DIGITAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS OF A TRANSPORT UNIVERSITY

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Abstract. *The work is devoted to the analysis of the challenges associated with the introduction of digital technologies into the modern educational environment. The article analyzes the potential of digital tools in relation to new educational conditions. The paper concludes that modern digitalization processes require changes in the competencies of the teacher and the formation of digital skills of students. The project activities inclusion in the educational process requires the use of different teaching practices using digital technologies, which make it possible to optimize the project implementation processes.*

Keywords: *digital-tools, digital-technologies, electronic educational environment, transport university, digitalization of education, information educational technologies.*

1.   Introduction

Modern challenges determine profound transformations in the field of vocational education. These changes require the use of information technology, which has become a new reality for the participants in the digitalization process. Education in a transport university today cannot be imagined without a systemically organized digital environment. The formation of students and teachers digital behavior in a transport university allows you to solve the following tasks: structuring the learning process, visualization of material, testing and certification, availability of information resources. In the educational environment, online platforms are created to host distance courses, digital tools for organizing the educational process are used, andial educational products are implemented.

2.   Research tools and Methods

The aim of the work is to describe digital technologies in organizing the learning process of students and to determine the functionality of a teacher in a digital space.

The presented work methodology includes an overview of modern digital education at a transport university, an analysis of the prospects for introducing digital technologies into educational programs.

The designated purpose and methodology determined the objectives of the study:

1) highlight the general trends affecting the digitalization of education, identify the role of participants in the educational process in the development of the digital educational environment;

2) designate the functionality of digital tools in relation to the new digital environment;

3) identify the problem areas of using the digital-toolkit in the formation of competencies, hard and soft skills of students.

3.   The Investigation Results and Their Discussion

Educational science discusses the process of introducing information educational technologies. In this connection, concepts are introduced that characterize the digital format of the educational platform. Along with the terms "information technologies", "digital technologies", the term Digital-tools, Digital-technologies are actively used. The term "digital technologies" is

interpreted in a broad sense as digital programs for creating and packaging content and platforms, on which this content can be accumulated, stored and distributed. Storage medium, gadgets belong to Digital-tools, since the specifics of a digital device can change the presentation of material, its presentation and distribution.

In the modern world, digitalization penetrates into all spheres of public life (education, professional activity, recreation, sports, tourism, etc.). Through this process, a person's path becomes selective. Online services (cinemas, news, educational services, delivery, government services, etc.) are rapidly increasing, and communication is adapting to the needs of society. Artificial intelligence and algorithms of content platforms respond to consumer demand in the digital space, which stimulates the smart systems development, determine probabilistic recommendations. We see a visible orientation of society towards new IT solutions: digitalization, cloud technologies ("hybrid cloud"), automation, cyber security, the introduction of speech technologies that recognize human voice and gestures. New trends have emerged in education: the transition from synchronous to asynchronous learning. If earlier we said that the time limits were set for conducting a lecture, a practical lesson, a seminar, now we are looking for an expansion of the time frame, the relative freedom of planning the schedule and passing the training course. In the new conditions of digitalization, a teacher uses different methods of fixing attention, visualization, digital storytelling, acquires blogging skills, experiments with the presentation of material, format and, as a result, systematically, scrupulously works on the quality of electronic resources, interacts personally with students in online communication, creating soft, lively, sincere communication. A number of works are devoted to the study of emerging trends, among which it should be noted issues by M. Ford [1-3], article by S.V. Tsirzel "The Economy in the Near Future" [4], the work of N. Ziberman "Social aspects of labor robotization in a post-industrial society: problems and solutions" [5], etc. In the research literature, one can distinguish two types of works devoted to the digitalization of education in higher education: studies that study the issues of involving students in the educational process through digital tools, and studies that highlight the problems of mastering technological requirements by teachers of higher education. The authors of the article "Gamification in education: a systematic cartographic study" [6] consider one of the problem areas of digital education: with the existing demand for game forms of education, there is a low level of education gamification. The article discusses different types of game techniques, ways of introducing games into the educational process. The authors rightly point out that gamification is used primarily by teachers of computer science. The problems of a low level of gamification of the educational process are associated with the lack of formed skills among teachers and developed software products.

The article "Evolution of views on media education in the psychological and pedagogical literature of the second half of the 20th century" [7] examines the genesis of e-education, which has been the subject of study of psychology and pedagogy in the past few decades. The authors note that in recent years, the attitude towards media education has changed in science: today, electronic forms of education are perceived by the pedagogical community as part of modern education.

The authors consider the issue of distance learning through mobile applications at the work "Understanding the practice of teaching students: problems of designing and integrating mobile technologies into distance education" [8]. More than 70% of high school students use a smartphone, and, according to the authors of the article, this fact is a serious challenge to the

developers of educational products, since it is necessary to provide not only for the placement of the training course on traditional platforms, but also take into account the capabilities of mobile devices.

Analytical research presented in the work "Digital transformation as a factor of generational dynamics in the information society" [9] shows the different attitudes of the older and younger generations to the use of digital technologies in education: people over 30 need to develop skills in working in a digital environment. Young people who master various tools of the information educational system lose to the older generation in the intensity of the use of digital tools and the depth of mastering the possibilities of using the technology.

A large number of researchers note that the use of Digital-tools in a transport university solves the following tasks: to realize the potential of students and teachers in the process of organizing and planning the educational process; create trajectories of personal development, implement an individual approach in education, which requires changing the role of a traditional teacher and lecturer to a tutor, coach, blogger; increase the mobility of all participants in the educational process.

Future professionals master digital communications in everyday life, because they have to work with operating systems: Apple iOS, Android OS, Nokia Symbian OS, Windows Mobile OS, Windows Phone OS, BlackBerry OS and understand the elements of mobile marketing: automated voice service (Interactive Voice Response, IVR), Click-to-call, SMS, MMS, e-mail.

The digital learning environment can be hosted on the Moodle platform. The electronic educational environment of a transport university allows you to use a large number of various forms in students' education. The functional of the educational environment provides ample opportunities for organizing discussions through the built-in BigBlueButton online conference. The Moodle educational environment provides opportunities for professional communication with employers and partners, for example, Siemens conducts a number of webinars for students and employees, which discuss trends and tools for digitalizing production processes: from design to ensuring a sustainable production cycle. A basic set of tools (adding a file or folder of files, creating text pages, both single and linked, adding links, creating a group of educational texts, creating records for viewing and searching for information, adding a questionnaire and creating an attendance journal, developing tests, lecture courses, assignments, conducting seminars, adding a course from other training systems, using chat, forum, mobile version) allows the teacher to modify training courses.

The teacher's role in organizing the educational process through an integrated educational environment is determined by the implementation of a personality-oriented paradigm. The teacher gets the opportunity to choose digital tools for students. Moodle technology implements four functions: it helps to keep track of educational achievements and planning of the educational process, contains instructions and assessment tools, and provides feedback. The system can track the dynamics, indicator and growth of individual achievements of students, can include the construction of a roadmap for the development of students and provide remote support for the professional development of the user. The Moodle platform is both a Digital tool and a digital environment. Using Moodle tools during distance learning is due to openness, accessibility and ease of management. The active use of interactive panels installed at the teacher's workplace allows him to visualize material and adjust presentation, making notes over the image, which are automatically displayed on any display system. In the context of a change in the internal content

of the content of educational programs and the introduction of a component of project activity in a volume that implies the development of soft and hard skills among students, it becomes necessary to use digital technologies in project activities. As part of the project activity and the implementation of its stages, the student can develop a task that can be presented in the form of an interactive map, an online module, an online quest, interactive animation, an interactive model, etc. Demonstration of created online product allows you to collect feedback, quickly acquaint all participants in the implementation of the project with the intermediate results, give an assessment, put it up for discussion by the student community or to the target group that can adjust the completed task in such a way as to integrate it into the project concept from the standpoint of a professional or a participant in the educational process.

4.   Conclusion

Digital communications are becoming an indicator of the interests of target groups, with the active use of which the interests and preferences of the student audience are practically monitored. Digital communications remove the problem of interaction and active response to any problems that arise during the implementation of project activities. Social networks and messengers as a tool of social interaction attract students because it allows them to exchange instant messages. The use of these tools and messengers will ensure the mobility of project participants, relieve tension in the relations of both, involve them in a common cause, and will constantly motivate them to create content that relates directly or indirectly to the project being developed. Social media allows you to conduct all kinds of research with a wide audience reach and without violating personal boundaries. In this regard, another urgent problem is attracting leaders of project teams who are sufficiently proficient in the skills of using digital technologies and introducing digital solutions into the familiar educational environment. Many employers are focused on the fact that university graduates should be proficient in digital technologies and easily get involved in the digitalization process. A unique project presupposes an original author's idea, a creative approach, an extraordinary presentation of material, the value of ideas and the project relevance concept not only at the present moment of reality, but also in the future. Digital technologies make it possible to substantiate it from all these positions and, in general, provide an opportunity for future specialists to more easily perceive information, learn how to work with it, translate this information into more convenient forms, and develop visual models of information.

An important factor in the development of the digital space is the development of an action strategy for the inclusion of digital technologies: attracting participants in the educational process to work with digital content, organizing events for the exchange of experience with other participants in the educational process, monitoring the use of digital technologies in order to determine efficiency and feasibility. There has been a tendency for a personalized approach to participants in the educational process in the context of digital communication.

Modern education in a transport university is subject to the timely and modern challenges of getting involved in the processes of digitalization. The transformation of education in connection with the concept of 3: 0 makes requirements for the implementation of digital environments and digital tools that allow the formation of digital competence of teachers. The main feature of digital education in higher education is that, through digital tools, teachers can introduce new pedagogical practices that were impossible in this area outside the digital environment.

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