E-trends in Russian high education system.

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Abstract: - Today, the educational community is subjected to rapid changes. Universities, educational consortia and entire countries are doing their best to attract international students. These are mobile young people (there are more than 5 million people in the world), possessing great abilities. The development of information technology entailed the boom of on-line educational startups. So the main task of this research work is to define the influence of some e-learning global trends on intellectual capital development in the the frame of high education system and assess the readiness of Russian universities to such influence.

Key-Words: - global educational trends, universities, e-learning.

1 Introduction

Modern "post-industrial" era is distinguished by such rapid global changes and almost instantaneous copying of products and services that make it meaningless reaching the goal of long-term retention of a certain market position. The strategy ceased to be only a long-term plan and was formed as the concept of a management process which is characterized by a constant adjustment in the on-line regime. Today, the educational community is also subjected to these changes. Universities today are doing their best to attract international students. They are mobile young people (there are more than 5 million people in the world), possessing great abilities. The war for talent leads to the rapid differentiation of educational institutions. Technological innovations came with a delay of about 10 years in the sphere of education. Today, the annual growth of the online education market is 27%, the traditional - 5%. In 2016, more than 50 million people around the world studied using the largest online platforms. The appearance in the early 2000s of international university rankings (ARWU, QS, THE) gave us the opportunity to compare universities of different countries, which was the beginning of global competition era. The ratings have launched new mechanisms for the redistribution of resources in education: leaders strengthen their reputation, receive funding. Academic mobility is also in the best hands: according to research, masters, graduate students and professors today choose universities on the basis of international ratings. The wall has grown between high schools of the top 100 and all the others and this inequality will grow rapidly with each passing year. As a result, a country that does not have universities in a group of leaders, in the long term, 5-10 years, risks losing competition for intellectual capital and becoming an educational province(Report, 2010).

2 Results

2.1. The analysis of e-trends stimulating education system changes and intellectual capital development is performed.

In the sphere of education, technological innovations came with delay of about 10 years. The first online projects here appeared in the 1990s and were associated with the transfer of electronic materials to educational materials. True, they did not have a serious impact on the industry. In 2011, second-generation projects appeared on the market - mass open online courses (Massive Open Online Courses, or MOOC). It is believed that it was the point from which the digital revolution began in education.

Today, the annual growth of the online education market is 27%, the traditional - 5%. In 2016, more than 50 million people around the world studied using the largest online platforms (EdX, Coursera, Udacity, etc.), 800 thousand of them are Russians. In addition to private projects, a number of states

launched their own national platforms - the United Kingdom, Australia, Brazil, and Russia joined to the countries in 2015.

The main innovation of such platforms is the design of the courses: they consist of small video fragments for 5-10 minutes, due to which the listeners kept concentration.

2015 was a new milestone in the development of digital education. LinkedIn for $ 1.5 billion bought the project Lynda.com, which revised the training process. The basis of the program was not mini-lectures, but tutorials, short video instructions for representatives of different professions. For several years, the world's leading experts have created more than 25 thousand tutorials, and for access to them it is enough to buy a monthly, semi-annual or annual subscription. There was a new type of educational project - a kind of "intellectual fitness room", where at any time you can buy a ticket.

The development of information technology entailed a boom of educational startups.

Since the beginning of the 2000s, a new class of projects has appeared in the field of education. For the first time significant financial resources were attracted not by universities with their centuries of history and brand, but young teams of entrepreneurs. Ten years ago, the global volume of venture investments in educational startups barely reached $ 100 million, and in 2016 it exceeded $ 3 billion, which is comparable to the annual costs of education of individual countries.

Profiles of educational startups are diverse. For example, the most successful start-up, attracted more than $ 300 million, - TutorGroup - teaches English on the Internet. And the project Achieve3000, which collected a quarter of a billion dollars, develops the ability to read and understand the text. One of the most vivid examples of the new era is the Minerva program, which claims to train world leaders and innovators of the future. Its founders managed to attract more than $ 25 million at the idea stage.

All new educational projects unite one thing - they are built on modern technologies, use a synthesis of advanced developments in the field of computer intelligence, digital technologies and behavioral psychology. The best educational startups already compete with traditional universities for their investments and talents.

New technologies are causing "industrial revolutions" that change the work of companies. Business dictates new requirements to people's competencies and the speed at which they are received.

There is a number of "retired professions" leaving the market. The most striking example of recent years is the massive bankruptcies of travel agencies, losing competition to services like Booking.com or Airbnb. At the same time, thanks to new technologies, the professions of the future appear, in which intellectual skills and qualities, which help to make non-standard decisions, are in demand. Today it is already impossible to build a successful professional trajectory for years to come, but the traditional education system is based on the principle of long-term planning. The list of the most popular competences will be updated more often. If earlier a new profession arose once in 20-30 years, today it is every 3-5 years. The ability of the education system to respond quickly to new requests, to train specialists not for 5 years, but for 5 months, becomes a condition for the country's competitiveness. To this challenge, most educational institutions in the world have only to find an answer.[5]

2.1. The analysis of distance learning development in high education system of Samara region.

The most modern trend in the development of modern higher education is the promotion of distance learning and the gradual replacement of distance education by distance education. To effectively promote the distance education system, the development of information and communication technologies is vital. The authors of this work analyzed distance learning technologies in the leading universities of the Samara region (Table 1.) The results of the authors' research showed that a number of Samara higher educational institutions have already demonstrated high readiness for the projected changes and are actively implementing information and communication technologies. The largest number of areas covered by distance education is shown by the Samara State Technical University. Individual universities are still lagging far behind in promoting distance education with the help of modern technologies.

Samara State Economic University launched the site "Virtual Campus", but so far only for students of the Master degree faculty. This site was organized on the basis of the MOODLE platform, which is a content management system (CMS), specifically designed to create qualitative online courses by teachers.

The effective organization of undergraduates independent work is proposed to be done through the use of information and communication technologies. New means of communication allow the teacher to communicate with students on a flexible schedule through

teleconferences, blog, e-mail. These technologies also provide an opportunity to carry out individual control over the training, the teacher has the opportunity to observe the progress, the time of assignments and the pace of work of individual students. This makes it possible to build a specific schedule for students, and to consult each student individually. On the other hand, students also have the opportunity to monitor their academic performance and correct their results on time.

In fact, the term "virtual campus" first appeared in Europe around the mid-1990s. It was introduced in national programs and strategic documents of the European Commission. More than 10 years ago, European politicians began to stimulate an analysis of the potential of ICTs to improve the quality of education in higher education system. The European Commission's strategic reports pointed to the fact that "new technologies" are of strategic importance for the creation of "universities of the future". The direct result of these reports was a small number of projects aimed at exploring the possibility of creating virtual universities in Europe.

In the "Peer Review" handbook, which was conducted in 2005-2007 in the "MASSIVE" project (Modelling Advice and Support Services to Integrate the Virtual Component in Higher Education), a model of necessary measures was proposed to implement the virtual components of education in traditional European universities. What also was a historical milestone in the formation of such a concept of "virtual campus".

Although the age of the term "virtual campus" is 15 or so years old, it is still in its infancy, and changes very quickly. Over the years, observers have noticed a shift in concepts: from "clearly", openly, 100% online virtual campus, to virtual, in terms of mobility, and in some ways, as a way for traditional universities to open their borders, to cooperate (inter) And / or attract non-traditional students through e-learning. It should be noted that the "Mixed Model" of training arouses more and more interest and attention in Europe. In this connection, the authors propose the following formulation of the term "virtual campus - an information and communication environment for supporting the learning process and ensuring interaction between students and teachers", which meets modern conditions.

Web2 tools allow you to generate multi-user content. This allows develop and use training courses collectively.

Information and communication technologies make it possible to use various didactic approaches. There is an opportunity to include audio or video lectures, various graphics in the course.

Such learning strategies can be implemented using e-learning tools. That is why it is actual to create a virtual campus of master's programs, which allows to use educational content effectively.

As a result of the research, the greatest activity of non-state educational institutions and branches in the promotion of their distance programs was revealed. These educational institutions quite reasonably seek to occupy that segment of the market of educational services, which is not yet being interested too much by the key universities in the region. So in the Samara branch of the Moscow City Pedagogical University, the specialized structural subdivision - the center for distance learning was allocated. Also, a program was developed to implement distance learning based on the distance education system "Prometheus". An analysis of the results of studies on the use of information and communication technologies in higher education suggests that there are no general concepts that would allow us to capture and present a multitude of facts accumulated in the practice of education and upbringing in a single system of concepts. The analysis of practice also allows us to conclude that there is an underestimation of the possibilities of ICT in the sphere of domestic higher education. This is primarily due to the complexity and low readiness of higher education institutions to introduce and use information and communication technologies in their activities.

Acknowledgements

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Appendix

Table 1. E- trends and their influence on high education system.

Global trends, influencing all human sphere [2, 3]	Trends, influencing education system	First level reaction (the result, which is the output of trend influence on education system)	Second level reaction (the reaction on the first level result)
1. Information technologies development	Education virtualization	-Emergence and development of new forms and approaches to education based on modern technologies usage -Competition growth in the sphere of virtual (distance) education.	- New approaches to distance education implementation - Education quality decrease;
	Personification , individualization	- E-learning education technology popularization, teaching on-line.	- Growth in the gap in the quality of students education;
	Gamefication	Growth of education projects based on gamefication elements.	Emergence of new education programs based on gamefication.
	Diversification	- New competences development among the students - Emergence of new courses	