BUILDING THE EDUCATIONAL SYSTEM OF HIGHER EDUCATIONAL INSTITUTION IN THE DIGITAL EDUCATIONAL ENVIRONMENT

CONSTRUINDO O SISTEMA EDUCACIONAL DA INSTITUIÇÃO DE ENSINO SUPERIOR NO AMBIENTE EDUCACIONAL DIGITAL

LA CONSTRUCCIÓN DEL SISTEMA EDUCATIVO DE LA INSTITUCIÓN DE EDUCACIÓN SUPERIOR EN EL ENTORNO EDUCATIVO DIGITAL

Inga ORLOVA[1]

ABSTRACT: Modern digital space is an unconditional daily accompaniment of human life activity, a condition for professional growth and self-actualization, interpersonal communication, as well as personal development. Formation of the younger generation cannot be considered without digital technology and social networks, which are the natural environment for their functioning and cognition, significantly affect the formation of self-awareness and personal qualities. The entire organizational-institutional structure and methodological approaches to the process of education and upbringing of personality are being transformed in today's educational system in the light of its active digitalization. The issue of improving the entire educational process by integrating the potential of the digital educational environment into all spheres, including educational activities, is very topical in the system of professional education. Actualization of educational and pedagogical technologies in cyberspace is the key problem of modern research in general and this study in particular.

KEYWORDS: Digital space. Pedagogical technologies. Educational system.

RESUMO: *O espaço digital moderno é um acompanhamento diário incondicional da atividade da vida humana, condição para o crescimento profissional e autorrealização, comunicação interpessoal e desenvolvimento pessoal. A formação da geração mais jovem não pode ser considerada sem a tecnologia digital e as redes sociais, que são o ambiente natural para o seu funcionamento e cognição, afetam significativamente a formação da autoconsciência e das qualidades pessoais. Toda a estrutura organizacional-institucional e as abordagens metodológicas do processo de educação e formação da personalidade estão sendo transformadas no sistema educacional atual à luz de sua digitalização ativa. A questão de melhorar todo o processo educacional, integrando as potencialidades do ambiente educacional digital em todas as esferas, incluindo as atividades educacionais, é muito atual no sistema de educação profissional. A atualização das tecnologias educacionais e pedagógicas no ciberespaço é o problema-chave da pesquisa moderna em geral e deste estudo em particular.*

PALAVRAS-CHAVE: *Espaço digital. Tecnologias pedagógicas. Sistema educacional.*

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[1] K.G. Razumovsky Moscow State University of Technology and Management, Moscow – Russia. Associate professor. ORCID: https://orcid.org/0000-0003-2245-2596. E-mail: inga-orlova@mail.ru

RESUMEN: *El espacio digital moderno es un acompañamiento diario incondicional de la actividad de la vida humana, una condición para el crecimiento profesional y la autorrealización, la comunicación interpersonal, así como el desarrollo personal. La formación de las generaciones más jóvenes no se puede considerar sin la tecnología digital y las redes sociales, que son el entorno natural para su funcionamiento y cognición, afectan significativamente la formación de la autoconciencia y las cualidades personales. Toda la estructura organizativa-institucional y los enfoques metodológicos del proceso de educación y formación de la personalidad se están transformando en el sistema educativo actual a la luz de su digitalización activa. El tema de mejorar todo el proceso educativo mediante la integración del potencial del entorno educativo digital en todas las esferas, incluidas las actividades educativas, es muy actual en el sistema de educación profesional. La actualización de las tecnologías educativas y pedagógicas en el ciberespacio es el problema clave de la investigación moderna en general y de este estudio en particular.*

PALABRAS CLAVE: *Espacio digital. Tecnologías pedagógicas. Sistema educativo.*

Introduction

The relevance of the study is due to the following provisions.

Firstly, vital activity of modern society is mediated by digital technologies globally, only mobile communication is used by 86% of the population, more than 2 billion people have access to a network the Internet.

Secondly, at the present stage cyberspace is, on the one hand, a tool for searching and receiving information, and on the other hand, it becomes a fundamental environment of virtual interaction and communication, which significantly affects the formation of personal meanings and ways of behavior of the younger generation and modern youth.

Thirdly, the ongoing transformations contribute to improving approaches and changing mechanisms of personality formation, forms of interaction and socio-cultural practices. There is an urgent need to improve the system of socio-cultural education in the higher education institution (hereinafter referred to as HEI) through the prism of digitalization of education.

Several normative legal acts, including state projects which are being implemented in Russia, reflect the global interest to this sphere and understanding of the need to improve it. So, approved by the RF Government Decree of 29 May 2015. "Strategy of development of upbringing in the Russian Federation for the period until 2025" (2015), actualizes the problem of expanding the educational opportunities of information resources, the study of information and communication technologies, the digital environment and their potential for the formation of personality, as well as its safe implementation in the conditions of the educational

environment. Implementation of the Federal project "Digital Educational Environment" within the framework of the national project "Education" (2018) contributed to the active digitalization of education and affected the level of mastery of digital technology students and teachers. In the Federal state educational standard of higher education, approved by the order of the Ministry of Education and Science of Russia from 22 February 2018, the requirements to the results and conditions of implementation of educational programs, which involve active implementation of network technologies and improvement of information educational environment (Order of the Ministry of Education and Science of Russia from 22.02.2018 N 122, 2021; Order of the Ministry of Education and Science of Russia from 08.02.2021 N 83, 2021) are reflected.

Material and methods

At the present stage, the digital environment is seen as an integral part of the human educational sphere, which is based on the subject-subject approach. Information and communication resources and technologies are integrated into the educational system not just as a means of education, but as an indispensable condition for the formation of certain skills and abilities of a person with value characteristics, capable of fully realize themselves in the modern information society.

Modern studies of information and communication technologies are conducted, on the one hand, in the context of information processes of socialization of the person S. S.V. Bondarenko (2004), M. Voropaev (2010), A.V. Mudrik (2014), V.A. Pleshakov (2010), V.V. Pustovoitov (2006), I.V. Robert (2007), on the other hand, considered as a means of educational activities L.S. Kruglikova (2000), A.V. Fedorov (2009).

The notion of information technology is interpreted in a significant number of studies, generally considered at the technical and digital levels, as "a set of ways, means and methods of automated collection, storage, processing, transmission and use of information to obtain certain results" (ROBERT, 2007, p. 10).

Information technology is closely related to the digital environment, which in turn is a rather multidimensional and comprehensive concept, interpreted as a variety of information technology and cyberspace, structured by various technological tools that allow access to resources and services online and offline. "The digital environment has infrastructure, structure and ultrastructures" (Order of the Ministry of Education and Science of Russia from 08.02.2021 N 83, 2021). Highlighted "elements of the digital environment: the means and

devices that open it. As well as types of digital environment digital workspace, virtual workplace, educational plat-forms, web spaces, etc." (IVANOV *et al*., 2014).

Most modern studies consider the aspect of the potential of digital technology in the learning process, but we cannot ignore the possibility of tremendous impact of the digital environment on the education of personality through its manifestation as a new kind of social reality - virtual. Virtuality has become part of everyday life, it is social, so we can talk about social virtuality. New forms of interaction and types of social relations arise in the society, so "the organization of the education process itself changes in different aspects (subjects, individuals of the educational process, technogenic factors appear, etc.)" (VOROPAEV, 2010). It should be noted that the process of interaction with virtual space can develop in two ways, as S.V. Bondarenko points out - "transformational, when people resist telecommunication technologies, understanding them as something alien, and adaptational, when individuals are synergic to a new social space for them, feeling themselves part of it" (BONDARENKO, 2004).

What are the educational results of the influence of the digital environment on the personality?

I.N. Terkulova, in her research, identifies the social and educational effects of using the digital environment. Based on studies by Western authors and A.V. Mudrik's concept of social education in the process of socialization, she singles out the following effects:

-in solving problems of individual assistance (formation of autonomy, development of motivation, formation of creativity, critical attitude to transformation, development of processes of self-determination and self-realization, etc.);

- as part of the problems of social education (full inclusion of any person in the educational process, self-evaluation (electronic portfolio), socialization in a digital society, skills of self-education and independent work);

- within the framework of solving the issues of mastering social experience (formation of abilities of cooperation, development of communicative competence, etc.). And also, a number of potential socially educational effects: strengthening of motivation, cooperation, information competence, creativity and self-actualization of students (TERKULOVA, 2019).

The effectiveness of the information-medium approach in the basis of management of the educational process of the university is confirmed by numerous studies, in particular, in the work of the authors N. O. Verbitskaya, N. A. Molchanova, A. N. Safronova. So, their research shows a significant dynamics of indicators of socially significant skills of self-preservation of health that, in their opinion, "is caused by the implementation of developed

and implemented real-virtual educational environment of the university" (SAFRONOVA; VERBITSKAYA; MOLCHANOV, 2018) (Figure 1).

Figure 1 – The results of diagnostic study of UGLTU students on the level of formation of socially significant skills of self-preservation of health in the real-virtual educational environment of the university
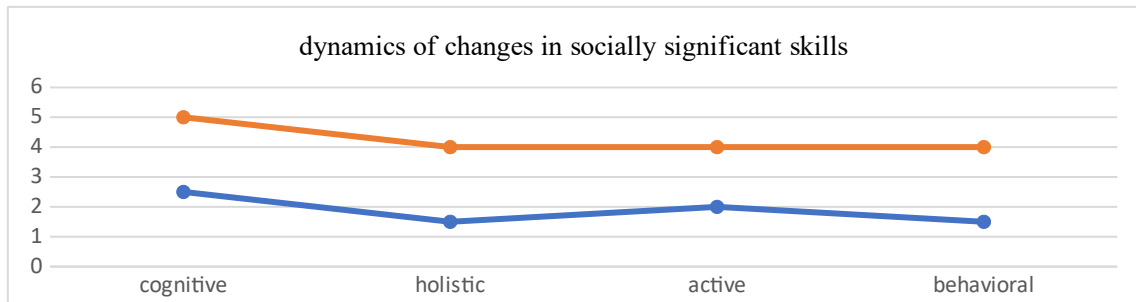
Source: Devised by the author

Results and discussion

To identify effective ways to integrate the potential of digital technologies in the educational space of higher education, it is necessary to consider the main aspects of the educational process.

The fundamental point is to determine the conceptual approaches to the process of education in high school, and here it is important to analyze the current concepts. The concept of upbringing involves the definition of 2 levels in the system of upbringing.

1. Formation of human values, world outlook, allowing the person to be realized in the system of human relations.

 2. Formation of personal qualities influencing formation and self-actualization of a personality in a concrete society.

Modern domestic concepts of education of youth are presented by the following approaches (GORSHKOVA, 2020).

1. Concepts of social education, under which education is seen as a process of purposeful influence of all social institutions on the personality with the aim of assimilation her experience of interaction with society (A.L. Soldatchenko, S.M. Tarasova, S.V. Kharitonova and others).

2. Concepts based on which the idea of education of youth based on human values and the formation of an active position in the process of self-realization and self-actualization in society (M.A. Krylova, D.Yu. Truppnikov, etc.)

3. Concepts determining the priority in the formation of a personality competent in the organization of collective activity (E.V. Sidorkina, S.S. Smironova).

4. Concepts which are based on the culturological foundations of an individual-oriented approach to upbringing, the goal of which is raising a cultural individual in the process of humanization of the educational environment (O.A. Singer, A.V. Ilyasova, L.M. Kozina, T.L. Stenina, etc.)

5. Concepts based on the idea of the reflexive-activity approach in forming a personality based on creative solution of life tasks. (E.G. Belyakova, I.N. Borzykh, I.A. Sharshov, etc.)

The analysis of modern concepts of upbringing allows us to determine the key directions of personality formation in the conditions of the educational system of the university with an active reliance on the social digital environment (Table 1).

Table 1 – Directions of the educational process and formed qualities of personality

Directions of the educational process	Personal competencies to be formed
Intellectual	- project-critical thinking - world outlook and worldview in relation to the external reality and the inner world of the personality - high level of creative, cognitive activity - aspiration for personal growth and subjective cognition of the surrounding reality
Value-based	- spiritual and moral qualities of the personality aspiration for self-knowledge and self-actualization, improvement of personal qualities - value orientations aimed at preservation and multiplication of mental and physical health of an individual and society as a whole - Cultural and aesthetic qualities
Communicative	- communicative competence - Positive and constructive style of interaction - readiness for active interaction with worlds in real and virtual space - the ability to self-reflection
Civil Law	- Active life position in the unity of public interests and self-realization of the individual in the social and personal spheres of life - Identification of oneself as a bearer of national culture - Acceptance and respectful attitude towards traditions and culture of other nations - The aspiration to preservation and increase of the national wealth of the motherland and the state as a whole - Ecological culture
Career Guidance	- high level of professional competence - value attitude towards professional activity - creative approach and flexibility in solving professional and life tasks

	- Responsible attitude to the professional duties performed
Fitness and Recreation	- value orientations aimed at the preservation and increase of mental and physical health of an individual and society as a whole - culture of healthy lifestyle

Source: Devised by the authors

When building an educational system of higher education it is advisable to identify a number of leading mutually defined components, reflecting the specificity of the content of educational activities of higher education.

1. **Educational component**. Relying on the potential of academic disciplines, implemented in the framework of the relevant in today's social conditions competence-based approach in education;

2. **Extracurricular educational component**. Organization of rational leisure activities of students in a harmonious combination of recreational, informational and educational, research interactive educational technologies with intensive integration of recreational conditions of the university environment and the surrounding society;

3. **Organizational-institutional component**. Effective integration of constructive possibilities of all subjects of educational activity of HIGH SCHOOL, as well as coordination of constructive cooperation with other social institutes.

Education in the digital environment of the university can be presented on the one hand as a process of organizing the subject-object educational space, on the other hand, as the integration of the potential of all subjects, as well as several external social institutions and subjects. It should be noted that the digital social-educational environment is an important condition for effective integration of the potential of all subjects. Subjects of educational process of HIGH SCHOOL are representatives of teaching staff, administrative staff, students and student associations are temporary and stable. External social institutions include all subjects that have interest and potential for cooperation (public and private organizations, employers, centers of culture and leisure, associations, centers for social development and support, etc.) (Figure 2).

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Figure 2 – Interaction of the subjects of the educational process of the university in a digital environment
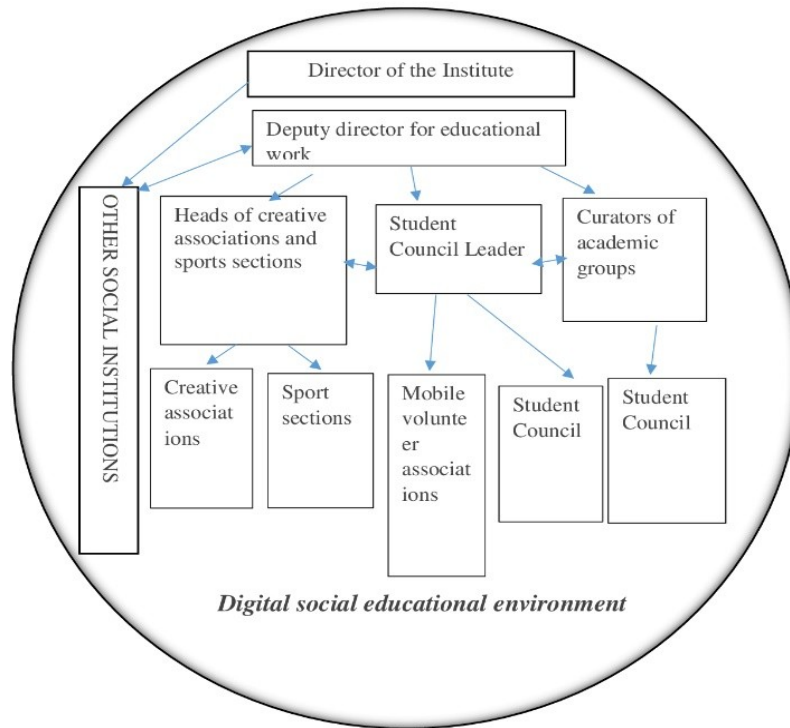
Source: Devised by the authors

The process of designing and implementing the educational system of the university in a digital social and educational environment involves the use of a significant range of educational and digital technologies, forms and methods of work, material and information resources. It is advisable to consider the features of each component of the educational system and organizational and pedagogical conditions that ensure the effectiveness of this process (Table 2).

Table 2 – Organization and implementation of the educational system of the university in the digital socio-educational environment

Components of the educational system of the university	Organizational and institutional component			
	Goal, objectives of implementation	**Subjects**	**Socio-educational digital environment**	**Educational and educational digital technologies**
Education component	***Goal*** – the formation of a highly moral person with a global outlook and critical thinking of human and professional	Students, faculty of the university and other organizations, departments of the university that support the	Educational websites, interactive digital workspace (technical means, interactive whiteboards,	-interactive (online and offline), forms of interaction (forums, discussions, conferences, round tables, seminars,

	relations within the framework of the competence approach **Objectives:** - Designing effective implementation of axiological component of the disciplines -Formation of key professional competences Formation of value orientations of professional and social self-realization	educational process, representatives of employers	networked educational resources), social educational network resources.	opening lectures) -applications with discussion platforms (Vialogues) - contests of research projects - Collaborative creation and maintenance of information product (online magazines, educational sites, blogs, etc.) - educational online content - the method of "reversed lesson" (inverse pedagogy) -Personalized accompaniment of students with the help of interactive platforms (Moodle) and interactive applications (Zaption, Adobe Voice) -Organization, planning and accompaniment of students' learning process and activities (online applications - Notability, SimpleNote, Flashcard) -electronic portfolios - virtual master classes and creative workshops
The extracurricular educational component	**Goal -** the formation of a personality with a high level of development of spiritual and moral qualities, active citizenship and the ability to communicate effectively in real and virtual space. **Objectives:**	Students, curators, representatives of employers, creative, sports associations, public associations, student government bodies, departments of the university	Social networks, websites of educational organizations and other social institutions, interactive digital workspace, intrauniversity digital platforms	- organization and participation in competitions of creative and practice-oriented projects - organization and participation in Internet projects -online creative workshops -organization and participation in on-line contests

	- design effective implementation of educational and leisure activities - Formation of the general key cultural competences of the personality facilitation of students' creative self-realization and self-improvement	accompanying the educational process, cultural and leisure and social centers		-organization and participation in on-line campaigns -creation of a virtual museum - creation of a virtual memory book, reference and encyclopedic editions -electronic portfolios

Source: Devised by the author

Conclusions

Thus, modern social realities, on the one hand, impose certain requirements for the formation of a personality capable of being a full-fledged, active participant in public and pro-professional relations and, on the other hand, the personal characteristics and cognitive features of modern "Generation Z" determine the need for global integration of digital potential in all its manifestations, in the educational process of the university. Digital environment of a modern higher educational establishment has a considerable potential for such integration, provided organizational, methodological and institutional activities are organized skillfully and effective synergy of educational and extracurricular components of the higher educational establishment's educational system is ensured.

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