THE BOOT CAMP MODULE IN MASSIVE OPEN ONLINE COURSES: EXPERIENCES IN TWO EUROPEAN INITIATIVES

Diana Morais, Maria João Leal, Maria João Spilker, Lina Morgado, Laboratório de Educação a Distância e eLearning / Universidade Aberta, Portugal

Abstract

The Massive Open Online Courses (MOOCs) imply, for the educational institutions and the target public, i.e. the participants, the formulation of new goals and addressing unique challenges. In this sense, this paper intends to reach out for the meaning and importance, as a differentiator in the participants' perspective, of a familiarization module (Boot Camp Module) within a MOOC. This module intends to be an introduction to the MOOC, promoting the interaction between participants and providing information about structure and objectives of the course, as well as features of the supportive social and learning platform. Integrated in two European projects, "EMMA-European Multiple MOOC Aggregator" and "ECO-Elearning, Communication and Open-Data (ECO)", the MOOCs from the Portuguese Open University has familiarization module, a Boot Camp. The primary goal of the case study consists in the measurement of the importance of the familiarization module and the role of the facilitators' team, in the learning experience of MOOC participants, during this period of time. The messages posts in different spaces (The Wire, Blogs, Forum) were collected and analysed, resulting in an clear indication as for the importance of this module for the early setting of sense of group and a learning community. Further research should be conducted on the impact of a preliminary familiarization module on the success in context of MOOCs.

Introduction

Massive Open Online Courses (MOOCs) are a relative recent online learning phenomenon. Nevertheless, as Sir John Daniel (2012) describes "MOOCs are already bifurcated into two types of course, which are known as cMOOCs and x MOOCs". George Siemens (2012) which is engaged with cMOOCs since 2008, summarizes the differences as follows:

> *Our MOOC model emphasizes creation, creativity, autonomy, and social networked learning. The Coursera model emphasizes a more traditional learning approach through video presentations and short quizzes and testing. Put another way, cMOOCs focus on knowledge creation and generation whereas xMOOCs focus on knowledge duplication.*

In this paper we focus on the importance of a preliminary familiarization module ("Boot Camp") in a MOOC which has specific characteristics. The MOOC was designed in conformity with a virtual pedagogical model and using a platform resulting from the integration of a Learning Management System (LMS) and a social networking system, giving the opportunity to acquire, develop and/or consolidate 21ˢᵗ century skills such as collaboration, knowledge sharing and critical thinking.

Contextualization: Project EMMA and project ECO

In recent years, the European Commission increased efforts in Open Education, Open Educational Resources (OERs) and Information, and Communication Technologies (ICT) in Education in Europe. The gateway of the European Innovative Learning offers access to institutions, resources, courses and MOOCs.

European project "European Multiple MOOC Aggregator"

The European project EMMA – European Multiple MOOC Aggregator (europeanmoocs.eu), is a 30 month pilot action that will offer open, massive, online courses in multiple languages from different European providers "to help preserve Europe's rich cultural, educational and linguistic heritage and to promote cross-cultural and multi-lingual learning". The main goal is to work as a central aggregator and host system of all the courses produced by the partners but also as system that enables learners to construct their own learning paths using units from MOOCs as building blocks. Once operational, EMMA will be open for other providers who wish to make their MOOCs available in multiple languages and across borders. With a total of 16 MOOCs the first pilots will involve at least 60,000 participants.

European project "Elearning, Communication and Open-Data"

The European founded project *Elearning*, Communication and Open-data: Massive Mobile, Ubiquitous and Open Learning (ECO, http://ecolearning.eu/our-project) aims, on the one hand, to broaden the education and, on the other, to improve the cost-effectiveness - of teaching and learning by designing and implementing MOOCs as a way to use OERs. Furthermore, it intends to expand successful experiences with MOOCs in Europe into a pan-European scale, contributing to the awareness of the advantages of open education in Europe.

Brouns et al. (2014), member of a research team within the ECO, argue that the models as the xMOOCs "are proving to be inconsistent with the European standards for formal higher education due to their low-level of learner support and lack of an enriched pedagogical approach." They adopted the following MOOC definition:

> *it is an online course designed for large number of participants that can be accessed by almost anyone anywhere, as long as they have an internet connection, is open to everyone without entry qualifications and offers a full/complete course experience online for free.*

The "s" of sMOOC highlights the social component of the ECO MOOC Model. Learning experiences are determined through social interactions and active participation in contextualized and situated, learner-centred, settings. The MOOCs' participants have access to the courses, regardless the learning platforms use by neither the institutions, nor the device (notebook, tablet, smartphone) used. The sMOOC is a subsidiary type of an iMOOC which was developed and implemented by the Portuguese Open University (Universidade Aberta, UAb).

The study of the Boot Camp

This article focuses on the first week of the one of the MOOCs piloted in the projects. About four hundred (410) participants were enrolled in this course. The main goal for the first week (Boot Camp) was to explore and master the features of the social platform Elgg, aiming to create a sense of community which can be also seen as a learning community or a community of practice.

The Detailed Guidelines to the Boot Camp provided the details related to the first week of the course.

During the first week, familiarization module, the participants were expected to accomplish small tasks such as:

- Update the profile with a micro-bio and a photo/avatar;
- Define how to receive notifications;
- Use the feature Bookmarks for saving and sharing hyperlinks of interest;
- Publish the first post on the blog and comment on the posts published by the other participants;
- Publish several short messages on The Wire and answer some of the other participants' messages; and
- Use a tag.

During the first week, the discussion forum offered space to ask questions and receive answers about the course and the week tasks.

A small team of volunteers collaborated with the content experts and designer of the course. The role of the team comprised the smoothness start of the course, acting in the first week as facilitators and community coach, monitoring the social aspects, providing answers for technical issues, setting and announcing polls, peer assessment activities, and supporting the teachers' feedbacks on the thematic.

The detailed information relative to the structure of the course (program, objectives, resources, etc.) was provided in the learning management system MOODLE, in the Learning Guide of the course – it provided the information as for the learning objectives, competencies to be developed, learning environment, methodology, resources, certification and schedule.

The social networking system Elgg (http://eco.imooc.uab.pt/elgg) supported the social interactions and acted as a collaborative space for the participants of the course. An articulated platform (Moodle and Elgg) from the UAb was integrated in the MOOC Platform.

The (open source) social networking system Elgg offers features/tools such as microblogging (called "the wire" and similar to Twitter), blogs, bookmarks, files upload/repository, online profile and management of "Friend of a Friend" (following of other participants creating list of "friends"). The Wire allows posting short messages, up to 140 characters (similar to Twitter) and, in context of this course, was a space created for the promotion of interaction, sharing of resources, launching challenges, or sharing a brief idea. Also the use of tag with keywords is supported.

Methodology

The study relied on collecting quantitative and qualitative data evidencing on the participation during the Boot Camp week. Data on the use of The Wire, Blogs, Bookmarks and Files during the Boot Camp week was collected and analysed.

During the Boot Camp data was collected, especially regarding the interaction, represented through the posts and comments made by the peers and the members of the facilitator team. In this sense, it was possible to compare the number of interventions using The Wire and in Blogs made in the learning community during this first week of the course.

These interventions were gathered and classified using an adaptation of the Community Indicators Framework (CIF) created by Galley, Conole and Alevizou (2014). In their words:

> *"The CIF is built around four key aspects of community experience: participation – the ways in which individuals engage in activity; cohesion – the ties between individuals and the community as a whole; identity – how individuals perceive the community and their place within it; and creative capability – the ability of the community to create shared artefacts, and shared knowledge and understanding."*
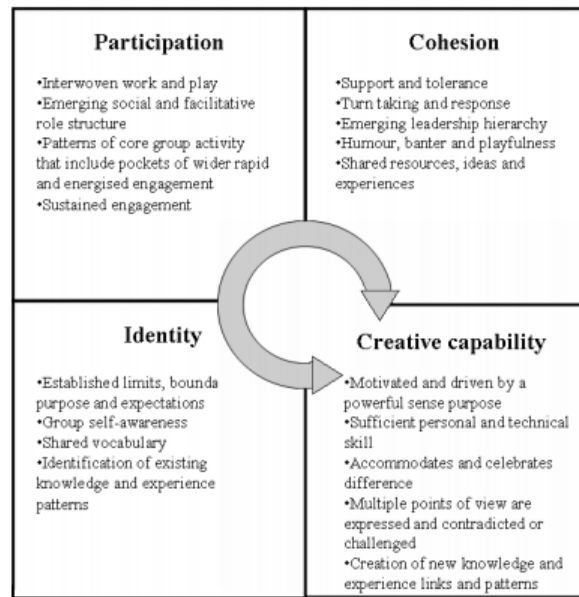
Figure 1. Community Indicators Framework (CIF) by Galley, Conole and Alevizou

Results and discussion

During the Boot Camp there were 143 messages posted in The Wire, 40 (28%) of them were from the facilitator team. Figure 2 shows the total number of messages and the facilitators' messages posted in The Wire. It can be seen that in the familiarization module every day the participants had statements/comments/feedback by the facilitator team.
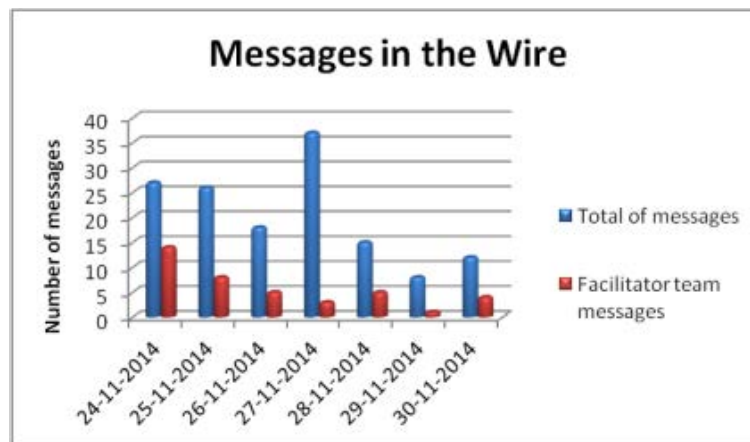

Figure 2. Messages posted in The Wire during the Boot Camp week

It seems that there was an intense interaction proven by the number of "likes" given to the messages published in The Wire or as reaction to Blog posts. One can observe that the participants interacted more in The Wire space (shorter and informal) than in the Blogs (Figure 3). However, most of the messages posted in Blogs (84%) had at least one like.
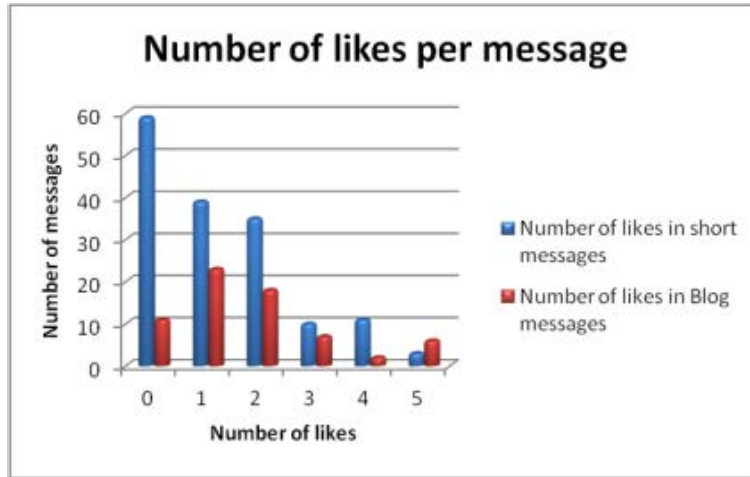
Figure 3. Likes given in The Wire and Blogs in Boot Camp week

Considering the messages posted in the Blogs, the number of interactions (comments to the initial post) registered varies between zero and eight Figure 4, and the majority of posts (48%) did not get any other kind of feedback to their Blog publications, apart from the high number of likes.
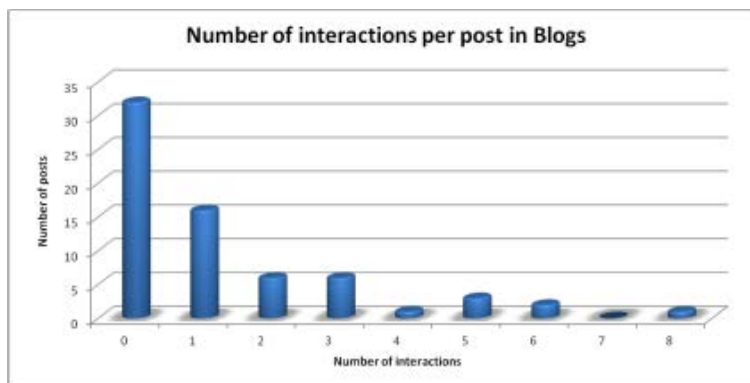

Figure 4. Interaction (peer comments) in the Blogs during the Boot Camp week

With this analysis, it is possible to visualize the global number of posts published in Blogs, per day, during the Boot Camp and establish a comparison between the answers given to the publications and how many of the answers were given by the facilitator team. It is interesting to note that during the weekend the interaction is less than in week days.
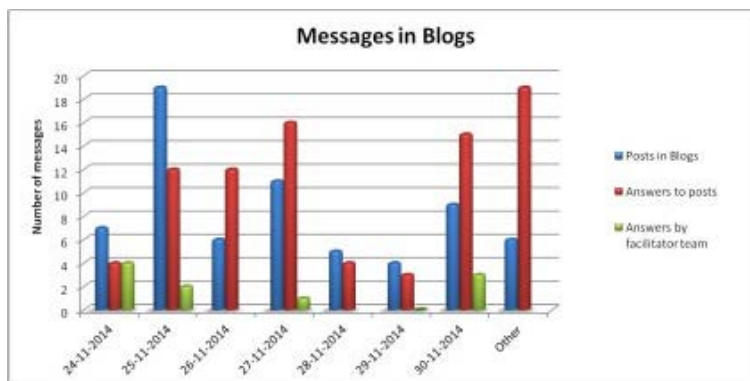

Figure 5. Interaction within the Blogs during the Boot Camp week

Finally, it was possible to relate the number of participants that interacted in short messages (56 participants) and Blog messages (58 participants) and realize that only 35 have participated in both.
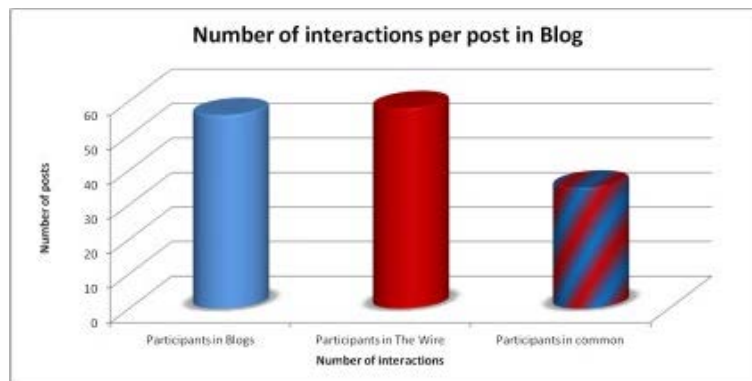

Figure 6. Interaction within The Wire and Blogs during the Boot Camp week

Based on framework for observing and supporting community activity created by Galley, Conole and Alevizou (2014), we analysed more deeply the content all the messages published in The Wire, Blog and Forum during the first week of the course. The results are presented in Table 1. As the main goal of this week was to promote the familiarization with the platform and the course architecture, we added the technical support as an extra Indicator within the Participation Category.

Table 1: Messages posted in The Wire, Blog and Forum, during the Boot Camp week

Categories	Indicators	The Wire		Blog		Forum	
Participation	Interwoven work and socialization	0		1		0	
	Emerging social role structure	75		36		35	
	Interaction (replies)	32	**111**	72	109	18	**53**
	Sustained engagement	0		0		0	
	Technological support	4		2		0	
Identity	Building of group identity	18	**21**	8	9	0	**0**
	Building of a shared vocabulary	3				0	
Cohesion	Establishing statement of support and tolerance	3		2		0	
	Humour, banter and playfulness	1	**31**	1	36	0	**0**
	Sharing resources, ideas and experiences	27		33		0	
Creative capacity	Knowledge Building (Collaboration)	3	**3**	5	5	0	**0**

It can be seen in Table 1 that the participation in *Blogs* was higher than in *The Wire*, but in *The Wire* the messages where more focus in emerging social role structure. In the Blogs we can see more interaction and interwoven work and socialization, as expected considering the nature of the Blog. The forum was used by the participants to do their presentations and it was because of that all the messages were inside the category of participation. The Identity, was especially created in the interventions in *The Wire* as expected. It is possible to see that the

number of messages asking for *Technical support* was residual and leads to the conclusion that the participants didn't have lots of difficulties with the familiarization process. It is important to point out that the creative capacity and the cohesion that was shown means that the Boot Camp went beyond the initial expectations because participants during this period had share resources that they considered interesting and meaningful for the course and promoted the creation of knowledge building.

Conclusions and further research

In the words of Anderson (2008), "The greatest affordance of the Web for educational use is the profound and multifaceted increase in communication and interaction capability".

The integration of a social media system (Elgg) with a learning management system (Moodle) seems to be a suitable environment to offer MOOCs. The use of these integrated systems enables the familiarization module used in this iMOOC, with a strong interaction element, which proved to be an essential component in participants learning success (Teixeira & Mota, 2015). In future work it is worth investigating the impact of the Familiarization Module in the success of a MOOC by adding an initial questionnaire and interviewing a representative number of participants.

According to Teixeira and Mota (2014), it can be argued that he iMOOC Pedagogical Model allows to bridge the gap between non-formal and formal education. For this to happens, it is necessary to create the opportunity for everyone, whatever their digital literacy level is, to archive the minimum digital pre-requirements and that one of the aims of the familiarization module.

References

1. Anderson, T. (2008). Towards a Theory of Online Learning. In T. Anderson (ed.), *Theory and Practice of Online Learning,* (pp. 45–74). Edmonton: Athabasca University Press.

2. Brouns, F.; Mota, J.; Morgado, L.; Jansen, D.; Fano, S.; Silva, A. and Teixeira, A. (2014). A networked learning framework for effective MOOC design: the ECO project approach. In A.M. Teixeira & A. Szűcs (eds.), *8th EDEN Research Workshop – Challenges for Research into Open & Distance Learning: Doing Things Better: Doing Better Things.* Oxford, 2014.

3. Daniel, J. (2012). Making sense of MOOCs: Musings in a maze of myth, paradox and possibility. In *Journal of Interactive Media in Education, 3(18).* Retrieved from http://www-jime.open.ac.uk/article/view/2012-18

4. Galley, R.; Conole, G. and Alevizou, P. (2014). Community Indicators: A framework for observing and supporting community activity on Cloudworks. In *Interactive Learning Environments, 22(3),* (pp. 373-395). doi:10.1080/10494820.2012.680965

5. Pereira, A.; Mendes, A.Q.; Morgado, L.; Amante, L. and Bidarra, J. (2008). *Universidade Aberta's pedagogical model for distance education: a university for the future.* (U. Aberta, Ed.). Lisbon, Portugal. Retrieved from http://repositorioaberto.uab.pt/handle/10400.2/2388

6. Siemens, G. (2012). MOOCs are really a platform. In *elearnspace blog, July 25, 2012.* Retrieved April 12, 2013, from http://www.elearnspace.org/blog/2012/07/25/moocs-are-really-a-platform/

7. Teixeira, A. and Mota, J. (2013). Innovation and openness through MOOCS: Universidade Aberta's Pedagogic Model for non-formal online courses. In the *Proceedings of EDEN Annual Conference, 2013,* (pp. 1–6). Oslo.

8. Teixeira, A. and Mota, J. (2014). The iMOOC Pedagogical Model: Bridging the gap between non-formal and formal education. In L.B. Martínez, R.H. Rizzardini & J.R.H. González (eds.), *Actas del V Congreso Internacional sobre Calidad y Accesibilidad de la Formación Virtual (CAFVIR 2014),* (pp. 512– 517). Guatemala. Retrieved from http://www.esvial.org/cafvir2014/documentos/LibroActasCAFVIR2014.pdf

9. Teixeira, A. and Mota, J. (2015). A proposal for the methodological design of collaborative language MOOCs. In E. Martín-Monje & E. Bárcena (eds.), *Language MOOCs. Providing Learning, Transcending Boundaries,* (pp. 33-47). Berlin: De Gruyter Open.