Implementation of the Principle of General Accessibility of Education and Adaptability of the Education System in the Russian Federation through the Use of E-Learning and Distance **Educational Technologies**

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Abstract

This article is devoted to topical issues of the possibility of using distance technologies in the educational process. The modern information era and globalization require the development of innovative areas of study, the main criteria of which are the availability and convenience of acquiring knowledge through the use of modern information technologies.

The article analyzes the historical aspects of the development of distance education, examines the positive and negative aspects of this form of the educational process, the possibilities of teaching people with disabilities in higher educational institutions using e-learning, and also provides a theoretical and scientific analysis of additional distance education in the framework of the development of modern society. It is the development of innovative areas of education that is undoubtedly an objectively necessary condition for the entry of Russian higher education into the world educational space.

Keywords ¹

The implementation of the principle of general accessibility of education, adaptability of the education system, distance learning, information technologies, complex structure.

1. Introduction

The purpose of the study is to analyze the implementation of the principle of general accessibility of education and the adaptability of the education system through the use of e-learning and distance learning technologies in the context of the integration of Russian higher education into the global educational space.

The purpose of the study determined the formulation of the following tasks: to study distance learning as an independent form of education using information technologies; to clarify the possibility

using modern distance technologies at Astrakhan State University (including in the face of the threat of the spread of coronavirus infection); to study the support by the state of education for disabled people by creating the necessary conditions for disabled people to receive it; identify the advantages and disadvantages of distance learning using the experience of foreign countries; to propose ways to solve the problems associated with the implementation of distance learning.

Methodological basis of the work. One of the dominant roles in this study is played by structural functionalism as a scientific paradigm and at the same time a special

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CEUR Workshop Proceedings (CEUR-WS.org)

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SLET-2020: International Scientific Conference on Innovative Approaches to the Application of Digital Technologies in Education, November 12-13, 2020, Stavropol, Russia

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methodological approach, the essence of which is the interpretation of mediation as a complex structure, where each element in the course of social interaction performs one or another function that allows you to maintain balance, stability and the dynamics of the entire social system. Research from the standpoint of structural and functional methodology makes it possible to better understand the nature and essence of the investigated legal relations, to significantly expand the existing boundaries of methodological substantiation. Taking this approach as a basis, we also consider it necessary to use interdisciplinary and complex approaches, the method of complex analysis in this area of knowledge, and also focus on the historical, logical and systemic paths of cognition.

2. The history of the development of the domestic education system and the history of legal regulation of relations in the field of education

Education is the most important component of the life of any developed society. The development of educational law is a process in which both innovations and traditions are combined. In this regard, the history of the development of the domestic education system and the history of legal regulation of relations in the field of education are of great importance. The history of the development of the right to education in Russia is closely related to the main stages in the development of statehood and the legal system in our country. We distinguish three main stages: pre-revolutionary, the era of Soviet education and the modern stage of development of national education since 1991.

Distance learning dates back to the first half of the 18th century, when Caleb Phillips suggested learning shorthand not in face-to-face classes, but using the mail service. Subsequently, the idea of learning by using mail was taken up by Isaac Pitman, Anna Eliot Ticknor, and William Rainey Harper. In the late XIX - early XX centuries. distance learning is entering a new level of development - a number of universities (University of Chicago, University of Queensland in Brisbane and others) are adopting this form of education.

Already at the end of the twentieth century in the Russian Federation issued the order of the Ministry of General and Professional Education of the Russian Federation of May 30, 1997 N 1050 "On the experiment in the field of distance education." In our opinion, this period can be considered the time of the birth of distance education in Russia. Although, it should be noted that during the existence of the USSR, attempts were also made to use distance education in Russia.

The educational institute in Russia did not appear in an autochthonous, sudden way. This most important legal category has a long historical formation and development. Educational law in Russia has a clear continuity to all periods of its improvement, however, at the same time, today it requires such modernization that can satisfy the public demand both for training worthy successors of scientists, arts and industrialists, and maintaining moral and ethical foundations and fixing them in individuality pupils themselves, students and listeners. This delicate balance of conservative and modernist views should support a legal foundation designed to regulate social relations, including in the field of education. At present, such an important stage in our life as getting an education really has a significant impact on the development of not only society, but also the state as a whole. Full modernization of the educational system requires its provision at the legislative level in accordance with the expectations and needs of society. In this regard, the systematization of educational legislation is of particular relevance, which is preceded by targeted research on a number of aspects of the legal regulation of educational relations. It should be mentioned that education is developing along with information technologies, and with the help of distance technologies, the learning process becomes easier, more accessible, more interactive and more interesting. Article 16 of the Law "On Education" a provides for the possibility of implementing the educational process through e-learning. Under "distance learning technologies, the legislator understands educational technologies that are implemented mainly with the use of information and telecommunication networks with indirect (at a distance) interaction between students and teachers.

Distance learning is an independent form of education using information technologies and the implementation of the concept of "education throughout life". It is clear that distance learning is a useful and effective addition to the traditional form of education.

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^a Federal Law "On Education in the Russian Federation" dated December 29, 2012 No. 273-FZ // Consultant Plus

Education, as a sphere of public life, is closely related to the interests of both a specific citizen and the interests of the state as a whole. The sphere of education is an object of legal regulation not only in connection with the implementation of the constitutional right to education and other fundamental human and civil rights and freedoms, but also as a sector of the economy, on the state of which the future of the state largely depends, one of the most important components of social and cultural life. society, and also as a factor of national security^b.

Distance education can be described as the process of disseminating and delivering educational services or opportunities for using educational resources to locations outside the classroom, building or center, or to another classroom, building or center, using video, audio, computer, multimedia communications or some or their combination with other traditional delivery methods^c.

The social and economic conditions prevailing in the life of a modern person indicate the need to implement the concept of "education throughout life". The implementation of this concept involves the use of distance learning, since it provides an opportunity to receive education at the proper level for all students, regardless of their place of residence. A separate niche in the implementation of distance education is occupied by the possibility of ensuring equal access to education for all, taking into account the individual capabilities of students.

Art. 16 of the Federal Law of December 29, 2012 "On Education in the Russian Federation" provides for the possibility of implementing educational programs using e-learning and distance learning technologies. It is this provision of the law that makes it possible to fully implement the principle of general accessibility of education and the adaptability of the education system to the levels and characteristics of the development and training of students and pupils.

In accordance with Art. 19 of the Federal Law N 181-FZ (as amended on 24.04.2020) "On social protection of disabled people in the Russian Federation"^d, the state supports the education of disabled people and guarantees the creation of the necessary conditions for disabled people to receive it. It is distance education that helps to achieve the implementation of the above provisions, which in this case is inextricably linked with inclusive education.

3. Implementation of training by the Astrakhan State University using modern distance technologies (including under the threat of the spread of coronavirus infection).

Astrakhan State University (hereinafter - ASU) since 2006 has been providing applicants with the opportunity to study in correspondence courses using modern distance technologies^e. Currently, ASU uses distance learning technologies for all forms of education, which undoubtedly indicates the demand for this form of education.

NeoAnalytics conducted a study on the Russian distance learning market. According to forecasts, by 2021, the share of education received online may reach 2.6%, which is 1.5% higher than the current figure^f.

I would like to note that in the period 2018-2019. there was high competition in the distance education market. Therefore, we can talk about a steady growth in distance learning in the Russian Federation.

Thus, the trend continued to develop steadily before the pandemic, however, during the period of measures aimed at combating the spread of the new coronavirus infection in the territory of the Russian Federation, the possibility of obtaining education through the use of e-learning and distance learning technologies acquired a new, more relevant sound.

^b State policy of the Russian Federation in the field of education: concept and legislative principles // https://nic.gov.ru/en/docs/analitics/publications/RF_policy_in_education (date accessed: 06/08/2020).

^c Spivakova V.V. The specifics of distance learning in the educational process. Izvestiya of the Russian State Pedagogical University A.I. Herzen. 2008.S. 391.

 $^{^{}m d}$ Федеральный закон "О социальной защите инвалидов в Российской Федерации" от 24.11.1995 N 181- Φ 3// Собрание законодательства РФ. 27.11.1995. N 48. ст. 4563.

e Distance learning at ASU // https://vakademe.ru/shop/distance-agu.html. (date of access: 05.08.2020).

^f Анализ российского рынка дистанционного обучения: итоги 2018 г., прогноз до 2021 г.// https://marketing.rbc.ru/articles/10886/ (дата обращения: 06.08.2020).

In accordance with the recommendations of the Ministry of Science and Higher Education of the Russian Federation, in March 2019, in the face of the threat of the spread of coronavirus infection, most higher and secondary educational institutions decided to switch to distance learning, that is, all classes (lectures, seminars, practical and partly laboratory work) held in full-time, were moved online.

Undoubtedly, with such an urgent transfer of training to a distance learning format, there could be some difficulties in planning and implementing the learning process, since it usually takes at least 6 months to develop a full-fledged course.

4. Advantages and difficulties encountered in distance learning.

The site "My Education" conducted a survey, which showed that distance learning is called convenient and high-quality only by 21% of respondents, 45% are convinced that the quality of distance education is lower than usual, and 34% answered that they have no information about distance education at all. representation. Based on these figures, we can assume that in Russia consumers of distance education services are not entirely optimistic. It is obvious that it is necessary to train teaching staff competent in educational law in order to conduct their own kind of activity in the spirit of the law.

In the key of the problem under consideration, I would like to highlight the British researcher D. Sewart, who distinguishes between distance education and traditional education and connects the absence of a permanent communicative environment in distance education^g. In traditional learning, students can benefit from the support of the teacher at almost any time (Stewart calls this supportive environment "artificial"). Distance learning students need to create additional conditions for the effective flow of the educational process. Otto Peters, one of the founders and former rector of FernUniversität in Hagen (Germany), regards distance education as a product of the industrial era and shows it as a logical stage in the historical development of education. The scientist identifies three periods in the development of education: pre-industrial, industrial and post-industrial. He emphasizes that each stage of the development of society is characterized by certain forms of organization of educational activities. So the scientist compares distance education with traditional (classroom), which, in his opinion, is a pre-industrial form of education. Considering distance education as a product of the industrial era, the scientist shows that its structure is largely determined by the principles that govern the industrialization of the process of producing material goods. His research has extended to the postindustrial society, in which labor resources are rapidly flowing into the service sector, new technologies are emerging, and the strategic sector of the economy is significantly changing. According to the researcher, the pre-industrial period corresponded to classroom forms of study, the industrial period distance forms, and the post-industrial period such forms of education that can be characterized as network learning. However, at the end of the last century, the scientist could not yet know about social networks, so he did not use this term, but gave a detailed description of it. The scientist emphasized that "in a post-industrial society, the traditional industrial model of distance learning will no longer meet the needs of a new type of students with their specific expectations and values, which are not only not similar to the needs of students in an industrial society, but in many cases are directly opposite to them. The situation dictates the need to develop new models of distance education. Perhaps they will combine intensive and long-term group work, very sophisticated ways of obtaining the necessary information for self-education, as well as ever-increasing contacts through telecommunications between participants in the educational process. Goals and attitudes will change. The new models will have to rely on the independent leadership of the learning process and the self-control of the student, that is, on the student becoming autonomous.h "

But at the same time, according to IDC estimates, in Europe, DL occupies a third of the education market. In Turkey, half of the students study remotely, the barrier of one million students online has passed the Indian University. Indira Gandhi. Distance learning forms are also developing intensively in the countries of the near abroad for Russia: the formation of the distance education system in Ukraine, Belarus, Kazakhstan and other states is actively underwayⁱ.

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^g Sewart D. Mass Higher Education: Where are We Going? Ortner G. E., Graff K. and Wilmersdoerfer H. Distance Education as two-way communication. Essays in Honour of Börje Holmberg, Frankfurt am Main, Berlin, Berne, New York, Paris, Vienna, 1987. P.176.

h Peters, O. Learning and Teaching in Distance Education: Analyses and Interpretations from an International Perspective. London, 1998.

ⁱ Corporate information technologies and solutions [Electronic resource]. Access code: www.pcweek.ru.

Thus, the following difficulties in distance learning can be identified: insufficient computer literacy, lack of practical knowledge, lack (completely or to a greater extent) of personal contact with the teacher, lack of personal motivation.

At the same time, after analyzing the above provisions, we have identified the following undoubted advantages of distance and online learning.

- 1. Accessibility of training implies the possibility of acquiring new knowledge regardless of the location of the person. In addition, the accessibility of education is one of the basic principles of teaching, the adherence to which should ensure that the content, volume of the studied material, methods and organizational forms of teaching correspond to the age and individual capabilities of students, learning conditions, as well as the level of language proficiency.
- 2. Less time and economic costs. Distance education is generally cheaper. In addition, the student does not need to spend time and money on travel to the place of study, the purchase of office supplies.
- 3. Flexibility of learning assumes the ability for the student to set the rhythm and speed of his own learning.
- 4. Modularity helps to create a holistic view of a specific subject area.
- 5. Personalization of the educational process and an individual approach.
- 6. Training in a comfortable environment. If necessary, students can always contact the teacher, ask him questions. This usually happens with much less time than getting a face-to-face consultation.
- 7. Use of new forms of information presentation, which provide the maximum degree of its perception.
- 8. Upon completion, a state-recognized diploma is issued, the form of study is correspondence.

In addition, distance education, like other forms of education, presupposes the integrity of the curriculum and continuous monitoring of the learning process and the level of training.

E-learning and distance learning technologies allow realizing two basic principles of modern education: "education for all" and "education throughout life".

In modern society, criteria-based assessment is increasingly activating the transition to competence-based learning, which, in turn, is focused primarily on the result. Taking into account this assessment, the result of the student's activity is assessed in accordance with the criteria or headings (criteria united by a common scale). And in this vein, technologies for collecting information on all set criteria, scales, indicators, implemented in an automated format, play an increasingly important role. Within the framework of this direction, digital learning on the Moodle platform (Modular Object-Oriented Dynamic Learning Environment) is effectively functioning at the Astrakhan State University, which makes it possible to obtain multifunctional and polypositional assessment of students.

It is important to take into account that no matter what format the distance learning takes place (skype-conference, webinar, teleconference, communication by e-mail), the teacher assesses not only knowledge of the subjects taught, courses, but also general cultural, general intellectual and psychological components, because, for example, the student's activity is directly manifested from the number of speeches within a particular course, his ability to answer questions logically and confidently, the ability to constructively ask his own is taken into account.

Thus, in a distance format, the teacher, as a control of knowledge, analyzes and synthesizes the received data, information from students. In the future, this leads, in turn, to the optimal design of stages to increase efficiency, both within the framework of individual distance learning and group lessons.

Methods, forms, methods of control directly reflect the correlation dependence in relation to the effectiveness of the most distant additional education. After all, they are based on focusing attention in individual work with a student, on his professional, intellectual, psychological abilities and characteristics, which will help him in the future to determine the specifics of future professional activities. And the data obtained, as a result, form the basis for increasing the efficiency of quality management of pedagogical technologies in a particular higher educational institution, and also contribute to the introduction and practical testing of various forms and types of control, the optimal functioning of the assessment system as a whole, taking into account innovative information technologies and their effective adaptation to the system of additional distance education.

Russian educational law has gone a long way in its development, reaching its current state. However, in the current conditions of changes in the entire structure of the economy, both at the global and Russian levels, it is necessary to revise not only the goals and emphasis of education, but also the legal component, designed to ensure the most correct and optimal application of the efforts of the teaching

staff and management of educational institutions. Legal norms must be brought to a form that, on the one hand, will help frame the educational process, and, on the other hand, will not hinder the creative development of the entire educational doctrine and its flexible adaptation to the needs of economic growth and investment activity in Russia.

The main problems of modern educational law are the clearly traced dichotomy of "conservatism-liberalism", within which fierce disputes over pressing issues in the field of education and its legal support take on a fundamental character and seem irreconcilable. Rare calls to search for a "golden mean" through relying on traditions and the use of innovations have not yet led to the embodiment of these intentions in the process and essence of educational law and education in general^j.

In the context of our theoretical and scientific analysis, it is important to take into account that additional distance education does not replace and does not replace classic offline education and does not replace it. It exists in parallel, as a mobile quick reaction to the changes taking place in the modern world and contributes to obtaining answers to the challenges of modern society at the next stages of its development, which are accompanied by economic, political and, which is important in the current year, epidemiological factors.

5. Research results

The practical value of this study lies in the fact that the conceptual theoretical and methodological approaches proposed by the authors to solving the problems of introducing electronic technologies into the educational process can significantly increase the efficiency of its legislative regulation in the Russian Federation.

The results of the work will serve as a scientific basis, proving that an intensive and continuous development of distance education is necessary, as well as the activation of further implementation in the practical sphere.

The practical significance of the research, among other things, lies in the possibility of applying certain provisions of the research in the activities of state bodies in order to effectively implement the educational process.

The main provisions and conclusions of this work can form the basis for the direction of research concerning the further development of the methodology of distance technologies in education, for the analysis of institutional and functional foundations and prospects for the formation and further development of the electronic educational process in Russia.

A certain practical potential of the study is associated with the possibility of developing scientific recommendations for various educational institutions, for solving such practical problems as the problems of improving the mechanisms for the implementation of the constitutional rights of a citizen, the problems of developing a democratic legal culture of citizens of the Russian Federation from the perspective of educational law.

A number of research results can be applied in the preparation of draft laws, their examination, interpretation of existing regulations. The conclusions of the work can be used in the daily activities of representatives of educational institutions.

6. References

- [1] State policy of the Russian Federation in the field of education: concept and legislative principles // https://nic.gov.ru/en/docs/analitics/publications/RF_policy_in_education (date of access: 06.08.2020).
- [2] Distance learning at ASU // https://vakademe.ru/shop/distance-agu.html. (date of access: 05.08.2020).
- [3] Distance learning in extreme conditions // https://academia.interfax.ru/ru/analytics/research/4491/ (date accessed: 06.08.2020).

j Education Minister Vasilyeva told whether Russia will return to the Soviet education system // REN-TV. 28.10.2016.URL: https://ren.tv/news/v-rossii/137201-ministr-obrazovaniia-vasileva-rasskazala-vernetsia-li-rossiia-k-sovetskoi-sisteme-obrazovaniia (date of treatment 08/02/2020)

- [4] Analysis of the Russian distance learning market: results of 2018, forecast until 2021 // https://marketing.rbc.ru/articles/10886/ (date of access: 06.08.2020).
- [5] They know a lot, but at a very basic level: the teacher about why there are more minuses than pluses in the exam // NGS55 2019 URL: https://ngs55.ru/news/more/66261208/ (date of access: 06.08.2020).
- [6] Analysis of the Russian distance learning market: results of 2018, forecast until 2021 // https://marketing.rbc.ru/articles/10886/ (date of access: 06.08.2020).
- [7] Bratanovskiy S.N., Bratanovskaya M.S., Kocherga S.A. Administrative rights of citizens in the field of education // Bulletin of SSLA. 2017. No. 1 (114). URL: https://cyberleninka.ru/article/n/administrativnye-prava-grazhdan-v-sfere-obrazovaniya (date of access: 05/08/2020).
- [8] Minister of Education Vasilyeva told whether Russia will return to the Soviet education system // REN-TV. 28.10.2016.
- [9] USE: objectivity and efficiency. Survey data. // VTsIOM 2019. URL: https://wciom.ru/index.php? Id = 236 & uid = 115550 (date accessed: 06/08/2020).
- [10] URL: https://ren.tv/news/v-rossii/137201-ministr-obrazovaniia-vasileva-rasskazala-vernetsia-li-rossiia-k-sovetskoi-sisteme-obrazovaniia (date of treatment 08/02/2020).
- [11] Peters, O. Learning and Teaching in Distance Education: Analyzes and Interpretations from an International Perspective. London, 1998.
- [12] Sewart D. Mass Higher Education: Where are We Going? Ortner G. E., Graff K. and Wilmersdoerfer H. Distance Education as two-way communication. Essays in Honor of Börje Holmberg, Frankfurt am Main, Berlin, Berne, New York, Paris, Vienna, 1987. P. 176.
- [13] Spivakova V.V. The specifics of distance learning in the educational process. Izvestiya of the Russian State Pedagogical University A.I. Herzen. 2008.S. 391.
- [14] Federal Law "On Education in the Russian Federation" dated December 29, 2012 No. 273-FZ // SPS Consultant Plus
- [15] Federal Law "On Education in the Russian Federation" dated December 29, 2012 No. 273-FZ // SPS Consultant Plus
- [16] Federal Law "On Education in the Russian Federation" dated December 29, 2012 N 273-FZ (last edition) // Collected Legislation of the Russian Federation. 12/31/2012. No. 53 (part 1). Art. 7598.
- [17] Federal Law "On Social Protection of Disabled People in the Russian Federation" dated 24.11.1995 N 181-FZ // Collected Legislation of the Russian Federation. 11/27/1995. No. 48. Art. 4563.
- [18] Federal Law "On Education in the Russian Federation" dated December 29, 2012 N 273-FZ // ATP Consultant Plus