MASSIVE OPEN ONLINE - COURSES IN THE FIELD OF HIGHER EDUCATION

**Abstract:** The features of the format and prerequisites for the appearance of the Ministry of Environmental Protection in the modern educational space are described: Potential reasons for using the MOOC with in the educational institution are considered, positive and negative aspects of the development and use of massive courses for the university are cited.

**Key words:** massive open online courses, e-learning, educational technologies, massive education, globalization of education.

**Language:** English

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**Introduction**

Massive open online courses, or MOOC (Massive Open Online Courses) represent one of the most important and at the same time the most controversial phenomena in higher education of the last decade. While the supporters of massive courses talk about a coup in education, opponents cite arguments with low efficiency and a negative process of simplification of education. But most of the representatives of the academic community do not have an understanding of the further trajectory of the development of massive courses in the educational space. Nevertheless, today many leading universities are engaged in the creation and development of the MOOC, and recently Russian universities have begun to participate in this process, which points to the fact that massive courses have their own specific demand.

The purpose of this article is to consider the MOOC as part of the modern educational process in higher education. In the framework of this article, we will try to answer the following questions:

- What are massive open online courses and why they appeared in the world educational space;
- why today there is a need to use the MOOC in the educational process;
- what should be taken into account when forming the "standards" for using the MOOC in the educational process of the university.

As materials for analysis, books and articles on the theory and practice of education, as well as information on massive open distance courses from foreign websites and portals were used.

**What is a massive open online course.**

The MOOC is a remote training course designed with the focus on a large number of distant students. All course content is publicly available, so students have access to the materials without any restrictions. The term Massive Open Online Courses was first formulated in 2008 by Dave Cormier for characterizing George Siemens' distance course of Connectivism and Knowledge (also known as CCK08).

On the one hand, the MOOC is, first of all, a course. It has dates for the start and completion of the course, there are lectures and assignments, students and a teacher. But the Ministry of Environmental Protection differ from traditional face-to-face and distance courses. The number of participants in the course exceeds thousands, which makes it necessary to initially automate the processes that the teacher is used to doing during the course. Feedback in the MOOC replaces the creation of a community of participants around the course, in which training is built on the principle of transferring knowledge from one student to another. The teacher ceases to play a key role during the training on a massive course, and...
the community of participants becomes the center around which the training is built.

Despite the fact that the development of the massive course is clearly associated with the university, and the main MOOC-platforms are the projects of the leading schools, the interest in the MOOC by the educational institutions is extremely heterogeneous. The greatest development now is in the United States, where the main educational platforms are concentrated, such as Coursera, edX and Udacity. The number of users on them is estimated at millions, and universities represent on these platforms 10-20 courses each. In the rest of the world, figures are much more modest. Nevertheless, according to the results of the global demand for adaptation of massive open online courses conducted in 2013, 43% of educational institutions plan to submit their MOOC by 2016, and 83% want to join edX, Coursera or Udacity.

The increasing amount of knowledge reduces the value of the total volume for each individual. Because the human ability to learn this knowledge is limited. In connection with this restriction, one has to choose what to learn. Therefore, in order to successfully master the knowledge of a person, it is not enough to gain access to information sources, it is important to see the relationship between this knowledge. Best of all, this task is solved within the framework of the training course. The globalization of education also dictates its own rules, and therefore in modern society there is a need for globally granted titles. This need has become one of the reasons for the emergence of the MOOC. The increase in the amount of knowledge available also changed the public's attitude to information. Previously, knowledge was concentrated around unique "local stores", such as universities, whose authority was the main factor of their reliability. Today, with a single keystroke, information can be placed on any information resource and made available to anyone who has access to the global network. It becomes increasingly difficult to verify the reliability and integrity of the information provided, because in order to "separate the wheat from the chaff," it is necessary to pass through a large stream of differently quality materials. This revealed the need to create new authoritative forms for providing information that will work effectively in the digital space. The MOOC in this case serves as a way of providing knowledge verified by such "authoritative sources" as educational institutions.

Today the branches of knowledge become more complex and require the return to the classrooms of groups not only of IT specialists, technologists and scientists, who in their activity have already realized the importance of continuing education, but also representatives of other specialties. According to Tim Gore, Director of Global Education Network Development and Communities at the University of London's International Programs Division, "users of massive courses are unusual undergraduate students. Most students of massive courses already have a diploma, and their average age is older than 30 years.

Until 2013, universities considered the development of the MOOC as a way to emphasize their status, and the possibility of using the MOOC in higher education was more the theory and caused a lot of skepticism on the part of the educational community. But in 2013, several massive courses on the platforms, Coursera and Udacity were approved for the American program on reading external courses in the programs of universities ACE CREDIT. After that, on the European MOOC-platform Ivercity appeared 2 massive courses, approved by the European program ECTS. An increasing number of universities decide to take into account the MOOC (despite the fact that the approved ACE and ECTS programs do not) in the educational process. Based on the global survey, 44% of educational institutions plan to provide an opportunity to obtain loans for the passage of the MOOC. But what for it to universities? After all, MOOCs are generally available knowledge, and the modern business model of the university is built on their sale.

To answer this question, let's try to highlight the key points in the academic environment that have become prerequisites for this.

In any historical period, knowledge is a system of ideas about the world that a person possessed at that time. The set of titles that a person possessed in the Middle Ages is very different from that with which the university is working now, nevertheless even then people tried to systematize this knowledge.

As the person moved along the line of progress, the amount of knowledge increased and the universities responded by complicating the structure of knowledge transferred to students and dividing knowledge by sector. Until the twentieth century, this process went slowly, but with the industrialization of the volume of human knowledge in a short period of time increased. The response of the academic world was a sharp increase in the number of training areas.

Today, the situation in the labor market in innovative spheres of activity shows that people with cross-platform education and specialists of a narrow profile have the greatest demand. Therefore, a modern student during training is aimed at obtaining unique knowledge and competencies. To meet this need, the university has to introduce additional student specializations and individual educational trajectories. New tasks are being added to the old tasks of the university, and training and counseling in universities are beginning to absorb more and more time and money.

It is not surprising that schools are looking for other ways of solving this problem than the constant expansion of the staff of teachers and increasing their

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workload. The use of the MOOC in student curricula can partially solve the problem of individualizing educational trajectories and expand the number of supported disciplines, while using fewer resources.

Weaknesses and strengths of the MOOC

At this stage of development, the MOOC is a global experiment in the field of education, which is in constant development and does not have well-developed technologies. Therefore, the MOOC has a number of features that must be taken into account.

Let us consider these features in more detail:

1. Creation of massive open online courses. In the establishment of the MOOC, the following positive aspects for universities can be singled out:
   • Participation in the development of the MOOC is an image move, so an undoubted advantage is the improvement of the status of the university in the eyes of the world academic community.
   • Massive open online courses are a "broad bridge" connecting the university with the outside world, since the number of students enrolled is thousands. A university that creates an image of a developed and prestigious educational institution through massive courses will have the advantage of attracting potential students.
   • The appearance of the MOOC opens a new sphere of educational services for universities, which is at the stage of formation. Moreover, the main platforms pay special attention to the monetization of courses.

The reverse side of the MOOC is the following:

The process of creating a massive open road course. According to the research, the launch of a single MOOC costs $ 45,000 to $ 300,000 to the university, and since participation in the course is free for the end user, all costs are borne by the developer.

II. Implementation of the MOOC in the educational process

If we consider the process of introducing massive open courses in the educational environment of higher education institutions, we can single out the following positive points:

• The introduction of the MOOC into the learning process reduces the time for the training load. The use of materials from the MOOC allows the teacher to free some of the time that he spends on explaining simple material, and to give this time to analyzing difficult moments or discussions with students.
• MOOCs significantly expand the number of disciplines that can be "covered" by the university. Today, the main platforms offer more than 1,200 courses from a wide variety of scientific fields.
• Massive open courses are another step towards academic mobility of students, as they take them beyond the local location.

Negative moments that arise in the process of integrating massive courses into the educational process of the university:

• The effectiveness of teaching students in massive open courses in comparison with the classical courses at the university is much lower. This is the main argument against the use of mass courses. According to a survey of the Babson Research Group, only 27.8% of academic leaders believe that massive courses are applicable for use in the educational process.

• Most universities are in the experimental stage with this format, so now there are no approved standards for integrating massive courses into the academic environment at the level of educational systems, which requires the formation of these standards at the level of each university. This is a more resource-intensive process than using standardized procedures.

What should be taken into account when forming the "standards" for using the MOOC in the educational process

The MOOC, like any new technology, has its weak and strong sides, which have not yet been defined as obvious technological properties. That is why in the world educational community there are actual disputes about the need to use massive courses in the educational process. Given the fact that a single opinion has not been formed at the moment, a decision on the use of the MOOC can be made only at the level of each school. Unfortunately, the MOOC is so new that now there are no successful completed implementation practices in specific educational institutions, nor are there unified standards for the introduction of massive courses in the curriculum. Therefore, each university will need to develop its own standards for the use of massive courses, taking into account the profile of the institution and the specifics of the educational process. But nevertheless it is possible to single out the following common factors that must be taken into account when integrating massive courses into the educational process.

1) At the moment, there are the following types of courses that are used in higher education:

• A traditional course that does not have online components. Now this type of courses is the dominant one in higher education.

In 2007, representatives of the Sloan-C established and defined 3 types of courses classified according to the number of online components:

• Online course course, where most of the content is obtained by students online (more than 80%).
• Web-Facilitated courses that use web technologies (1 to 29% of content) as an additional, rather than a primary, way of submitting content.
the MOOC has many courses use the model of the "inverted class", and at the end of the MOOC these guarantees are much more difficult. Therefore, with statements that the MOOC will become the basis of higher education in the future, it is difficult to agree.

Given the peculiarity of massive courses, a more effective way of integrating them into the learning process is to consider the MOOC as part of a mixed course or course with web support. For example, in MIT, at least 10 traditional courses use the edX platform to support the learning process. Video lectures give teachers the opportunity not to waste time on delivering standard lecture material and use the model of the "inverted class", and students-the ability to watch lectures at any time, return to them an unlimited number of times, and the use of automatically verified assignments shortens the instructor's time spent on routine tasks.

2) Since now every university is working to integrate the MOOC into the educational process on its own, one of the most important factors that must be taken into account is the capabilities and resources of the university.

The development of information technology has provoked the search for new formats of training by the academic community, which allow delivering content globally, and not within the same institution. This was the main reason for the emergence of such an educational technology as the MOOC course, which can train up to several tens of thousands of people.

**Conclusion**

The development of the MOOC has many positive aspects for the university, starting with filling a new niche in the education market and ending with new technologies in training in the study. Also, the inclusion of massive open online courses by universities in the learning process looks like an appropriate alternative to increasing resources. In the conditions of an exponentially growing number of specialties, it becomes increasingly difficult for universities to support the provision of these needs with an increase in resources, so modern higher schools are in search of tools to address this issue. But today the pedagogical technologies for creating and maintaining the MOOC are not at the level of development, so that massive open online courses can be built into the educational processes of universities as full-fledged courses. Therefore, when building the process of using the MOOC, the following requirements must be taken into account:

- Based on available resources and opportunities, the university should determine the share of the MOOC necessary for implementation in the educational process.
- The university should take into account the difference between knowledge sets in different faculties and departments, therefore it is necessary for faculties and departments to determine the technologies for implementing massive open online courses in their educational programs.
- The University should provide teachers with the opportunity to conduct hybrid courses and courses with web support, encourage the use of the MOOC to support their own disciplines by taking them into account in the load.

Online training is not a new step for education, and the MOOC is only a logical continuation of this development. But, despite the large number of advantages and their rapid development, one can not say that massive online courses are a formed educational product ready for integration into the educational processes of universities. The reason for this is the novelty of this format. The educational institutions are at the stage of experimenting with technology, the differences between the MOOC and the classical course at the university are too great, and the format of the massive courses is constantly changing, new efficient forms are being searched for. New ways and technologies of teaching put before the educational community the most important questions:

- How to individualize courses designed for several thousand people?
- Who should certify such courses and how?
- How "qualitative" can such educational methods be and how to evaluate the effectiveness of training?

Today, in these matters, each university can only define its own priorities. Massive courses are also not suitable for every educational institution and can not be applied to every subject. Today the role of the MOOC is not to replace traditional courses, but to expand the number of available methods of teaching. But one thing can be said right now: the MOOC is not so much a challenge to the educational system and universities as an opportunity to expand the tools, technologies and learning experience.

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