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**MODERN GLOBAL RISKS IMPACT ON EDUCATION SYSTEMS  
AND UNIFIED EDUCATION SPACE FORMATION**

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*Abstract*

The development of science, education systems is always subject to the influence of the external environment; it also depends directly on socio-economic and state-political conditions.

Social system, economic structure determined the direction and scope, differentiated segments and levels of educational systems. As a result, general principles and requirements for education systems were developed, and traditional, classical pedagogy was formed as well.

In the modern world, there has been a trend towards the internationalization of education and, above all, it concerns higher education. Ideas focused on the integration of education systems, the formation of a single educational space, are reflected in the Lisbon Strategy, the Bologna and Copenhagen Processes, UNESCO documents.

At the same time, educational systems remain deeply heterogeneous. There is a huge gap between education systems, which requires decades to overcome.

But within the educational space of one country, especially such a large one as Russia, there are profound regional differences. This applies to all developed countries, where, in addition to the high general level of education of the population, there are significant segments of the population with a low level of literacy. The authors consider global risks and challenges for the process of creation of a unified world educational space and analyze the potential of Russia to participate in this process.

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## 1. Introduction

The concept of “education space” has become used in Russia since the mid-1990s of the twentieth century (Frumin & El'konin, 1993) both in scientific literature and legal acts (Federal'nyy zakon Rossiyskoy Federatsii..., 2012). At the same time, there exist various interpretations of this notion. In the scientific and methodological aspect, education space relates to various frameworks and scales: personal education space; those of an educational organization; of municipal or regional level; of a certain sectoral educational institutions as well as the education space at the national level (in particular, of the Russian Federation); world educational space.

The category “space” is inseparably linked with the category “time”. Time can be characterized differently, however, for our research, it is important to evaluate it from the point of view of the modern era, and these are a post-industrial society and an era of postmodernity.

The industrial society has been developing for several centuries, and today the stage of its existence has not yet come to an end (and in the developing and poorest countries this stage will last for many decades). However, a fundamentally different structure of socio-economic organization is inherent in post-industrial society.

## 2. Problem Statement

It should be recalled that the founders of the theory of post-industrial society were D. Bell and E. Toffler, who in the 1960s, when analyzing changes in the economic system, summarized the main characteristics of a post-industrial society: the shifting of priority from the production of goods to services; the growing role of science, education, health; changing social norms (contract, tolerance, diplomacy instead of confrontation and war); new foundations for decision-making (scientific modelling and forecasting); informatization of society (Bell, 1999; Toffler, 1980).

The post-industrial era requires high quality of education and professional development of the personnel; an increasing number of people engaged in intellectual spheres; changing people's interests towards creative development, and, consequently, changing the structure of society itself.

The last years of the development of human civilization are distinguished by the entry into the fourth industrial revolution, characterized by digital, Internet and cyber expansion, virtualization, mobile technologies, nano-technologies, robotization, global changes in energy, biotechnology. This stage requires revolutionary educational systems from educational systems. There is a mass need for new professions that respond to requests and challenges of the time.

It is important to note that only favourable conditions for a person can positively influence the educational space (Ivanov & Ivanova, 2016). At the same time, education space formation depends on goals of the state and society as a whole. Therefore, socioeconomic factors, influencing education, make it especially urgent to study the current state of the world education space, the country, the region, the institution and an individual, since they directly influence its further formation and development.

### **3. Research Questions**

Under the conditions of post-industrial society, the post-modern era education space forming can be considered as a process that most fully meets the challenges of the new world, responding to the challenges of the modern world.

Studying the world educational systems and the problems of a unified world education space forming, we, first of all, should proceed from the gap in the modern world between developed, developing and poorest countries in economic, social and educational development. There is a huge gap between the countries that does not allow us today to talk about a unified world education space. The developed countries have almost resolved the problem of illiteracy, the education level of the majority of the population has incomplete or complete secondary education, and the number of graduates with the higher education is very high. At the same time, the world is deteriorating in terms of human development. Malnutrition, which affects about 175 million younger children, is an acute problem not only for the healthcare system, but also for education system as well. The UNESCO Report shows the number of illiterates, there are about 750 million of them all over the world (Vsemirnyy doklad po monitoringu ODV, 2015).

The same report underlines the existing difference in education quality; international assessment researches also demonstrate serious scatter in results. As part of the Research in Mathematics and Science and Technology (TIMSS), it is revealed that the average performance of students in a number of developing countries, including Ghana, Indonesia and Morocco, is below the worst results of countries such as the Republic of Korea and Japan” (Vsemirnyy doklad po monitoringu ODV, 2015).

This problem is hardly to be solved in the near future. Therefore, today it is untimely to talk about a unified global educational space, but its formation is the goal to which we should strive and we can state that global world is already on the way to its creation.

So, the main questions for this paper can be formulated as follows: is it real to work out a unified world educational space and what are the risks and factors hampering its creation.

### **4. Purpose of the Study**

The aim of the study is to identify global risks affecting the creation of a unified educational space, to analyze the activities of Russia’s entry into this world educational space, to determine the factors impeding the stable development of the Russian education system in this direction.

### **5. Research Methods**

The authors used such methods as analysis of texts of existing legislation, information from the media, as well as synthesis and comparative analysis.

### **6. Findings**

The forecast of the Institute of World Economy and International Relations of the Russian Academy of Sciences states that “the following trends in education will reveal themselves in the next two decades:

- change in the education content and teaching methods;
- development of lifelong learning;

- reducing differences in education systems of the developed and developing countries;
- unified world educational space forming;
- increasing workforce mobility;
- increase in the number of stakeholders in the education process;
- the growth of the importance of university science for generation of 2030” (Strategicheskiy globalnyy prognoz 2030, 2013).

In the same work, the researchers note that due to labor market globalization and the world education space forming the requirements for the employed in different countries are seen to be gradually unified. The developing countries entering the global labor market tend to accept and introduce in their educational practice standards of developed countries. (Strategicheskiy globalnyy prognoz 2030, 2013).

Therefore, speaking about the development of education space, we should take into account the general principles of the formation of education systems, firstly in the developed countries.

It is important to emphasize that considering the problems of education systems and education space, it is necessary to take into account the risks and negative trends in this sphere. Continuous changes of socio-economic and political conditions in the modern world cannot help affecting the education sector (not always in a positive direction), which requires timely decision-making in the education system adequately to the occurring changes, warning possible risks.

However, it should be recognized that the existing managerial decisions connected with the processes in the society at all levels and in all spheres could not meet modern challenges, with no exception for the education sphere in this sense.

At the same time, the educational systems of different states are influenced by many social events, therefore, it is important to study education space forming with due regard to the impact on the process of global risks and threats to humanity.

One of the most authoritative expert communities in the field of identifying, analyzing, summarizing and forecasting the main risks in the global world is the World Economic Forum in Davos, which divides them in five groups: environmental, geopolitical, economic, social and technological. In the Global Risks Report (2017), experts identify 30 major global threats to humanity, as well as 13 global trends that could affect the degree of impact of risks or change their share. All these pressing problems of mankind are closely connected with the formation and transformation of various levels of education space (Ivanov & Ivanova, 2017).

The main risks are ecological, geopolitical, as well as risks of large-scale cyber-attacks, uncontrolled migration, terrorism, illegal trade, including smuggling, distribution of counterfeit products, money laundering and illegal financial flows. These risks may cause geopolitical conflicts; destabilize the world economy and society. Therefore, consolidating the efforts of countries and international organizations to manage global risks, reduce their negative impact, including by combining the potential of scientific and educational potential, is a very important goal.

Considering the global threats to humanity, it should be noted that global environmental risks are seen in the growth of extreme weather events, which leads to asset losses risks increasing, infrastructural and environmental damage, the number of environmental disasters caused by the human factor (The Global

Risk Report, 2017). The measures taken by governments and large companies are insufficient to protect the population and the economy from the climate change effects.

For this reason, it is extremely important to consolidate influential forces at all levels (international, regional, individual states, each territorial unit of countries, public institutions and other associations) to develop both ecological views and training in environmental issues, starting with pre-school and family level to the level of public administration, business structures, military departments. It is important to create a system supporting ecological education for all strata of society aiming at a unified education space forming.

The group of geopolitical risks may lead to the world social and economic progress undermining and even the destruction of society. These are the risks caused by human factor: global problems of foreign and domestic policies of states and political blocs, the impossibility of diplomatic option of conflicts, the growth of organized crime, terrorism and corruption (Ivanov & Ivanova, 2017). A characteristic feature of the current period is geopolitical instability in virtually all regions of the world.

Currently the world goes through a crisis in the global problems management and resolution. The inability of international organizations, including the United Nations, to solve these problems reduces the effect for attempts of cooperation and joint opposition to global risks. The lack of a unified moral foundations for a unified educational space (first of all, we mean formation of humanistic values) leads to a general distrust and non-observance of rights and obligations in the society, which weakens the political stability, increases regional or global confrontations.

In this situation, aiming at overcoming global geopolitical threats, the formation of common ideological positions, humanistic views and moral and ethical principles, the priority of universal values over the group (at very different levels) utilitarian political and economic interests are of great importance. A convergence of education systems in different countries, the creation of a unified education space should serve as an instrument for achieving this. Certainly, it is not necessary to suppose that creation of a unified educational space will help to improve the society; however, it may contribute to the solution of the threats facing humanity.

Another group of significant global risks is in the economic sphere. Key economies experience fiscal crises; growing interest rates, inflationary pressures and public debts complicate the existing situation. Universities and research centres can play an important role in decrease of a negative influence and managing global economic risks uniting for this purpose the world's scientific potential (Ivanov, 2017; Kasperskiy: mirovye ubytki..., 2017)

It should be noted that there is an increase in "white-collar", intellectual crimes demanding a high level of education from the organizers, executors and developers of criminal schemes. Such projects require the creation of transnational criminal cartels and syndicates for specialists in financial and IT-profiles, economists and analysts. Therefore, there is a kind of challenge to the educational systems of states, which should be responded to by creating a unified world education space that provides not only the acquisition of qualitative knowledge, but also the formation of a moral common humanistic basis (Ivanov & Ivanova, 2017).

Another group of global risks are the social ones. These include: the food crisis, the threat of hunger in whole countries; diseases (pandemics) as the result of an imperfect work of the system of healthcare,

inadequate production of vaccines, the appearing of bacteria resistant to antibiotics. The most important unsolved social problem is an income gap in living standards between the richest and poorest citizens, which increases social tension in society and threatens both social, political and economic stability and development of countries.

These global risks influence directly the educational space. For example, in the sphere of education, the formation of a unified educational space reflects the low living standards of the population, high unemployment, deterioration in the quality of life of the population, which entails a number of social problems (rising crime, increasing social tensions in most countries of the world, uncertainty of people in the future, depression, mental disorders).

At the same time, some jobs become obsolete in a modern post-industrial society due to the progress in science and technology. Here again, we see two opposite tendencies. The first one is a system of elite education, the education space often becoming international. The second tendency, typical even to highly developed countries, is the formation of a mass stratum of the population with a relatively lower level of education. This is due to the fact that many types of man's production activities are simplified in the modern world. The society should be prepared for the fact that simple functions will be performed by robots. Many, even complex qualifications (for example, the train driver) will be completely replaced with robots. Dozens of professions will disappear in a few years. This becomes an acute social problem (MVF: bezrobotitsa ..., 2017).

And here, two opposite tendencies are outlined, too. On the one hand, the growing competition in the labour market claims well-educated specialists; on the other hand, instability as a mass phenomenon causes apathy, reduces the demand for educational services. This situation calls for a revision of the social protection programs for a significant segment of the population, which may fall out of socially useful activities. At least part of the negative impact of these modern challenges should be addressed through education, retraining, vocational guidance. Already now it is necessary to actively promote and conduct purposeful work among young people so that when choosing a career, they give priority to new modern professions that are related to robotization, digital technologies, artificial intelligence, and the demand for which will be guaranteed for decades (Po Prognozam ..., 2016).

In today's difficult social and economic realities, one of the elements of the education space forming is the fact that business needs its own educational systems, and there are several reasons for it. As practice shows, the current system of university education has serious shortcomings. In particular, the knowledge obtained often does not have the necessary connection with real life, the needs of employers. We should also take into account that knowledge quickly becomes obsolete, and the business structures have to establish their own system for retraining and continuous skills development. Intra-corporate professional development should timely respond to any changes in the external environment, market situation, international and national legislation, reflect technological, organizational, structural changes in both a single company and society as a whole, taking into account world trends, best practices and advanced experience (Ivanov & Ivanova, 2016). At the same time, it is important to bear in mind that by creating intra-corporate systems, business, on the one hand, forms its own educational space, and, on the other hand, there takes place convergence of local educational space into the global one, in particular by the example of transnational corporations.

It should be noted that an active response to the challenges of modern times and the problem of managing global risks is eternal; it will exist, as long as our constantly changing world exists. In particular, for Russia, many risks that are defined at the Davos forum as global are not as acute as for other countries: there are no big problems with energy resources and energy supply, there is no threat of hunger, epidemics have been defeated long ago, there is no water crisis.

For our country, the most serious challenges are: GDP decline, low labour productivity, a decline to a critical level of investment activity, a stable raw material dependence of the economy with significant unfavourable fluctuations in prices for traditional export products for Russia. Significant risk is the extreme banking system instability, inflation, uncontrolled fluctuations in the rouble exchange rate, capital outflow, which is about 55-60 billion dollars annually. Negative impact on the development of the Russian economy is caused by a lack of financial resources and an unacceptably high level of bank rates for investing in the real sector.

In fact, the main challenge for Russia is to remain a high-tech power, not to lose the position of one of the world's scientific and technical leaders. And the main risks here are laid in low competitiveness; limited use of intangible (intellectual) assets; insufficient innovative development of the economy; poor involvement in the processes of international cooperation, transnationalization and technological globalization.

The answer to these challenges can only be systemic changes in science and education. The realities of the modern world with its innovations and digital technologies are such that knowledge is updated every 2-3 years. Life in the conditions of constant changes requires continuous training, mastering new skills, instant reaction to changes.

Systematic breakthrough in this direction was the adoption of Strategic Development and Priority Projects, which outlined the sphere of education among the 11 strategic directions and four priority projects:

- "Creation of a modern educational environment for schoolchildren";
- "Modern digital educational environment in the Russian Federation";
- "Training of highly qualified specialists and working cadres, taking into account modern standards and advanced technologies" ("Personnel for advanced technologies");
- "Universities as centres of innovation creation space".

In May 2017, another priority project "Development of the export potential of the Russian education system" was approved.

The complex implementation of priority educational projects will ensure a qualitative leap in the education sector in the next decade, while it should be borne in mind that the Russian education system meets international standards in many parameters. However, in all spheres of Russia's education ambitious goals are being set.

The implementation of the "school" project will ensure the creation and introduction of educational standards in all general educational subjects that meet advanced international requirements; approval of functional requirements for a modern educational environment for schoolchildren; integration of various levels of basic and additional education, including cooperation with institutions of secondary professional and higher education; modern equipment for schools, including the use of the virtual world capabilities.

The program for the formation of modern workforce, the improvement of the system of secondary vocational education is also built upon the creation and implementation of federal educational standards for the most demanded professions, qualifications and specialties. Education standards in Russia should take into account the requirements of the international standards of the World Skills project. Unlike the general education, highly skilled workers need to be in demand by the market, be prepared according to the requirements of the employer, on the basis of practice-oriented models of training, on the updated material and technical base of educational organizations.

One of the most revolutionary is the educational project “Modern digital educational environment in the Russian Federation”. Its goal is “to create by 2018 the conditions for systemic quality improvement and the expansion of opportunities for continuing education for all categories of citizens through the development of the Russian digital educational space and the increase in the number of students in educational organizations who have mastered online courses to 11 million people by the end of 2025” (Sovremennaya tsifrovaya obrazovatel'naya sreda ..., 2016). The program also provides for the introduction of the results of online courses that ensure the development of disciplines (modules), in secondary and higher vocational education. At the same time, if the number of such courses is envisaged in the current year in the amount of 450 units, then in 2025 they will count 4000. In the course of the implementation of this priority project, regulations should be adopted that allow to include online courses in basic and additional training programs with recognizing the legitimacy of online learning outcomes; a system for assessing the quality of online courses and resources should be created, which provides its reliability based on a combination of expert and automatic assessments; as well as the formation of a ranking and the creation of a digital student's portfolio. The project assesses the main risks, chief among them “the low level of trust and readiness of students and the academic community to use modern technologies based on online courses and digital content”. The solution to the problem is to explain the possibilities and advantages of online learning, to improve the methodology of this work.

A special place in solving the problem of Russia's active entry into the emerging unified international educational space is given to the priority project “Universities as centres of the space for creating innovations”. The goal of the project is “to ensure sustainable global competitiveness in 2018 at least for 5, and in 2025 not less than for 10 leading Russian universities, establish in the Russian Federation in 2018 not less than 55, and in 2025 not less than 100 university centres of innovative, technological and social development of regions”. The implementation of the ambitious goal of entering at least 10 Russian universities in the TOP-100 world rankings by 2025 and at least 20 in the TOP-300 will allow achieving the due position among the most advanced education systems in the world by the Russian higher professional education and university science. Increasing the effectiveness, publicity and credibility of the research of Russian scientists should serve for the same task. Global competitiveness of programs for the training of scientific and pedagogical personnel should attract foreign students as well. Consecutive promotion of brands of Russian universities, wide internationalization of Russian education should create and maintain a high international reputation of our country in the scientific and educational sphere. The main risks in the implementation of the program are: insufficient funding of science and education, instability of foreign exchange rates against the rouble, conservatism of the management system and organizational structure of our scientific and educational institutions, insufficient knowledge of innovative

practices by scientific and pedagogical workers. A specific problem may be a purposeful correction of the parameters and rules for the formation of world rankings, which could make it difficult for Russian universities to join them.

Another important document that should contribute to the growth of Russia's scientific and educational potential and ensure its global competitiveness is the project "Development of the export potential of the Russian education system". It is closely connected with projects on the development of modern digital education, innovative development of universities, and others and should solve the problem of "increasing the share of non-primary exports of the Russian Federation by increasing the attractiveness of Russian education in the international education market" (Vuzy kak tsentry..., 2016). The program provides a set of measures to ensure the implementation of these parameters and considers possible risks, which are: underdevelopment and fragmentation of the regulatory framework, lack of coordination in the work of the relevant structures responsible for the development of education exports, insufficient infrastructure development of educational institutions for increasing admission of foreign students, and differences in national Russian and foreign educational standards. The main challenge is a high degree of competition with Western and Chinese educational systems.

The purposeful integrated work of all participants in priority educational projects and other areas of development and increasing the competitiveness of Russian science and education should ensure Russia's worthy place in the emerging unified world education space.

## **7. Conclusion**

Summing up, it is necessary to state that in the coming decades there are still no global conditions for the unified world education space. Today, each state pursues a policy based on its own geopolitical and economic interests, dependence on superpowers and military-political blocs, taking into account its national, historical, religious and other specifics, the system of government and ideology, in the field of its own education space and education goals realization. At the same time, humanity on a global scale should still move towards the creation of a unified world educational space. Its formation and development is the most important socio-economic and humanitarian goal of mankind.

The modern educational space should be multicultural, socially oriented, open to the formation of an international educational environment, and increasingly more supranational in nature of knowledge and familiarization of man with the values of the modern world (Ivanov & Ivanova, 2016).

The main elements of the formation of a unified global educational space should include the large-scale development of educational systems, which function using cyber- and Internet space, common educational criteria development and educational standards, other international and national legal acts, procedures for recognition of diplomas between countries.

The strategic goal of our state and society is to provide Russia with one of the leading places in the world education system and in a unified world educational space.

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