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INTEGRATION OF HUMANITIES AND DIGITAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS

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Abstract

The modern educational sphere could not function effectively without the active introduction of digital and humanitarian solutions into the processes of education and training. Such integration can lead to the all-round improvement in the quality of the educational level and the degree of formation of the competencies of the graduate of an educational organization only in case when an effective methodological platform has been created and is constantly being improved. Various technologies of both digital and humanitarian nature can act as such a platform. Initially, the term "technology" was related to the industrial sphere. Gradually, technologies were transformed from an integral part of the mechanism for ensuring production processes into an effective toolkit in the humanitarian educational sphere. Along those lines, technology acts as a method of processing information data in the process of their creative transformation, obtaining a new product, conducting various types of quality control, as well as management activities. The spread of the new coronavirus infection across all countries and continents affected the educational sphere. Educational organizations faced the problem of the earliest possible introduction of digital and innovative humanitarian technologies into the educational process. Nowadays, the pandemic restrictions require the early introduction of distance education implemented on the basis of digital technologies. The article is devoted to the analysis of the results of the implementation of digital and humanitarian technologies in the educational process, the identified problems and ways to resolve them.

Keywords: Educational process, digital technologies, humanitarian technologies, higher education, integration

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1. Introduction

The modern educational process carried out in educational institutions on the territory of the Russian Federation is a continuous purposeful activity of authorized entities for the upbringing and training of persons receiving education. Like any process, knowingly presupposing the development and improvement of all members participating in it, lifelong education is impossible without the constant integration of innovative technologies and methods into it, which determine its relevance and effectiveness. These include digital and humanitarian technologies that are actively being introduced into the educational and training activities of modern educational institutions of higher education.

2. Problem Statement

While studying possible ways of integrating humanitarian and digital technologies into the educational process, we believe that in order to achieve comprehensive and objective results of such a study, we need to consistently formulate and solve a number of problematic issues.

1. On the basis of a critical study of history and modern approaches to the concept and content of digital and humanitarian technologies in the educational process, it is necessary to formulate own vision of these categories, to determine content in the educational and training process, implemented by educational institutions of higher education.

2. It is necessary to determine the most optimal ways of implementing digital and humanitarian technologies in the educational process used by universities, both in normal conditions and in the regime of sanitary and epidemiological restrictions imposed by state authorities.

3. It is necessary to formulate and objectify the authors' grounded vision of the most optimal ways to improve the quality of teaching and educational activities of educational institutions of higher education by improving existing educational technologies and introducing innovative digital and humanitarian ones.

3. Research Questions

Under the subject matter studied in this brief research, we consider, first of all, the current norms of Russian federal legislative and subordinate normative legal acts regulating educational activities.

3.1. Federal Law No. 273-FZ "On Education in the Russian Federation" (Federal Law No. 273-FZ, 2012)

3.2. Resolution of the Gosstandart of the Russian Federation, No. 367 "On the enactment and implementation of the All-Russian classifier of workers' professions, employee positions and wage categories OK 016-94" (Resolution of the Gosstandart of the Russian Federation, No. 367…, 1994).

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4. Purpose of the Study

As the purpose of this study, we consider it necessary to consolidate the analysis of the current state and possible prospects for the implementation of humanitarian and digital technologies in the educational process carried out by educational institutions of higher education. It is envisaged to identify and fix the options for stopping the problems arising in the process of such integration, both of a methodological and organizational nature.

5. Research Methods

The general scientific, logical, comparative legal methods were the methodological basis for the study of problematic issues of the integration of digital and humanitarian technologies into the educational process.

The development of proposals for the possible improvement of the implementation of the analyzed technologies was carried out using particular scientific methods of induction and deduction as well as the method of long-term planning.

6. Findings

Modern conditions for the implementation of the educational process during the period of restrictions and prohibitions caused by the coronavirus pandemic required educational organizations and their teaching staff to optimize the integration of both general humanitarian and digital technologies into various types of educational activities.

In this study, we propose to analyze the pedagogical aspects of such integration activities, to identify and substantiate its positive and negative aspects. Considering the multi-species and multi-level nature of Russian education, attention should be paid to the pedagogical features of the introduction of digital and humanitarian technologies into the higher education system, implemented by educational institutions of higher education.

Note that the concept of "technology" has a foreign origin. It is derived from the ancient Greek "τέχνη" – “skill” and "λόγος" – “meaning”. According to the compilers of the thematic dictionary of philosophy of science and technology, term “technology” should be understood as a systematized unity of means and methods used by the subject of activity to obtain the desired result (Nekrasova & Nekrasov, 2009). In a broad sense, technology can be interpreted as the use for solving various practice-oriented problems of scientific knowledge in a particular scientific field (Encyclopædia Britannica, 2016). In a narrower sense, technology appears as a certain kind of method for transforming information data in the process of their creative processing, obtaining a new product, conducting various types of quality control, as well as administration (Glossary, 2021).

The introduction of the term "technology" in the scientific circulation and in the educational process of higher education was carried out by J. Beckmann in the middle of the second half of the XVIII century at the University of Götten. This is how he titled his author's course (Salomon, 1984).

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Despite the fact that technology has a long history, from the point of view of Gibert (2004), the term "technology" is quite new and multifaceted. Its full-scale interpretation is constantly changing due to the permanent improvement and expansion of its meaning. With the development of society, technologies penetrate into those areas that were either previously closed to them, or did not exist at all, for example, such as digital technologies.

Coming to a direct consideration of the problems and features of integrating digital technologies into the educational process of higher education, it should be pointed out that the conditions of severe restrictions, introduced into the educational process, set educational institutions in an extremely rigid framework. Before the introduction of pandemic restrictions, universities used distance education models and technologies as one of the possible components of the educational process. A sharp increase in the number of cases resulted in a transfer of the entire educational and training process to a remote format, which is possible only with the full-scale use of digital technologies. Let us analyze this process of "digitalization of education" from a pedagogical point of view.

According to Goncharuk and Khromova (2018), the ongoing process of implementing digital technologies in the educational activities of universities is one of the prerequisites, the success of which directly affects the modernization of the system of educational institutions of higher education and their compliance with the challenges of the present-day world.

Kozlova (2019) expresses her opinion about a radical change in the "destiny" of the teacher and discusses the role of the teacher in the process of introducing digital technologies into the educational process of the university. In her opinion, nowadays the pedagogical worker is undergoing transformation into a certain kind of "navigator". As the main task of such a "navigator" Kozlova (2019) defines assistance to a student in acquiring skills and abilities of autonomous orientation in information data banks located primarily on digital media and in "cloud" storage.

According to the results of the study of applied issues of the use of digital technologies in the educational process, Karabelskaya (2017) comes to the conclusion that the implementation of educational activities with the active introduction of electronic educational technologies into them gives the educational organization and its pedagogical workers a real opportunity to most effectively build the pace of presenting educational material to students. In addition, the researcher substantiates the ability of digital technologies to significantly improve the motivational component of educational activities.

Taking into account all existing opinions and concepts of introducing digital technologies into the educational process carried out by educational organizations, we believe that the discussions about the need for such integration that took place before the start of the pandemic restrictions introduced in 2020, have lost their relevance. Instead of the gradual introduction of such technologies, educational organizations and the pedagogical community had to follow strict instructions of the government to use digital technologies as the only possible and acceptable ones.

The full-scale introduction of distance education implemented on the basis of digital technologies, has revealed a number of problems not only of a material and technical nature, but also of a pedagogical one.

First of all, educational institutions of higher education were faced with the lack of a domestic “software product” that allows the implementation of distance learning without the use of foreign digital

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technologies. Foreign digital platforms (primarily developed in the USA) used for organizing "remote learning" within the framework of the user agreement a priori stipulate the possibility of recording and transferring information data to the headquarters of the developers of "digital products" - both computer operating systems and video conferencing programs (Zoom, Microsoft Teams, etc.).

We consider it permissible to use such technologies in teaching humanitarian disciplines that do not contain information that does not contain state and other secrets protected by law. However, educational material containing confidential information cannot be taught in a distance learning system based on an "open" foreign, as well as domestic software product.

Another problematic feature of the use of foreign digital technologies in the educational process of universities, we see in the fact that the companies that develop the "software product" are under the jurisdiction of their countries' government. In this regard, they are forced to comply with the sanctions restrictions imposed by the government of those countries. Moreover, the modern policy of IT companies that are guided by internal corporate norms, allows to terminate or suspend existing contracts, terminate the activities of free Internet products, etc. It endangers the security and stability of distance learning based on digital technologies. During a meeting with the head of the Ministry of Education of the Russian Federation, Russian President V. Putin pointed out the need for the earliest possible introduction of completely domestic digital educational technologies and "software products" into the educational process (Putin, 2021).

The next problem of integrating digital technologies into the educational process is the actual impossibility of conducting classes that involve the development and improvement of practical skills. This applies not only to the medical sphere (we believe it is difficult for a future doctor to develop the skill of introducing an intracardial injection), but also to other areas of practical application of knowledge acquired at the university (for example, skills of firing from firearms acquired at the university of the Ministry of Internal Affairs of the Russian Federation or the Ministry of Defense of the Russian Federation, etc.). Students of "creative" professions (art students, etc.) face the same problem.

With all the possible problems of the implementation of digital technologies in the educational process of universities, one cannot fail to note its undoubted positive effect:

- only with the use of these technologies, a distance model of educational activity is currently being carried out,
- digital technologies make it possible to bring to a qualitatively new level the teaching capabilities of various kinds of simulators and polygon complexes that construct situational models as close as possible to regular and emergency situations of the professional activity of a university graduate,
- digital technologies allow persons studying in educational institutions of higher education remote from the leading universities of Moscow and St. Petersburg to virtually attend the classes of the leading pedagogical workers of the domestic universities,
- it is digital technologies, electronic databases of scientific and encyclopedic knowledge, "cloud" storage of information data that enable students to immediately receive educational, methodological and other electronic data necessary both during the initial acquisition of higher education and in the course of obtaining additional professional education. Thus, as noted by

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Vyzulin et al. (2017), the university fully implements the concept of lifelong education, the idea of which is due to the current Federal Law "On Education in the Russian Federation",

- the use of digital technologies within the framework of models of distance or mixed full-time-distance additional professional education allows a pedagogical worker to receive in real time information about the volume and quality of mastering of educational material by a student, as well as the time spent by him or her on self-study of the material. In addition, the "digital shell" will not allow the student to proceed to the study of the next topic or section of the educational material until they have successfully passed the intermediate control on the previously studied material.

Along with digital technologies, technologies of a humanitarian nature are being actively introduced into the modern educational process in educational institutions of higher education.

One of the first domestic scientists who turned to research into the implementation of humanitarian technologies in the educational process is Krupnik (2003), who in her article gives her vision of the nature of humanitarian technology in the field of education. She considers it to be a method, using which it is possible to carry out a one-time organization of the constituent parts of education, their systematization and spatio-temporal ordering.

Speaking about the pedagogical components of the possibility and the need for constant implementation of technological innovations of a humanitarian nature in the educational process, it is necessary, first of all, to determine what exactly is currently understood by such technologies. According to Professor Solomin, it is necessary to consider pedagogical technologies as innovations introduced into the educational process. Solomin (2011) gives the definition of the purpose of innovative educational processes - “the use of innovations of a theoretical and practical nature in a holistic pedagogical process” (pp.124-127).

Reflecting the problematics of the nature of humanitarian technologies in relation to the applied issues of training educational organizations of a modern specialist, Belyaeva (2008) understands such technologies as a systematized unity of means and methods that are used by researchers representing the humanitarian profile of scientific technologies. Among such humanitarian technologies, the author includes a set of methods aimed at the direct formation of knowledge among students in the course of educational and training activities, as well as a set of methods used by a pedagogical worker in the process of forming various kinds of competencies in persons undergoing training.

Mitin and Filippova (2013) point out that initially humanitarian technologies were created not for educational, but for political activity. With the gradual strengthening of the student-centered approach to the processes of education and training in educational activities, humanitarian technologies were adopted in the educational sphere. As a result of studying the process of transformation of humanitarian technologies from an instrument of the political sphere into a system of methods used in educational activities, the authors formulate their own interpretation of the concept of humanitarian technologies in the educational process. By such, the authors understand a certain kind of algorithm of actions taken by a pedagogical worker to resolve a particular situation that arises in the learning process. This sequence of actions pursues the goal of achieving maximum efficiency of the joint educational and training activities of the teacher and the student and solving the different pedagogical tasks (Mitin & Filippova, 2013).

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It should be noted that we have given a far from complete list of Russian authors who have studied the problem of the possibility and rationality of using humanitarian technologies in the process of educational and training activities carried out by educational institutions of higher education. In this regard, a significant number of publications on this topic can be noted, the authors of which are pedagogical workers of the St. Petersburg State Pedagogical University (Bordovsky, 2007; Nikiforova, 2008; Vasilieva, 2008). A number of authors, seeing in the term "humanitarian technologies" a kind of fashionable scientific trend, in their works gave the main semantic load to the literal reading of the concept "humanitarian", i.e. human. This problem was pointed out by Mitin et al. (2009) substantiating the incorrectness of such a broad understanding of humanitarian technologies as methods that influence all spheres of activity related to a person. It is difficult to disagree with their scientific position. Goncharov (2008), based on the results of the analysis of the application of humanitarian technologies in the educational sphere, comes to the conclusion that a teacher who uses such technologies should consider the student “as a value consciousness that is formed in a system of multidimensional communications with a constantly changing living environment” (pp. 9-15).

We must include inclusive education among the humanitarian technologies that are currently being actively integrated into the educational process not only in higher educational institutions, but also in organizations implementing educational programs of secondary education. The essence of its humanitarian component is formed in the implementation of at least two humanitarian and sociological directions:

- socialization of persons with disabilities through their involvement in the educational process together with their "ordinary" peers,
- practical instilling in students of the skills of a tolerant attitude towards persons with disabilities and the formation of their expanded boundaries of understanding of social unity.

From the point of view of teachers, with all the undoubted positive humanitarian and social components of the introduction of this humanitarian technology into the educational process, the effectiveness of its widespread implementation raises a number of problematic comments and questions:

- material and technical problem. Only a small part (mainly built in the last 3-5 years) of buildings of universities is equipped with the necessary equipment and infrastructure to meet all the needs for mobility of persons with disabilities;
- a territorial problem. The teaching process (especially in large universities, with a large number of faculties and departments) a priori involves the movement of students between different educational buildings, even within the territory of the university. Quite often, educational buildings and other premises used in the educational process are located at a sufficient distance from each other, which greatly complicates the learning process of people with disabilities.

Modern humanitarian technologies introduced into the educational process are aimed at maximum gender and physical equality of persons studying in them. Even in military universities and educational institutions of higher education of the Ministry of Internal Affairs of the Russian Federation, the Ministry of Emergency Situations of the Russian Federation and other militarized federal executive bodies, we observe a steady increase in the number of female cadets and students. Taking into account the provisions of the Constitution of the Russian Federation on the impossibility of any manifestations of discrimination on the basis of gender, we believe it is necessary to note that in the current classifier of professions of the

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Russian Federation there is a certain list of professional areas where women cannot work. Moreover, in a number of universities, higher requirements are imposed on the health and level of physical fitness of candidates for education. These requirements do not restrict constitutional rights and freedoms, including to receive education; they fulfill their social function by excluding the work of women in the most difficult and dangerous types of professional activity, and protecting the country and its people from persons incapable to perform law enforcement activities because of their individual psycho-physical characteristics.

Another of the varieties of humanitarian technologies introduced and successfully applied in educational institutions of higher education is the election of the head (rector) of the educational organization and the competitive replacement of positions of teaching staff from the associate professor of the department to the head of the department. The success of this technology is confirmed by the fact that even in military and law enforcement educational institutions of higher education, in which, due to their specificity and departmental affiliation, the election of the head (chief) of an educational institution is impossible, the competitive appointment of teaching staff to positions is implemented and carried out.

7. Conclusion

Having analyzed the concept and content of technology, such specific forms of its implementation as digital technologies and humanitarian technologies, we believe it is possible to identify the main, in our opinion, ways of integrating these technologies into activities of educational institutions of higher education.

1. Assessing the results of virtually one hundred percent implementation of the distance education model on the basis of digital technologies, we state that such a revolutionary approach to educational activity, conditioned by objective circumstances, revealed a number of problems not only of a pedagogical, organizational, methodological but also of material and technical nature.

2. The foreign digital technologies introduced into the educational process to a certain extent pose a threat to the full-fledged educational process in connection with the possibility of their rightholders, guided by the instructions of the heads of state power of their countries, to unilaterally prohibit their use. The Russian government and state authorities face the urgent task of creating high-quality domestic digital technologies for educational activities.

3. The Russian educational system is facing an extremely important task of fully ensuring the implementation of inclusive education as one of the humanitarian technologies.

4. Noting the undoubted positive effect of the introduction of humanitarian technologies in the educational process, we have to admit that from the point of view of teachers, the practical return from their widespread implementation without proper material support causes a number of problems of an applied nature.

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