Digitalization Technologies of The Educational Process in Higher Education Institutions

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ABSTRACT

It is highlighted in the study that digital transformations of the fourth industrial revolution are changing the modern human world, encouraging a person to acquire new competencies and become a qualified specialist in the digital economy. In connection with the progressive scientific and technical development, the institute of higher education is being transformed; new previously unknown approaches to the organization of higher education appear. One of such approaches is the introduction of online learning in higher education. The authors refer to the experience of 2020, when, during the pandemic of the new coronavirus infection, the whole world began to actively transfer work processes to a remote format, which also affected the institute of education.

Keywords:	Study subjects, distance learning, media, media competence, digitization, innovation management.

Currently, we are witnessing a revolution that radically changes the usual way of life of a person - the way he lives, works and communicates with other people [1]. The fourth industrial revolution is associated with the active, high-speed, introduction of new innovative technologies that make changes in all spheres of human life. New technologies give rise to others, introducing them into the economy, culture, politics, public sector, education. The innovations brought by the fourth industrial revolution are primarily associated with digital transformations - autonomous vehicles, blockchain technologies, artificial intelligence, 3-D printing, virtual reality and much more. The institute of education has always attracted the attention of researchers. Modern scholars in their research are actively addressing the problems of reforming higher education, pointing out the ambiguity and inconsistency of modernization [8; 9]. They discuss the functions of higher education in reforming the education system, developing qualified personnel for the effective functioning of higher education, continuing education, and the formation of a market for educational services and products. Among the issues of interest to researchers, there is also the issue of training digital personnel, in modern conditions [10]. An important place in research related to education issues is occupied by questions about the advantages and problems of digitalization of higher education: blended learning models, the creation of a digital educational environment, and the transition to online learning [11].

The term "digitalization" itself is being transformed and acquires new definitions. If earlier the process of digitalization was understood as the transition from paper to electronic media, now this concept is changing and acquiring a slightly different semantic contour, where social relations based on the use of digital communication and digital media

are being transformed. Thus, digitalization of education today is not just the use of information technologies in the educational process; it is something more - a change in the educational paradigm, educational technologies, and a change in the content, forms and methods of the learning process in the context of digital reality. In order to understand how the organization of higher education takes place in the context of digitalization, it is necessary to understand what higher education is as a social institution, what digitalization trends in education can be traced, and what impact they have on higher education, how the management of an educational organization is changing in the context of digitalization.

Considering higher education as one of the main social institutions, we rely on the theory of institutionalization by P. Berger and T. Luckmann. This theory makes it possible to evaluate higher education from the point of view of the regulatory process of the socialization of individuals based on existing formal and informal norms and rules. This approach also allows us to analyze pedagogical and managerial decisions at all levels of educational structures. Speaking about the digitalization of higher education, we cannot ignore changes in the structure of the educational process and functions of education due to the active introduction of innovative technologies into the educational process. In this regard, we consider higher education using the structural-functional approach developed by E. Durkheim and T. Parsons.

The problem of digitalization of society and education acquired particular importance in 2020, when, during the pandemic of the new coronavirus infection, the whole world began to actively transfer work processes to the remote "home office" mode. Educational organizations were no exception, since the educational process could not be paused for a long time, distance learning was conducted with the use of various educational technologies that allowed the interaction of students and teaching staff indirectly (at a distance). Thus, the analysis of the sources on the problem field of research and the

experience of 2020 indicate that there is a transformation of the institute of higher education associated with the growing demand for online education. In this regard, we believe that it is important to refer to the experience gained in distance learning during pandemic, which will help us assess the digitalization of higher education and determine further trends in the development of this process.

Before assessing the digitalization of higher education, it is necessary to define what we mean by higher education. In our opinion, education is one of the main social institutions that is responsible for the socialization of the individual. P. Berger and T. Luckmann noted that it is a social institution that has the role of immersing an individual in the world of rules and norms, the role of regulating his behavior. Within the framework of any social institution, the subjects are given social roles - behavioral models that dictate to the subjects a certain order of actions in a particular situation. If we turn to the institution of education, we will see that the subjects of the educational process perform one or another role: the role of a student, the role of a teacher, the role of an administrative employee. In accordance with the prescribed roles, the subjects of the educational process perform a prescribed set of actions. As a social institution, education has the function of social control. As for higher education, here we also note that the main function of higher education is the qualified preparation of students for employment. That is, the institution of higher education provides the country's economy with human resources. However, since roles and rules correspond to certain situations, then if the situation changes, the rules change and the institution is transformed. Thus, considering higher education from the point of view of the institutional approach allows us to investigate what norms and rules have developed within the framework of this institution, and how, on the basis of these norms, the interaction of the subjects of the institution of higher education occurs.

In general, the analyzed data concerning distance learning during the pandemic allowed us to draw the following conclusions: the speed

of transfer of universities to distance learning ensured the continuity of the learning process in higher education and the possibility of applicants entering the university in the summer. Despite the fact, that many universities have their own distance learning system, it is not constantly used in the learning process. It is worth saying that the majority of students assess their distance learning experience satisfactorily, but note that now they are faced with technical problems, as well as motivation, self-organization and self-discipline.

Summing up the results of this study, we note that the digitalization of higher education in Russian universities is currently associated with the use of information and communication technologies in the educational environment and is less expressed in the use of an electronic educational environment in the indirect interaction of students and teaching staff. The experience of distance learning during pandemic has shown that online learning transforms the educational process, changes the roles of participants in the educational process and the rules for their interaction. Despite their own distance learning system, universities do not completely switch to it, but prefer a blended learning format, including only individual courses or modules in the curricula of basic educational programs. Students are ready to work in the framework of distance learning, but nevertheless, when conducting certain types of classes: seminars, laboratories, exams, educational and industrial practices, they tend to the traditional form of education.

Thus, our analysis shows that digitalization of higher education is transforming the usual educational environment and changing everyday student practices. The lessons of the pandemic have shown that most higher education institutions can quickly mobilize themselves and use their existing resources in distance learning. However, it should be recognized that digital education with quality online courses and an associated digital learning environment is very costly and entails changes in the qualification requirements for faculty. In this regard, in our

opinion, it is necessary for the digitalization process to be consistent, not to be reduced to full distance learning, but to competently integrate information technologies into the traditional learning process.

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