Socio-Cultural Transformations of the Information Society as Factors in the Formation of the Personality of the Student of a Technical University

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Abstract—**The relevance of the article is determined by the need to develop personal potential, the formation of socio-cultural competence of a specialist, using culture-like strategies of professional activity in the conditions of transition to an information society. The purpose of the study was to determine the socio-humanitarian component of higher technical education for the formation of the student's personality when analyzing the modern socio-cultural process in Russian society. The problems stated in this work necessitated the use of an interdisciplinary approach, with the help of which it is possible to study the problem in a complex, using the methods used in sociology, philosophy, cultural studies and psychology, which made it possible to compare the sociocultural transformations in society and the technology of the personality formation of a technical university student, and also to reveal their dynamics. As a result of the study, approaches were developed to create a concept of social and humanitarian education at a technical university. The scientific novelty of the research is that the sociocultural situation that has developed in Russian society under the influence of globalization processes, its influence on the socialization processes and the choice of value orientations of young people, the importance of socio-humanitarian disciplines for the formation of the personality of students of a technical university, and the direction of innovative technologies in the process teaching social sciences in a technical college.**

Key words—globalization; humanitarian culture; education; socialization; identification; interests; values; information society; infosphere; sustainable development; professional competence

I. INTRODUCTION

The modern high-tech society of information technologies needs an educated and conscientious individual, creator and carrier of new forms of social life for its reproduction and further development. Changes taking place in modern society cannot but influence both the system of higher education itself and the process of formation of the personality of a young specialist. In this paper, the main task is to study the influence of sociocultural transformations of the information society on the formation of the personality of a technical university student. The scientific novelty of the research consists in considering the sociocultural situation in Russian society in the context of globalization, which influenced the socialization and choice of value orientations of young people; identifying the importance of social and humanitarian disciplines for the formation of the personality of students of a technical college and determining the direction of the introduction of innovative technologies in the process of teaching social sciences and humanities at a technical university.

II. METHODS

The problems stated in this work necessitated the use of an interdisciplinary approach, with the help of which it is possible to study the problem in a complex, using the methods used in sociology, philosophy, cultural studies and psychology, which made it possible to compare the sociocultural transformations in society and the technology of the personality formation of a technical university student. and also to reveal their dynamics. The theoretical and methodological basis of the study consisted of the ideas of the fundamental works of the classics of the world and domestic socio-humanitarian scientific thought on the problems of the modern information society, value orientations and principles of formation of educational systems, socialization of the individual. The concept of "post-industrial society" began in the 60s of the last century in the works of D. Bell [1], A. Giddens [2], E. Toffler [3, 4], S. Nora [5]. Researchers of modern processes taking place in the world make many attempts to explain the causes of the current global changes. So, some believe that at the moment we are in a transitional period from an industrial to a post-industrial society, assuming along with D. Bell [1, p. 21] and his supporters that this turn is connected with the transition from the industrial society to the services society. Others - in particular, Z. Bauman [6, p. 40] - denote this period by the transition from modern to postmodern. For the third, as well as for F. Fukuyama [7, p. 8], the turn exposes only the "end of history" and the complete

victory of the market economy. In addition, each researcher tries to explain the same phenomena, placing different accents and interpreting their meaning and meaning in different ways. According to one of the authors of the theory of post-industrial (informational) society O. Toffler, "temporality serves as a distinguishing feature of human relations on the way to a post-industrial society" [3, p. 73]. He claims that in a new, superindustrial society, some of its members can never feel "at home." They will forever remain travelers, who have only a temporary home. If earlier companies looked askance at employees who often change jobs, considered them unreliable - now, on the contrary, this quality is considered as a "plus", it means that the person is well adapted in the new environment.

The scientist anxiously notes that "it is impossible to cause a shock to the future for a large number of individuals, without affecting the rationality of society as a whole" [3, p. 296]. According to O. Toffler, a new society emerging before our eyes marks such a significant turn in history, which is comparable in scale of transformation only with the transition from barbarism to civilization. It is not only the revaluation of all existing values, but also the revision of the civilization code itself, when all the parameters that determine the organization of life of the former society should change. According to the German philosopher and futurologist G. Markuze, there are private social forces that are interested in suppressing a person. They impose false demands on the individual in order to perpetuate all that is incompatible with the ideals of humanity: hard, overwork, aggressiveness, poverty and injustice. It is important to note that often the satisfaction of these false needs brings a person satisfaction.

According to G. Markuze, the production sphere is not limited to goods and services alone. Together with them, a downpour of relationships, habits, and reactions falls on a person - and all this is imposed on a person from outside, in order to more firmly link him to the production sphere. "Goods absorb people and manipulate them; they produce a false consciousness that is immune to their own lies" [8, p. 134-135]. To characterize the state of culture of an industrial society, he introduces such concepts as "one-dimensional society" and "one-dimensional man", which are formed through a mechanism to meet the needs imposed by the culture of the ruling class in order to obtain an easily controlled human mass.

Thus, the individual loses any basis on which he could develop autonomy, and even more so the ability to resist the whole society. The latter position is connected with the problem of the massization of society, the emergence of a "man of the crowd", according to H. Ortega y Gasset [9]: in the new informational conditions, this trend is developing even more rapidly than in industrial society. "The world is changing rapidly due to technological development and the information explosion in recent years" [10]. Moreover, even being in tense network relations and correspondingly communicating with others, we experience the only reality - media reality. Thus, "this is a system in which reality itself ... is completely captured and immersed in virtual images, in a made-up world in which external displays on the screen not only inform about certain experiences, but also become experiences themselves" [11, p. 373]. The concept of "informational" society is closely connected with the concept of "informational culture", which can be viewed in a broad and narrow sense of the word. In a broad sense, information culture includes the degree of improvement of information technology, the results of these technologies and the degree of personality development. From the point of view of improving technologies, it is assumed that information technologies penetrate into all spheres of human activity: economics, politics, art, education, life, etc. In a narrow sense, information culture is associated with the way of mastering information. You can talk about the information culture of the individual, which includes:

☐ a fundamentally different type of communication - virtual;

☐ freedom of access to any kind of information within the rapidly expanding infosphere;

☐ a new type of thinking that implies a focus on self-study and self-education due to the availability of various types of information, including educational services. The nature of the studied processes led to the application of various methodological approaches and methods. In addition to general scientific principles and methods, a range of methodological approaches was used: historical, structural-functional, systemic, cultural-anthropological, as well as systematization, classification, actualization, and specific methods of applied sociological research, such as content analysis, interviews, and observations. At certain stages of the study, general scientific principles and methods were applied: the principles of comprehensiveness and continuity, as well as such methods as statistical analysis, synthesis, induction, deduction, etc.

III. Results

It should be noted that in Bauman MSTU's study of the social sciences and humanities traditionally received much attention. Even in the Charter of the educational institution of 1844, theoretical training, along with algebra, physics, chemistry, descriptive geometry, included penmanship, Russian grammar, God's law, and German. Experiencing difficult historical periods with the country, IMTU -MHTI-MSTU maintained humanitarian courses that allowed developing moral consciousness, forming a humanistic world view and responsible thinking of future engineers. For more than 40 years, there has been a department of social sciences and humanities at MSTU - MHTI, which today organizes training students in sociological disciplines as well. The staff of the Department of Sociology and Cultural Studies seeks to concentrate efforts in teaching on the implementation of the main tasks of social and humanitarian education at a technical university: "preparation for successful entry into the labor market, preparation for life and the development of an active life position; personal development; maintaining a broad base of advanced knowledge "[12, p. 11]. Particular attention is paid to the formation of socio-cultural competence of the engineer. Engineering education in a modern technical university should use the opportunities of the social sciences and humanities to form large-scale engineering thinking. Socio-humanitarian disciplines give future specialists, step by

step, the competence of professional and social mobility — readiness for constant self-education and change in the type and nature of their professional activities. Moral and civic competences (law-abiding and active participation in political life) are also the prerogative of social training modules. Socio-humanitarian disciplines develop the competence of personal-cultural development: the ability to personal and substantive reflection, self-regulation, analysis and reassessment of personal and professional experience, respect for historical traditions and cultural heritage, understanding and making aesthetic, religious, existential problems and solutions. The similar significance of social competence for the professional activity of a technical specialist in the modern world sets the task of a broad discussion by the pedagogical community of the forms and content of sociological education at all levels of higher technical vocational education.

IV. Discussion

Student youth is a special socio-demographic group, similar in nature to the activities, interests, and orientation of the social group of intellectuals and specialists. It is in the process of becoming socially mature, and it has such features as social mobility, social activity, a tendency to innovate, increased adaptive capacity, the need for self-identification and self-realization. The main practical problem of socialization is to predict the social development of young people. What value orientations they prefer to choose, what in their behavior can potentially threaten society, and what should be supported as innovative. Very important in this process is the reasonable position of socialization agents. High School is one of the influential agents of socialization. It is in high school that a person receives professional knowledge and in many ways forms his social and cultural identity. Let us denote the main problems of the existence of a student in the modern infosphere: realized in the last third of the XIX century the dilemma of "Man-Technique" acquires a different scale due to its other qualitative essence; the partner of a person is no longer just a machine, but a highly intelligent machine that is capable of the same activities as a person, but does not have a biological characteristic; the question of creating (or not creating?) artificial intelligence is becoming increasingly relevant; intercultural communication is increasingly carried out within the infosphere; for children and young people, virtual reality is an integral part of sociocultural reality; the processes of socialization and enculturation also cannot take place outside of information and computer technologies (taking into account the installation of the Russian government for informatization, existing federal documents and government programs); a person's dependence on artifacts of the infosphere increases, for example, Internet addiction, gambling syndromes, etc.; information technologies that are actively introduced into the learning process (both in secondary and higher education) are an additional persuasive factor for young people in favor of virtual communication.

In recent years, in studies on youth, special attention is paid to changes in the system of value orientations, life goals and plans of modern students in the direction of greater pragmatization, "adaptation" to the conditions of the social environment. Mercantilism and the focus on the implementation of consumer behavior become dominant in most of the student youth under the influence of Western living standards, while higher education is considered by the majority as a means of material and status self-determination. "Meanwhile, individual university professors and researchers are taking a step forward to try out innovative experience in their classes, to cope with complexity and achieve holism in the development of knowledge" [13]. Changes in Russian society associated with general economic and socio-cultural globalization also influence the socialization process of the younger generation. One of the most important results of socialization is the acquisition of sociocultural identity.

Socio-cultural identity is a dynamic state of the search for consensus regarding the assessment of their own behavior among members of a group or community and belonging to a particular culture. Socio-cultural identity is an individual's perception of himself as a member of a certain social and cultural group and is closely associated with the approval and acceptance of those values, norms and ideals that are characteristic of this group when belonging to a particular socio-cultural group acquires immediate emotional significance for personality. The formation of identity is one of the mechanisms of socialization and acculturation of the individual, when the values, norms and ideals of certain sociocultural groups to which the individual belongs or wants to belong, are learned as their own. This is a long and, unfortunately, not always regulated process, the results of which may not always satisfy a particular society. The identification mechanism is, first of all, an assessment of the actual circumstances of a life or a specific situation that has become problematic for the young person, uncertain or unknown, that is, it relates them to some ideal ideas that define the behavior of what should be or what is desired, possible or has already happened. In the modern multi-polar and multicultural world, the search for the identity of their identity becomes the most urgent requirement for survival and adaptation to this rapidly changing world, a requirement that determines the emerging value system. "In a dynamic world, stable social identity is fundamentally impossible ... The era of the normalization of unstable social identification states of a personality is coming. And this process should be taken as a social fact." [14, p. 27-30]

Together with the rapid and often negative changes in the world and society, the expansion of influence and the growth of the possibilities of the mass media, a person feels the instability of his existence. The crisis of society leads to a crisis of identity. A feature of the modern world, often assessed as its crisis state, is, as Z. Bauman notes, the vulnerability and unreliability of modern living conditions. It is a combination of personal experiences of "insecurity (work, existing rights and means of subsistence), uncertainty (in their preservation and future stability) and lack of security (one's own body, one's own " I " and their continuations: property, neighbors, the whole community)". [3, p. 173] According to the research data of VCIOM, E.L. Mogilchak, R.K. Khabibulina, O.S. Deineka today has a typical situation (especially among young people), when an individual is not able to realize his value system and determine the structure of values, weight and hierarchical connections between them

[15]. Constantly trying to adapt to rapid changes, the young man feels the need to constantly build up his identity, to restore the feeling of his "I". But the acquisition of identity in the new conditions is no longer a complete process, it is not enough for life in this rapidly changing society, and man again and again tries to find his place in the world. One of the means of material and status self-determination of a young person is the higher education system. The educational system should perform the function of socialization of generations, i.e. integration of the younger generation into the system of values and norms of social life, into civilization culture; to the world of professional knowledge and skills. The problem of shaping the sociocultural identity of an individual, the conditions and mechanisms of the identification process itself in our country is now becoming more relevant as one of the most important problems of modern society as a whole and one of the tasks of higher education. The effectiveness of training a future specialist in a modern university is assessed by the presence of professional, social, individual and personal competencies, including the ability to see the socio-cultural context of activity, work in a team, create a favorable social environment and human relationships, access various sources of information, improve of life. These goals can only be achieved by using a wide range of social and humanitarian disciplines at all levels of educational practice. A significant role can be played by sociological training in higher education, which allows one to get a holistic view of society and a person as a subject of social change. The acquisition of social competences is of particular relevance in higher technical education, which prepares specialists who serve and develop the technological foundations of modern civilization. Under current conditions, a technical specialist cannot be well-to-do and successful if he has only technical and technological knowledge and is not aware of humanitarian problems, communication strategies, does not possess social skills and cultural competencies.

It becomes obvious "... the importance of conceptual and organizational changes in higher education institutions ... more flexible organizational forms, more specialized educational proposals and concepts of lifelong learning ..." [16]. The socio-humanitarian component is an integral part of the engineer's professional culture, since it determines the socially acceptable trajectory of his scientific research and technical projects, ways of their implementation and practical application. The task of higher technical education is, above all, the training of highly qualified engineering personnel, sometimes they are called the scientific and technical elite of society. But, in our opinion, the very state of modern society and the place of an engineer in the structure of this society still requires new thinking. The significance of globalization and the problems associated with it, the transitivity of society, the dynamism of social processes, the complication of interaction in the "society-group-personality" system, emphasizes the level of teaching social sciences and humanities in a non-core, technical university. Since the higher education system forms a kind of elite of society, in this case, technical, society cannot be indifferent to what the sociocultural potential of the future specialist is, what its values, ideals and norms are, how much they meet the requirements of society and whether they are able to serve the general development of society, or will this development retard.

V. CONCLUSION

An analysis of sociocultural transformations, the identification of trends in the humanization and humanization of technical education, the specifics of socialization and identification of a young person shows the need to introduce social humanitarian knowledge as a necessary educational component in the formation of a modern specialist. The result of this analysis are the following conclusions:

Modern post-industrial society is building a new system of assessments; its technology expands man's control over nature, transforms social relations and people's perceptions, and a new type of culture is emerging. The essence of the new culture grows out of the destruction of the systems characteristic of the classical industrial society, which externally determine the life of the individual. A person ceases to be an element of the technological, economic or political systems, where his activity is strictly determined by external qualities in relation to his personal culture. This rigid deterministic scheme does not just weaken, a fundamentally new situation arises, meaning that socio-economic development depends already on the state of the spiritual world of the individual, on its development and sociocultural aspirations. Post-industrial transformations complicate the process of formation of the socio-cultural identity of the individual, the conditions and mechanisms of the identification process itself in our country in modern conditions. The tasks of educating the young generation, its socialization in the system of higher professional education are complicated. Enhancing the role of the socio-humanitarian component of higher professional education will mark the emergence of a new educational paradigm: the goal of higher education is not to transmit existing knowledge and skills, but to educate readiness to solve emerging problems based on the knowledge gained, to constantly retrain and restructure, to be able to respond to changing conditions of life. Such an understanding of professional competence means the possession of specialists in any work field with the skills of analyzing the sociocultural consequences and prospects of their activities, the social context of their projects, predicting their own careers and personal growth.

These skills will allow the graduate to master in any professional field, even if they are far from the sphere of his initial interests, and will enable to build effective strategies for additional education directly in the new workplace or in the system of additional education. The implementation of the above concept of socio-humanitarian education in a technical university implies an increase in professional competence and personal growth of future specialists. The formation of new educational technologies in the Russian education system is in the direction of creating new principles for measuring the workload (modules), assessing the quality of training of specialists (competencies), and characterizing the learning outcomes (educational profiles). In order to achieve a new quality of vocational training, one should keep in mind the "four main goals of higher education in the modern world: preparation for successful entry into the labor market,

preparation for life and the development of an active life position; personal development; maintaining a broad base of advanced knowledge" [12].

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