MOOCs Scenarios and Learning Recognition. A Step Further?

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Abstract. This paper introduces some pedagogical reflections about the "lights" and "shadows" of the MOOCs in higher education. It presents the main characteristics of those courses and proposes feasible potential scenarios of online learning recognitions. Currently, there are several modality to design the assessment in the massive courses, but the majority of them focus only on summative assessment function.

Keywords: Moocs · Assessment · Certification · Recognitions · OER

1 Introduction

In the last four years, Massive Online Open Course has become one among the widely used terms - also in the academic field - to envisage and promise a "new" scenario of distance learning. It is too early, probably, to attribute the label of "fifth generation of distance learning". Surely, we could identify some peculiarities able to differentiate the MOOCs from certain types of eLearning. One of these peculiarities is traceable in the MOOC's acronym, intended as massive online courses, open to all of those potential users (students or citizens) who can have access to the "internet world". Thus, MOOCs are courses provided by public educational agencies (such as schools and universities) and private sector (Foundations and Companies) with the mediation of online open source and/or proprietary providers platforms (examples: Coursera, Udacity, EDX etc.). In these courses, the users have the opportunity to know and to explore certain topics through the individual study (xMOOC) or the social (cMOOC) interaction. In the scientific available literature, the acronyms xMOOC and cMOOC identifie two main types of massive courses. The first type, xMOOCs, could be metaphorically exemplified with the image of the "traditional" eLearning, characterized by a low level of interaction among users during their (self) learning processes. Instead, the second category, cMOOC, emphasizes the "connectivist" matrix [1] of the massive course, which is pedagogically designed to sustain the implementation of constructive learning processes both of individual and of groups. Beyond the enthusiasm echoes about the MOOCs affecting in the various areas of education and training, this article attempts to face problematically the phenomena of massive courses in higher education, emphasizing some "lights" and "shadows" of this "new" scenario.

G. Vincenti et al. (Eds.): eLEOT 2015, LNICST 160, pp. 152–158, 2016.
DOI: 10.1007/978-3-319-28883-3_19

Are the MOOCs disruptive? To what extent MOOC will be able to revolutionize the paradigms of education? A recent and interesting contribution [2] reports that while many educational institutions debate on the effects of MOOC in their practices, the considerations that are made have little to do with pedagogy. In other words, the constant quantitative diffusion of these courses does not go up with an adequate educational reflection on them. There is the need to test new theoretical scenarios in order to adopt pedagogical perspectives that can effectively support the online education and blended learning [3].

To understand how close and reciprocal are the link between "technical" and "pedagogical MOOCs design", some authors argued that platforms that host MOOCs are one of the variables that can strongly homogenize the learning experiences of students. Therefore, to explicit the teaching architecture programmed into the platform is necessary a step to identify the platform that better meets the theoretical, methodological, educational needs of our massive course.

2 MOOCs: Which Assessment?

Analyze the phenomenon of MOOCs in a pedagogical perspective requires to reflect on ways and tools of assessment available in these "new" learning scenarios. Assessment is a relevant topic in MOOCs by different points of view. MOOCs show a high level of experimentation of technology based assessment, both standard assessment methods such as "machine and peer grading" [4], and semantic web and learning analytics [5, 6].

Generally, taking into account the learning process, the assessment carries out two different and complementary functions. It is formative when it produces information and feedbacks that support the students and teachers to adjust their processes (teaching and learning). It is summative when it allows a balance and a judge on the learning outcomes achieved (with possible certification).

Certainly, the summative assessment and the way of recognition and certification of the learning outcomes are relevant topics discussed in different academic publications. Regarding this aspect in the next paragraph, we discuss and present several modalities of recognitions and – eventually - certification, highlighting restrictions and limitation to their adoption in the academic institutions. This restriction implies a reflection on the relation between the formality of the recognition (certification) and the robustness of the assessment adopted [7].

Despite the evident relevance of the summative assessment, in the environments outlined by MOOCs, it is necessary a more explicit presence of the formative function. It allows the students to receive formative feedback regarding their own learning and to improve their self-regulation process. This point is also important considering that a notable advantage of e-learning modalities, beyond and before MOOCs, there is the possibility for students to have interactions and receive feedbacks on their individual learning process. Despite this, the MOOCs' massive dimension implicates several challenges in order to carry on with this educational trend.

On the other hand, assessment is not designed and implemented in the same way in the two MOOCs categories [6, 8]. Under some conditions while xMOOCs prefer

summative assessment, in cMOOCs the assessment of the process is included in its original constructivist pedagogical model. These distinguished differences are well expressed in Table 1 [9].

Table 1. Assessment trends in xMOOCs and cMOOCs [9].

xMOOCs	cMOOCs
Multiple choice tests at the end of each week	Assessment of tasks or resources created
Multiple choice final examination	Use of rubrics
Student recognition protocols (identity check): webcam, digital ID..	One fellow student provide feedback on another
A specific platform is developed to accommodate all the information	Developed on the web using various resources and telematic tools

In a recent study on the state of the art of MOOCs [10], identified similar assessment characteristics comparing cMOOCs and xMOOCS. The first typology was essentially defined by self-assessment, peer assessment and, in some cases, test; instead of Quiz, Test and a minor presence of peer assessment were the most common assessment modalities of xMOOCs.

Thus, the two most common procedures to implement assessment in MOOCs are tests and peer assessment and/or peer grading, and both have advantages and limitations.

Using test to assess students' learning is also common in more traditional course environment, both in presence and on-line, and it is not a negative element especially when it is part of a coherent methodology and there is awareness regarding the type of learning to be assessed, essentially contents.

The problem arises when summative is the only assessment modality also in the case of the eventual certificate achievement. Different kinds of learning, such as skills and attitudes have to be assessed using different modality more oriented to the formative assessment.

Otherwise, peer assessment is a modality present in both typologies of MOOCs, more in cMOOCs but likewise the more important platforms for xMOOCs allow this modality of assessment and teachers use it [10]. Regarding this point, a survey of MOOCs faculty conducted by *The Chronicle of Higher Education* showed that 34 % of teachers used peer grading; 25.8 % consider it "very reliable" and 71 % found it "somewhat reliable" [11].

As stated above peer assessment was used in both cMOOCs and xMOOCS to assess several students' capabilities, through essays and project review and also team tasks, but it could produce some false practices such as the so called "the blind leading the blind" and "the charlatan" [12]. In order to avoid these and other dysfunctions and to effective and non-trivial peer assessment has to be collectively learned and practiced. In other words, the skills to assess cannot be learned by a lecture or a text, they have to be grown through a reflective practice [8].

A pedagogical designed strategy of a MOOC needs to consider a reflective modality of improving assessment including its formative function and this it is also a challenge that MOOCs design has to deal with.

3 MOOCs: How to Recognize the Learning Experience?

Another relevant topic concerns the mismatch between free access to the Online Massive Courses and the level of openness and re-use of its learning contents. Evidently, the free access in a massive course does not usually match with gratuity. With regard to this last point, there are two relevant issues. The recognition of the learning path and the policies of use and re-use of learning resources.

In the first case, the recognition could be achieved through different form of output (certificate, badge, credits.) and it could be differentiated in relation to the target and the user needs. If, for example, any citizen is interested to attend the massive course organized by MIT on the "Artificial Intelligence" he/she can have access freely, independently to obtain or not a formal certification. Thus, a simple "certificate of participation" might be perfect for his/her goal.

However, the problem became more complex if the same course was attended by an university student interested to formally recognize his/her learning outcomes (in terms of credits, final proofs etc.). We acknowledged that in the last five years, European universities have been developing a scientific reflection and strategies to avoid the issues about recognition and certification of the learning occurred in online courses scenarios (Fig. 1).

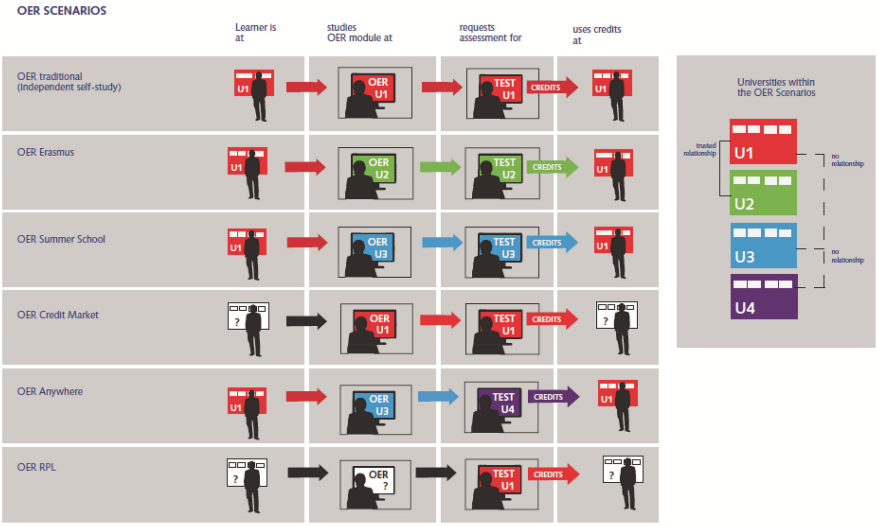

Fig. 1. OER/MOOCs scenarios

Currently, an important obstacle that characterizes the Italian context regards growing proliferation of private entities that does not correspond to the creation, in the public domain, of an "agency" in charge to manage and propose policies addressed to face these issues.

Slowly but surely, something is moving. Taking into account the main results of the European project OERTest (http://edunetworks.ugr.es/oertest/) the Universities can, potentially, activate six scenarios to encourage the formal recognition of online learning courses and/or part of them [13].

- MOOC Traditional: The only difference from traditional eLearning is that this is done using OER-based materials. Self-study modules with credit are not unusual.
- MOOC Erasmus: Under this scenario, a student takes OER-credit from a trusted university, with an existing relationship with their home university.
- MOOC Summer School: Here, U1 has no agreement on standards etc. with U3, and so must assessed quality of the credits, perhaps using exam or portfolio model.
- MOOC Credit Market: In this model, U1 assesses a learner using the methods it has decided are appropriate for its own OER module and offers ECTS credits to be taken away and used, as learner wishes/is able.
- MOOC Anywhere: U1 has no knowledge of the curriculum or standards etc. of the offering at X, and so must assessed quality of the credits using RPL methods, e.g. exam or portfolio model. Learner wishes to enter U1 and offers learning from OER as the basis for entry.
- MOOC RPL: U1 must assess using protocols similar to those used for Recognition of Prior Learning, as it has no prior basis for evaluating standards of the OER curriculum.

Which of those scenarios are feasible? A research addressed to the OERTest Partnership highlighted that, despite the six challenges above mentioned, in the University there are only two usual ways to recognize the online learning courses/or modules: the "MOOC Traditional" and the "MOOC Erasmus". Nevertheless, this survey detects also an increased awareness by policy makers about the strategic importance of coping to the issues. However, if, on one side these institutions begin to clarify this question, and on the other side the adoption of further scenarios requires, inevitably, a reconfiguration of political, economic and organizational aspects. It is obviously that changes cannot be carried out within short time.

4 The Paradox of Access, Use and Reuse of the Digital Contents

Another issue that we briefly describe looks the policies of use and re-use of learning resources that characterize a MOOC. We can state that while access to MOOC is free, the opportunity to access content without costs does not imply, in some cases, the possibility to reuse content in other contexts, edit or combine them into other digital products to create new educational resources. That statement reveals some oxymorons. The massive opening of the courses, in terms of access, does not correspond with the opening (also in terms of licenses and informatics code) of digital learning resources. In most cases, both contents and platforms are characterized by closed policies of copyright, which prohibits for instance, the use, re-use and distribution of digital learning contents. The situation is, therefore, a paradoxical one.

While Europe Union invests economically and culturally to promote politics and practices related to the diffusion of Open Educational Resources, we can notice that the majority of MOOCs are, at the same time, "open" but "closed". This "paradox" could be understandable considering that the MOOCs phenomena are crossing different territories with diverse institutional and economic interests. Thus, the scenario's that is figuring out contemplate the coexistence of a plurality of cultures, that use the same acronym, but that are moving from the profit the non-profit word, from industries to public (and private) universities.

As it happens in the international contexts, even in the academic Italian field the University interested to activate a MOOC prepares a formal request addressed to one of the actors (often private) that "host", in a specific platform, the massive courses. Evidently, through this step, the applicant entity (the University) does not have much chance to intervene on pedagogical design of the course. The university task concerns only on the preparation of learning contents following a pre-structured format. This format, in the majority of case, reproduces the traditional teaching-learning "trasmissive" model, based on activities as reading, repeating and attempting the quiz. Our point of view underlined the dangerousness of rigidity of the majority of the MOOC's format delivered, and we attribute to these "inflexibilities" one the main reasons related to the high levels of dropout and failure of these massive courses.

Finally, we would like to spend a few words about the business model behind the MOOCs. What is, for example, the return of investment (ROI) for the universities whereas the preparation of a massive online courses require more time than the preparation of traditional courses? According to some authors, 2013 was the year of MOOCs sustainable business model. Coursera to release a certificate of course completion, with its Signature Track program, requires from 30 to 100 dollars. Through this strategy, it has earned 1 million dollars. Other business strategies concerns, for example, the customization of the MOOC platform and the student's database consultation from interested institutions [14].

5 Conclusions

This paper highlights how it is important to be aware of the different challenges that higher education institutions have to cope, in order to design and implement a MOOC.

The MOOC pedagogical design, should consider the formative and summative assessment as an integrated part of learning processes. With this regard, it is also important to valorize not only summative strategies and tools but also the formative dimension of the assessment. However, due to the massive number of participants, this is not a simple aspect to manage. Currently, there are several modalities to carry out assessment but they focus, exclusively, on the summative assessment function.

Strictly related to the summative assessment, the recognition and certification of learning outcomes could assume a central role in the MOOC reflections. We have presented six different scenarios of MOOC recognition and certification, each of them with a different level of feasibility in the Higher Education practices. Even if the original meaning related to the first "O" of MOOC, "Openness", includes four dimensions Reuse, Revise, Remix, and Redistribute [15], we have seen that the majority of them are not "open".

To improve the quality of MOOC pedagogical design, take in account also the centrality of the assessment and learning recognition, we need to improve the research available and quickly review currently practices of MOOC, before losing their educational potential.

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