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ІНФОРМАЦІЙНЕ СУСПІЛЬСТВО ТА ІНФОРМАТИЗАЦІЯ ОСВІТИ

Анотація. У сучасному світі інформаційні технології активно використовуються у всіх сферах життя. Інформаційний складник відіграє також істотну роль у формуванні конкурентоспроможного фахівця. У статті подано розуміння інформаційного суспільства як етапу розвитку постіндустріального суспільства, описано риси, що вирізняють таке суспільство від усіх попередніх форм соціуму. Також структуровано ознаки інформаційного суспільства із диференціацією його позитивних та негативних рис за впливом на розвиток індивіда та держави. Закцентовано увагу, що базисом інформаційного суспільства є інформація, знання та технології.

Зміна пріоритетів суспільного розвитку в бік активного застосування інформаційно-комунікаційних технологій зумовила вплив на освітню галузь. Цей процес трактується як інформатизація освіти.

Інформатизація освіти має низку складників: дидактичний – розробка методів і засобів навчання та виховання за допомогою інформаційно-комунікаційних технологій, змістовий – наповнення навчального матеріалу сучасними досягненнями інформаційних технологій для майбутньої професійної реалізації здобувачів освіти, організаційний – активне використання сучасних форм організації навчання (дистанційна освіта, е-освіта, неформальна освіта) управлінський – застосування цифрових технологій в управлінні освітнім процесом, упровадження корпоративної моделі управління закладом вищої освіти. При цьому основним завдання вищої освіти є підготовка конкурентоспроможного фахівця, здатного до швидкої адаптації до змінних умов ринку праці, до самоосвіти та самореалізації.

Ключові слова: вища освіта, інформатизація, інформаційно-комунікаційні технології, освітній процес, навчання.

INFORMATION SOCIETY AND INFORMATIZATION OF EDUCATION

Abstract. aIn today's world, information technology is actively used in all spheres of life. The information component also plays a significant role in the formation of a competitive specialist. The article presents the understanding of the information society as a stage of development of post-industrial society, describes the features that distinguish such a society from all previous forms of society. The features of the information society with the differentiation of its positive and negative features according to the influence on the development of the individual and the state are also structured. It is emphasized that the basis of the information society is information, knowledge and technology.

The change of priorities of social development towards the active use of information and communication technologies has led to the impact on the education sector. This process is interpreted as the informatization of education.

Informatization of education has components: didactic – development of methods and means of teaching and education with the help of information and communication technologies, content – filling educational material with modern achievements of information technologies for future professional realization of students, organizational – active use of modern forms of education (distance education, e-education, non-formal education) management – the use of digital technologies in the management of the educational process, the introduction of a corporate model of management of higher education.

The main task of higher education is to train a competitive specialist capable of rapid adaptation to changing labor market conditions, self-education and self-realization.

Keywords: higher education, informatization, information and communication technologies, educational process, training.

INTRODUCTION

At the present stage of development of society in all spheres of human life are traced characteristic of the XXI century general civilization trends. The first trend determines the rapprochement of nations and states through the formation of a common economic and information space. The second trend is the transition of mankind from industrial to scientific and information technologies and the creation of a knowledge society, for which the priority areas are education and science, ie areas that directly ensure the development of man and society.

The development of information and innovation technologies necessitates the consideration of science and education as priority prerequisites for the evolution of post-industrial society. The globalization of social and socio-economic relations provides the creation of an information space on a planetary scale, thus forming a new global information culture designed to promote new opportunities for creativity, self-development and self-expression of each person.

The formation of the "information society" was studied by the following scientists: D. Bell, M Castels, J. Habermas, Y. Hayashi, L. Karvalics, F. Mahlup, M. Porat, W. Tadao, E. Toffler, I. Wallerstein F. Webster and others (Bell, 1973; Castels, 1996; Habermas, 1979; Karvalics, 2007, 2010; Machlup, 1962; Porat, 1977; Savintseva, 2008; Toffler, 1990; Webster, 2006; Williams, 2014).

In particular, the apologist of the concept of "information society" L. Karvalics believes that it not just a definition of the type of new society, but presents it as a complex model of socio-economic social complex, which is created in the post-industrial era (Karvalics, 2007). The scientist proposes to present such a model as a set of descriptions ("narratives") of different levels: macro-level – civilization theory; meso-level – the theory of development; micro-level – practices and manifestations. Descriptions of different levels complement each other in the analysis of certain aspects of the "information society". Their relationship should be understood as a consistent nesting of the lower level to the upper level.

According to Ukrainian political scientist V. Bebik, "the information society is characterized by the recognition of information as one of the most important social resources, and the information sector of the economy (production, storage, processing, transmission and consumption of information) is one of the most important social activities. for the formation of a global information society and the development of scientific and technical, socio-economic and educational and cultural progress" (Bebik, 2011, p. 41).

Problems of informatization of Ukrainian education were studied by such prominent scientists as M. Zhaldak, N. Morse, O. Spivakovsky, S. Sharov. Requirements for electronic educational tools are formulated in the works of V. Lapinsky, O. Zimina, M. Shishkina.

THE AIM AND RESEARCH TASKS

The purpose of the article is to describe the main features of the information society and its impact on the transformation of training requirements in higher education institutions and the quality of education in general.

RESEARCH METHODS

In accordance with the purpose and objectives of our study, we used theoretical research methods, namely descriptive, comparative methods, generalization and interpretation of theoretical and applied aspects of informatization of education. The study used structural and systemic methods to get an idea and identify the components of the information society, their relationships.

RESULTS OF THE RESEARCH

The rapid development of information and communication technologies has led to G-7 governments signing general principles and goals of building a global information society, reflected in the Okinawan Charter, Japan, 2000. The formation of the information society, also called the knowledge society, involves a significant increase in information and knowledge in people's lives, free and rapid access to information resources, the implementation of user requests for information products and services, and information interaction of people.

The defining features that distinguish the information society from all previous forms of society are the following:
- creation of a global information space capable of providing a new quality of life;
- increase in the share of information and communication technologies, products and services in the gross domestic product of the country;
- emergence of qualitatively new communications and effective information interaction of people on the basis of increasing access to national and world information resources, overcoming information inequality (poverty), progressive satisfaction of human needs in information products and services (Dubov, 2010, p. 3).

Signs of the information society with the differentiation of its positive and negative features are structured by us in the diagram in figure 1. The bases of the information society are information, knowledge and technology.

According to Ukrainian scientists V Geyts, V. Seminozhenko, B. Kvasnyuk, the source of growth in the knowledge economy is both specialized (scientific) and everyday knowledge, due to which, along with natural resources, capital and labor, the processes of accumulation and use of knowledge become a dominant factor. which is constantly increasing the competitiveness of the economy (Geets, 2007, p. 31).
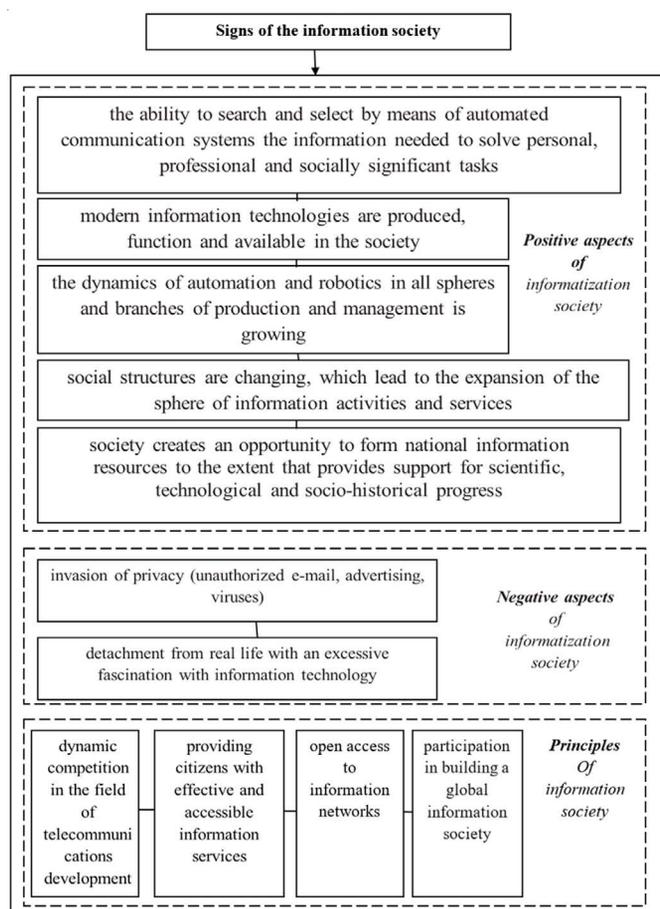
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│  │  │ the society                            │ informatization│  │
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│  │  │ the dynamics of automation and robotics│                │  │
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│  │  │ social structures are changing, which  │                │  │
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│  │  │ society creates an opportunity to form │                │  │
│  │  │ national information resources to the  │                │  │
│  │  │ extent that provides support for       │                │  │
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│  │  │ socio-historical progress              │                │  │
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│  │ │the     ││effective││informa-││building│   society        │  │
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│  │ │munica- ││le inf.  ││        ││tion    │                  │  │
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Fig.1. Signs of the information society.

As a result of globalization, the transition to the information society has taken place, and the requirements for the professional and personal qualities of a specialist have become more dynamic. Adaptation to such changes is provided by the informatization of education, which is "based on the widespread introduction and use for educational purposes of new information and communication technologies, which, in turn, serve as a mechanism for building a single educational space that will help solve strategic problems such as systems of continuous education, priority introduction into the educational process of the latest achievements of science and technology, scientific and methodological restructuring of all forms of education, etc." (Shtanko, 2012, p. 133). S. Sharov under the informatization of education proposes to understand "a set of measures designed for the transformation of pedagogical processes through the introduction into education and upbringing of information products, tools and technologies." (Sharov, 2017, p. 200).

The labor market in the information society requires graduates to be able to operate with innovative technologies and knowledge that meet the needs of the information society, focusing not so much on knowledge accumulation as the ability to find and analyze information, identify key issues and adapt previously acquired knowledge to new situations. In the information society, knowledge becomes an element of productive power, because «specific to the information method of development is the impact of knowledge on knowledge itself as the main source of productivity» (Castels, 1996, p. 39). This requires the individual to apply knowledge in practice, constantly updating knowledge. As a result, the transformation of society into information has led to a change in the educational paradigm of vocational education. There was a «transition from qualification to competence, which allows to find solutions in any professional and life situations, which allows the activities of an educated person, regardless of the local or global labor market. Such a person, having mastered the technology of decision-making, freedom of choice, will be able to adapt to constant change» (Ramsky, 2003, p. 10). Therefore, it is important to fill the content of specialist training with the use of modern information technology in professional activities.

The concept of the quality of the education system is also being transformed. According to the traditional approach, education is seen as a means and process of transferring knowledge, skills and abilities from one generation of people to another. The purpose of education is determined by the "social order" of society for the training of specialists currently in demand, the quality of education - the compliance of education with today's requirements. However, this approach does not actually take into account the prospects of society, the needs of the individual in self-development, innovative aspects of education. Therefore, a personality-oriented approach is relevant, according to which education is seen as a way and

process of personal development. The level of abilities of a specialist in professional activity, ability to innovate, level of self-development and ability to self-education are determined by the integral criterion for assessing the quality of higher education. As V. Andrushchenko rightly notes, "important today is not only the ability to operate with their own knowledge, but also to be ready to change and adapt to new needs of the labor market, operate and manage information, act actively, make quick decisions, learn throughout life" (Andrushchenko, 2000, p. 8).

Creating a single information environment in the field of education on the basis of an information network that covers all parts of the education system, institutions, agencies and their governing bodies, is one of the main tasks of informatization of the education system in Ukraine. Modern educational computer programs (electronic textbooks, computer taskbooks, textbooks, hypertext information and reference systems - archives, catalogs, reference books, encyclopedias, testing and simulation programs, etc.) are developed on the basis of multimedia technologies that have emerged at the junction many areas of knowledge. In new rounds of progress, the distance between new technical developments and education is narrowing.

Informatization of education has an organizational component. Possibilities of informatization of education allowed to develop a remote form of organization of the educational process. Initially, this form was effective for training, obtaining a second education, contributed to the fragmentary optimization of independent work of students. The use of this form has become urgent and widespread in a global pandemic. There are many positive and negative consequences of such processes.

Informatization of education contributes to the development of adult education in order to implement the modern requirement of "lifelong learning".

In general, the principles of using modern information technology in education outlined by I. Robert in (Robert, 2010).

The innovative orientation of education is designed to shape and meet the modern needs of society. In the knowledge society, classic lectures and seminars make room for modern projects: e-learning, STEAM-education, research-oriented learning, virtual laboratories, BYOD (Bring your own devices) – learning, web-quests and other modern educational technologies that provide a high degree of independence and activity of students. Methodological problems of training a modern specialist who would meet the requirements of the information society, we have considered in more detail in the publication (Stynska, 2020).

Informatization of higher education (especially pedagogical), in addition to improving the educational content, should ensure the quality of the upbringingnal process, which, unfortunately, methodologists pay little attention to. S. Sharov emphasizes that "to ensure the formation of students' moral qualities it is necessary to fill the upbringingnal process with relevant information, provide certain knowledge that would achieve with the help of information and communication technologies a certain goal – education moral person capable of respecting others. Recognize their independent nature and independence" (Sharov, 2017, p.203).

The development of the information society, the ever-increasing volume of information, the wide variability and dynamics of the educational environment make increased demands on the organization of educational process management in higher education institutions. Therefore, it is important to move to a corporate model of university management, which provides primarily the diversification of powers and responsibilities for the effectiveness of educational and research activities of institutions (Kondur, 2017). Higher education institutions are actively implementing an electronic document management system, systems for organizing the control of the educational process (electronic schedule, electronic journals). «The peculiarities of modern information technologies are that in modern conditions, automated learning management systems and measuring the educational level of students are becoming more widespread: automatic assessment and tracking of parameters that characterize the development of educational material» (Kokhanovskaya, 2018, p. 13).

Improving the efficiency of the corporate governance model of the university requires the activation of bodies that analyze and monitor higher education institutions, as well as the development of a system of indicators to analyze the situation in the market of educational services, improving the ranking of higher education institutions. In these processes we see the managerial component of informatization of education.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Based on the analysis and generalization of the conceptual foundations of the information society and informatization of education, the components of the latter are singled out – didactic, semantic, organizational, managerial. The importance of researching the possibilities of improving the informatization of education has significantly increased in connection with the intensive use of information and communication technologies during the global pandemic.

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