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MOOC AND MOOC DEGREES: NEW LEARNING PARADIGM AND ITS SPECIFICS

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ABSTRACT

Massive Open Online Courses (MOOCs) are one of the most important facets of modern education. They appeared in 2008 and are still developing. The article is dedicated to understanding the MOOCs learning paradigm, its development, and realization in the new product – MOOC degrees. MOOC degrees are full Bachelor's, Master's, or MBA programs provided by platforms such as Coursera, edX, and others. These degrees are cheaper in comparison with other online education programs by separate universities and with traditional programs. MOOC degrees are based on principles of previous courses, including auto-grading, flexibility, fully online format, and topicality. The vast majority of current programs are in the spheres of business, computer science, engineering, and data science. There is a lack of humanities and social science degrees. However, this direction of education has been implemented just recently. In the future, the number of such programs will increase and become more varied. MOOC degrees are based on the MOOC paradigm and inherit its pros and cons, but completion rates should be significantly higher. These programs can substitute online degrees by many universities and be useful, but not very affordable for students from lower-income countries. The overall quality of universities provided MOOC degrees, currently is lower than MOOCs founder members.

Disciplinary: Education Sciences (Education Technology, Education Development).

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1. INTRODUCTION

Massive Open Online Courses (MOOCs) are the most interesting phenomenon of modern online education. They cover the broad topicality of academic disciplines at different levels. The first MOOCs appeared in the year 2008. There were just several courses that attracted more than 100 000

students from all over the world. These courses covered topics interconnected with information technologies and engineering. Currently, topicality is much wider. Previously, Kobas predicted a reduction of interest in MOOCs (Kobas, 2014). Simultaneously, Evans & McIntyre (Evans, McIntyre, 2016) found that in March 2013 there were only 65 humanities courses provided by Coursera and edX, which was 17% of the total course number. That meant the total number of courses in March 2013 was 382 (8 times less than in September 2016). Therefore, it can be concluded that interest in MOOCs have not reduced and have even increased since 2014.

At the very beginning, MOOCs were absolutely free. Later, some of the MOOCs platforms started to offer payable verified course certificates simultaneously with their free versions. During several years, the number of courses with payable certificates has increased significantly. Some platforms started to provide even payable courses without free taking opportunities. Thus, not all MOOCs became free, whereas they are still named MOOCs. The year 2018 was called “Year of MOOC-based degrees”. The vast majority of these degrees are Masters or MBAs, whereas there are some Bachelor's degrees too. The main advantages in comparison with regular degrees are:

- fully online education (distance learning);
- more flexibility in time, both in hours per week and in years of education. Undoubtedly, these two variables are interconnected with each other. The more that students learn during each week, the less is the whole duration of education;
 - easier admission procedure and lower academic requirements;
 - lower cost of education;
 - possibility to avoid moving due to education necessities;
 - group education and possibilities to communicate with lecturers and classmates;
 - online access to lecturer materials, students can repeat each course if they need it.

Undoubtedly, there are many disadvantages of MOOC degrees, such as lower socialization, absence of an on-campus learning atmosphere, lower possibilities for career promotion due to university communications and contacts. Thus, MOOC degrees are a new phenomenon in online learning that should be analyzed in different ways. The article discusses the key differences in the learning paradigm between MOOCs and MOOC degrees. Moreover, specifics of new formats are discussed more precisely.

2. LITERATURE REVIEW

There are five main issues interconnected with the MOOC learning paradigm. Due to the fact that MOOC degrees are a new phenomenon in online education, there is a lack of articles covering this topic. However, several articles still exist.

First of all, MOOC models have to be discussed. There are three waves of interest in MOOCs: marketing, life-long learning, and credit generating (Brown 2018). The marketing wave was initiated by elite and famous universities that created the first MOOCs. Life-long education was a new phenomenon associated with modern technologies in different spheres. These technologies

significantly changed the vast majority of business and production processes in different branches. Thus, the second wave of MOOCs is associated with education improvement. The third wave of MOOCs is determined by the opportunity to take a course for university and college credits. Sometimes such substitution was reasoned by a better quality of MOOCs and in other cases by lower prices of the courses. The second aspect of the MOOC models is revenue. The first model is selling certificates of completion. This was called the blue ocean strategy (Koller 2013). The second model is based on payable courses and MicroMasters programs. The third model is a new one – MOOC degrees (Reich, Ruipérez-Valiente, 2019).

Secondly, there is an issue with MOOC origins which Morozov (2013) called ‘Silicon Valley solutionism’. MOOCs were in the fields of engineering and programming, which assumed several educational standards. Later, these standards were applied to all courses. The main idea was that high educational standards given by elite universities based on principles of rationality will guarantee a high educational level in all scientific fields (Giannella, 2015). However, these educational standards assume one correct answer or definite set of answers even in case if there are several variants to get this answer, while the classical educational paradigm is based on critical thinking, reasoning and arguing (Chandler, 2002). In other words, all MOOCs, including degree programs, are based on auto-grading estimation of students’ achievements. Therefore, in some scientific areas it is impossible to speak about correctness of answer as about basic criterion of successful completion of the course. Undoubtedly, knowledge is an important part of education in any scientific field. However, we cannot reduce educational process just to process knowledge obtaining (Kanuka, 2008).

The most reasonable critique of the MOOC learning paradigm has demonstrated the lack of moral and human principles in this educational approach, which is strongly correlated with dialogue between lecturers and students. Some critiques metaphorically compare the MOOC learning paradigm with binary logic of the Internet as ‘salvation or destruction’ (Johnston, 2009) or even with the fast-food industry and warnings about the ‘uncontrolled spread of junk education’ (Baggaley, 2014). However, it is important to highlight that these critical articles were published before Coursera’s specialization program became widespread. Moreover, Udacity started its own long-term educational programs and edX started serial courses and MicroMasters programs, which attracts students and provides education opportunities more similar to traditional education. Some of these long-term programs, specializations, and serial courses have restrictions in number of participants that help to develop intragroup communications and dialogue between lecturer and students. MOOC degrees is one more step in the development of this type of education.

The third issue is MOOC students. The vast majority of courses require no particular background and, thus, they are accessible for all students. Whereas, several studies have shown that the vast majority of foreign students (83%) of MOOCs already had 2 or 4-year degrees (Emanuel et al., 2013) and 55% of students, who completed the courses had Master’s degrees or higher (Chernova, 2013). Therefore, the author assumes that MOOC students are pursuing goals other than obtaining a degree. Despite this fact, they can use their verified certificates earned through MOOC course completion to accumulate credits at their universities.

The fourth and the main issue is the completion rates of modern MOOCs. Different sources

discuss this issue. The main estimations of this indicator vary from 10 to 15 percent (Jordon, 2016; Khalil, Ebner, 2014). One study has suggested that completion rates depend on the quality of the course, which is strongly correlated with the level of the university that provided the course (Kolowich, Steven, 2013). The other one improves on this idea. The better universities with better ordinary courses had higher rankings. These learning traditions and ordinary courses were transferred to MOOCs. Thus, courses by top universities had more students who completed them. The courses with higher completion rates usually are better known. The simple fact that ‘MOOCs by the top universities attract more students’, was not actually true. (Kruchinin, 2019). The number of enrolled students affected the number of students who completed the course. Typically, 4.5 students from each hundred completed the course. Assessment by auto-grading resulted in higher completion rates than other formats. Peer-to-peer and auto assessments made courses more difficult and took more time, which decreased students’ actual involvement.

Simultaneously, current tendencies in MOOCs shifted from completion to involvement. Ahearn (2019) showed that many students take only the most important information and knowledge in each MOOC they are enrolled in. These students are involved in the educational process without the aim of obtaining a certificate. Ahearn explained this tendency as dictated by the education level of the students. Many of them already hold a degree before taking a particular MOOC. She also cites some statistics:

- 40 percent of people complete a podcast episode. Most podcast episodes are between 20-60 minutes, compared to the typical MOOC, which can take more like 10-100 hours to complete;
- between 50-80 percent of students who sign up for a MOOC open the first email;
- higher education websites have a bounce rate of 51 percent, meaning that more than half the people navigate away from them after viewing just one page.

Thus, it is not just a MOOC issue. MOOCs are a part of the online education and Internet surfing process. In other words, many students are not really interested in the courses even if they are enrolled in them.

Many scientists discussed the issue of MOOC completion rates. The first reason for dropouts of MOOCs was the lack of time for each particular course. Many students take more than one course at a time. As a result, they have to spend more time on them than they have (Belanger, Thornton, 2013). The second reason is the different education strategies. Some students want to look through all courses, some targeted on certificate obtaining, and some just need a part of lecturers and materials (Bruff, 2013). Simultaneously, many students are interested in participating in MOOCs instead of obtaining a certificate (Yuan, Bowel, 2013). Moreover, there are very different reasons for taking and completing courses (Belanger, Thornton, 2013). On the pre-course survey, fun and enjoyment were selected as important reasons for enrolling by a large majority of students (95%). In the post-course survey, most reported that they have a general interest in the topic (87%). One more issue is feelings of isolation and the lack of interactivity in MOOCs (Levy, Schrire, 2012).

MOOC degrees are a new phenomenon. Current studies discuss the same issues with completion rates. Moreover, they discuss opportunities for these new programs to substitute regular education (Reich, Ruipérez-Valiente, 2019).

2.1 HYPOTHESES

The hypothesis of this study is dedicated to the MOOC educational paradigm and MOOC degrees educational paradigm. The study is based on the idea that the paradigm of MOOC origins is commonly known. Therefore, the main research questions are:

- 1) Do recent MOOCs follow their origins or become another type of education program?
- 2) Are MOOC platforms profitable companies or do they follow the idea of free education?
- 3) Are MOOCs still popular and relevant?
- 4) Are MOOC degrees close to the original ideas of this kind of education or are they a new, separate product?

3. METHOD

The research combines figures and data from different open sources, dedicated to MOOCs, its completion rates, and other issues. The main research method is the analysis of data from different sources, combined with each other. Authors provide some estimates of MOOC platform income and revenues. Moreover, data about all MOOC degrees, provided by edX and Coursera platforms, available in the autumn of 2019, are presented in this article. In this study, the data was calculated and analyzed. Different indicators were estimated. Among these indicators are the following: share of Bachelors, Masters, and MBA programs, share of education direction, average duration of the program, and the average cost of the program. The research outcome is based on the calculated, estimated, and analyzed data.

3.1 DATA

The research is based on data from open-source courses, known as MOOCs and MOOC degrees. Some of the data are from the journal Science. The most important issue is data collection from edX and Coursera platforms. Authors collected data about all MOOC degrees, represented on these platforms, that are available in the autumn of 2019. Collected data covered: MOOC platform, program level, topicality and direction, the university that provides it, cost and duration of the program. Thus, it can be easily found out whether current MOOC degrees are close to MOOCs' basics and origins, or they are separate products at online education market.

4. RESULT AND DISCUSSION

4.1 MOOC PLATFORMS AND COURSES DISTRIBUTION

MOOC platforms started to arise in 2008. Since 2011, the number of platforms has significantly grown. In the year 2012 their number was 17 and after two years, 44. Currently, their number is about 60 (Figure 1).

Thus, growth has been quite rapid. Undoubtedly, Coursera is the leader in this field. This site eared to be the first one. It is the origin of MOOCs. EdX appeared at the same time. However, nowadays its share of the market is significantly lower. Coursera's share is 35.6 percent and edX's just 18.1. This difference can be explained via different policies of the platforms. Coursera is quite open to new universities and courses. There is plenty of small universities form all over the world that provide courses via this platform. These courses attract many students. EdX provides courses just

from several universities, usually elite or commonly known all over the world. As a result, their quality is higher than by Coursera's courses, but the quantity is lower. This leads to lower rates of site visiting.

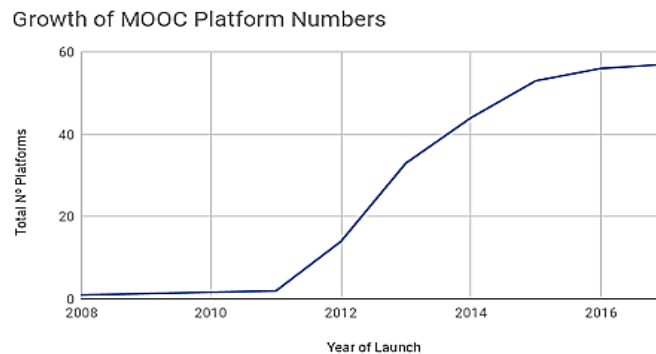


Figure 1: Growth of MOOC platform numbers

(Source: <http://www.mooclab.club/resources/mooclab-report-the-global-mooc-landscape-2017.214>)

The other platforms appeared later. Among these platforms are Udacity, FutureLearn, Open2Study, iversity, and others. Currently the platform Canvas Network is ranked second, according to popularity and users' visits (6.9%). Other named platforms have from 2 to 6 percent. Moreover, the other platforms, such as Lagunita (Stanford University), Open Education (Russia) and others collaborate have 16.4 percent of the market (Figure 2).

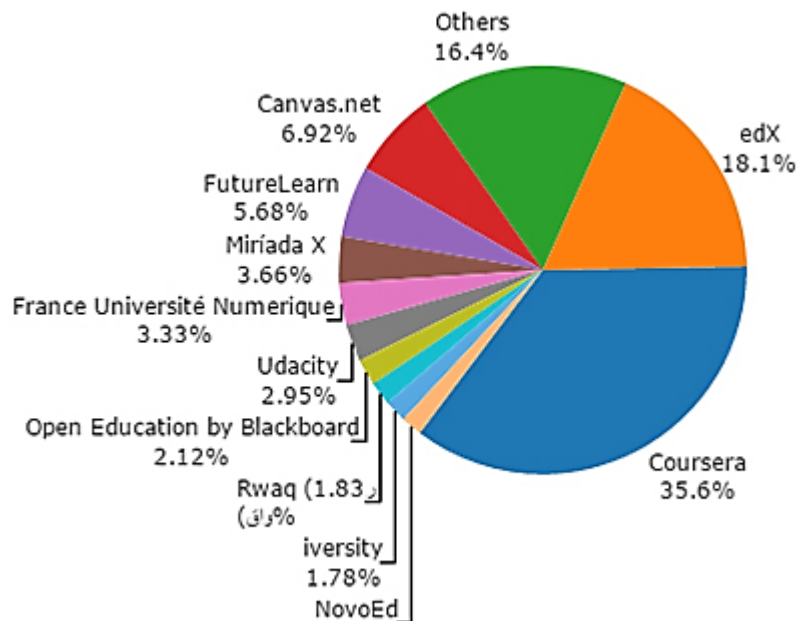


Figure 2. MOOC platforms shares.

(Source: <http://bizmooc.eu/papers/initiatives>).

One more important issue is the course's topicality distribution. In literature review has been shown that MOOCs' origins are technological, mathematical and engineering courses. Currently their overall share is 30.3 percent. Moreover, the share of science courses is 10 percent. Thus, these courses are still the basis of MOOCs. Business courses are also very popular. Their share is 18.5 percent. All other courses have less of a share. Social sciences courses' share is 10.6 percent and humanities, 9.5 percent. In other words, current MOOCs' topicality is not equally distributed. The vast majority of the courses, including all platforms, are dedicated to science, technologies, and business. Whereas the share of humanitarian, social and art courses overall is less than one-third of

the total number of the courses (Figure 3).

Thus, it can be concluded that MOOCs are a market that has had rapid growth and are currently growing well too. It is not so rapid as in the years 2012-2015 and soon the market will obtain its peak. In this case, according to modern product and business life models of Miller, Adizes and other scientists, new products have to be announced on the market. At the moment when one product obtains its market peak, the new one should be presented and significantly grown up. This strategy allows firms to be at the top of the market. For instance, such a strategy is applied by the Apple corporation. Thus, it is the proper moment for the first MOOC platforms to provide a new product, such as MOOC degrees.

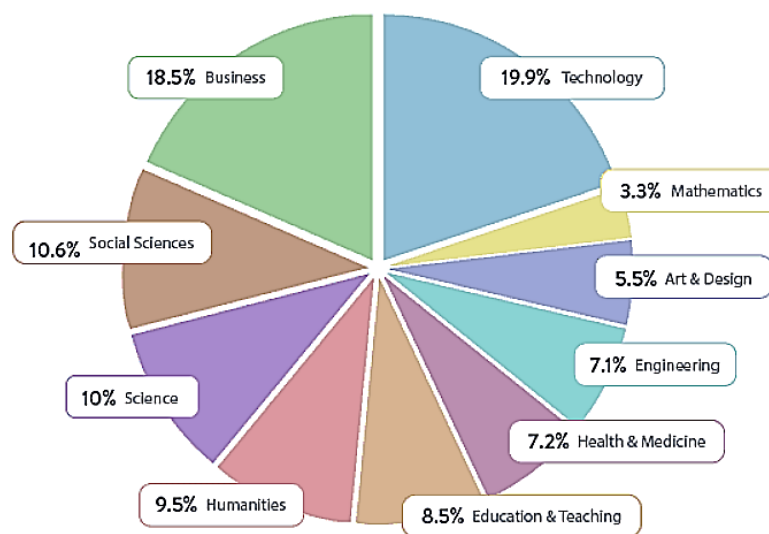


Figure3. MOOC courses topicality

Moreover, current MOOCs topicality corresponds with the paradigm of ‘Silicon Valley solutionism’ (Morozov, 2013). It is illustrated by the distribution of the courses. It also should be added that many technological, especially in case of information technologies, courses have some stages. From basics and beginnings to advanced ones. Whereas humanity courses are usually provided on introduction level. In other words, critics of the MOOCs by Chandler (2002), Morozov (2013), Baggaley (2014) and other scientists are still actual nowadays both in context of courses topicality and humanization of them. MOOCs main paradigm is constant since its origins.

4.2 STUDENT PARTICIPATION

Student participation was previously measured by the certificates that were obtained and the and courses completed. However, in the literature review, it has been shown that the criteria are not proper for current MOOC participation. Therefore, in this research, the other criterion is taken into account – recent enrollment. Recent enrollment is the rate of enrollment of previously registered users. The indicator shows the share of students who enrolled in MOOCs each year after their registration (Figure 4).

Thus, users that registered in the year 2012, later enrolled at a significantly lesser rate. In the year 2013, their enrollment rate was just 38 percent. In other years, the rate of enrollment continues to decrease. In the 5 years after registration, only 8 percent of users continued taking new courses. For

the later years of registration, since 2013, the same rate reduced even more dramatically. Thus, in the year 2017, the average rate of enrollment of previously registered users was varied from 6 to 10 percent, regardless of the year of registration.

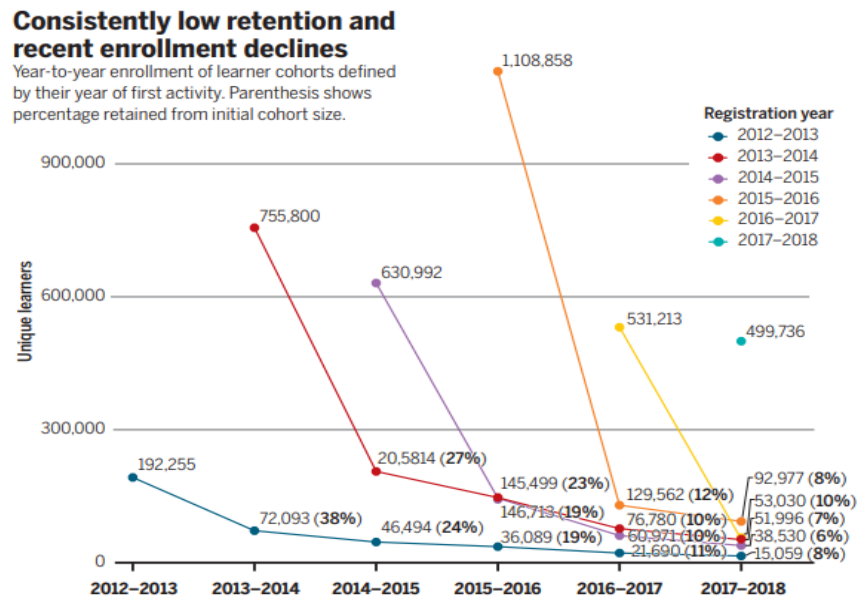


Figure 4. Enrollment of previously registered users.
 (After Reich and Ruipérez-Valiente (2019))

For instance, only 12 percent of users who were registered in the year 2015 were enrolled again in 2016, and 7 percent in 2017. Just 6 percent of users who were registered in 2016 continued their education using MOOC platforms in 2017. It is important to highlight two tendencies:

- regardless of the year of registration, users' participation in 2017 was very low. Only 6-10 percent of them used MOOC platforms at all;
- involvement of new users reduces every year. Users who registered in later years were involved significantly less than the previous years.

Thus, it is concluded that users are interested in MOOC registration, but not in long term course enrollment and completion. Each year, their interests in furthering their education significantly decrease. Thus, in 2017, the actual number of users was 250 million, whereas the overall number of registered users before this year was 3.219 billion. The share of active users in 2017 was 7.8 percent. Taking into account previously discussed completion rates, the overall completion rate among all registered users in 2017 was less than 1 percent. This is extremely low.

It can be concluded, that regardless of the way of measuring, the completion rates, certificate obtaining, or renewed enrollment, the share of active students is very small. That means a low actual interest in MOOCs and low revenues of MOOC platforms. However, the rates of new registrations show that MOOCs attract users. Thus, new formats of education should be offered to them.

4.3 REVENUE OF MOOC PLATFORMS

There are many ways for MOOC platforms to earn money. Some of them are:

- payable certificates;
- paid courses;
- paid pathways;

- long-term programs, including degrees.

The list is presented according to the order of appearance. Thus, payable certificates are the oldest way of MOOC platforms generating revenue. The platforms, especially Coursera, often report high potential revenue or growth of this indicator. Taking into account the previous statistics and price of certificates, the average income of Coursera exceeds 0.6 billion dollars in 2017. EdX's revenue was about two times less in the same period. Moreover, nowadays there is extra income, based on programs, paid courses, micro-Masters, and degrees. MOOC platforms are firms with quite high revenue, especially for the leading firms in the market.

In the year 2017, the total number of MOOC platforms was 57. 36, including 36 fully free courses and 21 paid courses. Thus, the major part of platforms provides fully free courses and close to non-commercial organizations (Figure5).

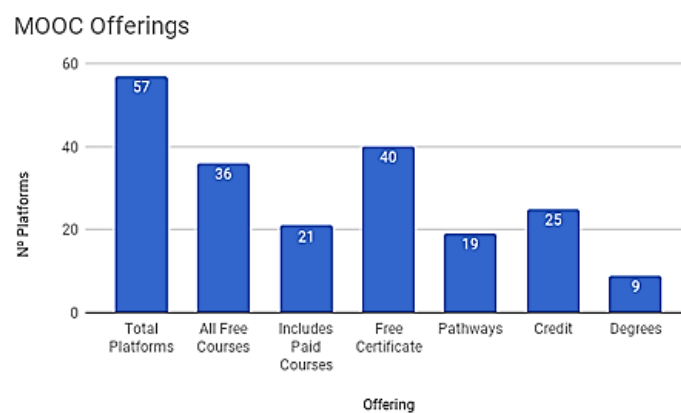


Figure 5: MOOC platforms distribution according to provided programs.

(Source: <http://www.mooclub.club/resources/mooclub-report-the-global-mooc-landscape-2017.214>)

Forty platforms provided free certificates. Thus, the number of platforms that give free certificates were even higher than the number of platforms with fully free courses. It means that the main idea of MOOC is still actual. Mainly it is free education. Simultaneously, many platforms provide courses on different languages, including English, Chinese, Spanish, German, Russian and others. Current MOOCs are even more available to students all over the world than in the beginning. Thus, MOOCs' origins paradigm is still actual nowadays. Nine platforms provide degrees. Therefore, MOOC platforms have started to expand their format. Some of them provide full degrees, including bachelors, masters, and MBAs; and even more platforms (19) provides pathways. Pathways is a form of long-term education with more deep interaction with students. Less than half of MOOC platforms allow their students to get credits to substitute college and university courses. This opportunity is not the main in this educational format.

Returning to MOOC platforms' revenue, it is important to highlight that the vast majority of enrolled students are from countries with very high incomes. The overall number of students from other countries is less than from the first group. A similar situation, even with higher disproportions between very high-income countries and other, characterizes the number of purchased certificates. Moreover, the peak of enrollment of students of all categories was in the year 2015. Whereas, the peak of purchased certificates was in the year 2014. In other words, the peak of obtained certificates was earlier than the peak of enrollments. Thus, earlier registered students were more active and

motivated in the educational process. Currently, the number of courses is increasing and purchased certificates are decreasing (Figure 6).

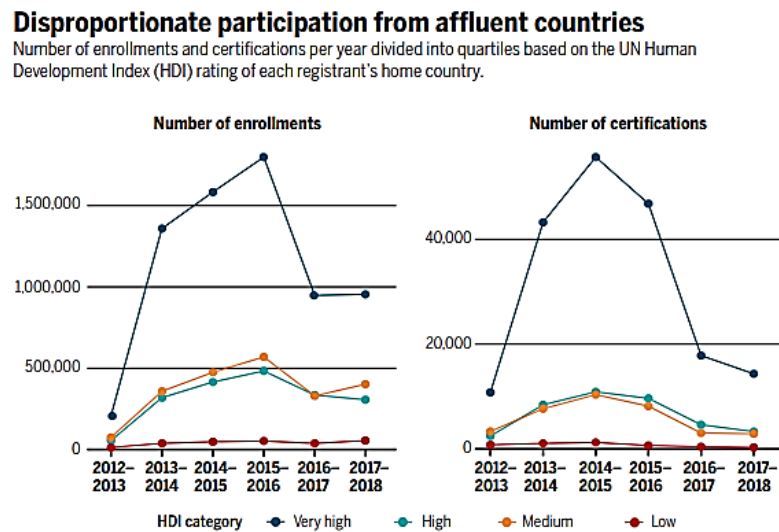


Figure 6: Participation in MOOCs by students from different countries. (Source: Reich and Ruipérez-Valiente, 2019).

The proposed income of MOOC platforms, earned on certificates, reduces and they have to seek new business opportunities. Due to the fact that the vast majority of students are from very high-income countries, new products and services have to be targeted in this group. This determines MOOC's degree's origin. They have to compose both MOOC origins, such as accessorially, flexibility, low costs, and high variation and follow the interests of the targeted students. Therefore, MOOC degrees are generally provided by universities from very high-income countries or, at least, based on their academic standards and programs. MOOC degrees paradigm is an open, online, low-cost education for students, based on very high-income countries' educational standards.

4.4 MOOC DEGREES

MOOC degrees nowadays cover bachelor, master and MBA programs. Due to MOOC origins, these academic programs generally directed on technological, engineering, science and business education, whereas other fields are presented significantly less (Table 1).

In Table 1, MOOC degree programs by Coursera and edX platforms are represented. Currently, the vast majority of programs are at the Master's level. Coursera offers 13 Master's programs and edX offers 10. There are just several MBA and Bachelor's programs (some of them are not included in the table because they are offered by other providers). The average MOOC Master's program duration is about 28-36 months. The average cost for Coursera Master's degree programs is \$ 22,000 and MBA programs are \$ 22,600. The average cost for edX Master's degree programs is \$ 16,290. Thus, the average edX's master program is cheaper than Coursera's. EdX programs also have an additional benefit – better-known universities with potentially higher educational standards and quality. Whereas Coursera announces high-quality education provided by the top 1 percent universities in the world or by one of the tenth best universities in the country (for instance, Russia), their academic ratings are lower than by edX universities. The overall quality of universities, provided MOOC degrees, is currently lower than MOOCs founding members. All of the universities previously have published their MOOCs, but they are no universities that have started in this

direction. Also, MOOCs are not associated with any of them.

Table 1. MOOC degrees program in the year 2019

Platform	Program level	Program field	Program title	University	Cost	Duration (months)
Coursera	MBA	Business	Master of Business Administration	University of Illinois at Urbana-Champaign	\$21,384	24-36
	MBA	Business	Master of Science in Accountancy	University of Illinois at Urbana-Champaign	\$20,564 – \$27,200	18-36
	MBA	Business	Global Master of Business Administration	Macquarie University	\$22,500	12 - 18
	Master	Business	Innovation and Entrepreneurship	HEC Paris	\$22,100	18
	Master	Computer Science and Engineering	Computer Science	Arizona State University	\$15,000	18-36
	Master	Computer Science and Engineering	Ingeniería de Software	Universidad de los Andes	-	-
	Master	Computer Science and Engineering	Computer Science	University of Illinois at Urbana-Champaign	\$21,440	12 - 36
	Master	Computer Science and Engineering	Science in Electrical Engineering	University of Colorado Boulder	\$20,000	24
	Master	Computer Science and Engineering	Computer and Information Technology	Penn Engineering	\$26,300	16-40
	Bachelor	Computer Science and Engineering	Computer Science	University of London	\$13,000-19,500	36-72
	Master	Data Science	Data Science	National Research University Higher School of Economics	\$10,000-18,000	18-24
	Master	Data Science	Applied Data Science	University of Michigan	\$31,688-\$42,262	24
	Master	Data Science	Data Science	University of Colorado Boulder	-	24
	Master	Data Science	Data Science	University of Illinois at Urbana-Champaign	\$21,440	12 - 36
	Master	Data Science	Machine Learning	Imperial College London	-	-
	Master	Public Health	Public Health	Imperial College London	\$15,500-\$26,000	24
	Master	Public Health	Public Health	University of Michigan	\$44,520	20-22
edX	Master	Computer Science and Engineering	Electrical and Computer Engineering	Purdue University	\$22,500	12-48
	Master	Humanities	Leadership: Service Innovation	The University of Queensland	\$17,000	24
	MBA	Business	Business Administration	Boston University	\$24,000	24-36
	Master	Business	IT Management	Indiana University	\$21,000	21-36
	Master	Business	Accounting	Indiana University	\$21,000	21-36
	Master	Computer Science and Engineering	Cybersecurity	The Georgia Institute of Technology	\$9,920	24-36
	Master	Data Science	Analytics	The Georgia Institute of Technology	\$9,900	12-36
	Master	Business	Marketing	Curtin University	\$17,500	18-36
	Master	Business	Supply Chain Management	Arizona State University	\$19,080	24-36
	Master	Computer Science and Engineering	Computer Science	The University of Texas at Austin	\$10,000	18-36
Master	Data Science	Data Science	The University of California, San Diego	\$15,000	12-36	

Characterizing MOOCs ' degree distributions, several issues have to be mentioned. At Coursera platform 23,5 percent of courses are dedicated to business, 35,3 percent – to computer science and engineering; 29,4 percent – to data science, 11,8 percent – to public health. At edX platform 45,5 percent of courses are dedicated to business; 27,3 percent – to computer science and engineering; 18,2

percent – to data science; 9 percent – to humanities. Thus, MOOC degrees are quite close to their origins according to course distribution. They continue MOOC traditions. There is still ‘Silicon Valley solutionism’ (Morozov, 2013), lack of humanities and different ways of grading, besides auto-grading (Reich, Ruipérez-Valiente, 2019). However, these degrees are cheaper than regular education from the universities which provide them. Students in MOOC degrees face with previous admissions and have to pay for a course, module or semester before its start. Therefore, their motivation is significantly higher than of average MOOC students. These degrees are far from the ‘uncontrolled spread of junk education’ (Baggaley, 2014). Universities ranking, possibility to get a diploma and auto-grading will lead to the high enrollment of students end completion rates (Kolowich, Steven, 2013; Kruchinin, 2019). Thus, MOOC degrees are based on the MOOC paradigm and inherit its pros and cons, but completion rates should be significantly higher. At least, these programs taking is much serious educational decision in comparison with any course. So, MOOC degrees can exclude some disadvantages of basic MOOCs. Moreover, these courses can substitute online degrees by many universities and be useful, but not very affordable, for students from countries without very high incomes.

5. CONCLUSION

MOOCs are a market that has had a rapid growth and are currently growing well too. Soon the market will obtain its peak. Therefore, new products, such as MOOC degrees is quite actual and awaited. Currently, regardless of the way it is measured, complete rate, certificate obtaining or renewed enrollment, the share of active students is very small. That means a low actual interest in MOOCs and leads to low revenue of MOOC platforms. However, the rates of new registration show that MOOCs attract users. The proposed income of MOOC platforms, earned on certificates, reduces and they have to seek new business opportunities. Due to the fact that the vast majority of students are from very high-income countries, new products and services have to be targeted in this group. This determines MOOC's degree's origins. They have to compose both MOOC origins, such as accessibility, flexibility, low costs and high variation and follow the interests of the targeted students. MOOC degrees are based on their academic standards and programs. MOOC degrees paradigm is an open, online, low-cost education for students, based on very high-income countries' educational standards.

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6. AVAILABILITY OF DATA AND MATERIAL

The research is based on open edX, Coursera, and the other MOOC platforms data. No data is generated from this study.

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