

PERAET 2021**International Scientific Conference «PERISHABLE AND ETERNAL: Mythologies and Social Technologies of Digital Civilization-2021»****INTERCONNECTION OF INTELLECTUALIZATION OF
ECONOMY AND TRANSFORMATION OF MODERN
EDUCATION**

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Abstract

The article examines the features of the formation of digital economy in Russia and its impact on all spheres of public life, including the higher education system. The analysis of the process of intellectualization of the economy is carried out and promising directions of development are identified, which cause a change in the educational paradigm. We need not only serious financial support for the innovative sector of the economy, changes in the legal sphere to significantly reduce bureaucratic structures, but also a serious modernization of higher education, the solution of personnel problems, as well as nurturing a new digital generation to accelerate the digital transformation of Russia and the possibility of obtaining its benefits. The authors note that intensive efforts to form a new educational paradigm are associated with the development of information civilization. It is a conceptual model of “lifelong learning” which seems to be the most promising for training new personnel corresponding to the ongoing changes. In connection with this approach, new functions of education as a social institution are actualized. This is, first, the transfer of cultural and social values, the promotion of scientific and technological progress, the formation of the professions of the future, which provide personnel for various sectors of digital economy. Therefore, the emerging class of intellectuals, generated by the updated educational system, should become the spiritual and moral elite of society, which gives reason to hope for the preservation of the value-semantic world of a person in an information civilization.

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1. Introduction

The change in the paradigm of global economic development associated with the transition to an information civilization is accompanied by the intellectualization of all spheres of human life (Fikhtner & Salova, 2021; Schwab, 2017).

The implementation of the principles of digitalization not only in daily practice, but also its introduction into the mental foundations of modern life is accompanied by the development of a scientific discussion about the terminology, conceptual foundations, specifics, and distinctive features of digital economy (Blanutsa, 2020; Dneprov & Mikhaylyuk, 2019; Ivanov & Malinetskii, 2017; Malinetskii, 2020). The attention of scientists was also drawn to the concept of “intellectual economy”, which quickly entered the scientific circulation and in a short period of time won a strong position (Glazev, 2020; Kleiner, 2020). It is proposed to consider the intellectual economy as the highest phase of the development of digital economy, and intelligence as the main factor of socio-economic activity. Naumov et al. (2013), like most researchers of intellectual economics, associates it with the sustainable development of civilization and believes that it is focused “not only on satisfying human material needs, but also on satisfying the moral and spiritual needs of people” (p. 72). The presence of a moral component is also emphasized by Salikhov and Letunov (2008), who note that only an economy of high morality can be called an intellectual economy based on the latest creative, or intellectual knowledge. The question remains open if the intellectualization of the economy affects the formation of intellectual culture of both an individual and society, and what is the role of modern education in this process.

2. Problem Statement

The creation and dissemination of highly intelligent computer digital technologies, characteristic of an information civilization with a network structure of communications, leaves an imprint on all economic and social institutions of society. This especially affects the modern education system, the digital transformation of which is responsible not only for training personnel, but also for maintaining a certain level of culture, as well as the stability of the social system.

3. Research Questions

- 3.1. What is the meaning of digital economy?
- 3.2. What effects are expected from the introduction of digital economy?
- 3.3. How is the intellectualization of digital economy manifested?
- 3.4. What is needed to form a highly professional workforce?
- 3.5. What is the content of lifelong learning model?
- 3.6. How can the intellectualization of the economy affect the general level of the intellectual culture of a society?

4. Purpose of the Study

The aim of the study is to identify the consequences of digitalization in all spheres of human life, as well as factors affecting the intellectualization of the economy; justification of the need to modernize higher education for training a new type of personnel and determine the content of a conceptual model of lifelong education, relevant for an information civilization.

5. Research Methods

The methodological basis of the research is the principles of a differentiated consideration of the specified problems using general methods of scientific knowledge: analysis, synthesis, generalization. The use of the fundamentals of system analysis associated with the idea of an object as an integral system made it possible to identify the variety of types of connections of a complex object and bring them into a single theoretical picture.

6. Findings

The term “digital economy”, introduced into scientific circulation back in the 90s, practically does not cause discussion and is unambiguously understood as a state of the economy in which real economic processes are replaced by mathematical (digital) models and are implemented by means of information and communication (digital) technologies. The concept of digital economy is unambiguously associated with economic growth (Plotnikov, 2018), believing that digital transformation will provide the following obvious benefits (Polozhikhina, 2018):

- increasing labor efficiency;
- increasing the competitiveness of market participants and, as a result, simplifying access to international trading platforms;
- minimizing material and administrative costs of production activities;
- creation of jobs for highly qualified specialists;
- growth of the well-being of the population due to intensive development of the economy and elimination of the problem of social inequality.

At the current stage of digitalization, the emphasis is on the development of the industrial Internet of things, augmented reality methods and massive business intelligence. Cloud technologies make it possible to store significant amounts of data and process virtual information in a short time. Programs to improve information security systems are being implemented (Geissinger et al., 2019).

All the above makes it necessary to build up the intellectual capital of specialists in different spheres of the economy. At the same time, the intellectualization of the economy directly depends on the development and implementation of the functions of education as a social institution. Among the functions that need to be updated in the first place, one can single out:

- socialization of the younger generation;
- formation of the young generation of value orientations, attitudes, life ideals that prevail in a given society;

- ensuring economic growth.

In this regard, one of the most promising areas for the development of economic, scientific, and educational spaces is:

- enhancing scientific research in the field of introducing of advanced information and communication technologies (Eferin et al., 2019; Konkin, 2020; Valdez-De-Leon, 2019);
- introduction of the latest discoveries in the field of artificial intelligence and robotization into the educational process, as well as a radical restructuring of approaches to the education process, due to the total introduction of information and communication technologies (Shvedina & Fikhtner, 2021);
- improvement of electronic technologies in the service sector with the aim of virtualizing infrastructure objects (Nikolaevski & Malinovskaya, 2020);
- optimization of the processing of large amounts of data to accelerate business decisions and provide a competitive advantage in the global market (Laszlo et al., 2017; Nabatova & Plotnikov, 2021);
- introduction of cloud computing in the sphere of small and medium-sized businesses with the aim of more flexible management according to the standards of large enterprises (Nuccio & Guerzoni, 2019; Song, 2019);
- formation of a digital space of human life, the main components of which are “smart” cities, virtual environments and communities, the Internet of things, intellectual tourism and much more (Morandi et al., 2016; Oborin, 2021).

The digital transformation and intellectualization of the economy is restructuring all spheres of society at a breakneck speed: one can observe the globalization of territories and economies, the development of network companies, the introduction of e-government, the development and promotion of new business models, the introduction of laws on intellectual property. An adequate system of education and upbringing of the new digital generation is needed to implement these trends. At the same time, for the successful implementation of state programs for the transition to digital technologies, a highly professional personnel reserve is needed, capable of introducing innovations into practice. At the present stage of the development of education, teachers and workers in various fields act according to the principle of universality and interchangeability. Each specialist is forced to master several specializations to be guaranteed to find an application for their skills. This approach brings up comprehensively developed workers, whose knowledge is superficial, and this is not enough to conduct full-fledged research work necessary to form fundamental knowledge (Petrov, 2018).

How is the education system adapting to the changes taking place in the world? The world is global and dynamic, markets are very fluid. The role of fundamental education is increasing more and more, as future specialists in certain fields of activity need to quickly rebuild themselves to a dynamically developing world (Shvedina & Fikhtner, 2021). Modern educational institutions should not only prepare specialists that are necessary for customers of highly qualified personnel (Donina & Vezetiu, 2019), but also form new directions and professions of the future.

The development of information society is associated with intensive efforts to form a new educational paradigm to replace the classical one. The new paradigm is based on the concept of human

development through education. It is also characterized by a change in the content of the educational process, which is determined by a systemic rather than a disciplinary approach. Such a systemic model is much more anthropologized: it is aimed at a person's understanding of the world, society, oneself and their place in society, i.e., everything that allows successfully adapting to social transformations and contribute to the sustainable development of civilization.

Currently, we can talk about two main models of education, coexisting with each other and in a complex interaction with each other. One can be conditionally designated as a model of "completed" education. It is based on the principles of education, training and is aimed at meeting the social need for the dissemination and production of knowledge, the preservation and reproduction of culture. This traditional model focuses on the ideal of lifelong education. In this case, pedagogical efforts are determined by the "knowledge - competences - skills" triad. Another model is conventionally referred to as the "lifelong learning" model. Its official recognition was confirmed at the UNESCO World Conference held in 1997 in Hamburg. The conference proclaimed that lifelong learning is the key to the 21st century. This educational model, which is relevant for the information age, differs markedly from the traditional one in many respects. But the main thing is, perhaps, the fact that it is aimed, first, at solving personally significant tasks of a person. The latter, having a social origin, are essentially individual. Therefore, the content side of lifelong education is clearly personal in nature, it is determined by the student's need for knowledge and information necessary for successful self-realization.

So, lifelong education is a model of education, according to which the educational process covers the entire life of a person. Such a model is as close as possible to the networked, flexible nature of modern society and can be considered as a system for harmonizing the requirements of the information age and the educational needs of everyone. Continuing education is also an aspect of educational practice, implemented through distance learning, which involves the widespread use of modern digital technologies. Continuing education is an attempt to intensify the educational process, bring it in line with the requirements of the modern era.

A decisive role in the approval of the model of lifelong education was played by new requirements for the basic qualities of specialists of different profiles in the context of the formation of the information society. Their list includes the following:

- mobility, implying the individual's possession of several specialties;
- readiness to update professional knowledge;
- communication, including the ability to transmit and receive information, interact, perceive each other on the basis of mutual understanding;
- self-organization and self-discipline;
- commitment, resistance to stress, ability to take risks.

It is no coincidence that the main expectations from the digitalization of the educational system are associated, first, with the formation of a number of human properties that are especially relevant in the information era, the upbringing of which should begin from an early age. These are "constructivism" and "critical thinking", which are expressed in a person's ability to independently act in search of truth. It is the development of empathic qualities such as the ability to sympathize and empathize. A sense of self-worth is also irreplaceable, which underlies social responsibility, directly related to a person's confidence

that their personal participation in the affairs of society has value. Of course, a person who is aware of the importance of their life, its connection with the goals of society, is much more capable of constructive social activity. Note that the indicated properties always had a high social value. It should be emphasized that in the information age, their relevance is sharply increasing.

7. Conclusion

Informatization of society, intellectualization of the economy are by no means limited to technical and technological aspects, but touch upon deeper problems of social interaction: socio-cultural, socio-economic, socio-political, socio-ecological. It is the education system that can and should lay the foundations for future development: the VUCA-world, leading to the collapse of traditional models of behavior, technologies for organizing processes, etc., poses new challenges to the education system. Rethinking and new approaches to the educational process, new goal-setting and innovative technologies to achieve sustainable development goals, a new economic reality become the starting point in the formation of a new educational paradigm, supported by the foundation of basic pedagogical practices in conjunction with new organizational and technical solutions.

An information civilization leads to the intellectualization of all sectors of the economy, and the education system is being transformed as a kind of response to this challenge. In turn, having a more serious fundamental scientific basis, education as a social institution also generates a request to increase the level of information and intellectual culture of society, the growth of the knowledge component in the formation of new technologies, new products, new competencies. The transition to a new type of economy is associated, firstly, with an increase in the number of intellectual workers and, secondly, with an increase in the level of complexity of intellectual efforts. And this can serve as a basis for the growth of the intellectual potential of society and strengthening the positions of the spiritual and moral elite, which the modern educational system of Russia is capable of forming.

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