

EdCW 2020**International Scientific and Practical Conference Education in a Changing World: Global Challenges and National Priorities****A HUMAN OF INFORMATION AND DIGITAL CIVILIZATION**

Oxana Fikhtner (a)*, Tamara Salova (b)

*Corresponding author

(a) Yaroslav-the-Wise Novgorod State University, Veliky Novgorod, Russia, Oxana.Fikhtner@novsu.ru

(b) Sochi State University, Sochi, Russia, salova@mail.ru

Abstract

The article discusses human changes during the transition to an information and digital civilization. The transformation of the industrial and social spheres, economy, and education affect the style and ways of human life. A civilization created on the basis of digital technologies produces new values, norms, behavioral practices, and ultimately changes human nature. A new view of a human place in the world is being formed. It is emphasized that a human of the future is an intellectual with high professional qualities, the ability to conceptually think and make non-standard decisions. This human is distinguished by mobility in the sphere of intellectual work, by the ability to retrain and adapt to new professions. Obtaining fundamental knowledge for generating new knowledge, developing the intellectual and creative abilities of a person is impossible without a radical change in the existing education system. The article shows how the intellectualization of labor and the expansion of high-tech technologies form a new motivation system for a human: intellectual abilities and the quality of education determine both the level of income and social status. The intellectual elite is becoming the wealthiest stratum of society. The authors compile a list of strategic tasks that ensure the information and intellectual culture, scientific worldview, new ethical norms, as well as the change of the value system. If solved comprehensively, these tasks provide for the harmonious development of man and sustainable development of civilization.

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1. Introduction

The world today and the global changes taking place in it stimulate the active transformation of a human as a subject: a human's philosophy, worldview, skills and abilities, and even physiology are adapting to the new reality. The new world is characterized by the established term VUCA, which means "Volatility", "Uncertainty", "Complexity" and "Ambiguity", and in fact it means "Time of Troubles", a global change in the human life guidelines.

The interaction of a human with digital technologies contributes to forming network communication skills; information and intellectual culture is designed to link digital reality with universal human values and rules, ethical norms and morality.

2. Problem Statement

For several decades already, the transition to a new information and digital civilization has been considered inevitable by scientists. Since the 1960s, a whole galaxy of prominent futurists has provided a scientific justification for such a transition. The most significant contribution was made by Bell (2004), who put forward the concept of post-industrial society, Toffler (2002), who is considered the prophet of the Internet civilization, by Castells (2000), the author of the new concept of the network society (Castells et al., 2007) and others. A significant contribution was made by Russian scientists as well. Back in the 1930s, Vernadsky (1991) developed the doctrine of noosphere– the sphere of reason (Ilyin & Ursul, 2017); his ideas were later followed by Ursul (2018). Russian scientists Rakitov (2019), Abdeev (1994), Anikin et al. (2017), Inozemtsev (2019) created the information civilization philosophy, reflecting its features, contradictions and prospects.

The rapid development of technics and technology, progressive in its essence, nevertheless, provoked a significant lag in humanitarian research, especially in the study of the changes that occur to a person in a new information and technological environment. The study of predicted changes in a human – physiology, intelligence, psyche, mentality, value system, and lifestyle – is a relevant task at the present stage of development.

3. Research Questions

- 3.1. How do transformations in society change human nature?
- 3.2. What new qualities will distinguish a human of the advancing information and digital civilization?
- 3.3. What is the essence of the new paradigm of education, contributing to the formation of a human in an information and digital civilization?
- 3.4. What are the main strategic objectives of ensuring harmonious human development and sustainable development of society?

4. Purpose of the Study

The purpose of the study is to determine the place of a human in the information and digital civilization, to identify new human qualities and distinctive features; to define strategic tasks related to forming information and intellectual culture, scientific worldview, a new system of values and ethical norms.

5. Research Methods

The methodological basis of research is dialectical logic, which gives an idea of the laws of development; general methods of scientific cognition; a systematic approach associated with the idea of an object as an integral system and with the identification of various types of connections of a complex object and their reduction into a single theoretical picture of the world.

6. Findings

In the process of changing epochs, the slow pace of cultural adaptation to innovations is considered a crisis of culture by some authors (Alentjeva, 2013; Orochovska & Abysova, 2016). The time of social existence is accelerating, which requires a certain level of readiness for change, spiritual maturity, and responsibility from a human (Chemielewski, 2020). Being in a situation of constant choice and decision-making, a human is practically not free. Transformations in society change the very nature of a human.

If generations change every 20–25 years, then technological structures change every five to six years, and with the advent of the digital economy it happens even faster. There is no doubt that under the influence of technology a person is forced to adapt, transform, and acquire new qualities and abilities. Even in the 1960s, in his famous treatise “The Sum of Technologies” Lem (2018) predicted the influence of technology on human evolution: physiology, thinking, mentality, worldview, and lifestyle are changing.

Today’s “digital generation”, today’s children and adolescents born in the so-called “era of gadgets”, have lost some of the skills and abilities that the older generation possesses (Canzittu, 2020; Horstmeyer, 2018; Seow et al., 2019). It is possible to single out the most characteristic features inherent in most of the younger generation (representatives of the digital generation – “generation Z”, “children of the processor”, “children-tablets”, “children-chips”):

- inability to perceive large pieces of information and link them into a coherent picture;
- fragmentary “clip” thinking, inability to memorize large texts;
- lack of detailed speech and desire to read;
- imbalance between advanced intellectual and lagging social and personal development;
- individualism and reduced need for live communication.

The smartphone and social media have shaped the lifestyle of an entire generation.

However, one should not forget that it is the young generation that generates new ideas, represents the latest knowledge, and carries intellectual potential. This is the most physically healthy part of society, capable of “catching on fast” and mastering the most innovative technologies of information and digital civilization and new forms of communication.

The problem of a human in a changing world has always existed, but the pace of change is amazing: a person does not have time for psychological restructuring and adaptation. Will a human have time to become “different”, fully using its human potential? And what personal qualities should a human possess in the new reality? As Peccei (1985) emphasized: “A human now, in fact, has no choice but to approach the next phase of development as quickly as possible – the one where a human, combining the power with worthy wisdom, learns to keep all human affairs in harmony and balance. But this can happen due to an unprecedented chain of events, which I call the «human revolution»” (p. 4). This is still true today – more than 40 years later.

A human of the future is, without a doubt, an intellectual with high professional qualities and creative abilities. The distinctive key features of the “new” human include:

- willingness and ability to learn throughout life in order to produce new knowledge;
- the integrity of thinking, broad outlook and interdisciplinary knowledge;
- the ability to think conceptually and make non-standard decisions with incomplete and contradictory information;
- professionalism and mobility in the sphere of intellectual work;
- the ability to retrain and adapt to new professions;
- the ability to collaborate and master new forms of communication.

Changes in the labor nature, enhanced by artificial intelligence technologies, require spiritual maturity and social responsibility. The possibility of self-realization in professional activity comes to the fore in the changing system of values.

The emphasis on the fundamental nature of education, on the acquisition of knowledge for generating new knowledge, on the development of the intellectual and creative abilities of a person puts forward the ultimately important task of developing a new education strategy. The modern concept of education, based on digital transformations of all spheres of human life, is aimed primarily at solving personally significant tasks of a human: self-determination, development and adaptation to new conditions in order to contribute to the sustainable development of civilization (Ursul, 2018; Ursul & Ursul, 2011; Vetkina et al., 2018).

The new educational paradigm is built on the “lifelong learning” model, the core principle of which is lifelong learning (Dudko, 2016). It is obvious that the education system is the basis for development, preservation, transfer and transformation of intellectual resources, and, consequently, the intellectual potential of society. Besides, in the digital age, the education and training system contributes to developing a definite list of competencies that a graduate should possess - a subject of the digital economy and digital society (Brolpito, 2018; Luchaninov et al., 2017). Digital technologies force using the existing potential in a new way, as well as developing new approaches to the selection, promotion,

monitoring and evaluating employee performance to optimize production and other processes and reduce production costs (Kapranova, 2018; Strelkova, 2020).

The widespread implementation of intelligence-intensive technologies has influenced the style and ways of human thinking (Hadar et al., 2020; Laszlo et al., 2017; Pushkarev & Pushkareva, 2020). The automatization of mental work, the organization of group work in the Internet communication environment, the introduction of artificial intelligence and virtual reality systems have significantly changed the technical rules of mental work.

The increase in the intellectual component of labor, the expansion of high-tech technologies, and high professionalism serve as the basis for the development of a new motivational system for a human. Intellectual abilities and high quality education determine both the level of income and social status. The intellectual elite become the most prosperous stratum of society, since it is both the creator of the intellectual product and its owner.

Science turns into a leading factor in the development of social production, whereas labor is gradually transformed into a form of self-expression.

Harmonious development of a human in the context of transition to a knowledge society is impossible without solving such strategically important tasks as:

- developing information and intellectual culture;
- forming information scientific worldview;
- changing the value system;
- generating new ethical norms and moral principles.

Information culture is usually associated with specific skills in the use of technics and technology, as well as with the ability to work with information. A person is mainly required to have qualification and experience. Intellectual culture is a certain, rather high level of intelligence development, which allows not only professional engagement into intellectual work, but also conscious and purposeful mastering and creating spiritual values. By stimulating constant self-education and self-development, intellectual culture ensures a high intellectual potential of society and its sustainable development (Salova, 2018).

The change of civilizations entails a change in the worldview or in the scientific picture of the world, in the system of ideas about the world and the place of human in it. It would be more correct to talk about the development of an information scientific picture of the world, which can be understood as a subjective sign-symbolic representation of the world. A human is more and more involved in the processes of informatization and digitalization of society; human social and informational activity is considered from the point of view of how and to what extent it serves the development and self-realization of a human.

Information and digital transformation determines both the socio-cultural life and social existence of a human. A change in the value system is inevitable. The following trends can be distinguished:

- the system of motivation replaces the system of material incentives;
- labor and human development become categories of the same order;

- the cost and demand for highly intellectual work is growing;
- free creative activity is both a condition and a goal;
- intellectual and creative abilities guarantee well-being and freedom;
- intellectual capital and the value of knowledge become system-forming factors;
- a human's attitude to nature is changing towards environmental friendliness and maintaining the sustainable development of civilization.

However, it should be emphasized that the new system of values enhances the differentiation of people – the masses and the intellectual elite, living in different cultural worlds. But, it is quite possible that this is a temporary phenomenon if modernization in Russia follows, for example, the path of Singapore, which in several decades has turned from a backward island state into one of the most developed and competitive countries in the world (Seleznev, 2014). The country's only strategic resource was people. It was the competent use of human resources that gave impetus to development. Singapore is famous for its high standard and quality of life, healthcare, education, ecology, leisure and high culture. Most of the population is engaged in highly intellectual work and the problem of “mass-elite” simply does not exist.

The most long-term and difficult task in a rapidly changing world is the task of developing ethical norms and moral principles of a new civilization. In particular, the ethics of network communication is one of the least developed areas of humanitarian research. The main question can be formulated as follows: Is the virtual reality a continuation of the real world with its moral laws or does virtual communication have its own morality? The answer to this question is the subject of a separate study.

When communication loses its ethical guidelines, there is a threat of negative impact on a human's worldview. We would like to emphasize that ethical norms and morality are needed exclusively to ensure the safety of “life” in the information environment of society.

7. Conclusion

Information-digital civilization creates conditions for liberating the essential forces of a human and for developing the ability to anticipate and forecast the future, as well as the ability to quickly adapt to changes in technologies, strategies, and priorities for achieving success.

The intellectualization of labor, mainly due to the rapid introduction of high technology, is changing the motivation system of a human. It is not only prestigious, but also financially beneficial to receive a high quality education that ensures high professionalism in any field of activity. Intellectual work guarantees high income and improves the quality of life.

Belonging to the intellectual elite of scientists, highly qualified specialists, manufacturers of intellectual products of high value provides not only certain advantages, but also requires spiritual maturity and social responsibility from a person. To be an intellectual means to have an informational and intellectual culture, to contribute to the preservation of spiritual and moral values.

An intellectual with a high moral position has its own social purpose: preserving culture, accumulating and generating knowledge and intelligence, maintaining a favorable moral climate in society, ensuring the sustainable development of civilization.

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