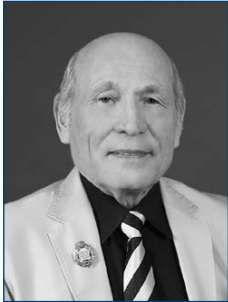


Development of a digital educational platform in the process of training future professionals in the field of physical culture and sports

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Dr. Hab., Professor, Academician of the Russian Academy of Natural Sciences **P.K. Petrov**

PhD, Associate Professor **O.B. Dmitriev**

PhD, Associate Professor **E.R. Akhmedzyanov**

Udmurt State University, Izhevsk

Corresponding author: pkpetrov46@gmail.com

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Abstract

Objective of the study – is to systematize the practical experience of creating a digital educational platform for training specialists in the field of physical culture and sports in the context of digitalization of education. The experience of the Udmurt State University is considered as an example.

Methods and structure of the study. To write this article, approaches such as the study and systematization of scientific literature devoted to the digitalization of education in a broad sense and physical culture in particular were applied. In addition, a retrospective review of the development and formation of a digital educational platform in the process of training specialists in the field of physical culture and sports was conducted, based on the personal experience of the authors.

Results and conclusions. The article examines the key aspects of the formation of the digital educational environment (DSP) in the context of the digital transformation of physical education. Questions are raised regarding the challenges that arise during the transition to digital technologies in physical education and the creation of a DSP, taking into account changes in the higher education system, the emergence of innovative sports disciplines and the specifics of the field of "Physical culture", focused on practical training. The importance of developing digital competencies among both students and teaching staff for effective training of specialists in demand in the digital economy is emphasized.

The analysis of the data obtained will make it possible to more effectively modernize the DSP in the system of training specialists in the field of physical culture and sports in various areas: organization of the educational process, scientific research, educational work, administrative management and improvement of the material and technical base of the university, taking into account the progress of modern digital technologies.

Keywords: *systematization of experience, digital educational platform, training of specialists, digitalization of education, digital educational environment, digital transformation, challenges of digital technologies.*

Introduction. At the present stage, initiatives for the digital transformation of key sectors, including the economy, industry, social sphere, education, healthcare, as well as physical culture and sports, are being actively implemented in our country. The key points in this process were the approval of the national program "Digital Economy" and the adoption of the document "Strategy for the development of the Information Society in the Russian Federation for the period 2017-2030." In the context of the implementation of the latter, the National Project "Education" was formed, an integral part of which was the federal project "Digital Educational Environment" (DSP). This initiative is focused on creating an innovative and secure digital educational ecosystem that guarantees accessibility and a high level of educational services of all types and

levels. The realization of this vision implies the creation of an appropriate technological foundation both within the framework of the national educational system and in relation to specific areas of professional training.

Objective of the study – is to systematize the practical experience of creating a digital educational platform for training specialists in the field of physical culture and sports in the context of digitalization of education. The experience of the Udmurt State University is considered as an example.

Methods and structure of the study. In preparing this work, the following research approaches were applied: a comprehensive review and synthesis of scientific and methodological sources covering the issues of digital transformation of the educational sphere in general and physical education in particu-



lar. In addition, a detailed retrospective analysis of the processes of the emergence and evolution of the digital educational ecosystem in the context of training professionals in the field of physical education and sports was conducted, based on the long-term practical experience of the authors of the study.

Results and conclusions. As the analysis of scientific and methodological literature has shown, many researchers have applied to the study of the concepts of "Digital transformation of education" and "Digital educational environment" [6, 10, 13].

In our opinion, the digital transformation of education, including in the field of physical education, involves a fundamental rethinking of the educational process. This process includes the development and implementation of digital educational resources, new-generation didactic materials that operate within the digital educational environment. Such an environment covers a wide range of components: 1) technological infrastructure (computers, tablets, mobile devices, Internet connections, video equipment, multimedia projectors, etc.); 2) specialized digital educational resources that take into account the specifics of physical education; 3) integrated management systems that ensure the digitalization of key aspects of university activities, including: distribution of teaching load, accounting for scientific publications; financial management; electronic document management; organization of the educational process; coordination of research; methodological support; automation of the student recruitment process, etc. The digital educational environment should cover all areas of the educational institution's activities: the educational process, administrative and managerial, research and educational work. Naturally, the formation of such an environment to a certain extent depends on the development of scientific and technological progress, the level of development of information and communication technologies, including such advanced technologies as artificial intelligence, neural networks, virtual and augmented reality technologies, distributed registry systems, quantum computing, advanced manufacturing technologies (PPT), elements of robotics and sensor systems, as well as wireless communication technologies, which are called "End-to-end technologies" [6].

It should be noted here that the digital transformation of education and the formation of the digital educational environment of each university has occurred and is currently taking place on the basis of the transition from the beginning of computerization, to the use of information technology and already at the

present stage to digital transformation. Of course, access to the global Internet is of great importance for the formation of a digital educational environment. It is significant that already in 1999, more than a hundred Russian universities began to actively use the Internet in their educational, scientific and methodological activities. Udmurt State University was among these advanced educational institutions, where the introduction of the Internet made it possible to significantly accelerate the development of its capabilities to optimize the educational process and research work of university students, including students of the Institute of Physical Culture [13].

Multimedia digital educational resources developed by teachers are of great importance for students of the "Physical Culture" field of study: teaching and control programs, distance learning courses, mobile applications and other materials that act as new learning tools and ways of organizing classes, as pedagogical tools that allow them to achieve their goals [1, 8, 9, 11].

The preparation of educational and methodological materials related to both the creation and use of modern digital educational resources is important in the formation of digital literacy among future professionals in the field of physical education and teachers, who, in the context of the digital transformation of sports and pedagogical education, need to possess skills in both the development and application of such resources in their professional practice. In this aspect, the creation of the first textbook "Information Technologies in physical Education and sports", which has undergone a number of reprints, played an essential role in shaping the digital educational landscape in the field of physical culture and sports [4, 7].

Moreover, the accumulated knowledge in the field of development and implementation of digital educational tools in the training of specialists in the field of physical culture and sports was embodied in pioneering dissertation research (O.B. Dmitriev, PhD thesis, 2003, P.K. Petrov, doctoral thesis, 2004). The key conclusions obtained in the course of the research were summarized in the scientific monograph [12].

The introduction of advanced information technologies in the field of physical education and sports has served as a catalyst for the development of research activity in this field. An important stage in the methodological support of such research was the release of the textbook "Fundamentals of scientific and methodological activities in physical culture and sports" [2], which systematized approaches to conducting scientific work using digital tools.



Udmurt State University regularly acts as a venue for national and international scientific and practical conferences dedicated to the application of information technology in the field of physical culture and sports.

The results of research carried out under the auspices of the scientific direction "Digital technologies in the field of physical culture and sports" are a valuable source for the scientific and pedagogical staff of the university within the framework of the digital modernization of physical education. These results, available electronically, are available on the university's website at: <http://itsport.school.udsu.ru/>.

In recent years, artificial intelligence and neural networks have become widely used in solving various professional tasks, which will also solve many of the tasks facing students and teachers, and here, as with many digital information technology tools, it is necessary, first of all, to consider them not as a substitute for a teacher, teacher, coach, but as assistants, allowing to solve professional tasks more effectively [13].

The analysis of the directions of digital transformation of education and the means of its implementation at Udmurt State University has revealed the main means representing the structure of the digital information environment, which can be divided into four blocks: the organization of the educational process, the organization of research activities, administrative and managerial activities and educational work. All work on the creation and functioning of the digital educational environment, which is an "Integrated Information and Analytical System" (IIAS), is carried out on the basis of technological support: hardware and software. The main source of information in the digital educational environment is the university's website (<https://udsu.ru/>).

For example, sections such as the personal account of the student and the teacher are associated with the organization of the educational process, where, depending on whose office, you can use different information. Students have access to curricula, work programs of disciplines, class schedules, test and exam results, portfolios, etc. Teachers can access information about group lists, electronic lists, work programs and assessment funds, teaching workload, publications, etc. In the "Training" section, distance learning courses are available for students and teachers, which teachers develop and use in their disciplines. An important task in the organization of the educational process is the availability of electronic library systems (EBS) such as EBS "Urite", EBS "UdNOEB", EBS "Znaniy", EBS "IPR SMART". Educational and scientific laboratories, computer classes, multimedia

classrooms with Internet access are also connected with the organization of educational work.

Of great importance in the university's activities is the "Admission" section, which contains all the basic documents and admission technologies for applicants. Sections of the Nauka website are available for organizing scientific activities, where you can get acquainted with news, organization and holding of scientific and practical conferences and exhibitions, grants and competitions, get acquainted with scientific schools of teachers and scientific publications of the university, youth science, postgraduate and doctoral studies, etc. To check for the originality of the articles, the Anti-Plagiarism University system is available for students.

It should be emphasized here that the role of the scientific unit, first of all, is to involve students in research activities. The administrative and management unit is responsible for the activities of institutes and faculties, departments, is engaged in the formation of the teaching load of teachers, the activities of educational and methodological management, planning and budget management, the state and development of logistics, etc. Educational work, first of all, is carried out in the process of performing educational, scientific, sports and cultural work, in addition, such pages of the website as "Sports Club", "Council of Veterans", etc. have a certain educational aspect.

As can be seen from the analysis, it should be noted that the digital educational space comprehensively contributes to the formation of professionals for an innovative economy, and is constantly being improved depending on the goals, content, means and methods of teaching and upbringing, and organizational forms of their implementation.

However, new problems are also emerging today, both related to the specifics of the "Physical Education" training area and the transition to a new higher education system [5].

Firstly, the field of Physical education is practice-oriented, i.e. in the process of preparing students, especially in sports and pedagogical disciplines, there is a combination of various types of training: theoretical, physical, technical, methodological, research, which requires the formation of both universal (soft skills) and professional skills (hard skills), which also requires the development of appropriate criteria for assessing the formation of these competencies.

Secondly, more and more new sports are emerging, including computer sports and "Digital", which requires their consideration and diversification of physical education [3].



Conclusions. The digital educational environment, which includes a wide range of innovative author's digital educational materials, creates optimal conditions for the training of highly qualified personnel in the field of physical culture and sports at all levels of education (bachelor's, master's, postgraduate). This contributes to the effective development of digital skills among future specialists and teachers, which are critically important in the context of the formation of the information society.

On the eve of the transition to a new model of higher education in Russia, scheduled for 2025-2026, it is extremely important to integrate the accumulated experience of digital modernization of physical education and further improvement of the digital educational infrastructure, taking into account the emergence of new digital sports such as computer sports and Digital sports based on a modern methodological training system for the digital economy.

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