

Elaboration of competitive educational products by russian universities: Problems and prospects

Elaboración de productos educativos competitivos por parte de universidades de la Federación Rusa. Problemas y proyecciones

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Received: 16/12/2017 • Approved: 27/12/2017

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ABSTRACT:

The objective of the study is to determine the conditions and technologies necessary for developing competitive educational products by the Russian Federation universities. These products are represented in the form of online courses and educational modules in the field of pedagogy, sociology and psychology considering the foreign experience and requests of the international market of educational services. The method of expert assessments makes it possible to identify peculiarities of the Russian teachers work, define specific problems which they encounter in the process of creating and maintaining electronic educational products. The study identifies key providers of electronic educational resources, trends in global education, forms of electronic educational products, the most popular sections and courses in e-learning. In general, the research team comes to the conclusion that Russian universities have the opportunities to create competitive educational products.

Keywords: university; higher education; market of global education; distance education; educational modules; educational technologies; online courses.

RESUMEN:

El objetivo del estudio es determinar las condiciones y tecnologías necesarias para el desarrollo de productos educativos competitivos por parte de las universidades de la Federación Rusa. Estos productos están representados en forma de cursos en línea y módulos educativos en el campo de la pedagogía, la sociología y la psicología teniendo en cuenta la experiencia extranjera y las solicitudes del mercado internacional de servicios educativos. El método de evaluación de expertos permite identificar las peculiaridades del trabajo de los docentes rusos, definir problemas específicos que encuentran en el proceso de creación y mantenimiento de productos educativos electrónicos. El estudio identifica proveedores clave de recursos educativos electrónicos, tendencias en educación global, formas de productos educativos electrónicos, las secciones y cursos más populares en e-learning. En general, el equipo de investigación llega a la conclusión de que las universidades rusas tienen la oportunidad de crear productos educativos competitivos. Palabras clave: universidad; educación más alta; mercado de educación global; educación a distancia; módulos educativos; tecnologías educativas; cursos online.

1. Introduction

At present, the priority task in the sphere of state educational policy is to increase the competitiveness of Russian higher education, the key component of which is developing competitive educational products based on the use of the world experience and the Russian higher education potential.

Since the content of education in foreign universities, incorporated in educational products in such humanitarian subjects as pedagogy, sociology and psychology, is determined by the axiological values of the Western civilization, it cannot be extrapolated to the content of the education of relevant disciplines at Russian universities. At the same time, the educational technologies of developing such courses and modules are fairly ideologically neutral and represent a technological invariant (a construct, a concept) that can be successfully and adequately used in the design and modification of such educational products at Russian universities.

However, there is a notable shortage of the quality educational content in the modern Russian higher education. Russia has got a certain weight in the world market of educational services; therefore it is necessary to set about its development in the near future (Marginson 2014).

In this regard, to develop the Russian digital educational environment, to integrate the online courses into a formal educational process is especially relevant in the conditions of the rapidly developing informational educational paradigm (Boguslavskii and Neborskii 2016).

The priority should be given to creating specialized network resources that can be tested by specialists, and incorporated into university programmes (we have already got such resources, but very few). There is also a need for the development of a national e-learning system based on the design and modification of educational products, including educational modules and open university online courses in the light of the specifics of educational activity in the information society (Boguslavskii and Lelchitskii 2016).

This system, when it is created, will potentially allow in the future:

- personalize the educational process of each university;
- present Russian universities in the global market of educational services;
- popularize the Russian language and Russian culture abroad;

- let an open access to sources of knowledge for the organization of broad additional education for adults; it is essential that students and teachers can use such resources not only within our country, but also compatriots can do it abroad.

The purpose of this study is to determine the conditions and technologies (principles, approaches and tools) necessary for the development (design and modification) by the Russian Federation universities competitive educational products in the form of online courses and educational modules in the field of pedagogy, sociology and psychology with regard to the foreign experience and tendencies of the international market of educational services.

The research team has come to the conclusion that Russian higher education obtains sufficient potential (cognitive capital and achievements in the field of educational practices) for the elaboration of such competitive educational products.

2. Overview. E-learning at the current stage

Distance learning began to develop in the 20th century; however, electronic educational resources emerged at the beginning of the 21st century with the development of information technologies. E-learning is attractive both for many students and for educators. Due to various technical tools, there is a possibility to create lectures, video sequences, quizzes, chats, make the educational process linear and non-linear, sequential and mosaic (Gansi 2013). The form of education has been changing as well as the features of its comprehension. It is no longer integral and unified; it is complicated and differentiated (Lee 2017).

One of the forms of distance education is MOOC courses (Massive Open Online Courses). The intensive development of the MOOC courses provoked controversy not only in the academic community, but also became the subject of the public interest (Adams 2012). Supporters of the expansion of e-learning find more advantages in this phenomenon. Among them the following ones are usually distinguished: extensive audience coverage and accessibility (Friedman 2012), the opportunity for adults to learn continuously at the working place outside the "classroom" (Brahimi and Sarirete 2015) and even the fact that online courses help students self-define (Zhou 2016).

On the other hand, e-learning in the scientific and educational environment is seriously criticized. Skeptics usually argue that e-learning will not replace full-time classroom activities, because they are, rather, "a new toy", the interest to which will eventually fade away (Pope 2014). This is explained by the fact that the interpersonal interaction between the student and the teacher is important in the learning process, especially for bachelors aged 18-21, when they form a worldview. In addition, e-courses often do not adhere to academic norms, and they rather remind an entertainment presentation (Shea 2015).

However, the distance learning continues its development, meta-learning and Learning-by-doing models are developed that help students logically and consistently build their own educational trajectory, solve current educational problems and develop user's skills (Mullen, Byun, Gadepally, Samsi, Reuther and Kepner 2017).

3. Methodology

The theoretical analysis of Russian and foreign philosophical, pedagogical, sociological, psychological and economic literature was applied during the research. The research team was interested in the state of the electronic educational products development at this stage, the existing studies in this field. While this phenomenon proceeds unevenly in the world, the research methods were chosen from the standpoint of using effective practices of individual universities. The universities of the Netherlands, Switzerland, Germany, the USA, Canada, the UK, Australia, Israel, Thailand and China are known to elaborate educational technologies for the designing of such courses and modules, to develop educational products quickly and variably.

The application of *the content analysis method* of educational resources, media materials and official documents on the research problem made it possible to determine the outlines of the world market of educational services, technological features of educational products.

The research team also used *the method of expert assessments*. The sample included about 50 respondents from certain faculties of Russian universities working with electronic educational resources. This was necessary to identify the specifics of their work, identify peculiar problems that Russian teachers (lecturers) face in the process of creating and maintaining electronic educational products.

In general, the methodological approach to extrapolating the experience of foreign colleagues in the sphere of national higher education was carried out in the research process due to the consistent implementation of the following stages:

- studying the structure of the world market of educational services;
 - analyzing the forms and types of educational products (educational modules and online courses in the field of education, sociology and psychology) of overseas universities;
 - identifying the most promising and effective technologies for designing and modifying competitive educational products represented by online courses and modules in the field of pedagogy, sociology and psychology, taking into account such indicators as: expert opinions, the number of trainees, methods and tools for assessing the knowledge of students, the variety of proposed modules and online courses, cyclical renewability of the content and evaluation systems, originality of ideas, technological solutions (platforms for design, peculiarities of technical development);
 - structuring technologies (key approaches, principles and tools) in the development and modification of competitive educational products.
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4. Market of educational products and problems of Russian educators

The structure of the world market of electronic educational services is presented in the following indicators. The key providers of the electronic education courses are: StanfordOnline, Coursera, KhanAcademy, WizIQ, CanvasNetwork, PeertoPeerUniversity, AcademicEarth, Udacity, Eliademy, OpenHPI, FutureLearn, OpenClassrooms, OpenLearning, edX, iversity, OneMonth, NovoEd, Coursmos, Open2Study, Kadenze, POLHN, Alison, Lynda.com, ShawAcademy, Udemy.

Among the main trends in the global education, according to experts, there is the formation of regional clusters of educational services: "Asian tigers" (China, India, South Korea, Singapore, Thailand, Malaysia), Europe, the United States. According to experts, Russian universities can enter this market as an independent player, or will form a block with some of Asian partners.

Another trend is *the formation of independent network models* that are organized by universities from various regions. An example of this can be "6 MOOC", which include: Delft University of Technology, Swiss Federal Polytechnic School of Lausanne (EPFL), Australian National University, University of Queensland, and Boston University. (Beckle 2016). However, according to experts, in the near future it is unlikely to displace regional clustering.

The main forms of electronic educational products are MOOC (Massive Open Online Courses) and SPOOC (Self-Paced Online Course). MOOC, for its short history, have already become quite popular. This is a kind of distance learning, in which, along with the educational material, users create interactive forums, forming a network interaction of teachers and students. At the same time mixed instruction used in such kind of learning, requires re / co-construction of new knowledge (Dias, Diniz and Hadjileontiades 2014).

SPOOC courses are the same online courses, consisting of modules. Each student independently selects the module (depending on the level of his preparation) the time of beginning and the time of completion of the course. By 2015, there were more than 800 of such courses (Shah 2015).

The most popular sections in e-learning are: business and management (16.75%), natural sciences (11.34%), social sciences (10.77%), etc. The least popular section is mathematics (4.09%).

Among the most popular courses in 2015 were the following: A Life of Happiness and Fulfillment (Indian School of Business & Coursera), Introduction to Programming with MATLAB (Vanderbilt University & Coursera), The Great Poems Series: Unbinding Prometheus (Open Learning), Marketing in a Digital World (UIUC & Coursera), Fractals and Scaling (Santa Fe Institute & Complexity Explorer), What is a Mind? (University of Cape Town & Future Learn), Algorithms for DNA Sequencing (Johns Hopkins University & Coursera), Mindfulness for Wellbeing and Peak Performance (Monash University and Future Learn), Programming for Everybody: Getting Started with Python (University of Michigan & Coursera), CS100. 1x: Introduction to the Big Data with Apache Spark (UC Berkeley & edX) (Shah 2015).

The analysis of the technology of electronic educational product development included the following indicators: expert opinion, number of students, assessment tools, variety of courses, renewability, originality of ideas, technological solutions.

In the course of expert assessments it was found that the most frequently encountered problems of Russian teachers, already working with electronic courses, are:

- lack of full-fledged technological support for those educational products that are developed by teachers, that may be explained by insufficient funding;
- lack of time to update the educational product, that can be explained by high teaching load;
- a psychological factor associated with the specificity of "blind" activities, when the teacher does not see the student and, as a result, the feedback and progress control forms change significantly;
- lack of information about technological solutions in the sphere of electronic resources development, in particular LMS-platforms and technical templates.

Advanced Russian teachers, already working with electronic educational products, try to monitor changes in this area and improve their pedagogical and technical qualifications. At the same time some of the teachers, developing the e-course, from the content point of view are guided by traditional approaches to the learning and instruction, not always taking into account the specifics of distance learning (including the peculiarities of foreign learners), which can be explained by the educational tradition that still exists in Russian educational practice.

5. Prospects of the development of the electronic educational services market in Russia

The study shows that Russian universities have sufficient cognitive potential, but there arise a number of difficulties connected with the rethinking of the traditional teaching model. We should use more active teaching methods, gaming technologies, and personalized approaches.

The financial factor seems to be one of the key problems for Russian universities in the elaboration and promotion of educational products on the world market. Russian universities directly depend on financial support from the state. This forces the administration of universities to focus on the requirements of the Ministry of Education and Science of the Russian Federation. In this regard, little attention is paid to the direct consumers of educational services. This leads to a problem that Russian universities will have yet to solve: a reorientation towards the interests and learning needs of the consumer. As the result, the social order is inevitably divided into the two interconnected fields: the personal field of the consumer (applied development) and the social field of the community ecosystem (applied development, cultural and humanitarian solutions).

The market of educational services of Russian universities can include the following components that are able to arouse the interest of potential stakeholders:

- cultural codes (cultural products in the humanities, literature, language, folklore, anthropology);
- specific conditions (geography, geology, mineralogy, chemistry, biology);
- self-interpretation (sociological, philosophical products);
- technological solutions in which there is a clear advantage (physics, engineering, space);
- progressive development of existing solutions in the logic of the generally accepted world methodology (experimental psychology, information technology, pharmacology, immunology).

The development of electronic educational resources continues. According to experts, a lot of universities in the world will have to pay attention to develop their own brand and its promotion in the market of educational services, to develop entrepreneurial thinking, to work more closely with all stakeholders (Pucciarelli and Kaplan 2016). This is more important than ever for the Russian universities.

6. Conclusion

The development of the world market of electronic educational services opens new opportunities for its participants, including Russia. Russia should take an active part in the development of this direction because it possesses its own scientific and educational achievements that may be of interest to the consumer of the educational product outside the country.

The study reveals that in order to increase the competitiveness of educational products elaborated by Russian universities in the world market of educational services, it is important to take into account the following aspects:

1. Russia's entry into the market of electronic educational services requires methodological coordination of key scientific concepts; especially it concerns pedagogy and psychology.
2. The development of new scientific and educational ideas, technologies, concepts, outlined in educational products, should take into account the universally recognized methodology and be correlated with existing achievements in the profile area.

3. When developing electronic educational products, it is necessary to focus on the needs and interests of these educational products consumers.
 4. Improving the competitiveness of educational products is possible if they have an applied, practice-oriented nature combined with the academic elements.
 5. It is important to include elements of gaming and active learning methods in the content of the educational product.
 6. Cultural features of educational content should undergo intercultural examination that allows determining the content availability of educational services for a foreign consumer.
 7. It is necessary to create or develop already relevant service centres within Russian universities engaged in technological support of educational products, monitoring the market of educational services, advertising educational products of their university.
 8. Russian universities should receive more legal autonomy in the matters of their commercial activities.
- Thus, it is found that Russian universities are able to develop competitive educational products, increasing their share in the global market of electronic educational resources. We need to refocus, first of all, on the consumers of the educational services, taking into account that the government funding is not the only source of the university's income.
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Revista ESPACIOS. ISSN 0798 1015
Vol. 39 (Nº 02) Year 2018

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