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Influence of Digital Environment on Formation of Cross-cultural Interaction Experience in Professional Education

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Abstract: The article proposes an understanding of digital transformation as a two-way process of technological improvement of equipment and updating methods of knowing the surrounding world, producing knowledge at a new technological level. The authors emphasize that the activities of a teacher of professional education go beyond technical competencies and point to the need to understand the methodology of the knowledge resource of digital technologies, including in the formation of softskills. The authors believe that the study of cross-cultural interactions in socio-economic disciplines increases resistance to the uncertainty of digital transition, expands the understanding of the multiplicity of multicultural society, forms skills of intercultural cooperation, respect for other cultures, traditions and languages, without reducing the importance of national features and traditions in professional education.

1. Introduction

Digital transformation processes in the wake of the fourth industrial revolution led to a change in the realities of a steady, predictable, ordinary and definite environment of activity of the mid-twentieth century - SPOD, denoting new development conditions that were formed by the postneclassical paradigm of technoscience. Complex multidimensional self-developing organizational structures, processes of integration and convergence of technologies, synthesis and synergy of new forms of knowledge have critically changed the nature of business activity and

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social development. However, the high rate of information updates, the growth of technological innovations, the complexity of communications and digital transformation began to be perceived as a time of volatility, uncertainty, complexity, and ambiguity. That is why “fundamental changes in science and education due to the spread of digital technologies objectify the need to understand the general methodological foundations of digital ways of knowing"[1].

2. Theoretical Basis of Humanistic Education

The problems of the influence of digital technologies on humans are developed by specialists in various fields of knowledge: humanities (Digital Humanities), philosophy and epistemology (Epistemology & Philosophy of Science), intercultural relations (Intercultural Relations), cross-cultural management. For the practice of professional education, the processes of digital transformation have updated the increased attention to such digital transition phenomena as interdisciplinary interaction, cross-cultural dependencies, project thinking, cognitive activity. The pages of specialized journals Computers & Education, The Digital Scholar: Philosopher's Lab, the International Journal of Intercultural Relations, Harvard Business Research and other publications raise questions about the importance of digitalization impact on humans.

Recognizing the opportunities of the digital environment for professional education in mobility and self-development, scientists note the negative aspects of digital technologies. For example, the generation of "digital natives", who have grown up in a digital world, are able to adapted the future easy", but they are limited in the ordinary people features", as empathy, sympathy, compassion. However, in the digital world, not only pragmatism and the speed of solving problems are important, but also competent communication, the ability to argue and convince. The knowledge paradigm of technoscience doesn’t mean St.W. Fuller's "algorithmic deism", when "a person and a computer act as alternative platforms for realizing "abilities "or "functions "that do not depend on material differences between platforms".

The publications of Russian philosophers on the pages of the journal Epistemology & Philosophy of Science show clear changes in human, cultural and social space, therefore, it is important for philosophy to "focus on the social sciences and humanities in search of new methodological experience" [2]. A number of researchers propose “field philosophy” projects as integrated ethical and epistemological studies in scientific, technical, social and cultural policy. Domestic educational practices, reflected by the philosophy of education, as arguments for the ambiguity of virtualization processes, are revealed by the publications of the Siberian scientist Borisenko Irina G.: on the one hand, a more complete ontological filling of the personality, on the other hand, the threat of "subjectivity," "reality," "mindfulness" loss for the personality. Western authors also speak about the threats of the technological revolution, noting its "enormous impact on cognitive skills and ways of organizing and developing knowledge" [3].

In Russian pedagogical science, research on the methodology and didactic prospects for the formation of knowledge in the context of the inconstancy and variability of the new technological environment is being widely carried out. Most fundamentally processes of interference of technological aspects and psychology and pedagogical factors of training in the new educational environment are presented by the works of Irena V. Robert: "The process of the convergence of pedagogical science and technologies initiates the development of education informatization due to the mutual influence of different areas of the psychological-pedagogical science and information, communication and cognitive technologies" [4].

Publications such foreign journals as "Computers & Education", "Teaching and Teacher Education", "Comunicar" confirm that "technologies open the didactic prospect of enriching the content of training, mastering the ways of solving problems, using digital research methods in the formation of knowledge" [5]. Research is aimed at developing skills for working with information:

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"Until methodologically approaches are combined, digital resources... will not develop really critical thinking, the ability to qualitatively evaluate digital information "[6].

Thus, Russian and foreign researchers combine attention in the study of digital transformation not only to digital means, equipment, hardsoft, but also an understanding of the properties significance of the digital environment in which new ways of cognition are formed. At the same time for formation of new abilities, skills, competences of knowledge production and professional development in the conditions of inconstancy and variability of digital environment it is known" an ethical consensus between the "under-definition" of philosophical and special scientific subjects and methods" [7]. Cross-cultural management and Intercultural Relations are areas of knowledge that develop softskills, situational and interpersonal adaptability, cross-cultural sensitivity, empathy, as well as logical thinking and resistance to uncertainty.

3. Softskills in Digital Transformation of Professional Education

Digital transformation is defined as one of the leading national development goals of the country, implying that achieving the goal involves not only the introduction of new digital technologies, because the very "introduction of technologies is a logical result, a consequence of a change in the culture and thinking of staff" [8]. This approach is shared by representatives of various scientific areas, specialists from the National Academy of Science & Engineering (Acatech), materials from Digital Education Policies in Europe, JRC Science for Policy Report, EUR 29000 EN, Luxembourg, (2017), publications of scientists of different fields of knowledge. The conditions of volatility, uncertainty, complexity, and ambiguity of the digital transition characterize the working conditions both in modern knowledge-intensive areas of production, online retail, online streaming, EdTech, and traditional industries of the oil and gas, mining, and metallurgical industries (ALROSA JSC, Gazprom Neft PJSC, Rosseti PJSC, GC " Manufacturers of equipment, machines, transport systems of JSC Russian Railways, PJSC KAMAZ), enterprises of the light, textile and clothing industries, food companies are building up digital potential.

In response to the challenges of digital transformation in the pedagogical practice of professional education, a request was formed to strengthen a block of disciplines that ensure the formation of universal meta-skills, basic competencies in the educational process, which was reflected in the adoption of a new format of educational standards (GEF 3 + +) and professional standards. The documents confirmed that the teacher's activities in the digital environment go beyond technical competencies. On the part of business and production, the features of the digital environment, its variability, organizational and technological complexity, indicated the relevance of softskills formation, which ensures fruitful interaction of people, creative mutual understanding and cooperation in teams that include workers from different countries, different nationalities, and different religions.

Empirical materials of the School of Research (SAS) teachers of Tyumen State University, on programs for teaching writing and thinking, developed by Bard College and J. Hopkins University (USA), proposed to Russian students, revealed a lack of certain basic academic skills in the analysis and interpretation of texts, the development of critical thinking, discussion, difficulties in the practice of logical argumentation, verification of the hypothesis, relevance of the idea. The results of teaching based on 2018 teaching and evaluation were analyzed by Tomas Blushevich, a PhD at Harvard University. Knowledge-intensive production requires specialists who are distinguished by creativity, the ability to quickly adapt to the current situation, to have formed communication skills. In foreign practice, the leaders of the new generation are defined by the features: Vision, Understanding, Clarity and Agility.

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4. Peculiarities of Experience Formation of Multicultural Interaction in Educational Process of Specialists Training for Modern Production Facilities

"The educational sphere of the information society is initially interdisciplinary and combines at least two areas: education is considered both as a subject of pedagogy and as a cultural transmission process, taking place in the new conditions of a single information environment" [9]. Digital transformation affects changes in the value and social guidelines of society, which entails a complication of relations between intercultural and intracultural interaction. The experience of long-term residence in another culture reflects the peculiarities of the historical development of Russia in the conditions of a multinational and interfaith society, which contributes to the formation of tolerance to intercultural sensitivity, global identity, alternative ways of behavior and interpretation of the world. Nevertheless, for a business in the period of digital transition and the volatile business environment, solving the problem of preparing employees for new conditions by developing skills of flexible response and emotional control to external situations of instability, which precede the cognitive assessment and behavior of employees of the enterprise, becomes extremely relevant.

To solve this problem, educational technologies, disciplines and methods, which allow you to explore the mutual influence of ethnocultural groups, the nature of the social and cultural adaptation of employees, are integrated into the training process. Softskills, as over-subject skills, allow specialists to quickly adapt in a new group, a new field of knowledge, be able to arguably defend their position, be in demand, build communication without strain. These skills are of particular importance in building a lifelong learning trajectory that allows them to adapt to changing working conditions. The combination of softskills in the process of forming professional competencies may include various aspects of the development and accumulation of professional experience in a multicultural society. For example:

- cognitive, manifested in mental activity for extracting knowledge of various educational disciplines, such as languages, mathematics, organizational behavior, organizational design, project development, applied workshops;
- psychomotor, necessary for performing various operations within the framework of a profession, work or business in the form of master classes, development and description of conducting empirical research, installations);
- affective, related to reflection, punctuality, thoroughness, general attitude to the quality and results of their work, an idea of the meaning and significance of work, about themselves and other people.

The peculiarities of the educational process organization in solving problems of systematizing and streamlining ways of transforming theoretical knowledge into practical actions in the curricula of training economists, managers, accountants are achieved by the techniques and exercises of completing tasks for adapting to new roles in flexible forms of global business organization (adhocracy, participation). The instrumental approach of forming softskills focuses on the ability to quickly learn, switch attention in accordance with the situation, systematize and organize, analyze and synthesize large volumes of incoming information. An example is the survey method according to the method of J. Hackman - G. Oldham, with the measurement of motivation based on the parameters of work autonomy, completeness, diversity of work, its significance and feedback. Students plotted the trajectories of the motivational sphere of students in comparison with the data of practitioners. Among other procedures, ranking methods based on the pairwise comparison method, the factor method, the sociotyping method and some others were mastered.

Technologies are a multifunctional tool of the educational process, but they require a professional position on the part of the teacher to correctly integrate them into the educational

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process. In the first decade of the new century, e-learning coverage for higher education has increased like a "tsunami", as John Hennessy, President of Stanford University figuratively put it. The use of cloud education resources (Massive open online courses of training platforms Coursera, ALISON, Open Culture, Open YALE Courses, Zooniverse, edX.org, etc.) should be recognized as an effective tool for gaining experience in intercultural communication. The ideas of Smart education, or smart learning, in an interactive educational environment with the help of content from all over the world that is freely available, are actively used in pedagogical activities.

Among a wide variety of proposals, the interest of educators was caused by the resource MOOC - Ed, a project of the Institute for Educational Innovation of the Pedagogical College of the State University of North Carolina (The Friday Institute for Educational Innovation of UNC). The multifunctional research center was created by William Friday, the former rector of the University, and his wife Ida Friday with the goal of developing education based on innovation and inspiration of teachers, therefore the motto of the Institute is "Education, Innovation & Inspiration." The various activities of the Institute are presented on the website fi.ncsu.edu. The proposed program of courses includes different directions of innovation in education, focusing on authentic practice-oriented training, cooperation and expert support of training technologies.

In foreign and Russian practice, the ideas that "knowledge is not accepted passively, but is actively accumulated by the cognizant "have been established, therefore "it is necessary to teach in laboratory classes," through project activities, based on a cognitive basis [10]. Project technologies enhance the creative skills of students, the independence of decisions in assessing intercultural cooperation. For example, students conducted a study of the preferences of entrepreneurs in choosing the region and business area (100 respondents, including 43 women and 57 men), which showed that most entrepreneurs prefer Turkey (13%), Spain (12%) and Greece (12%) for doing business. Among the types of business activity, interest in trade (37%), hospitality and tourism (18%), real estate services (12%) was revealed. Only 5% of respondents were interested in production. 50% of the respondents did not know about the peculiarities of doing business in another country. Among the obstacles to doing business abroad such reasons were named as: political (47%), economic (38%), social (15%).

Mastering the experience of cross-cultural interaction involves the study of two or more languages, that is, bilingual and polylingual training of students, which requires coordination of multicultural and multilingual education. While learning each new language, a person expands not only his horizon, but also the boundaries of his worldview, which increases his ability and readiness for adequate interaction in situations of intercultural communication. In foreign literature, this area is considered under various terms, multicultural education, diversity education, multilingual education, bilingual education. Learning languages develops memory, analytical skills, argumentation and discussion skills, intelligence, logical thinking. Linguists have found that language-speaking students are less conflicted, capable of overcoming national stereotypes, easier to contact and quickly adapt in a group.

The formation of the cross-cultural cooperation experience determines the preservation of the cultural linguistic and spiritual diversity of the world. The integration of pedagogical technologies of multicultural and multilingual education increases intercultural communication.

5. Conclusion

Digital transformation is a dual process of technological renewal of equipment and tools for cognition of the surrounding world, on the one hand, and, on the other hand, the process of improving the methods of cognition and production knowledge at a new technological level. The activity of a professional education teacher goes beyond the limits of technical competencies. The digital environment, as uncertain, variable, complex, ambiguous, objectifies the need for a digital

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knowledge resource methodology. Thus, a request for the formation of softskills, quick adaptation in a situation of interpersonal contradictions, relieving tension in a new group, building communication based on verbal arguments, having emotional intelligence, as well as logical thinking, the ability to quickly restructure attention, is updated. The study of cross-cultural interactions in socio-economic disciplines increases resistance to uncertainty, broadens understanding of the plurality of multicultural society, forms skills of intercultural cooperation, emotional participation in representatives of other cultures, traditions and languages. New disciplines and digital technologies do not minimize the importance of national characteristics and traditions in professional education. The methodology of humanitarian education, based on a knowledge paradigm, focuses on cultural diversity, equality of access to education, openness of information, freedom of expression of interaction subjects taking into account their cultural characteristics, which is laid down in the documents of the Bologna process.

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