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## Current State of Innovative Activities in Education: The Use of e-Learning in Russian Universities.

Svetlana Dusenko<sup>1\*</sup>, Andrey Oleynik<sup>1</sup>, Valentin Sharikov<sup>1</sup>, Vladimir Polyakov<sup>1</sup>,  
Elena Kryukova<sup>2</sup>, and Aleksandr Melnichuk<sup>2</sup>.

<sup>1</sup>Russian State University of Physical Education, Sport, Youth and Tourism (SCOLIPE), 4, Sireneviy boulevard, Moscow, 105122, Russia.

<sup>2</sup>Russian State Social University, 4,1, V. Pika, Moscow, 129226, Russia

### ABSTRACT

This paper aims to examine uses of innovations in education. The author presents the uses of the innovative “e-Learning as Internet and multimedia-based instruction” in universities and its role in university students’ acquisition and reinforcement of knowledge. As any innovation, e-Learning receives a mixed reception in society and, especially, in the educational system itself. Teaching staff are among the strongest opponents of e-Learning, since the development of e-Learning is seen as a threat that will force teachers out of the educational system, depriving them of employment. At the same time, the number of e-Learning supporters is increasing as information and communication technologies develop. E-Learning represents a major challenge to modern universities and traditional education. Modern online education has enormous potential for promoting innovative ideas, given the technical and technological development of society, the changing nature of information culture and the development of social services and technologies that have made informational technologies accessible to all and have created a new kind of communication. However, e-Learning is unlikely to completely replace traditional education; it will only open up new educational opportunities and create additional conditions for personal development, advanced training and the implementation of the principle of lifelong learning that is a solid basis for continuing education and leads to the search for new models of transmitting knowledge and technologies. Thus, the author describes the significance of the human intellectual and educational potential in the future aspiration of people to improve the quality of education and maintains that education defines an individual’s social standing and place in social structure of a community.

**Keywords:** Innovations in education, quality of human life, quality of education, sociological survey, sustainable society, e-Learning.

*\*Corresponding author*

## Introduction

Rapid development of information and communication technologies profoundly influences the processes taking place in modern society that are related to the formation of a new ideology and social structure, the development of culture, technology, convergence of science by means of development of brand new technologies on this basis.

Socio-economical changes that occur in modern world highlight the need for quality social education. Education is also a necessary and important part of an individual's life.

Today, no one can doubt that an individual's intellectual and educational potential will, in the long term, influence his life and the quality of education; an individual's education level and quality will determine success in competition. The lack of education makes it impossible to maintain a dynamic economical growth, to solve the demographic problems, to improve standards of living and quality of life, to strengthen a country's defense potential and ensure its national security. In the information society defined by a rapid capital accumulation, creation of new technologies, development of mass media and emergence of innovations affecting the whole society but also individuals, states that invest funds in education will progress (Maloletko, 2009). The criteria of the educational value system have undergone considerable changes in the information society: from accumulation of knowledge to development of creativity as a fundamental principle of individual and public life; from studies to personality building that emphasizes progressive social thinking (Kryukova & Ogneva, 2005). Among the current issues are efficient time-management during training and implementation of e-Learning in higher education institutions (Kirillov, A. V., Tanatova, D. K. and al, 2015; Khristoforova I.V., Kovalev V. G. et al., 2015).

## METHODOLOGY

This paper aims to give a theoretical basis for the implementation and use of e-Learning technology.

The following topics were investigated: analysis of the role and place of e-Learning services in the education sector, the character and the development dynamics of the e-Learning services market; description of all tools used to manage e-Learning services.

Objects of research included educational institutions and organizations that implement and make use of e-Learning services.

The topic of the study is management and economic relationships in the area of e-Learning services.

Theoretical and methodological framework of the research. The methodological basis of the research is composed of the analytical and systematic approaches using logical and cause-and-effect analysis methods, expert assessments and the systematization of data, and mathematical process modeling. The theoretical background of the research is based on management theories and economic informatics. In this study, we use latest scientific tools and comprehensively approach the processes and phenomena under study. A number of scientific research methods were adopted in this research, including analysis, synthesis, scientific abstraction, groupings, cross-country comparative analysis, classification, statistical and graphic analysis. Statistics related to the development of e-Learning in Russia, foreign statistics, materials from official websites and data compiled by the authors themselves constituted the information base of the study.

## RESULTS

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## The nature of social innovations

Social innovations are defined as new strategies, conceptions, ideas and organizations that meet any needs of a society, starting from working conditions and education to social and health care development. Social innovations include, among others, open resources methods and practices, as well as socially-oriented innovations, such as micro credits or distance learning (Kirillov A. V., Vinichenko m. V. et al., 2015).

Social innovations take place worldwide, since people understand that the time has come to work together in order to find new solutions to the issues facing any society. Research institutions, companies or independent organizations offer their responses to current challenges. Researchers have given various definitions of the term “social innovations”, but all definitions have one common: interaction with an aim to build a sustainable society.

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Progressive organizations and facilities that carry out activities in the public sphere, must adjust to the changing realities of the world and predict future configurations.

As part of the solution to this issue, various innovations are being developed and implemented in the public sphere of our community. Most often, researchers define them all as “social innovations” (lat. innovatio – putting something new into practice). The notion of “social innovation” refers either to an innovation that has been deliberately introduced or to a new activity in changing social practices at a particular stage of community in formation in conformity with transforming social criteria and aiming to make considerable positive modifications in the public sphere. Exterior configurations, new social challenges that cannot be solved by traditional methods along with various configurations of a community’s needs are thought to be sources of social innovations.

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## The role and place of social innovations in Russian economy

The idea of social innovations holds, at the present time, a prominent place in the European politics, whereas in Russia “social innovations” is a new term that is only starting to be used and is closely associated with notions, such as a public-private partnership, corporate social responsibility, social entrepreneurship and charity. Social Innovation Labs are part of almost any European or American university, and it is an established term abroad. In Russia, even people involved in social projects do not always identify themselves as social entrepreneurs or innovators.

Thus, in Russia, first of all, this area should be supported with relevant information, and its own policy in support of social innovations should be developed by learning from positive experience in Europe while taking into consideration local context and Russian mentality.

The idea of social innovations was formally accepted in 2010 following a meeting of President Barroso and a group of social activists and innovators. Specific proposals were listed in the official documents, such as the Europe 2020 Strategy and the EU 7<sup>th</sup> Framework Programme for Research. As Barroso put it, the policy on social innovations “has not been fully accepted in political circles yet”, however, social innovations are a key tool to address major social problems, although this concept is not yet set, so far. There is tangible evidence that “social innovations can address the problems of vulnerable population groups, can improve the quality of life for all and introduce important changes to the social system aiming to foster the well-being of the society” (Tikhomirova, 2013). The latest technologies are being partially implemented in the Russian education system. For example, the innovative technology of grading has been put into practice in the Russian State Social University (Kirillov, A. V., Vinichenko, M. V., et al. 2015).

Social innovations, however, do not simply mean the replacement of state funding with free volunteer work or paid services provided by various companies. The integrated and structured approach, reflected in the Europe 2020 Strategy, made it possible to hold a seminar, organized as early as 2009 by the President of the European Commission. Since then, the implementation of social innovations has become a common European practice.

Changes in social values, criteria and working methods as well as implementation of the latest sources and resources (intellectual technologies, knowledge) that ensure the social well-being highlight the importance of education in the modern world. This means a shift from technology-based civilisation to Civilisation.

Currently, there is an urgent need, in the Russian society, for people able to carry on professional activities despite changing criteria, to influence their milieu and to modify its condition and formation without being tied to a specific profession. Only an individual living a free intellectual life and having cultural awareness, is able to create newest social experience, scientific theories and concepts (Kirillov A.V., Tantalova D. K. et al., 2015)

Specific distance education systems have been designed to organize and control the learning process. Distance education systems contain all major tools and opportunities required for an on-the-job e-Learning platform.

## DISCUSSION

The concept of “e-Learning”

Distance learning, distance education, electronic learning, e-Learning... These terms are not just the latest trend in education. Modern information technologies make it possible to radically change the process of knowledge transmission, making it more flexible, intensive and user-friendly.

E-Learning is one of the latest social innovations. How does this system function?

E-Learning is an electronic learning system, learning by means of information electronic technologies. UNESCO experts define it as follows: “e-Learning is the use of new multimedia technologies and the Internet to improve the quality of learning”.

E-Learning is understood as conduct of education activities by using the information stored in data bases and used for carrying out various study programmes, computer data processing, the technical IT tools, information and telecommunications networks ensuring the transmission of the information and, finally, teacher-student interaction.

Distance learning technologies refer to education technologies that make use of information and telecommunications networks when learners and faculty interact indirectly, at a distance (Shtompka, 1996). Self-motivation, a computer with Internet access, a microphone and a web camera are required for e-learning. E-Learning takes place when learning materials, digital libraries and many links to relevant sources on the given topic are made available online.

## E-Learning procedures

Every learner gets access to a personal electronic account and electronic documents, such as his academic record and study plan that lays out the learner's schedule and course load (Kryukova and Makeeva, 2013). Students have the following learning opportunities:

- Listening to lectures or individual study;
- Interaction with teaching staff;
- Personal tutor's support and tutorial instruction.

Students take online exams and tests (electronic testing or videoconference). Thus, students living anywhere have an opportunity to study without having to attend classes and exams in person.

What are the advantages of electronic learning in higher education?

Students can receive high-quality education without being distracted from their main life activities, such as work and family.

E-Learning allows us to study any time, anywhere in the world. Learners can study educational materials and complete assignments at work, at home, while traveling, provided they have access to Internet, and, as a result, they save time and money they would otherwise spend on commuting to the university (Kryukova, 2011).

Each student studies taking into account his own daily schedule and, consequently, can make plans in advance. A flexible schedule lets students learn at a comfortable pace (Khristoforova I.V., Popova J. S. et al., 2015).

In addition to knowledge acquisition, working with online resources develops skills in searching for and analysing useful information. These skills are of utmost importance in the modern world in which information technologies play a key role, amounts of data coming from various sources are growing exponentially, and specialists able to obtain, select and process information are in high demand.

Electronic space opens up excellent opportunities: virtual attendance of seminars and lectures by teaching staff, working on joint projects with students from other regions, exchange of information and opinions with teaching staff and students (Liga, 2015).

Learning a new profession or upgrading one's skills become particularly relevant, given various transformations that are currently taking place in Russia. In this case, e-Learning in higher education seems to be the best option, especially for employed specialists who wish to acquire new or additional knowledge in order to succeed in their career, to upgrade their skills or to professionally succeed in a different field.

In addition, e-Learning in a higher education institution is available to young mothers who cannot leave their children for a long time but are willing to use every opportunity for education and professional development.

People living in post-Soviet and beyond, or Russian residents living far from big cities but willing to receive an undergraduate or graduate degree in Moscow also have an opportunity to study via e-learning.

E-Learning includes individual work with digital materials using personal computers, laptops, cell phones, DVD-players, TVs and so on; the right to consulting, advising and assessment services from a professional/teacher who is not physically present and the possibility of at-a-distance interaction; joint educational work projects carried out by social networks users; 24/7 access to learning materials; standard specifications for digital learning materials and technologies, distance learning tools.

## Significance of social innovations: e-Learning

Sociological surveys help determine the importance of innovations. 400 distance education students of the Russian State Social University participated in a sociological survey that was conducted to obtain clear and precise information about student attitudes towards innovations in education.

The aim of this sociological survey was to determine what attitudes students and their relatives (children, grandchildren, etc.) have towards innovations in education. The results obtained from the survey allowed us to come to the following conclusion: "According to a survey conducted among students, it has been found that 15 per cent support innovations, 80 per cent are against innovations, and 5 per cent show indifference to them. Thus, only a small percentage of students is satisfied with the quality of education services.

How can this result be explained? We suggest the following explanation:

First, students are used to traditional ways of knowledge transmission and acquisition; they are neither aware of nor prepared for global changes. While conducting the survey, we heard students say "We want to maintain eye contact with our teacher", "We understand and absorb information better this way", etc. Second, people of different ages still demonstrate a lack of awareness regarding the e-Learning system, and they cannot appreciate the benefits of the positive sides of this education's method.

Third, self-learning, despite being the cornerstone of the current education-related innovations, is a huge, almost unsurmountable, challenge for this particular age group of students that we selected for the survey. One of the possible reasons is that knowledge of IT technologies and lack of personal qualities, such as diligence and consistency in learning hinder students' acquisition of this learning technology.

It is important to note that, in order to improve results, we strive to clarify the issue under investigation by providing relevant and accurate information to all parties concerned.

Innovative educational activities in the city of Moscow are directed at improving teaching practices, modern education management, educational content, financial and economical mechanisms in the education management, current learning theories and methodologies and learning environment. These activities are expected to ensure the acquisition of new, higher-quality, accessible and effective educational products and services that correspond to society's demands, guarantee learners' personal and professional identity, help them make individual education plans, strengthen their motivation to work and their commitment to their school, the city of Moscow and Russia, taking into consideration current socio-cultural and economic trends.

Innovative activities include up-to-date educational projects, programmes developed for the Moscow education authorities, as well as a number of newly developed initiatives of major importance to promotion of education (Innovative activities in the Moscow education system, 2015).

Implementation of social innovations is thought to be especially difficult, as their criteria and results are difficult to determine. However, it is necessary to be able to predict the results of the innovative practices, since their implementation directly influences quality of life (Maloletko, 2009).

Currently, e-Learning is becoming an integral part of education in higher education institutions and is being used in all its forms. The use of electronic education makes it possible to improve quality of education by using a rapidly growing number of global educational resources. Consequently, electronic teaching and distance education technologies lead to an increase in independent study of learning materials ("E-Learning, learning as quick as thought?", 2015). Electronic learning is becoming more relevant in the implementation of state and municipal education standards that call for decrease in in-class work, growth and expansion of independent student work. E-Learning provides many opportunities for organizing this kind of education. (Maloletko, 2009).

At the same time, further development of electronic education needs legislative support. A draft of the "Concept of the Federal Law on the e-Learning industry" was elaborated in Russia in 2009-2010. Its central theme is development of electronic education industry in Russia, and its main goal was to ensure legal

protection of e-Learning creation processes contributing to Russia's economic recovery and improvement of the education system. However, the attempt to create a coherent legal framework for developing e-Learning in Russia and making it part of Russian economy was never realized. The Federal Act No. 11-F3 of 28 February 2012 on "Amendments to the Federal Law of the Russian Federation "On Education" relating to use of e-Learning and distance education technologies" partially solved the problem. According to this document, "electronic education is understood as management of education activities by using the information available in data bases and intended for carrying out various programmes of study, computer data processing, the technical IT tools, information and telecommunications networks ensuring the transmission of the above-mentioned information and, finally, teacher-student interaction".

Lately, the general public has shown a growing interest in electronic learning. Many educational institutions consider introducing compulsory online courses into their curricula. Online theoretical and practical courses are becoming popular. Many leading universities in the world offer free online courses, for example, the Open University (the Open Learn project), the Massachusetts Institute of Technology, Stanford University, the University of California-Berkeley, the University of California and many others. One of the best examples of e-Learning programmes is the Coursera Project, launched in 2011. It brought together open resources of three leading American universities, and, in less than a year, Time magazine nominated it the best educational site of 2012. Andrew Ng and Daphne Koller, Professors at Stanford University who founded the Coursera, based their project on the idea of mass online learning, letting anyone listen to lectures from some of the world's leading universities for free. In the first six months, about 1 million of auditors had enrolled in the project and, by 2013, about 2,3 million users from 196 countries were registered on the website.

E-Learning represents an incredible breakthrough in technology and in human involvement in technology.

Financial growth in this area makes it possible to develop and implement new technologies, to open more universities that support distance education, and to create high quality information content.

As of now, 81 per cent of higher education institutions in the USA offer at least one online course. The number of universities offering distance education courses has been constantly growing in the USA and beyond. E-Learning is, indeed, a global and important phenomenon in the human history. Course developers strive to improve the quality of learning materials, while students consume growing volumes of content.

People show genuine interest in improving their education that allows them to get jobs in major corporations, to elaborate and put into practice their own business projects and to feel comfortable in modern society.

## CONCLUSION

To sum up, it is worth noting that implementation of electronic learning in education is conditioned by major social changes. Currently, the target audience, i.e. high school graduates who previously only chose on-campus education are also choosing distance education now (Mamycheva et al., 2016). Some have to go to work, others are unwilling, following modern trend, to attend classes but want to study and engage in other things at the same time (Dusenko, 2014; Dusenko, 2012; Dusenko, 2013).

Internet is currently full of various e-Learning communities that bring together e-Learning experts who contribute to the development of this technology in Russia.

Members of these communities participate in exchange of information, share planning, researching and e-teaching management skills and have access to materials required for establishing a successful project and broadening of their own knowledge, skills and experiences.

It is important to note that the development of e-Learning generates a wide array of new scholarly directions in higher education related not only to the emergence of new information, communication and pedagogical technologies, but also to the research on cultural interfaces of e-Learning tools, social phenomena resulting from the spread of e-Learning, e-Learning management, and so on.

Thus, well-managed electronic learning is thought to be one of the main causes of innovative processes taking place in general and higher education. E-Learning, added to on-campus education, should become a major focus area of the formation of a new education system within the framework of globalization, global computerization and socialisation of services and technologies. Often perceived as the new education paradigm of the 21<sup>st</sup> century, e-Learning is becoming one of the most effective ways of opening up Russia's education system.

In our view, it is of utmost importance to be ready and willing to put innovations into practice. We can not remain indifferent to current and upcoming changes in the Russian education system, to its modernisation and restructuring. Our task is to explain the importance of innovations to the general public, to show the pros and cons (if any) of these innovations, to let people experience innovation.

In conclusion, we would like to express our gratitude to the students of the Russian State Social University for their help and assistance in conducting our sociological survey.

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