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**INNOVATIONS IN THE STUDENT TRAINING SYSTEM AT HIGHER  
TECHNICAL EDUCATION INSTITUTIONS: HISTORICAL  
AND PHILOSOPHICAL ASPECTS**

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**ABSTRACT:** *The article analyzes the influence of innovative technologies on the formation of value orientations of students of higher technical education institutions. The basic ways of human-technician-human interaction are outlined and the development of modern communications is predicted in the near future.*

**KEY WORDS:** *communication, value orientations, information technologies, creativity, national identity*

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## **INTRODUCTION**

Today, engineering is embodied in the multifaceted forms of the technosphere, identifying the face of modern civilization and having a specific impact on the course of history. At the same time, it is obvious that for the further progressive development of mankind, it is necessary to rely on the activities of a free and intellectually creative community of engineers-personalities. The twentieth century has shown that in the problem of the responsibility of the engineer before history and humanity the position of a research engineer should be distinguished from the position of a practicing engineer. However, the progressive dehumanization of technical activity, unfortunately, as V. Popov notes, "gives rise to the view that modern industrial society inevitably forms the" instrumental-technical mind "of engineering workers" [11, p.42]. Modern scientists point out that an engineer with an "instrumental mind" can act as a robot deprived of flexible and normal human intelligence, who neglects the human being and subordinates everything to the interests of engineering and production. Of course, it is unfair to attribute such a style of thinking to the whole corps of engineers as to shift the responsibility of politicians and lawyers to technical workers.

In various formulations and approaches this problem was reflected in works of both Western researchers, in particular N. Abbanyano, H. Arendt, Y. Habermas, T. Eriksen, G. Lenko, P. Ricker, A. Toffler, and Ukrainian – O. Budnyk, M. Gromyko, I. Devterov, V. Yegorov, A. Yermolenko, O. Kolesnyk, V. Lukyanets, A. Myronov, V. Popov, O. Sobol, V. Chuiko and others.

The purpose of the article is to find out the state of the problem of ethical and social responsibility, creativity and personal self-realization of a person in the network of modern innovation space.

## **RESULTS OF RESEARCH**

Today, more and more, modern technologies are emerging not only as machines and tools that function, but also affect and control our minds. In a technical civilization of this kind, a person from the designer of the world becomes an object of design. In a modern-oriented society, the conditions and the meaning of human existence are pre-determined. The waves of technical

innovation give rise to appropriate psychological and social relationships between individuals and situations involving human objects. Development prospects and the fate of society are being manipulated by the scientific and technical elite. In technology, the person does not see himself because of machine. Such a person is trying to redirect (in the near future) his functions to technical objects with artificial "intellect" that are self-reproducing.

As N. Abbagnano, the Italian thinker and founder of positive existentialism, points out, "a person today is able to project the future through the choice of opportunities taken from the past." Since the sphere of social life is overflowing with eternal conflicts and contradictions, the individual must try to find an understanding with oneself, a true personality can only be formed in solidarity community. Therefore, according to the scientist, "the main temporal dimension of existence is the future, but not defined future, in which everything is possible, and the future is limited to the past, which only allows you to identify the opportunities that are emerging" [1, p. 462].

The twentieth century, rethinking the achievements of the previous era, brought new changes in the worldview of a modern person. In the new interpretation of the person-technology relationship a person becomes obvious significant advantage of technology, when the traditional forms of interpersonal communication are relegated. Accordingly, the system of establishing mutual understanding and reaching agreement has been destroyed over the centuries. In electronic communications, the most common is the distortion of the language, its modification, the widespread inclusion of slang in it. However, according to A. Myronov, "it is dangerous not only the fact of such distortions, but their mass, expansion of the social environment of users of linguistic surrogacy" [10, p. 9]. As a result, the state of uncertainty increases, the foundations are destroyed, which make it possible to perceive or not to perceive something, to believe or not to believe, and there is a sharp decrease in the "criterion registers".

In the modern world of understanding, electronic technologies have emerged as a kind of continuation of physicality, as its partial surrogate. Therefore, it is the perspective within which ever more "bold" scientific and technological transformations of the information-humanitarian environment of human existence, the fundamental foundations of human life, becomes information-genomic. Thus, in the present conditions, when the future of humanity ceases to be shaped by "self-influence", when it is largely determined

by the nature, pace, scale of scientific and technological activity of the planetary society, this urgency of the problem becomes a challenge to human existence on the planet. And if it is true that "we are surrounded by machines whose actions we cannot predict, even though we have invented and built them, then this means that the theoretical difficulties of the natural sciences have entered everyday life at the highest level" [2, p. 280].

Today we are able to trace the incredible growth in the number of modern innovative technologies that can infuse an unrestrained and powerful flow of information in all areas of the human psyche. Extremely rapid development of electronic equipment and communications in society has involved in the mass automation of various information processes in almost all spheres of human activity. As the next moment comes so quickly that it becomes difficult to live in the present, the user is in a situation of intense anticipation and tries for at least a second to look into the future in which "past and future, as mental categories, are threatened by the tyranny of the moment" [6, p. 13]. This is possible thanks to the Internet, satellite channels, e-mail, PDAs, which have become the main generator of personal and social progress. Today they have become major advancements in the field of modern innovative technologies and have given the user advantages that other sources of information cannot provide. The latest communication tools have enabled the integration of disparate communication systems into the global network. Thanks to this, people are able to exchange information with the entire planet, regardless of borders and distances. Despite the numerous threats that may arise through the Internet, it should be acknowledged that, according to V. Ivanov, "the Internet as a modern means of communication is out of competition, and its regulation should be given not to legal means, but to the efforts of users themselves, i.e. self-regulation" [8, p. 42]. Although, as one of the symbols of today, O. Kolesnyk points out, "The Internet, on one hand, establishes the principles of universal communication and responsibility, acts as a structure that regulates chaos, and on the other, it can become a tenet that is easily entangled" [9, p. 196].

Today, the issue of the formation of "global competence" is relevant in the context of "global education", which involves mastering the system of knowledge about international problems, as well as socio-cultural and academic mobility of modern professionals and education of responsible national and global

citizens [12, pp. 5, 6]. This is only possible in a democratic society where one feels free [16].

John Amos Comenius and Hryhoriy Skovoroda linked the main sense of freedom with obtaining education and culture as a universal value. The scholars promoted ideas relevant nowadays: freedom, humanism and responsibility of a specialist in professional activity. An effective activity of a personality is possible in civil society – a society of freedom [16]. But freedom of action should not be viewed in the sense of “I do what I want”. Instead it is the relationship – action, freedom and culture. G. Hegel noted: “When they say that freedom means doing anything we like, the idea shows the complete lack of culture of a thought, no hint of understanding that free will, right, morality and so on is in itself and for itself” [15, p. 80].

Freedom of the individual in the conditions of his or her reliable social and legal protection and availability of various information become the main criterion of modern democracy. Conditions for the full development of personality are formed by overcoming the insurmountable phenomenon of alienation at the present stage of the history of human civilization, equivalent to the social “demagnetization” of individuality. Although we must agree that “innovative technologies do play an important role in the multiplication of knowledge, but on the other hand, they are utterly powerless in the multiplication of a mind that can only be constructed on the model of the human” [6, p. 136]. As for the freedom of a person, recognized as universal value, it implies the freedom of another person.

Attempting to balance the historically justifiable, weakened for interpersonal communication, freedom and the freedom afforded by intensive informatization that outstrips the perception of social and moral norms poses considerable risk in terms of violation of individual rights. Accordingly, the problem of personal cultural ability is exacerbated - to what extent an individual, each individual has individual freedom, an awareness of his or her own capacity to take an active responsible attitude to the objective situation in the world. Therefore, for the modern world, the task of developing the idea and practice of creative realization in the sphere of morality and culture becomes quite important and relevant. Note that creativity and innovation, typical of a man dominated all what has been achieved in the development of computer

technology, because human experience has many abilities that are difficult to even display computers.

According to I. Deverov, "creativity as the basis of any activity becomes creativity network, people have learned to" think in the computer", the thinking processes are activated automatically with the appearance of the face-to-display disposition [5, p. 11]. Artificial intelligence systems may be better able to perceive and transcend a variety of human abilities to accomplish specific tasks, and this will be the most effective help, but only if we remember about limitations of these systems. The brain is already insufficiently provided with information to function properly, unless it is "connected" to the World Wide Web, to databases that have become an active continuation of human memory, which indirectly participates in the creative process, in the decision-making process, in each network or non-network form of human activity. The person involved in culture, A. Bystrova notes, "most fully carries the opportunity to coordinate his or her abilities, inclinations and interests with the environment in which he exists, acts, develops in space and time" [3, p. 145]. Possessing large-scale invariance, each person is "perfectly identical" to others, carries with him or her all aspects of the "Universe of Culture". Such a universality is seen by many social researchers today as the moral realm of a "fundamental imperative-value experience of humanity" in revealing the spiritual foundations of human community, interpersonal unity, harmonization of human relationships, human connection with the world.

## **CONCLUSIONS**

Thus, the development of human culture, new information and technological features of its development require the formation of a creative person, a professional specialist capable of solving problems that arise in the course of personal self-realization and social progress as a whole [13]. After all, in the conditions when innovative technologies are gaining more and more important positions in developed societies, the problem of self-determination of a person, his or her ability to create independently becomes more urgent. It is not only about preserving it, but also about the possibility of further developing one's unique personality. And this, in turn, requires the selection of such trends in the development of modern information technology, in which the priority would be universal values, which not only make one think about

the purpose of human life, but require wisdom and sensitivity that goes beyond technological knowledge.

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