Journal of Positive School Psychology http://journalppw.com
2022, Vol. 6, No. 2, 2055 – 2061

UNIVERSITY STUDENT DIGITAL CULTURE: ESSENCE AND FORMATION MECHANISMS

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Abstract:

The relevance of the article is caused by the influence of digital transformations on all spheres of human life. A new layer of socio-cultural interactions and relations is being formed, associated with the transfer of many processes to the digital space, the regulation of which cannot be subject to any general laws, since it has a global socio-cultural format. This determines the issues of positioning the role and place of a person in the digital space, his/her positive behavior, associated in the authors' view with the digital culture of all participants in the process. The purpose of the article is to identify the components of the digital culture of students and to justify the pedagogical toolkit of its formation in the educational activities of university students. As a research methodology, the humanistic paradigm of education is considered, aimed at preserving the importance of a person in the digital world, and creating a digital space exclusively for the benefit of a person. The authors reveal the main provisions of the socio-cultural approach, the main idea of which is the integration of social and cultural spheres of human professional activity in the digital space. The essence of digital culture is defined as a set of spiritual priorities and social values distributed in the space of digital technologies as an artistic field of modern life activity and its main functions (informational, communicative, socialization and personal sustainability) and components (axiological, cognitive, communicative and technological) are highlighted. The results of a pedagogical experiment to test the mechanisms of digital culture formation are presented. The article is intended for teachers, researchers involved in the formation of students' digital culture.

Keywords: higher education, digital culture, digital space, humanistic paradigm, socio-cultural approach, digital transformation.

Introduction

The era of digitalization has covered all spheres of our life, digitizing many socio-economic processes, increasing their instability and provoking a high rate of change. There is practically no sphere of professional and everyday life of a person that would not be

covered by digital technologies of data transmission and processing. Technological changes have influenced the socio-personal sphere, leading to new formats of people's interactions in the socio-cultural and professional spaces. As the researchers note: "... paradoxically, every large-scale shock, whether it is a major military conflict, an epidemic, a man-made disaster or another global disaster, is a catalyst for the development of civilization" (Novikov et al., 2021). Indeed, the Covid-19 pandemic caused a sharp jump in the spread and application of digital technologies during the transition of many spheres of activity to online, in a global sense, this transition also affected the education sector in many countries, which completely changed the type of activity in the shortest possible time.

In the global aspect, a number of changes in various formats accompanies total digitalization. The philosophy of the new world describes the phenomenon of "digital civilization" as a new set of knowledge, tools, and toolkit for the survival of the human community. This was preceded by a number of predictive theories: the theory of post-industrial society (Bell, 2004; Toffler, 1997), the theory of uncertainty (Taleb, 2016), the theory of information society (Castels, 2000; Webster, 2004). The basis of each of them is the process of global growth and dissemination of information flows, which forms new tasks of data processing, changing forms of communication, presenting information as a new energy. The researchers (Wolfson & Volchina, 2017) note the emerging inconsistency of *heterogeneous homogeneity* as a variety of new digital theories and trends of digitalization. New continuums and Universes are emerging: the digital space and the information and communication universe (Klyukanov, 2015).

Here, new socio-philosophical problems of the digital society are also being formed, which should include, first of all, digital inequality, which consists not only in the inability of a part of the population to access global resources, but also the speed of perception of objects of the digital world among different generations of Digital Natives and Digital Immigrants. What is mandatory skills and digital literacy for people over 35 years of age is the norm of life for younger generations, it does not require effort and develops spontaneously, which means that there is no gap as such and the subject of pedagogical activity, especially in higher education (Levina, 2019). The second problem is the moral aspects that arise from the transparency of each person's digital actions and the deliberate or accidental disclosure of personal information. Here we can also talk about the already widespread system of collective moral condemnation of events, involving many people in the process through comments on texts of social networks and platforms. Excessive communication, uncontrolled immersion in the online environment create an alarming stressful emotional background.

Therefore, the new civilization as a complex of technological solutions for the implementation of life processes creates a new format for the development of society, affecting all its members. For the new digital environment, which is developing exponentially, it is clearly necessary to develop norms of human worldview and behavior that allow us to stay in the social turbulence of technological achievements while preserving human values (Chernyshov, 2018). We believe that such an integrative educational environment is digital culture because of new knowledge, which contributes to filling modern digital processes with new human-centric content.

The purpose of the article is to identify the components of the digital culture of students and to justify the pedagogical toolkit of its formation in the educational activities of university students.

Research Methodology

Human development through technological communications in the digital environment reduces the role of the individual in any sphere of public life, forming some typologies (Kazantseva & Kazantseva, 2018). Human communication is gaining new value, which was especially evident during the Covid-19 pandemic. Having found themselves in forced isolation, having only technological means of life –activity for a fairly long period, people began to look for the very signs of the inner world of a person in online interactions, something that is easily seen in personal

contact. In addition, as it turned out, the lack of humanitarian knowledge and the level of digital culture, previously developed spontaneously, outside of educational activities, had a very significant impact on human conditions, the structure of interpersonal communication.

Individuality, human experience and personal manifestations in communications of any type, the meanings of activity-all this forms the core of humanitarian knowledge. Therefore, the methodological basis of our research should be based on the humanitarian paradigm as *the* subjective world of the person himself (Kolesnikova, 2001), understanding his essence expressed through thinking, a way of communication, a broadcasted relationship as an experience of reality and filtering through his own values. It can be generalized that the humanitarian paradigm as a concentrated system of scientific achievements determines human-centrism in all the diversity of its connections with the surrounding world (Kazantseva & Kazantseva, 2018; Monakhova, 2014). The human essence in its interrelation with the world of values and culture is broadcasted as an object of development within the framework of education.

In the system of the humanitarian paradigm, a special place is occupied by the socio-cultural approach as a way of considering the studied phenomena in an integrated representation of the unity of culture and society (Tryapitsyna & Pisareva, 2014; Tsirulnikov, 2016). From the point of view of this approach, the digital space forms a new type of interaction, in which human behavior is manifested, dictated by his digital culture (Gnatyshina, 2018; Bayanova et al., 2019). The selected continuum, limited only by virtual reality, defines its own cultural values and priorities, formats of life activity and interchange. Moreover, not all of them correspond to the traditional culture outside the digital space. Obviously, with the same speed with which there is a merger of digital and non-digital life activity, there is also a merger of cultures, while the scheme of interaction between digital culture and non-digital in the context of each person is diverse, and depends on the age category. This contradiction, in our opinion, can only be resolved by anthropocentrism-the consideration of a person, his welfare, his security as the center of the life activity of the entire society. Then the adoption of the boundaries of digital culture on a global scale of the digital space will be able to ensure the sustainable development of society without loss of morality and meanings.

In the context of student digital culture formation in the educational process of the university, this approach is based on the one hand on the transmitted system of knowledge of the future profession and its features, on the other hand - on the idea of personal development in the modern socio-cultural space, including the digital field, which also affects a person, and in some way changes its functionality. Here, digital culture appears as the basis of interaction and a stabilizing factor, a balance of behavior of all participants in professional interactions.

Results and Discussion

Based on the presented methodology, we conclude that digital culture can be represented as a set of spiritual priorities and social values spread in the space of digital technologies as an artistic field of modern life-activity. Digital culture is an innovative culture for the whole society and an integral part of the world culture as a whole (Lyubina, 2013). Since the digital space now forms an essential part of the space of human interactions as a whole and to a high extent reflects the level of public culture and the moral development of society as a whole, the following main functions of digital culture can be distinguished: communicative, informational functions, functions of personal sustainability and socialization.

The communicative function of digital culture is the result of simultaneous interactions of several types in the digital environment of man-man, man-society, and man-content through figurative and sign systems represented in the digital space by multimedia content. It is implemented through the communication component of digital culture, providing unique formats of social interaction. This component can have both a positive and a destructive meaning, depending on the direction of the content being mastered.

The information function of digital culture is the accumulation and dissemination of information in the global network. In this context, we are literally being blown away by

the digital flow of information and data, 90% of which has been generated over the past 5 years. The total digitization of all information sources has led to the openness of many data, access to any field of activity, and at the same time to an information oversaturation. The ways of transmitting information have also shifted, which has particularly affected the transformation of the role of teachers at all levels of education. This function is implemented through the information and cognitive component of digital culture, where cognitive nature is understood as a specific personal perception of the information read, passed through a sieve of personal values, the ability to process data, critical thinking. The effectiveness of this component is the knowledge obtained by a person (Levina, 2018).

Personal stability as a function of digital culture is to reduce the negative impact of the destructive content of the digital space and the communications that arise within it. The stability here serves as a guarantor of the information and digital security of a person who carries out various activities in the digital space. Sustainability makes it possible to use the positive potential of digitalization of life-activity, serves as a filter of the information volume of data, allows a person to be a part of a digital society while preserving their own values and meanings.

The function of socialization of digital culture emphasizes its importance for the individual in the implementation of digital processes. Already now there are some life-activity processes (mostly related to the banking sector) that do not already have analog formats. Unlike other spheres of culture, digital culture much easier attracts new, young members of society than the older generation, who need to learn new skills for life. At the same time, there are no adaptive functions of culture that will carry out a value transfer to the digital world for the younger generation. Such a unique shift in formats requires the development of special ethical rules and norms that define the boundaries of the life activity of the entire society, regulating actions and behavior in the digital space on a global scale, despite the difference in national cultures. It is necessary to develop norms and rules that are as consistent as possible with the world system of value orientations.

It is important to note the contribution of each person and communities to the development of digital culture as a whole, especially for the younger generation, whose digital culture makes the greatest contribution to the development of personality, while for the older generation the opposite process occurs – the formation of skills to work with the digital space and the alignment of values with the values of the digital world. We believe that digital culture can be represented as a set of system knowledge in the field of digital literacy, digital security, digital etiquette, experience of digital communications, implemented in any communication interactions in the digital space. The result of digital culture is a person's behavior in the digital space, his digital footprint and his own landmarks. The basis of the humanitarian paradigm allows us to distinguish four generalized components of digital culture:

1) Axiological as a person's worldview, value orientations of life-activity, including professional activity, awareness of the values of the profession and oneself as its representative;

2) Cognitive, related to personal perception, critical thinking and security in the analysis and design of digital content;

3) Communication as a willingness to cooperate within the professional field of activity in the digital space

4) Technological as digital literacy and possession of digital toolkit in the framework of professional activity.

The formation of student digital culture is carried out on an interdisciplinary basis – in the process of studying humanities, disciplines of the information cycle, while professionally oriented disciplines set the boundaries of professional ethics and the range of actions in the digital space. The contribution of the humanities is associated with the education and development of personal value landmarks, the disclosure of a person's place in the modern world, where a significant part of personal and professional interactions already take place in the digital space. The disciplines of the information cycle have led to the development of the necessary level of digital literacy for

solving professional tasks. Taking into account the interdisciplinary nature of the pedagogical process, we believe that the priority will be a set of practice-oriented classes (seminars or laboratory work) aimed at maximizing the approximation of educational tasks to the problems of professionally oriented activities in the digital space. The authors implemented a pedagogical experiment in which students of economic specialties took part (236 people from several Russian universities: Murmansk Arctic State University, Vladimir State University named after Alexander Grigoryevich and Nikolai Grigoryevich Stoletov, Pacific State University, Moscow State Region University, Gzhel State University).

Taking into account the economic orientation of the training, a special integrated role was assigned to economic disciplines, within the framework of which the final interdisciplinary seminars, conferences and business games were held, aimed at identifying and analyzing the professional behavior of students in the digital environment. At the same time, within the framework of other disciplines, problematic issues on certain aspects of digital culture were raised at all stages of training, which were resolved in the framework of seminars, discussions, and the preparation of student essays. Pedagogical diagnostics was carried out by means of an additive expert assessment on the results of each performance of each task in forming a digital culture on a 10-point scale. The experts were teachers and moderators from among the students themselves. The intermediate assessment was at the end of semesters (2-5). The implementation of the pedagogical experiment on the formation of the digital culture of students took place during 2019-2021, and in one of the semesters, part of the training was transferred completely to the online format. To analyze the dynamics, a level scale was used to assess digital culture by the points scored: 0-3 points – low level, 4-7 - average level, 8-10-high level. Based on the results of intermediate assessments, the final average assessment of the level of digital culture formation in the experimental groups was made.

Figure 1 shows the dynamics of the process of forming a digital culture among students of experimental groups, in the learning process of which interdisciplinary educational and methodological support was introduced.

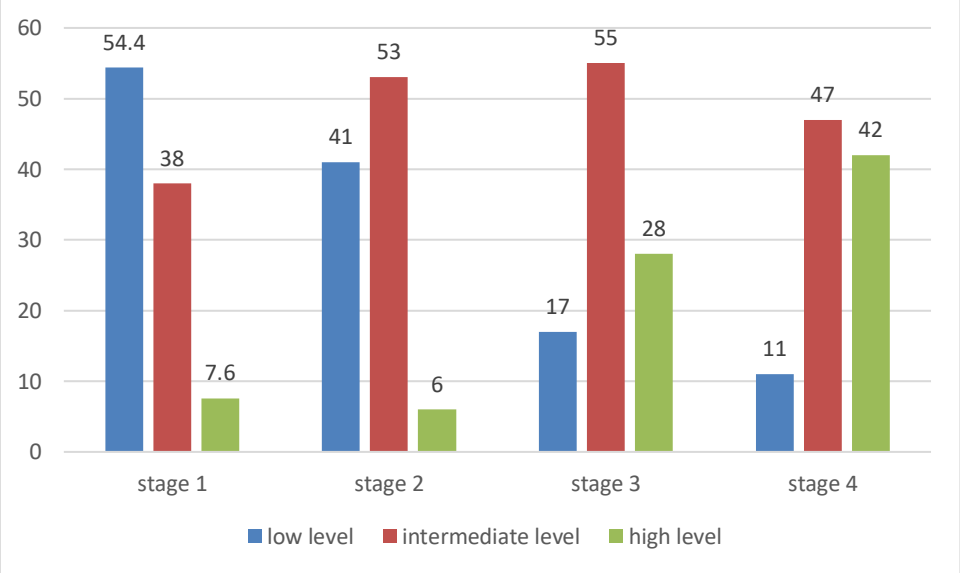

Figure 1. Dynamics of the digital culture formation of university students by study stages (in % of the total number of students)

The positive dynamics of the process of forming a digital culture is undeniable. If at the beginning of the experiment only 7.6% (18 people) of students had a high level of digital culture, by the end of the experiment – already 42% (99 people). The authors believe that the period of transferring training to online could reduce the indicators of the formation of digital culture at the second stage of training.

The results of the analysis of student satisfaction showed that the process of forming a digital culture was useful and informative for 87% of the participants of the experiment (203 students). In the future, it is necessary to expand the pedagogical experiment for students of other specialties, taking into account the field of their future professional activity.

Conclusion

The concept of a modern post-industrial society is gradually being replaced by a new concept of a digital society, where the digital economy is a priority, as well as other processes of human life that are gradually absorbed by the digital environment. It is obvious that the digital space is becoming a reality of our existence and begins independent influencing the culture of society in any mentality. The question of the balance of culture and technology has been under close study by scientists of the socio-humanitarian sphere for at least 20 years (Galkin, 2004; Taller, 2012; Astafyeva, Nikonorova & Shlykova, 2018). At the same time, the discourse about its integral representation, the need for formation in the educational process of the university, the pedagogical toolkit of its formation has not yet received its completion.

The authors offer their own vision of the essence of digital culture and a universal process of its formation, based on the humanitarian paradigm of education and a socio-cultural approach. The pedagogical toolkit is an interdisciplinary course (program) for the formation of digital culture, where within the framework of humanitarian, professional disciplines and disciplines of the information cycle, through a system of assignments and tasks that require active educational activity of students, a step-by-step process of forming a digital culture is carried out, taking into account the ethics and norms of future professional activity. The proven effectiveness of the process proved the pedagogical effectiveness of the proposed toolkit. The process can be considered valid and reliable, since students from different universities and cities participated in the experiment. We believe that this pedagogical experience is capable of spreading to students of other specialties. However, when designing the course, it is necessary to take into account not only the features of the future professional sphere of students, but also the relevance of digital technologies, norms and rules of behavior – there are no globally stable components in the digital space. The transmitted values of a person can and should be sustainable, preserving the common cultural layer even with tectonic changes in living conditions.

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