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LEGAL REGULATION OF DIGITALIZATION OF THE EDUCATIONAL ENVIRONMENT IN THE RUSSIAN FEDERATION

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Abstract

The digitalization of the educational environment today has gone beyond the boundaries of national educational systems and has become global. E-learning, distance learning technologies, which are the main components of the digitalization process, have become the main trend in Russian education. The digital revolution leads to the reorganization of the educational process, creates new opportunities and challenges. It is important that these changes give the most positive results and allow you to save the best that distinguishes the domestic education system. Thus, it seems appropriate government support for this process at the legislative level. The experience of leading countries in the global economy (Singapore, Great Britain, New Zealand, Hong Kong, Japan, etc.) shows that their success is largely due to the competent legislative support for the digitalization of education systems. In Russia, a number of regulatory documents have been adopted that allow educational organizations to enter the legal framework in this area. However, further improvement of federal and regional legislation remains to ensure a breakthrough and, at the same time, painless entry of Russian education into digital format. This article reveals the essence of the key problems of legal support for the digitalization of the educational environment. The authors give a characteristic of the current Russian legislation in this area and propose measures for its further improvement. The article discusses international experience together with possible advantages and disadvantages of introducing digital technologies into education.

1. Introduction

The modern post-industrial world demonstrates the constant acceleration and improvement of technological processes in various fields of production and public life. The sustainable development of the socio-economic system of the state directly depends on the effective solution of the task of accelerated and high-quality adaptation to the new requirements of a dynamic technological environment, to the complex processes of digital transformation of education (Sánchez, Salinas, Contreras, & Meyer, 2011).

Digitalization of education is an integral component of the formation of the information society in the Russian Federation, an important direction in the development of the entire system of Russian education. E-learning and distance learning technologies are the terms that are used today to present the prospects for the development of education in the modern state (Savina, 2017). Of course, digitalization poses serious challenges to existing educational models and programs, since this is the area of the socio-economic sphere that is most sensitive to the new needs of society (Janelli, 2018; Ustuzhanina & Evsukov, 2018). However, it is information and communication technologies that can become super-efficient in developing the intellectual potential of students and giving the possibility of obtaining a lifelong education regardless of where they live (Peshkova & Samarina, 2018).

2. Problem Statement

Improving the educational process in a digital environment makes the issue of legal regulation and state support for the e-learning industry relevant. It is the formation of a modern regulatory framework for e-learning that has allowed many progressive countries to form on this basis a new highly intelligent and rapidly growing industry - the e-learning industry. This industry is built on the use of "big data" technology, distributed digital educational environments, new information and communication technologies, and new modern pedagogical approaches in the presentation and assimilation of information (Stein, 2018).

Support for socially significant projects and initiatives in the field of digital education development, coordination of interaction between the state, the business community, scientific and educational organizations, the creation of a knowledge society in Russia, which is already rapidly developing in the developed countries of the world, today are becoming the priority areas of the country's social and economic development. An important task is the need for the development and use of digital technologies by educational institutions and the widespread introduction of electronic educational services (Gushchina & Mikheeva, 2017).

The success of the development of these areas largely depends on the quality of legislative support for the digitalization of education, the effectiveness of legal regulation of the use of e-learning and distance learning technologies (Uzhakov & Efremov, 2018). The implementation of a systematic analysis of the current international and Russian legislation can serve to expand understanding of the processes of its transformation and qualitative improvement, and allow us to predict inevitable changes in this area.

3. Research Questions

The main questions for studying the problems of legal regulation of digitalization of education are:
- What are the best international practices in our field?

- What regulatory framework in this sphere of public relations has been created in Russia today?

- What are the positive aspects of this process in Russia?

- Are there any problems and risks associated with the implementation of government programs in the field of digitalization of education?

- What are the ways to improve legislation in this area, including minimizing the negative consequences caused by digitalization?

4. Purpose of the Study

The study of the problem of legal regulation of the digitalization of the educational environment determines the goals of the work.

A scientific approach is important to justify the importance of creating a high quality legal field within which the digitalization of education is developing.

The study and comparative analysis of the progressive experience of foreign countries actively introducing modern teaching technologies for effective use in Russian education is of relevance.

It is necessary to identify possible risks of the process of digitalization of education.

The main directions of modernization of domestic legislation in this area should be identified.

5. Research Methods

The theoretical and methodological basis of the study is the modern works of domestic and foreign scientists devoted to the problems of digitalization of the educational environment, as well as the results of scientific studies highlighting the main aspects of the problems considered. Instrumental and methodical apparatus of the study consisted of such general scientific methods and techniques as theoretical generalization, comparative analysis, classification, abstract-logical and graphic methods used for visualization of conclusions. The information and empirical base of the study was formed on the basis of published scientific materials of domestic and foreign authors, official regulatory legal acts of the Russian Federation, analytical data published in scientific literature and periodicals, as well as information materials on the Internet. The main hypothesis of the study is based on the paradigm of forming a high-quality legal base in the field of digitalization of the educational environment in order to ensure its effectiveness and competitiveness in modern conditions.

6. Findings

Digitalization of education as a trend in the world arena is developing at different rates. The greatest success over the past two decades has been achieved by a small Asian small state - Singapore. It is actively implementing a series of government programs for the development of digital technologies in the field of education, when the entire educational infrastructure, starting from kindergartens, is accompanied by information and communication technologies. The results of this policy included a change in the infrastructure of the classroom and the educational organization as a whole; formation of ICT competence of teachers at an advanced level; development by the Ministry of Education of Singapore of a unified electronic system for collecting data from educational organizations at various levels; introducing

affordable and widely used online learning integrated educational portal for the interaction of students, teachers and parents. Among European countries, the experience of the Estonian education system, which has made a tremendous leap in the digitalization of educational activities, should be noted. Its distinctive feature is the joint activity of all its links with the active participation of external experts, both the state and large investors, to finance the digitalization process (Kafidulina, 2018). Having studied the experience gained, many countries of the world come to the conclusion that the use of digital technologies in education can not only increase the efficiency of knowledge acquisition and simplify educational activities in general, but also carry certain risks (Young, 2018). One of the priority areas of Russia's social development is the need for intensive digital transformation of the educational environment, based on the best world practices. At the state level, this trend has been translated into the creation and implementation of the federal project "Digital Educational Environment" as part of the national project "Education" for the period 2019-2024, which is based on the provisions of previously adopted legal documents. We present the list and brief analysis of these documents in Table 01.

Table 01. Legal documents in the field of digitalization of education in the Russian Federation

No.	Type	Title	Date-line	Main directions of state policy
1.	Federal law	"On information, information technology and information protection"	27.07. 2006. № 149-ФЗ	Regulation of relations associated with the use of information technology; development of information systems; creation of conditions for the effective use of information and telecommunication networks
2.	Federal law	«On Education»	29.12. 2012. №273-ФЗ	Implementation of educational programs using e-learning and distance learning technologies; formation of electronic educational and information resources
3.	Decree of the President of the Russian Federation	"On the Strategy for the Development of the Information Society in the Russian Federation for 2017 - 2030"	09.05.2017. № 203	Creation of various technology platforms for distance learning in order to increase the availability of quality educational services
4.	Decree of the President of the Russian Federation	"On the national goals and strategic objectives of the development of the Russian Federation for the period until 2024"	07.05. 2018. № 204	Ensuring accelerated implementation of digital technologies in the economy and social sphere; creation of a modern and secure digital educational environment, providing high quality and accessibility of education of all types and levels
5.	Order of the Ministry of Education and Science of the Russian Federation	"On the approval of the Procedure for the use of educational institutions by e-learning, distance learning technologies in the implementation of educational programs"	23.08. 2017. № 816	Establishment of rules for the use of e-learning and distance learning technologies by educational organizations; restriction of the use of these technologies in training in a number of professions, specialties and areas of training
6.	Message from the President of the Russian Federation to the Federal Assembly	Message from the President of the Russian Federation to the Federal Assembly	20.02.2019.	Providing by the end of 2021 high-speed Internet in all schools in Russia; inclusion of scientific and technological development priorities in state standards and programs

7.	Decision of the Committee on Education and Science of the State Duma of the Federal Assembly	The development of informatization of the education system. Improving legislation in the field of e-learning and distance learning technologies	20.02.2018. № 40-5	The need to improve legislation in the field of digitalization of education; resolving issues of legal support for the effective implementation of e-learning
8.	Federal project	"Digital educational environment" in the framework of the national project "Education" for the period 2019-2024	24.12.2018.	Creating conditions for the introduction by 2024 of a modern and secure digital educational environment (high-speed Internet, the introduction of electronic journals, diaries, bookkeeping, electronic card access and nutrition systems, the creation of the Russian e-school).

At the same time, it should be noted that in the process of the practical implementation of e-learning, distance learning technologies, both positive and negative consequences are revealed for subjects of educational activity, society as a whole (Nechaev & Durneva, 2016). Educationalists, first of all, pay attention to the possible risks associated with the socialization of the individual (Blinov, Dulinov, Esenina, & Sergeev, 2019). The results of the analysis of studies of the positive and negative aspects of the impact of digitalization on the educational environment are presented in Figures 01 and 02.
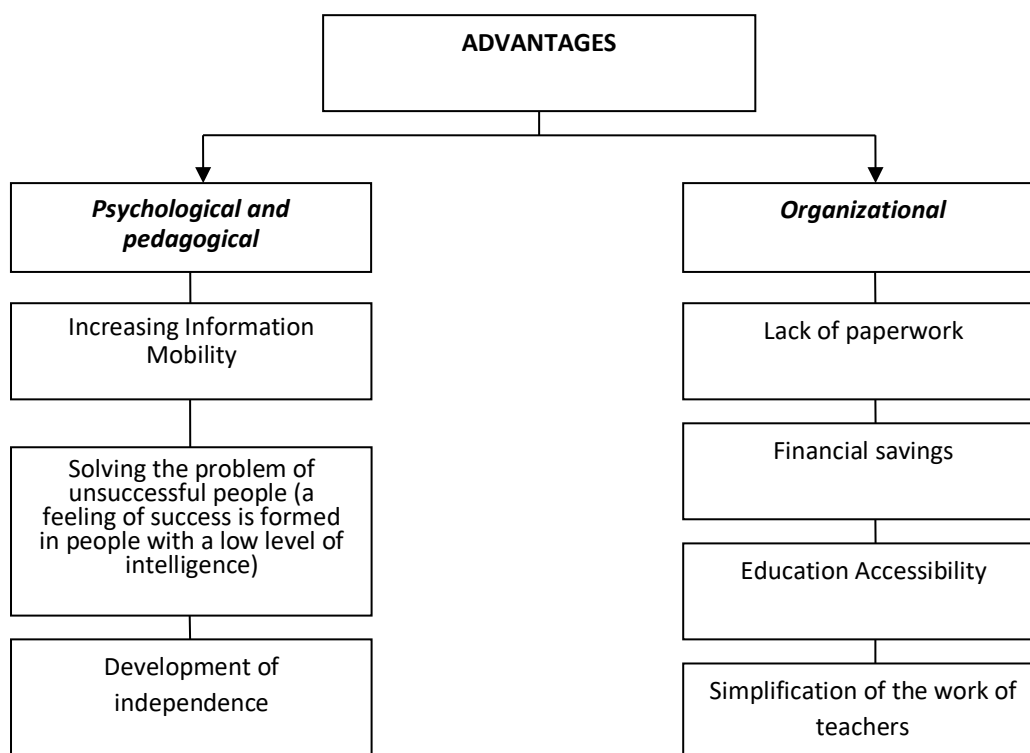

Figure 01. Advantages of digitalization of education

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                                    ┌─────────────────────┐
                                    │    DISADVANTAGES    │
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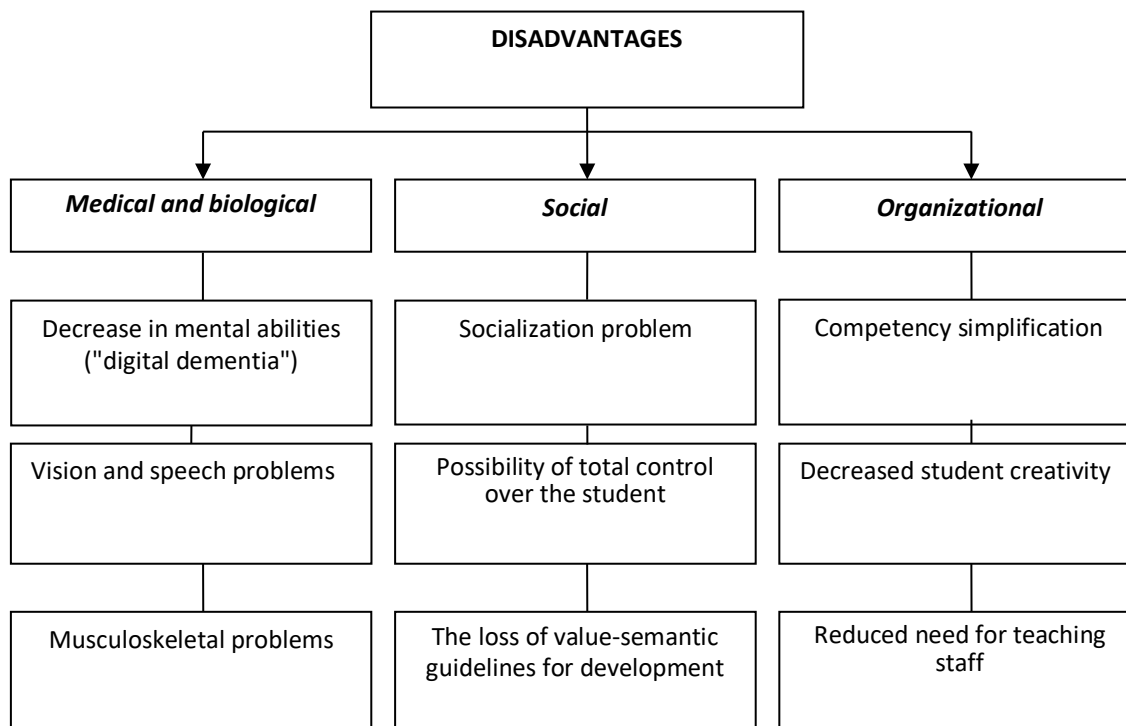| **Medical and biological**	**Social**	**Organizational**
Decrease in mental abilities ("digital dementia")	Socialization problem	Competency simplification
Vision and speech problems	Possibility of total control over the student	Decreased student creativity
Musculoskeletal problems	The loss of value-semantic guidelines for development	Reduced need for teaching staff

Figure 02. Disadvantages of digitalization of education

It is possible to level the established ambiguity of the consequences of this process by improving the legal field in this area. Improving the legal framework in terms of its quality, mobility, and systemic approach is a prerequisite for the successful development of digital education in our country.

7. Conclusion

The results of the study of legal acts regulating the creation of a comprehensive digital environment in the Russian Federation show that the process of digitalization of education, as the most important resource for the individual and society, is given priority.

By digitalization of education we mean - the introduction of new information technologies in education, including: digitization of existing educational materials; creation of new types of teaching tools (electronic textbooks, video lectures, etc.); the formation of an interactive electronic environment for the interaction of all subjects of educational activity, accompanied by support in the form of a systematic legal framework. The experience of leading countries on the world stage shows that their achievements are largely determined by decisions adopted at the state level on the legislative support of digitalization of national education systems. Among the system-forming areas of this process in the Russian Federation are: legislative consolidation of the concepts of "e-learning", "distance educational technologies", "electronic educational resources"; creating conditions for the effective implementation of these digital tools; the formation of various technology platforms for distance learning in order to increase the availability of quality educational services; providing a secure digital educational environment; proclamation of a strategy for creating a Russian e-school. At the same time, the current domestic legal framework does not play a strategic role in the development of education using e-learning and distance learning technologies.

The study allowed us to identify gaps in the path of legal support for the digitalization of education and to develop proposals for improving legislation in this area.

Firstly, it is necessary to overcome the fragmentation of the legislative environment, not only at the federal, but also at the regional level. It is advisable to introduce provisions on the digital transformation of the industry in government education development programs for all entities.

Secondly, to include elements in the educational standards on improving digital literacy of students as conditions for the formation and development of competence in the use of information and communication technologies.

Thirdly, to establish clear sanitary and hygienic requirements for working with digital technologies for primary and secondary school students to minimize the possible negative impact on their health.

Fourth, to introduce a new professional position as an intermediary methodologist, whose function will be to act as an intermediary between the pedagogical community and the developers of digital tools. This specialist should be able to formulate the terms of reference in an accessible language for developers to solve pressing pedagogical problems.

Thus, under the influence of digital technologies, the educational environment introduces new products, services, processes, improves the organizational structure and management system. The digital education model is replacing the traditional education model.

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