

Definition Massive Open Online Courses (MOOCs)

Version 1.1 dated 12 March 2015

Introduction

MOOCs (Massive Open Online Courses) can be seen as a term or word related to the scalability of open and online education. Some even argue that it is a political instrument and as such a concept that should be broadly defined. This document (re-)defines MOOCs so that it becomes clear what the differences are to other implementations of open and online courses.

It is already observed that every letter in MOOC is negotiable¹ and as such there are many different definitions of MOOCs. Consequently MOOCs programs and projects are potentially ill-defined as well. As such the [HOME project](#) (Higher education Online: MOOCs the European way) together with the [ECO project](#) (ECO: Elearning, Communication and Open-data: Massive Mobile, Ubiquitous and Open Learning) and [OpenupEd](#) developed a definition of MOOC shared by many European partners.

Process

A [first proposal](#) for a MOOC definition was developed by the HOME partners in March 2014. Consequently ECO partners elaborated on that and published a first draft of the definition as part of deliverable “[Instructional design and scenarios for MOOCs – version 1](#)” in April 2014. Next OpenupEd partners improved that definition and published an common agreed definition in [November 2014 \(version 1.0\)](#). The project conducted a survey in which elements and criteria are tested amongst European institutions. The results of that validation process is published in the report “[Institutional MOOC strategies in Europe](#)” in February 2015. A slightly improved definition is subsequently published by HOME and OpenupEd in March 2015 (this document).

Proposed definition

MOOCs are courses designed for large numbers of participants, that can be accessed by anyone anywhere as long as they have an internet connection, are open to everyone without entry qualifications, and offer a full/complete course experience online for free.

In more detail the table 1 presents the different dimensions of MOOCs related to this definition. Discussion notes on these dimensions and criteria are referred to by [.] and can be found here after.

Table 1: Criteria of different dimensions of proposed MOOC definition

		<i>Dimension definition of MOOC</i>	<i>Criteria deciding for a MOOC</i>
M	Massive	An online course <i>designed</i> for large number of participants [1]	<ul style="list-style-type: none"> - Number of participants is larger than can be taught in a ‘normal’ campus class room / college situation (>150 = Dunbar’s number) - The (pedagogical model of the) course is such that the efforts of all services (including of academic staff on tutoring, tests, etc.) does not increase significantly as the number of participants increases.

		<i>Dimension definition of MOOC</i>	<i>Criteria deciding for a MOOC</i>
O	Open	Course can be accessed by (almost) anyone anywhere as long as they have an internet connection. [2]	<ul style="list-style-type: none"> - Course accessible to (almost) all people without limitations. [2a] - At least the course content is always accessible [2b] - Course can be accessed anywhere as long as they have an internet connection
		Open as in freedom of place, pace and time. [3]	Most MOOCs nowadays have a fixed start and end date and as such are not open in pace or in time. Next, a pre-defined pace and/or a fixed starting date and end date is <u>not</u> considered an explicit criteria to distinguish between MOOCs and other types of courses.
		Open to everyone without entry qualifications. [4]	No qualifications / diplomas needed to participate in the online course.
		Course can be completed for free [5]	Full course experience without any costs for participants
O	Online	Complete course online [6]	All aspects of course are delivered online
C	Course	Unit of Study [7]	The total study time of a MOOC is minimal 1 ECTS (typically between 1 and 4 ECTS)
		<p>The course offers a <i>full</i> course experience including</p> <ol style="list-style-type: none"> 1. educational content 2. facilitation interaction among peers (including some but limited interaction with academic staff) 3. activities/tasks, tests, including feedback 4. some kind of (non formal) recognition options 5. a study guide / syllabus 	<ol style="list-style-type: none"> 1. educational content may include Video – Audio - Text – Games (incl. simulation) – Social Media – Animation 2. offers possibilities for interaction, such as social media channels, forums, blogs or RSS readers to build a learning community 3. participants are provided with some feedback mechanism. Can be automatically generated (e.g., quizzes), only by peers (peer feedback) and/or general feedback from academic staff, etc. 4. Always includes some kind of recognition like badges or a certificate of completion. A formal certificate is optional and most likely has to be paid for. 5. study guide / syllabus includes instructions as to how you may learn from the presented materials and interactions.

[1] Note about massive:

A MOOC differs to other Open Online Courses by the number of participants. There is no precise number to define “massive” and it might even depend on characteristics like number of people speaking the language of the MOOC offered (see [blog at ECO website](#)). In 2013 [Stephen Downes](#) proposed the use of the Dunbar’s number. Dunbar’s number is the cognitive limit of number of people with whom one can maintain stable social relationships ([150](#)). As such the number of participants is larger than can be taught in a ‘normal’ campus class room / college situation.

[Wikipedia](#) in their definition uses "unlimited number of participants" but maybe we should be cautious about that. A course isn't less massive and open if it doesn't allow for unlimited participants. You may have to set a maximum number according to the resources you have available when you offer the course. As long as there's a policy of "first come, first served" and no selection process based on whatever criteria, it still is an open course. Letting numbers go a lot higher than your technological resources (or other considered essential) can handle will result in the course being cancelled.

However, we also need to take into account the teacher time, i.e. the efforts of academic staff on pay-roll of institution offering the course. As MOOCs are for free it cannot rely heavily on teacher time. Teacher participation in the course needs to be very well thought through – a bit here and there, strategically – but people cannot have the expectation of interacting directly with him/her or having a lot of presence on his/her part, as would be the case in a formal (online or offline) course. Consequently the teacher workload and participation in MOOC needs to be very carefully designed. It's a free/gratis course, whose support rests heavily on the community and where participants should not be given the expectation of an amount of teacher presence similar to what they might expect in a formal / paid for course.

As such the definition of massive is related to the *design* of the course (note that Wikipedia uses the verb *aimed*). Teacher time should be used scarcely in a MOOC. You need to rest on peer feedback, peer assessment and formative assessment through formative activities (or embedded in the materials). Assessment is time consuming and you cannot offer it for free. Besides, this is much the model of formal learning - teachers teach, students learn, teachers assess - and that is not how we view MOOCs.

According to the report “[Institutional MOOC strategies in Europe](#)” a large majority of the institutions (71,6%) “MOOCs should provide a sustainable model for the mass”. In addition 50,1% finds it (highly) relevant for their institution that “MOOCs must be designed for massive audience”.

[2] Note about course can be accessed by almost anyone anywhere:

Ideally this must be defined as “Course can *always* be accessed by *anyone anywhere* as long as they have an internet connection”. However, this criteria cannot be seen as absolute. Most likely this criteria should be used on a scale from 0% to 100% where, depending on criteria, in a specific case one can say "this is a MOOC for 80% regarding open accessibility".



According to the report "[Institutional MOOC strategies in Europe](#)" a 74,7% of the institutions (71,6%) finds it (highly) relevant that *"Anybody can enter the course, i.e. course is accessible to all people without limitations."*

[2a] Some MOOC providers do put limit to people who can access the course. For example by have an age limit of 16 or block participants from sanctioned countries (so not accessible by anyone anywhere).

[2b] Most MOOC nowadays do not provide access all the time. However, they do provide access to the course during limit time, mostly only between start and end date of course. For some MOOC providers the content of MOOCs are always accessible even if they have a fixed starting and ending date during which they guarantee the availability of course content in the platform. In other MOOCs both the content and forum are always accessible. In addition very few MOOC providers offer courses that always provide access to whole course by anyone anywhere.

As such we changed the definition into "Course can be accessed by (almost) anyone anywhere as long as they have an internet connection". However, we strive for those courses that can be assessed fully (always by anyone anywhere). For example we also give (at least initially) free access to the course contents and activities to anyone interested and original content that can be openly downloaded and even adapted.

[3] Note about pace and fixed start and end date

We didn't include pace and/or a fixed starting date and end date as an explicit criteria to distinguish between MOOCs and other courses. The criteria preferred is that it must be a complete/full course experience including (non formal) recognition option. As such participants starts on a certain date and need to finish. Fixed dates and pace imposed by the institution is only one option that is nowadays mostly used in MOOCs that adhere to a teacher transferring knowledge model). Other pedagogical models must be included for example referring to a learner centered approach, i.e. it is the learner who is put central. In those pedagogical models the learner decides what to learn, when, how and what pace. Here the non-formal and informal networked learning and social learning have a place, as the learning has to be organised bottom-up. Learners need to be involved in the whole process and for example also take on the role of co-producers and even as coach.

But we must emphasise that these self-paced MOOCs will need to be finished with some kind of (non formal) recognition option and consequently have an end date. As such we accept that some MOOCs are designed without a pre-defined start and end date. It is open for contextual choices, i.e. MOOCs may have fixed dates or not, depending on the institution's choice for a particular course. Openness is also about freedom of choice. The unbundling of higher education (HE) is on all aspects including the freedom to choose starting dates and pace. Hence, a fixed starting and end date and a fixed pace are not criteria to be imposed on courses to define them as MOOCs. Other criteria (such as what is a complete course) are more important and discriminative.

The report "[Institutional MOOC strategies in Europe](#)" clearly demonstrates that there seems no agreement amongst institutions on the importance of MOOCs having a fixed start date and/or that self-paced courses can also be called a MOOC.

[4] Note about entry qualifications

In present MOOC offering everyone is allowed to follow the course. MOOCs are open to everyone without entry qualifications, i.e. no qualifications / diplomas are needed to participate the online course. But that doesn't imply that MOOCs are only offered at novice level. All MOOCs require some basic skills of ict and language skills by definition. And there are courses that require extensive prior knowledge and skills. But these knowledge and skills are not tested beforehand, nor are any formal qualification needed to enter the course. Some providers offer remedial courses (to be paid for) as part of their business model.

[5] Note about offering a complete course for free

MOOC participants should be offered a full and complete course experience without any costs (for free/gratis). However, additional services may be offered as part of the business model. Such services may include remedial courses, additional tutoring by academic staff and additional certification options. Regarding the latter, participants should always have the opportunity to get a badge or a certificate of completion for free (that's important difference between open courseware and MOOCs).

The report "[Institutional MOOC strategies in Europe](#)" states that institutions do not support the idea that MOOCs should be paid for except for getting a formal credit as part of an accredited curriculum. I.e., there is no strong support for a little fee in the MOOC definition.

As such course and formal accreditation must be unbundled, i.e. two separate processes. As for formal certification (e.g., part of accredited curriculum), will require academic staff and other resources (if you resort to any form of exam or face-to-face assessment) that need to be paid for. It's not part of the MOOC itself, but an afterward recognition of a relevant learning experience.

[6] Note about offering complete course online

The criteria used is that all aspects of course should be delivered online. But that the participant of a MOOC can choose to have some offline activities (the criteria uses "*delivered* online") or that additional services require face-to-face (f2f) meeting or even the presence at an exam/test center for an additional certificate. But such off-line / f2f activities are not part in MOOCs, i.e. are only optional. Participants cannot be asked to attend to a meeting at a certain place as obligatory. According to the report "[Institutional MOOC strategies in Europe](#)" a large majority (82,1%) supports that the course should be offered completely online.

[7] Note about study unit

To secure that a MOOC is an unit of study, we defined that the total work/study load for a participant should be at least 1 ECTS. In an European context we measure the amount in study time in units of ECTS (about 25-30 study hours). As such one criteria for a course to be called a MOOC is that total study time of a MOOC should be at least 1 ECTS.

This work is licensed under a Creative Commons Attribution 4.0 International License: <https://creativecommons.org/licenses/by/4.0/>

