- Digital identities
- Ubiquitous learning
- Creative common and Open Education Resources.

The three courses are relatively autonomous and independent but we recommend student to follow in the next course to fulfil their knowledge. Figure 5 shows the figures of these courses and also the community we created.

**Figure 5. Data of piloting MOOC courses**

<table>
<thead>
<tr>
<th></th>
<th>Enrolled</th>
<th>Completed</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Identities</td>
<td>1,605</td>
<td>620</td>
<td>34'35%</td>
</tr>
<tr>
<td>Ubiquitous learning</td>
<td>992</td>
<td>403</td>
<td>40'60%</td>
</tr>
<tr>
<td>Creative Commons &amp; OER</td>
<td>752</td>
<td>250</td>
<td>33'20%</td>
</tr>
<tr>
<td>Community</td>
<td>3,549</td>
<td>1,272</td>
<td>36'05%</td>
</tr>
</tbody>
</table>

**Figure 6. User satisfaction with MOOC courses (scale 1 to 5)**

One of the main successes reached by abiertaUGR comes from the way to evaluate which have achieved an excellent completion rate (see Figure 3) taking the data of (LinkedIn MOOC) where others MOOCs platforms with a rate located below the 10%. Although completion rate is positive, we detected the following gap in the interest of the students with the courses:

- The enrolment gap: We have detected a threshold between used motivated by curiosity instead of real interest in the contents and courses. It is important to discover as soon a possible the motivation to focus on these users properly. This problem may be decreased if you define a period of enrolment and you don’t allow new inscriptions when the course starts (our choice). In this case we maintained using this rule the 54%
of interest of enrolment from first to second course and 75% from second to third one (65% and 62% of completion rate respectively).

- **The completion gap**: Thus, the interest for these courses decreases on time, sometimes because other task are overlapped and the MOOC is relegated to a secondary activity. Therefore, attention retaining is related with the duration of the course. Large courses or including large period of inactivity (holidays, Easter, etc.) are distracting motivations. Four or five weeks is a good period of time, and one / two credit ECTS courses are recommended instead large courses.

At the end of every course, users were asked to fill a satisfaction survey. The response rate is between 35% and 45% in relation to those users who have completed each course; therefore the results obtained are representative of both users and their opinions on the platform. Figure 6 shows that one of the most valuable aspects in the course is the possibility of participation. Students were really interested with contributions of others, thus in fact creating a true learning community using personal learning environments.

After this piloting and successful experience, we decided to redesign these requisites into a more stable platform based on Moodle. The reasons of this change are base on two issues:

- Moodle is the standard platform for regular courses and elearning, so it is more comfortable for teachers and student

- Moodle is more stable systems (and maintenance) for large courses. We can track and follow students in a suitable way.

On the other hand, other features are no so efficients on Moodle, so we adapted social issues and gamification techniques to create more engaging courses. Nowadays we are running a successful courses: The Alhambra: history, art and heritage with more than 7.500 user with excellent results.

**Conclusion**

This paper presents a novel model to create massive open online courses based on online learning communities. The purpose is to analyze MOOC to integrate in universities for lifelong learning communities. We have chosen digital skills for students because it is an important issue for their everyday living. The results of this piloting experience allow us to manage a large approach for future courses at University.

One issue that are not covered is the use of these courses for inclusive learning, allowing person with disabilities obtain new models of training for new type or works. In the e-Integra project, we are adopting different technological strategies to create smart environments for teaching and training person with cognitive difficulties, allowing a true inclusive and responsiveness model of learning.

**References**


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LinkedIn MOOC / DOCC / SPOC Think Tank Discussion Group: https://www.linkedin.com/groups/MOOC-DOCC-SPOC-Think-Tank-7427178