



MOOC AS AN INSTRUMENT OF INFORMAL AND LIFELONG LEARNING

Srđan Trajković¹,
Dragan Cvetković²,
Vladan Radivojević¹

¹College of professional Studies
Belgrade polytechnics,
Belgrade, Serbia

²Singidunum University,
Belgrade, Serbia

Abstract:

This paper has a purpose to inform and draw attention to MOOC as an instrument of education which can be used in various ways. We will present the basic facts of MOOC and its possibilities. The elementary facts about participants will be shown in a manner that will help us to see opportunities for the improvement of MOOC as a serious learning platform.

Key words:

MOOC, MOOC providers, MOOC organization, learning.

1. INTRODUCTION

Over the last several years, MOOC has attracted considerable attention as an instrument of education. They have been developed in order to develop and attract the attention of potential students at some Universities. Nonetheless, they have rapidly become a tool for education and learning.

The first significant characteristic is that a very big number of students can be included in any course of their interest. Another important feature is that the time and place for attending the course is not essential. It can be anywhere in the world and at any time zone. Also, communication with other students and lecturers is always possible by any kind of communication technologies. In some ways, students and a lecturer in their mutual communication manage to come to new knowledge in some specific areas.

Also, some important universities and educational institutions have recently developed specific platform for this way of learning. So, we are introduced to Coursera, Udacity, edX and other platforms. We will also explain a different kinds of MOOC.

2. WHAT IS MOOC?

MOOC is basically an online course which has no limitation in number of participants and includes no fee for registered participants. Even the name MOOC defines its purpose – **Massive Online Open Course**. This implies that as many participants as registered can follow all lessons and they do not have to pay any fee.

Correspondence:

Srđan Trajković

e-mail:

strajkovic@politehnika.edu.rs



Also, all lessons are online on the web so that the participants can access them at any time.

When we discuss MOOC-s for first MOOC, we mean a course which was performed in year 2008 by the name "Connectivism and Connective Knowledge" (also known as "CCK08"). After this course, a lot of different MOOCs were developed. Significant increase in the number of MOOCs was recorded in the period 2012-2013. Very large number of educators consider this way of learning as significant improvement of learning methods.

In the beginning, all courses were developed like discussion between organizer of course and other participants as equal. Of course, the organizer implied thesis for discuss as primary learning materials.

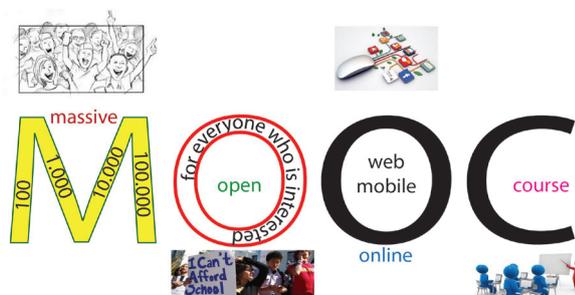


Figure 1. MOOC – massive open online courses

In latter periods, MOOC developed in two ways: cMOOC and xMOOC. The key difference between them is in the principled approach for learners. In cMOOC, the learners aggregate to a base of knowledge with their own experience in such way that the base of knowledge is richer with deferent type of information connected to primary thesis of course. On the contrary, xMOOCs are based more on classical type of courses, but all materials (lectures, readings *etc*) are free for registered students and dispositional for student at any time and from any place.

3. PROVIDERS OF MOOC

In late years of 20th century was enrolled a movement that propagate Open Educational Resources (OER). This was the idea that knowledge is public good, and that every person have right to be educated. In such manner of thinking many educators begin to organize courses for free. Among others even MIT and Stanford universities.

As MOOCs appear in educational sphere many of educators initiate their own platforms for providing such services.

The best known providers of MOOC are Coursera, P2PU, Udacity, Udemy and edX.

For example, Stanford and Princeton Universities stand behind Coursera, and Georgia Institute of Technology, San Jose State University, Google, Salesforce.com, Facebook, Cloudera, Nvidia, Autodesk, Cadence support Udacity.

So, we can see that very big "players" are involved in this form of education.



Figure 2. Most significant MOOC providers

Unfortunately, there is no provider for MOOC in Serbia for courses in our language, but the MOOC can be launched even by individual. Maybe we can consider a possibility to create our Serbian platform for MOOC. This will make a great opportunity for universities and maybe government to establish a base for free learning on a voluntary basis.

4. ORGANIZATION OF MOOC

An organization of MOOC is not that difficult. It can be organized by one person or group of people with the same interest.

The first step would be to choose the theme of MOOC. Very often MOOC starts with one goal and then it develops in different direction. Organizers of MOOC must take a good preparation including the research of potential learners and how developed knowledge of the given topics of course are in targeted group of listeners.

The second step is good advertisement of course, so that the number of listeners can be very large. This is crucial for every MOOC. The larger number of participants the better discussion and exchange of opinions during the course. In that manner, the development of knowledge will justify organization of such course.



In the next step, the organiser of MOOC must choose a communication platform for the course. That means that organizer must choose application for exchange of information and data between participants and organizer. Communication can be based on the Internet, Web, android platform or some other platform. Very often, it is a combination of all the above.

One of important steps of organization of courses is choosing a way of identification and authentication of participants in the course. The course is open and everyone can join the course. it is also good to know the participants, are, which group of population is interested in course, in the age structure of participants *etc.*

Also, identification and authentication are important if organizers want to test the final level of knowledge of their participants. Some participants wish to get a certificate of passing the course and that is also a reason to make an identification and authentication of participants.

5. PARTICIPANTS OF MOOC AND THEIR MOTIVATION

Who are the participants of MOOC, what is their motivation? How do they attend the course? How many of them has finished the course?

First of all, any possible participant has to possess elementary computer literacy. He should be good user of the Internet and web applications he uses in communication with other participants.

Usually, the participants of MOOC are young persons. Pupils from high school or undergraduate students are mostly participants of courses. However, insome specialised courses, participants can be graduate students, masters, PhD student and PhD's. Due to the fact that the course is in different languages, there is a need for knowledge of at least one foreign language

But if MOOC is developed as local platform for example as government platform for courses then participant will attend courses in the local language, but the structure of participants can be very various.

Motivation of participants can differ greatly. To be able to hear the famous popular lecturer on his way, through the need to improve the level of knowledge necessary for their basic needs to study, or to obtain information about future studies

Most participants attend course through Web applications but there are participants who attend course through mobile phone platforms *etc.*

Statistics of participants who finish course successfully is not exact but the percentage is not very big. About 7% of all participants get certificate for their course. Different reasons may cause this. Part of participants thinks that course did not meet their interest, some of them don't want to pay fee for certificate, and other students have lost interest of subject during the course.

The statistic shows that the students from more developed countries get better results in finishing courses then the students from undeveloped countries. This situation can be explained by the fact that the IC technology is not well implemented in the system of education and communication in these countries.

6. ADVANTAGES AND DISADVANTAGES OF MOOC

MOOC as organized aspect of education has advantages but also disadvantages.

An advantage of MOOC is its mass. Very large number of participants can be involved in transfer of knowledge. That fact must generate new idea and implementation of knowledge in practice. Another advantage is that participants don't have to be at one place.

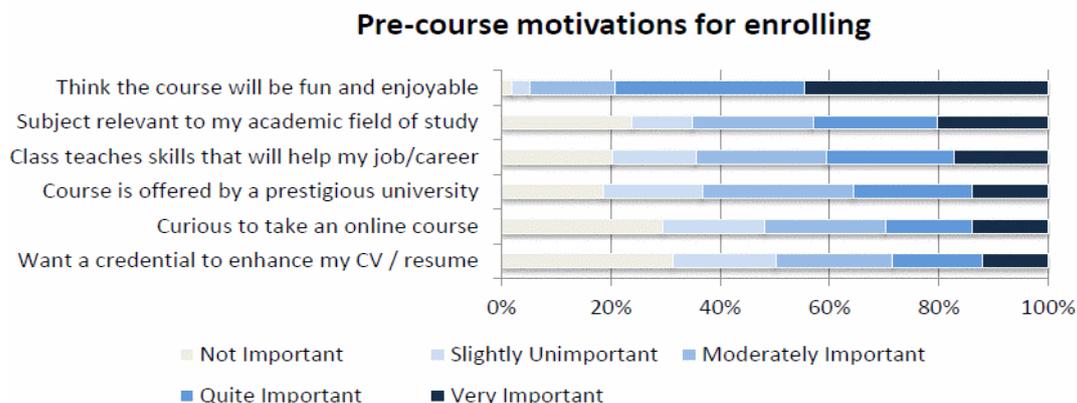


Figure 3. Motivation of participants to enroll a course



Participants can join a course from all around the world. Everything is based on personal interest of organizers, teachers and students. MOOC can be used in various forms of education.

Big disadvantage of course is that a very small number of participants who have completed the course, and a much smaller number of those who receive a certificate that they completed it. Difficulty of identification and authentication is also one of the big problems for MOOC organizers.

7. POSSIBILITIES OF MOOC

In the beginning, MOOCs were used in the way to develop discussion between participants. The leader of the course was the person who makes initiative and leads participants through the main subject of course.

The next generation of MOOC developed a more classical approach in education. We have professors who lead students through their lectures and homework. In this kind of course, the advantage is the possibility of free access of students from any place in the world. They have to know foreign language if they are from different language region.

But we think that in our case, in Serbia, we can develop several variations of courses.

Possibilities of MOOC depend on our creativity. Organizers can use it in various ways. MOOC can be used most in education, but it can also be used in many other fields.

The government can develop MOOCs as courses for introduction laws and procedures. Also, all government institutions can develop their own MOOCs to inform people and explain to them their rights and obligations. This kind of MOOC can be repetitive. They can serve the government also to see how people react to new procedures and laws.

MOOCs can be used by all levels of education from basic to high level, to encourage and develop a desire of pupils and students to educate in specific directions. The faculties can use MOOC also to introduce to students new procedures during studies. Also, MOOC can be used to arouse interest in possible future students.

MOOC can be used as a tool to get pre-exam points, or even to pass the exam of subject. If we can make an accreditation of MOOC and MOOC platform, it will be possible for students to participate in the course and then to verify knowledge through certificate of course as exam of faculty where he is a student. In some cases, courses can be modules of one subject and then several courses can be validated as one exam. This will give the opportunity to a student to organize his time and recourses and to choose in which he/she wants to participate.

The student will have possibility to choose a time and place when and where he/she wants to attend the course. Faculties and Universities can in this manner save their resources because they will need less space and less teaching staff.

If such idea has a good basis, some educational institutions can merge their recourses even if they are not from the same town or even country.

It will create an opportunity, for example, for students from Serbia to take a part of some course on MIT, and maybe a students from Germany will take part of course of English in Serbia. They will both get the certificate for their exams at basic faculties where they are students.

Because MOOC do not have age limitations for participants everybody can use it to refresh and to improve his knowledge. In this way, it is an instrument for life-long learning.

In many was MOOC communication function as P2P network and in such way MOOC give a possibility to participants

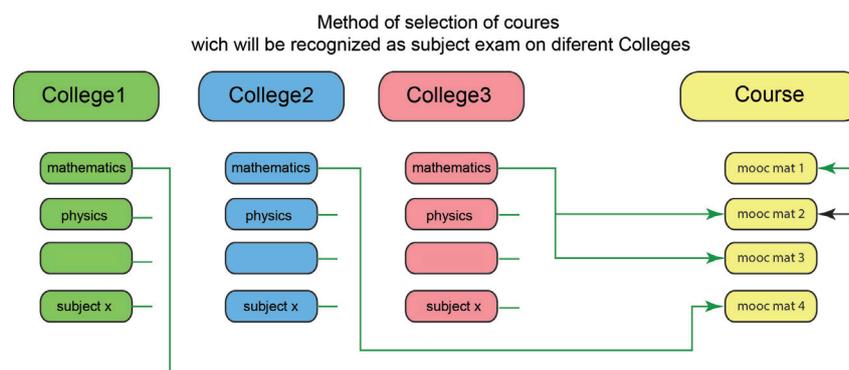


Figure 4. Method of selection of adequate course for exam recognition



to communicate even on other issues which are not subject of the course. In this communication, participants can develop knowledge in some other specific field.

8. CONCLUSION

Perspectives of MOOC depend on the development of technology and ability of people to use it. In this way of learning, we don't have age limitation or academic knowledge. Everyone from everywhere can join the course and develop personal or professional knowledge.

Providers developed global platforms for MOOC, but we think that also a local platform can give good results, especially in knowledge improvement in administration and communication with population.

It has not been properly developed in our region, which needs to be taken into consideration. This fact must be taken seriously. Our opinion is that state, with all its institutions including all educational institutions, must develop a platform for MOOC as a matter of national interest.

REFERENCES

- [1] Jonathan Haber (2014). MOOCs (The MIT Press Essential Knowledge series). MIT 2014
- [2] Curtis J. Bonk and Mimi M. Lee (2015). MOOCs and Open Education Around the World. Routledge (June 20, 2015)
- [3] Michael Nanfito (2013). MOOCs: Opportunities, Impacts, and Challenges: Massive Open Online Courses in Colleges and Universities. CreateSpace Independent Publishing Platform (December 14, 2013)
- [4] Petra Kirn (2015). MOOC BOOK: AN EASY STEP-BY-STEP GUIDE TO ONLINE LEARNING USING MOOCs. Petra Kirn (February 9, 2015)
- [5] Michael Power, Annie St-Jacques. The Graduate Virtual Classroom Webinar: A Collaborative and Constructivist Online Teaching Strategy. MERLOT Journal of Online Learning and Teaching Vol. 10, No. 4, December 2014
- [6] Daniel Burgos and Alberto Corbí. A recommendation model on personalised learning to improve the user's performance and interaction in MOOCs and OERs. IITE-2014, 14-15 october, Moscow, Russia
- [7] Vladimir Kukhareenko. Designing Massive Open Online Courses. White paper
- [8] Maha Bali. MOOC Pedagogy: Gleaning Good Practice from Existing MOOCs. MERLOT Journal of Online Learning and Teaching Vol. 10, No. 1, March 2014
- [9] Marion Waite, Jenny Mackness, George Roberts, Elizabeth Lovegrove. Liminal Participants and Skilled Orienteers: Learner Participation in a MOOC for New Lecturers. MERLOT Journal of Online Learning and Teaching Vol. 9, No. 2, June 2013
- [10] Kristine Fish, Hyun Gu Kang Learning Outcomes in a Stress Management Course: Online versus Face-to-Face. MERLOT Journal of Online Learning and Teaching Vol. 10, No. 2, June 2014
- [11] Joachim Griesbaum. Students as Teachers in MOOCs? The Double Gain of MOOCs as an in-Class Teaching Method Experiences from a Student-Made MOOC "Online Data Privacy". International Journal of Information and Education Technology, Vol. 4, No. 1, February 2014 DOI: 10.7763/IJIET.2014.V4.363 29
- [12] <http://mooc.org/>
- [13] <https://library.educause.edu>
- [14] <http://mooc.ca/>
- [15] <http://www.bdpa-detroit.org/portal/index.php/committees/high-school-computer-competition-hscc/29-education/57-moocs-top-10-sites-for-free-education-with-elite-universities.html>
- [16] <https://www.edx.org>
- [17] www.mooconmooc.org
- [18] <https://www.coursera.org>