THE POTENTIAL OF MASSIVE OPEN ONLINE COURSES (MOOCS) FOR REVIVAL OF DISTANCE EDUCATION IN RUSSIA

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Abstract

The need for the study has been caused by the ongoing search for new and potentially effective means of quality education at university level. The rapid growth in telecommunications, availability of the broadband Internet and ubiquitous access to a variety of quick and user-friendly gadgets and electronics has definitely affected all spheres of our life, including education. The new cohort of university students, known as Generation Z, cause their teachers to entirely alter their concepts, attitudes and methods of teaching so as to meet the requirements of the new digitizing world with its innovative global economy, competitive markets and multicultural diversity. The public request to reform higher education in Russia so as to improve its quality is extremely important in this regard. Appropriate organization of distance education supported by free and open access to massive open online courses (MOOCs) seems to be one of the key answers to most of the emerging challenges.

The purpose of this paper is to analyze whether MOOCs may support different learning needs and styles of Russian students, enrich university curriculum with alternative models of distance education for better learning outcomes, provide educational opportunities even to those not enrolled in formal academic programs, enable learners and teachers to create competitive author's courses, open communities, crowdsourcing platforms and virtual worlds to share ideas, links or materials.

The methodological framework of the study rests on the comparative approach allowing accumulating best teaching strategies and practices of using MOOCs offered by top universities worldwide. A comprehensive analysis and synthesis of technical, pedagogical and managerial issues of MOOCs has also been provided as an integral part of our research. Based on the empirical approach, testing, evaluation and control of usability, accessibility, availability and safety of some MOOC-related tools and resources have been performed. An experimental study has also been conducted in order to obtain and compare certain relevant data concerning attitudes and learning outcomes of students in a traditional versus MOOC-based learning environment, advantages and disadvantages of MOOCs, etc.

The main result of the study is the design of a MOOC-based distance learning model that enhances the quality of university education in general and foreign language training in particular. The data driven analysis proved that MOOCs could be regarded as both sustaining and disruptive technologies determined though equally by innovative educational drivers and start-ups within a student-centered paradigm. As a disruptive technology MOOCs still lacks its complete realization, often has performance problems, seems to be known to a limited group of educators or students and might not yet have a proven practical application in Russia. Conversely, the appropriate use of MOOCs enhances learning opportunities, improves learning outcomes, facilitates networking and collaboration.

Keywords: massive open online courses (MOOCs), university, students, distance education (DE), technology, connectivism, drivers.

1 INTRODUCTION

The modern concept of the development of higher education in Russia aims to resolve a number of urgent problems in this area, the major issues of concern though still focusing on institutional organization, infrastructure, personnel policy, content standards, innovative educational technologies, and quality assessment [1]. The attitude towards the needs of higher education can be viewed from different angles, but the formation and development of human resources capable of meeting the challenges of the 21st century seems to be just crucial. Academic researchers, educators and practitioners face several questions in this respect: What kind of specialist do we need within a new reality facilitated by the rapid growth and expansion of the so-called information society? What skills and competencies should the specialist possess in order to adequately respond to the challenges of the emerging knowledge economy? What are the clue solutions for continued educational success in a digital era? What do ICTs (information and communication technologies) mean for students, teachers and universities at large? By transferring this theoretical thinking into practical solution, we

admit that current system of teaching and learning at university level should primarily reflect all recent advances in science and technology, best results and findings of research studies and experimental practices in higher education, as well as all the changes and implications, which ICTs are bringing into our life [2].

Let's have a broader look at some most popular trends in higher education today with a special focus on teaching/ learning of foreign languages at university level. Our findings will be supplemented or, conversely, disproved with reliable data and authoritative opinions. The analysis of the literature on the topic [2; 3; 4] allowed us to assume that some of the most common trends of the 21st century foreign language teaching and learning involve various ICT-based technologies, tools and methods, namely: (1) e-Learning, Web-based learning (WBL), mLearning (mobile learning), distance learning, distributed learning and other forms of online education [5]; (2) Employment of real world applications – which allow students to apply theories to realty and see them in action [6]; (3) Gamification – with nearly half of the teachers admitting that they have at times incorporated online games into their classroom educational setting [7]; (4) Emerging interest in and employment of Open Source Textbooks, Massive Open Online Courses (MOOC), crowdsourcing platforms based on networking, cooperation and collaboration, etc. [8]; (5) Blended Learning with its flipped classroom (a method in which students first learn about a new subject at home, especially online, and then have discussions on it in the class face-to-face atmosphere) – regarded as the foremost trend in language education for current university students [9], etc.

As we see, the current trends are taking on an absolutely new shape as university teachers leverage modern ICT technologies and strategies to creatively deliver content in various ways to their students. As a result, the learning environment is constantly evolving and changing thus creating among other things new etiquette of learning and teaching, shifting the locus of control from the teacher to the learner and, according to International Society for Technology in Education (ISTE), bringing the world to the classroom [3]. No doubt, learning today isn't what it used to be. These changes call for reforms and Russia is not an exception. Teachers, students and all interested members of society expect their governments to implement positive institutional changes and provide strong support for knowledge discovery strategies, knowledge retention, and knowledge networking with the aim of improving the way education is distributed and received at university.

Today, higher education in Russia is going through another stage of its reforming, known as intensification. In recent years (from 1992 to the present), the academic community has already overcome, according to N.A. Lunyova, at least two formats of reforms, namely the adaptation of the former Soviet model of fundamental education to new realities (1992-2005) and modernization, both of the system and the content of the national higher education (2005-2012), which in the aggregate resulted in the transition from a disciplinary-temporal to a multi-level competence model of training at the university level [10]. If the period of adaptation reflected the transitional character and extrapolated certain structural features of the economic, political, social and spiritual-cultural processes taking place in the country and society on the sphere of education, the modernization stage had a pronounced global orientation and led to significant system and content changes in Russia's higher school, thus having been actualized by the impact of various world tendencies due to innovative development of production, science and technology. The need to create a single information and educational environment in Europe (the European Higher Education Area under the Lisbon Recognition Convention and over time a global area), comparability in the standards and quality of higher-education qualifications led to transition within the framework of the Bologna process to a three-level system of higher education in Russia (bachelor's – master's degree – post-graduates), while the request of society to strengthen Russia's position and competitiveness on the international labor markets and in the sphere of educational services has naturally singled out the problem of improving the quality of training and developing comprehensively educated highly qualified specialists – university graduates [11].

The phase of intensification, the beginning of which many analysts refer to 2012 and associate with the adoption and implementation of the new law "On education in the Russian Federation" No. 273-Federal Law [12], in contrast to previous periods of reforms, involves rationalization and improvement of the structure and functions of subjects within the system of higher education itself. Organization of the system of training in conditions of intensification implies that universities and other institutes of higher learning should make maximum use of their internal reserves and resources to improve the quality and effectiveness of education [10]. In broad sense, intensification entails introduction of new, more progressive educational technologies, methods, methodologies and tools that ensure satisfaction of the diverse educational needs and styles of modern students. It also encompasses

changes of major underlying principles of education towards democratization, humanization, regionalization, technologization and personalization of training, as well as it provides expansion and strengthening of functions and roles of all subjects of educational process [11]. In its narrower sense, intensification leads to a rational use of time for study against the increasing informative capacity of the educational content. Intensification also increases the vigor and productivity of the whole learning process through the use of active methods and forms of instruction, employment of computers and other technical or digital means; it stimulates motivation and cognitive activity of students; it encourages teachers to regularly upgrade their skills, change the exhausted authoritarian model of education to a new collaborative one, etc. All the above mentioned in the aggregate leads to optimization of knowledge acquisition among our students, effectiveness of their training, and hence, serves to improve the quality of education in general [11].

Along with the provisions concerning the single educational environment in Russia and continuity of the basic educational programs, Article 11 of the Federal Law "On education" [12] and the Federal Educational Standards guarantee universities new opportunities to ensure variability and diversity of the content of educational programs, as well as formation of educational programs of different levels of complexity with various majors, taking into account all diverse educational needs and abilities of students. Articles 13 and 16 of the same law [12] expand the capacity of universities to implement these educational programs, prescribing that they can be carried out by educational institutions both independently and via digital networks. Besides, for the first time in the history of Russia the legislators guaranteed the right to use various forms of education delivery, including distance learning technologies (DLT) and e-learning methods. The importance of the legitimization of distance education (DE) in Russia as one of the promising forms of higher education is obvious, since for a long time it has been mainly regulated by decrees of the President and some departmental regulatory acts (for example, the Order of the Ministry of Education and Science of the Russian Federation of 06.05.2005 №137 "On the use of distance educational technologies"), which to some extent conflicted with the formally expired but sill effective at that time Federal Law of the Russian Federation of July 10, 1992 No. 3266-1 "On Education" [13], where, according to its article 10, the distance form of education did not actually exist. At the same time, the previously mentioned law regulated such forms of education delivery as full-time, part-time (evening), by correspondence, in a form of family education, self-education and external studies. Article 15 of the same law defined distance education as a form of classes supported by the use of remote educational technologies, implemented "with the use of information and telecommunication networks with indirect (at a distance) interaction between students and teachers" [13]. Based on this, we assume that until 2012 the form of distance learning at the university level could have been defined as a rather limited form of attestation in the form of external studies supplemented by the use of remote technologies [14].

Today, when the main legislative and legal gaps regarding the use of various electronic forms in higher education have been eliminated, Russian students can take in full all the advantages that the modern information society offers them. It should be noted that modern students are basically the representatives of the so-called "digital generation Z", for whom the online electronic method of obtaining educational information is a normal component of their life. According to the studies provided by the experts from the Center for Generational Kinetics in Austin, Texas, USA, this generation of young people born in the late 1990s and early 2000s are used to deal with various digital technologies practically from the moment of their birth. They regularly use the Internet, habitually interact and exchange information through synchronous (in real time) and asynchronous (with a delay in time) communication tools, while a significant part of their communication occurs on social networking sites. They do not part with smartphones and tablets, which allow them to access information and analyze it in a faster and simpler mode using pre-installed programs and applications [15].

Experience shows that integration of ICT-based tools and resources, as well as any wise use of ICT-mediated technologies and methods of instruction in the educational process are usually supported by students. At the same time, it is obvious that training of highly qualified specialists requires, in addition to technological competencies, formation and development of a broad range of cultural and professional competencies among the students, regardless of the majors or programs they choose or give preferences to. The speed of all changes today, including the increased competition on the labor markets, is so high, that potential employers are primarily taking into account what knowledge and skills the graduate leaves the university with rather than his or her diploma. Universities should consider all the emerging challenges and introduce maximum of practical, close to reality classes within all training courses, enhance a variety of education delivery forms, diversify methods, tools and techniques of teamwork so as to accustom and adapt students to collective work, which is the norm in any working environment. Suffice to say, that any collective work, including education and upbringing,

is impossible without communication or collaboration, therefore any of the forms, methods, technologies, techniques and means aimed at cooperation, even with technological support, does not detract the role of a teacher, his or her knowledge and experience [11].

2   METHODOLOGY

The methodological framework of this research work rests on the comparative approach that allowed discovering and accumulating best practices and experiences of distance education and Massive Open Online Courses (MOOCs) employment at universities for their further dissemination worldwide. A comprehensive analysis of the technical, pedagogical and managerial issues of Massive Open Online Courses (MOOCs) as of efficient mode of distance education and ICT-based technology of teaching university students has also been provided as an integral part of the research. We examined and studied the broad international experience on distance education and MOOCs as a source of innovation with the exact aim to improve the system of university education in Russia. Our study has been supported by deep analysis and synthesis of the best scientific findings on the topic presented by the prominent Asian and Western scholars [5; 16; 17; 18; 19; 20]; we also examined and analyzed the latest trends in the field of teaching and learning of university students in the ICT-based learning environment [21; 22; 23; 24; 25]; singled out some unique characteristics, elements and principles of distance education and MOOCs applicable for university students in Russia [18; 23; 26; 27; 28; 29; 30].

Based on the empirical approach testing, evaluation and control of usability, accessibility, availability and safety of some major distance learning tools and resources have been performed. An experimental study has also been conducted in order to obtain and compare certain relevant data concerning the learning outcomes of students in a traditional versus distance learning environment [24; 25]. The process involved 35 teachers and more than 370 students who were temporarily placed into separate learning environments, i.e. conventional or traditional (face-to-face) and ICT-based (at a distance). We took into account the latest US national research statistics and findings on Generation Z published recently by the Center for Generational Kinetics based in Austin (Texas, USA) [15]. First, we analyzed the general and most defining characteristics of the Gen Z students; and then their preferred learning styles and modes. In the end, we examined with due diligence the applicable teaching and learning methods and techniques, which will simultaneously address academic and social skills of Gen Z students as well as support their "digital" learning expectations and needs.

To sum up the research we identified and enumerated most of advantages and disadvantages of distance education operating within an ICT-based university environment from the point of view of both teachers and students [17; 22; 27; 30]. The provided analysis and study allowed us to systematize the theory and practice of the process of employment of distance education and MOOCs at universities. We revealed the common nature of any distance education initiatives in education including their core elements and characteristics, found appropriate ICT-based open authoring tools to proceed in our experiments to create, implement and test the effectiveness of author's electronic open online resources and materials [30; 31; 32; 33; 34; 35].

3   RESULTS

The main result of the study is the design of the model of an efficient ICT-based student-centered learning environment that involves distance education programs, employment of MOOCs and enhances the quality of university education. In our vision, university environment should be a multilingual educational space based on inclusion of the native language and one or more foreign languages being taught to students (usually English, German, French, or Spanish). Such a space functions in the interconnection and complementarities of all its components that are traditionally integrated into educational process of university. The learning environment should also be organized in accordance with the changing learning needs and styles of modern students, usually referred to as the "digital generation Z", their preferences and capabilities [5]. The learning environment should thus be organized with a due ICT-based support where educational tools and resources might function as adaptive, familiar and comfortable instrumental facilitators and drivers of the learning process [25]. The ICT-mediated environment of university, supported by direct quick access to computers and the broadband Internet, should include the well-structured university's website, educational portal for electronic and distance learning offering inter alia access to massive open online courses (MOOCs), information-sharing crowdsourcing communities and virtual networking platforms, digital libraries, etc. [25] Classrooms and lecture rooms should be equipped with all sorts of digital devices and multimedia

equipment, adapted for work with both external, remote and internal ICT-based and other free and easily accessible educational resources [25]. Moreover, universities shall not fear to integrate their institutions with the communities in which they exist and operate. Culture of sharing ideas for enhancements in educational context is receiving the increasing support today. The reason is obvious: distance education initiatives give universities better chances to hear from students, faculties and community members about their current advances and drawbacks. Distance education ideas help universities remain competitive, build their reputation, and enroll more and more new students. As a matter of fact, being receptive to ideas and changes makes universities much more attractive to prospective students [27].

The results of the survey provided by the authors in the course of the empirical research confirmed that the majority of the students of the so-called generation Z do realize the need for higher education as a start-up for their successful career (72%), favor the participation of teachers in their training (68%), and recognize that the delivery of educational activities at the university should be organized, managed and controlled (78%). Some students believe that a true professionalism is achievable when training at university if only future specialists participate in additional distance education programs (54%), purposefully take part in independent training courses on different open platforms as MOOCs (massive open online courses) and other open educational resources (66%); or have part-time work so as to apply in practice the acquired knowledge and skills (43%). Only a small number of the respondents who have provided information for the survey do not see the need to expand education and training process to "continuity", including further regular upgrading or lifelong learning (13%) either due to their young age or due to low motivation. The study was conducted by us on the grounds of the Kazan (Volga region) Federal University in the period from February to May, 2017. The study involved 3 groups of students of 2nd-4th courses of the Faculty of Law (field of training 40.03.01, Jurisprudence, bachelors). The total number of students having been surveyed (interviewees) was 370 people, aged 19 to 22 years.

Analysis of the literature on the problem confirms that the high rate of ICT development and its dissemination in all spheres of life, including economics and education, along with other visible changes enhanced by the ongoing processes of globalization, integration and informatization, actualize interest in technology-based methods of teaching and learning in both students and teachers. According to Dr. Cees Terlouw, a recognized expert in the field of training design and methodology from the Saxion University of Applied Sciences (The Netherlands), "with the development of computer technology, popularization of the global Internet, emergence of digital and networked educational content, distance education has gained new opportunities and prospects for providing quality education" [36]. A similar point of view is shared by many Russian and Western analysts, calling distance learning, along with other types of online learning, among the main trends in the education of the near future [32; 33; 37]. From year to year, distance learning is acquiring more and more supporters, so it's no wonder that most of the rating Russian and foreign universities are in a hurry to occupy their niche place in the growing trend and provide their students diverse opportunities to obtain a diploma or upgrade their qualifications remotely. The distance form of education does not only promote the expansion of access to higher education, reduces financial and energy costs for training, eliminates territorial and temporary barriers, but also improves the quality of education through the introduction of cutting-edge or breaking-through technologies, digital libraries, virtual and networking platforms, courses (MOOCs) and other electronic educational resources [1; 2; 3; 14; 34; 35].

4 DISCUSSIONS

In recent years Massive Open Online Courses (MOOCs), which UNESCO named among the 30 most promising trends or drivers in the development of education until 2028, are of particular interest. It is believed that namely xMOOCs and cMOOCs open up new opportunities in the field of distance education today [37]. In its form, xMOOC is, in fact, an open electronic educational resource (electronic educational course or teaching methodological complex), which includes video lectures with subtitles, lecture notes, homework tasks, tests and final exams. Unlike traditional electronic educational resources actively created and employed, in particular, by the authors of this article, specifically for students of certain areas of preparation of the Kazan Federal University, MOOCs are global in nature and operate beyond the boundaries of one university. Most authors of MOOCs are also teachers and professors of the leading universities worldwide, but courses are posted on the sites of popular online educational resources, they are often created by huge clusters of universities on either territorial or thematic basis. Besides, MOOCs are addressed to a wide range of potential

students, listeners and tutors being their target audience. The process involves mainly the large American and British universities, which actively participate in the creation and dissemination of educational resources, training courses and programs, including open and free content; they also master the commercial market of electronic educational courses and services [38]. The cMOOC model as a supplement to the structure of distance learning organization according to a more traditional xMOOC model, extensively implements various tools and means of social online communication via the Internet, creates open forums, chats and blogs for users (students, teachers and tutors), both for maintaining online communication within the community, and to assist and solve possible problems of a technical and pedagogical nature [35].

The first mention of MOOCs appeared in 2008, when, independently of each other, two experts in the field of education from the United States and Canada, Bryan Alexander and Dave Cormier coined the word "MOOC" to describe the essence of the then open online course "Connectivism and connective knowledge (CCK08)" developed by George Siemens and Stephen Downes on the basis of the University of Manitoba, Canada, to attract as many insolvent students as possible from different parts of the world [32]. As a result, the CCK08 course attracted more than 2300 students who received training content via RSS feeds (Really Simple Syndication = very simple distribution), while all the extensive information was collected, processed and presented in this format by aggregator software and online services, which allowed users to receive news instantly and in a convenient form from virtually any site, without the need of accessing the site itself. The course also offered other convenient Web-based tools and learning tools, including LMS Moodle (Learning Management System), blogs, communication in the 3D virtual world with elements of the social network "Second Life", as well as unlimited online meetings in real time [32]. The idea underlying the title and content of the course – "CCK08" – is important for understanding the phenomenon of cMOOC, since the course was devoted to the study of the theory of connectivity or connectivism itself [33], took its roots in it and, in fact, was built on its fundamental principles, which in general terms convey the following message: teaching and learning in the modern era will be successful if people learn to build the necessary relationships, provide communication and connections mediated by the goals and objectives of cooperation and interaction via electronic networking [34]. The idea of creating networks of like-minded people or networking communities, connecting people to each other for the purpose of developing and gaining knowledge, and therefore creating a knowledge society – is one of the key and fundamental characteristics of MOOCs [39].

As the United Kingdom and the United States conquered the global educational markets, the leading universities in these countries formed a new vision for the delivery of educational content. Since the late 1990s, the first database of electronic projects began to be formed on the basis of the Massachusetts Institute of Technology (MIT), the paramount goal of which being the desire to "improve the education of people around the world thanks to the knowledge network". By 2011, the concept of converting all programs into a remote online teaching/ learning format found its embodiment in the OpenCourseWare (OCW) by MIT consortium (https://ocw.mit.edu/index.htm), which is perhaps the largest collection of MOOC resources in the world for today [37]. In 2012 MIT together with Harvard University led the initiative to create a new platform edX (https://www.edx.org/) for further promotion of MOOCs, having significantly increased the number of its partners. So, as of December 2016, more than 70 leading universities, non-profit organizations and corporations have been offering about 1270 online courses to their 10 million students, registered on edX. In addition to providing educational programs, edX server staff is involved in research work on the issues of education and, in particular, distance education. EdX differs markedly from other MOOCs providers such as Coursera and Udacity since EdX is a non-profit organization, it operates on the open source Open edX network platform, offers many free training opportunities for its learners and broadcasts courses and programs in many languages including English, French, Spanish and some unusual languages as the North Chinese (Mandarin) and Hindi.

Udacity (https://www.udacity.com/) – is another popular platform, created on the basis of Stanford University (USA) in 2011 [37]. Another non-profit educational organization that deserves attention in the context of our research is the Khan Academy. Created in 2006 by Salman Khan, a graduate of MIT and Harvard, the "academy" (https://www.khanacademy.org/) aims to make "a quality world-class education accessible everywhere, anytime and for everyone." The academy's site provides access to a collection of more than 4,200 free micro lectures for a wide range of disciplines. While the lectures are provided in English, there is a separate project supported by volunteers who translate lectures into other languages,. In particular, there is a separate website of the Khan Academy in Russian language (https://ru.khanacademy.org/). The project is supported financially through donations, with a significant portion accounted for by Google and the Bill and Melinda Gates Foundation [35; 38].

Over the past years, the number and popularity of MOOCs among the university students has increased manifold. Statistics show that the number of students registered at various MOOCs ranges from several hundred to tens and hundreds of thousands. According to analysts of the J'son & Partners Consulting company [38], one of the most popular online education resources Coursera, headquartered in California, USA has more than 17 million registered users, its investment fund being $146.1 million. It should be admitted that by 2017 Coursera is the largest interdisciplinary MOOC platform. Founded in 2012 by professors of Stanford University Andrew Ng and Daphne Koller, this MOOC project initially included 33 universities from the US, Canada and the UK, and then, in 2013, it was enlarged by another 29 leading universities and organizations from Europe and Asia. The Coursera catalog, available on their website (https://ru.coursera.org/), offers a wide range of courses in various fields, including the humanities and arts, business, social, computer, natural and technical sciences, medicine, psychology and biology, as well as the opportunity to study foreign languages, etc. Each of the Coursera courses is structured on approximately one scheme, these are recorded video lectures, automatically evaluated tests, peer reviewed assignments, and open community forums [35]. All courses are accompanied by instructions, feedback and supervision by teachers and tutors. Some of the training courses and programs are offered in open and free access, while other courses and programs are paid services. Depending on the choice of strategy, the learner can spend different time and different money for getting his/ her education. For example, you can free of charge or depending on the policy-makers of the course, paying $29- $99, get new knowledge and skills in 4-6 weeks. Usually, in the end, the listener receives the validation in the form of an electronic certificate (Course Certificate). You can also try to get a new profession or specialty; such training on average can take 4-6 months and, often, will cost $39- $79 per month of training. The result will be a certificate of professional training (Specialization Certificate). Today, Coursera expands the learning opportunities, offering a flexible system for obtaining university diplomas and degrees. The short and catchy advertising slogan that Coursera anticipates its courses and programs reads: "We represent a world in which any person can change their lives by turning to the world's best learning experience." It is no secret that over time, MOOCs increasingly focus on practice, job search and the needs of employers, so the emphasis today is on selling the so-called integrated training. Thus, by studying online you can get a master's degree in business, informatics and data science. Training lasts, on average, 1-3 years, the cost, depending on the course, varies within $15,000-25,000. At the end of the course the final exams are taken, and, subject to the successful passing of the finals, the student receives a diploma and a master's degree from one of the accredited universities (Accredited Master's Degree) [35].

The online learning project Udemy (https://www.udemy.com/) – is another example of successful promotion of the MOOCs in the world educational environment. It is targeted at the adult audience, all those who want to add new applied knowledge and skills to their resumes or completely change their careers. Unlike traditional standardized academic programs aimed at working in groups, Udemy offers variability, personalization of training by attracting specialists from different sectors of the economy and production to create and provide practice-oriented courses on demand. For these purposes, Udemy also provides a set of authoring tools for those creating courses. In order to popularize education globally, Udemy, along with Coursera, attracts corporate trainers and experts from around the world, and recently these sites started to host courses in Russian language [35]. In Europe, the leading position in the field of distance education is still held by the British University of Open Education (the Open University, UK) (http://www.open.ac.uk/courses). Since its establishment in 1969 by the decree of Her Majesty the Queen of Great Britain, the university has been annually expanding the range of distance learning methods and programs. The university was named "open" so as to show its availability due to the low price of training and the lack of the need to frequently attend classes. Since 2005, eleven of the best UK universities have joined the program of free distance courses offered by the Open University [34].

One of the analogues of the MOOCs platforms in Runet (Russian Net) is the project by the Internet University of Information Technologies (http://www.intuit.ru/), which provides free-of-charge distance learning at the National Open University "INTUIT" to all wishing to be educated. Another Russian system of electronic online education, built on the MOOCs technology, Universarium (http://universarium.org/) was launched on the Internet in 2013. The system provides free educational courses by teachers and professors from a number of Russian universities (Lomonosov Moscow State University, Moscow Institute of Physics and Technology, Plekhanov Russian Academy of Economics, etc.), as well as by the leading Russian scientific centers. In contrast to the distance learning systems normally being used at Russian universities, the Universarium offers full-fledged free courses designed according to the educational e-learning standards. The project is implemented with the

support of Russian Information Agency Nauka and the Agency for Strategic Initiatives. The other successful Russian MOOCs platforms are: Courson (https://www.courson.ru/), the Russian equivalent of Udemy; educational project Lecterium (https://www.lektorium.tv/); the leader in teaching of foreign languages Lingualeo (https://lingualeo.com/ru) with 13 million users; the leader in teaching of programming – GeekBrains (https://geekbrains.ru/), etc. [14; 37; 38; 40].

5 CONCLUSION AND RECOMMENDATIONS

Based on the research and analysis provided, we have to admit the revival of interest in distance education among teachers and students in Russia. This tendency is largely supported by the increasing popularity of MOOCs, serving as potential drivers of most of the distance learning initiatives at university level. Such high reputation of MOOCs could probably be explained by the fact that teaching/ learning here occurs in communities of like-minded people, who are connected not only by network interaction, but also by common goals, attitudes, motivation and interests. As we have noted earlier, the original concept of MOOCs relies on the key principles of the theory of connectivism, which implies that the network community consists of people, each being a separate network. Personal knowledge is also a network that supports the overall development of the community, which in turn develops a social network, stimulates the learning of individual participants. Learning, in this respect, is the process of formation and development of a network to which the learner is gradually connecting all the new nodes with which communication is further established. Supporters of the theory believe that the study of a certain scientific discipline is possible only through the prism of interdisciplinary knowledge, since for any learning it is necessary to combine information sources of several disciplines, since ideally the learning environment should reproduce the application of a certain scientific discipline to the real world, and this is only possible in the interconnection of many disciplines and professions. The learning opportunities for connection are realized in the form of interaction with other people (students, teachers and tutors), practical study of educational objects, active design of real life situations and integration of applied knowledge and skills into the learning environment [31; 33; 34]. According to Stephen Downes, "connectivism is the thesis that knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks" [34].

For all the apparent complexity of explanation of the theory of connectivism, the meaning of its refraction when implementing via MOOCs is quite simple and attractive for students. First, this form of distance learning provides a choice of an optimally acceptable personalized approach to cognition and learning, which, in the opinion of the adherents of connectivism, always represent a process and never a state. Besides, one of the important characteristics of MOOCs is that each student has a personal learning environment (PLE), which allows to timely update knowledge, to independently make decisions, to see links and recognize the meanings of different areas of knowledge, concepts, ideas, etc. Secondly, habitual practice of working in network communities improves communication skills, increases responsibility, forms independence in decision-making and develops the students' motivation, while working with technical means allows them to obtain additional applied knowledge, being so necessary in their future profession in terms of a dynamically developing digital world. Thirdly, MOOC-mediated interdisciplinary training offers a new form of knowledge and skills acquisition, when the learning environment is conditionally transformed into the real environment of the future profession. Fourthly, the enlargement of tools and resources for Project training and Gamification is opening new opportunities for self-expression and author's identity, thereby developing creativity, innovative thinking with a focus on a socially recognized success. From the practical point of view, after completing some MOOCs, it is possible to obtain an official certificate or diploma [40].

The personal experience allows the authors to come to conclusion about the advisability and practicability of further development of online electronic forms of teaching / learning at university level in Russia, including distance education distribution via MOOCs. It is necessary to further study and analyze the best domestic and foreign practices concerning creation and implementation of MOOCs, other open educational resources into the teaching / learning process at the institutes of higher learning thus accumulating and disseminating knowledge among the academic community. There is an urgent need to improve technical equipment of the classrooms, motivate university teachers and professors to create and post competitive author courses at the best MOOCs sites worldwide, and support proactive and innovative teachers so as to enhance their participation in MOOCs promotion.

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