

INFORMATIZATION OF EDUCATION AND THE INFLUENCE OF INTEGRATION PROCESSES ON IT

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Статья посвящена рассмотрению вопроса информатизации образования как сложного процесса, который обусловлен евроинтеграцией и становлением информационного общества. Раскрыта роль и место информатизации в процессе реформирования образовательной сферы и вхождения отечественной системы образования в мировое и европейское образовательное пространство. Отмечается, что под информатизацией образования понимается целенаправленная деятельность по разработке и внедрению информационно-коммуникационных технологий. Информатизация в сфере образования предусматривает внедрение информационно-коммуникационных технологий в учебный процесс, разработку механизма электронного документооборота, использование систем открытого образования и тому подобное. Сейчас актуально также сопровождение школьного сайта, электронного дневника и т.д., отслеживание эффективности использования информационно-коммуникационных технологий в урочной и внеурочной деятельности.

Ключевые слова: информатизация образования, информационно-коммуникационные технологии, образовательная среда, евроинтеграция, глобализация, трансформация общества, конкурентоспособность, рынок труда.

Articolul este dedicat examinării problemei informatizării educației ca un proces complex, care se datorează integrării europene și formării societății informaționale. Se relevă rolul și locul informatizării în procesul de reformare a sferei educaționale și intrarea sistemului educațional intern în spațiul educațional mondial și european. Se remarcă faptul că informatizarea educației este înțeleasă ca activitate intenționată în dezvoltarea și implementarea tehnologiilor informației și comunicațiilor. Informatizarea în educație prevede introducerea tehnologiilor informației și comunicațiilor în procesul educațional, dezvoltarea unui mecanism electronic de gestionare a documentelor, utilizarea sistemelor de educație deschise și altele asemenea. Acum este, de asemenea, important să mențineți un site web al școlii, un jurnal electronic etc., pentru a urmări eficiența utilizării tehnologiilor informației și comunicării în lecții și activități extracurriculare.

Cuvinte cheie: informatizarea educației, tehnologiile informației și comunicațiilor, mediul educațional, integrarea europeană, globalizarea, transformarea societății, competitivitatea, piața muncii.

The article is devoted to the consideration of the issue of informatization of education as a complex process, which is due to European integration and the formation of the information society. The role and place of informatization in the process of reforming the educational sphere and the entry of the domestic education system into the world and European educational space are revealed. It is noted that the informatization of education is understood as purposeful activity on the development and implementation of information and communication technologies. Informatization in education provides for the introduction of information and communication technologies in the educational process, the development of an electronic document management mechanism, the use of open education systems, and the like. Now it is also important to maintain a school website, an electronic diary, etc., to track the effectiveness of the use of information and communication technologies in lesson and extracurricular activities.

Key words: informatization of education, information and communication technologies, educational environment, European integration, globalization, transformation of society, competitiveness, labor market.

Formulation of the problem. Mankind has entered the 21st century - the century of informatization and global change in the life of the world community. Scientists believe that today there are two types of networks. Internet networks of computers provided with a set of information technologies, and "multilevel advancing networks", characterized by a set of humanitarian technologies. There are almost two types of networks, one of which is connected to a network, and the other is directly connected to people. Multilevel marketing is extremely similar to the Internet, but only built on live material. This means that in the near future will come to the fore not the ability to learn a simple set of operations (i.e. not a good education), but the ability to learn throughout life, because only people who are able to relearn 7-8 times in a lifetime will be competitive in the market labor. In other words, in the future world will be in demand only those people who will have a specific quality: the ability to relearn. We can also say that there will be the ability to change, the ability to self-change [1].

Thus, the new goals of modernization of the education sector, through the concept of the New Ukrainian School, are aimed at developing a national education system that should meet the challenges of time and the needs of a person capable of realizing himself in a constantly changing information society. Modern philosophy of education requires fundamentally new research, sound and consistently implemented advanced scientific and pedagogical technologies, rational and effective approaches to the organization of scientific and innovative activities in the field of education, including through the use of information and communication technologies (ICT).

The state of the study. Some aspects of the issue of informatization of certain areas have been the subject of research by many scientists, among whom it is worth paying attention to the scientific research of I. Aristova, O. Baranov, K. Belyakov, N. Bortnyk, V. Gavlovsky, M. Gutsalyuk, I. Zhilyaev, S. Yesimov, R. Kalyuzhny, N. Moroz, A. Novytsky, N. Novytska, V. Tsymbalyuk, V. Khakhanovsky, I. Khomyshyn, M. Shvets and others.

The purpose of the study is to consider certain aspects of informatization of education in the context of global challenges of today.

Presenting main material. It should be emphasized that one of the most significant phenomena in the development of the world community is the multifaceted phenomenon of globalization, with this in mind the category of «information» becomes not just a philosophical or technical category, but a defining category of society.

It should be noted that the world has formed a global market for information technology, which provides free movement of computer and telecommunications equipment, services and information. All countries of the world will benefit from this. Nowadays, the interest in a new type of communication, which has become communication via the Internet, has significantly increased. The Internet is not just a chaos of information or even, quite often, a negative, it is a condition for gaining new knowledge, creating new forms of communication, new virtual worlds. The development of a new type of communication involves understanding the representative of another language sphere and another culture. Modern information technologies provide extremely great opportunities for people to have access to the world's treasures of culture and science - the world's largest museums and libraries, any news agencies and databases. We, in fact, enter the single world using the Internet, but, unfortunately, not everyone can use these unique opportunities, including through ignorance of the language of other cultures, vital to the information society.

In the information society, «online-work» is becoming a common phenomenon, which can radically solve the problems of employment, education, free consultations on various issues, including for people with disabilities.

Thus, the main emphasis in this context belongs to such a category as «information». Information is considered in the same row with such philosophical categories as «matter» and «energy». There are many definitions of this concept, the main of which are the following:

- information - is the designation of content obtained from the outside world in the process of adaptation to it (Winner);

- information is a negation of entropy (Brilouin);
- information is communication and link, in the process of which uncertainty is eliminated (Shannon);
- information is the transfer of diversity (Ashby);
- information is a measure of the complexity of structures (Mol);
- information is the probability of choice (Yaglom).

We can also add a number of definitions and establish links and relationships with other definitions, for example: the relationship of information with the display category; information as an economic resource; information as a social resource; information as a mass product; information as an accelerator of progress, etc. [2].

Instead, it should be emphasized that information is a complex category, its forms of expression are diverse, it has many characteristics, but there are characteristics of information that have only a personal orientation, which for any person have the appropriate value for some time. There is a concept of time «half-life» of information, when there is a loss of its value to a particular person or society (by analogy with the half-life of reactive materials). In the American literature there is even a special unit of measurement of aging knowledge of the specialist - the half-life of competence, when as new information becomes available, the competence of the specialist decreases by 50%. Sometimes you have to hear the phrase «lost generation». In this context, it is worth agreeing with E. Ostrovsky that «generations arise when they know how to learn», «pass» through their own consciousness, nerves, soul the information that everyone receives.

We believe that such a consideration of the concept of «information» is especially relevant in our time, when there is a deformation in the consciousness and social responsibility of young people towards individualization.

The opening of information borders has revealed a lot, sharpened our problems in the education system. The current stage of development of the world community requires a new generation that is able to quickly adapt to life, be able to

learn new things on their own, relearn and self-organize.

The last decade has shattered information horizons. We can treat computers, the Internet, and the freedom of speech that have invaded our lives in different ways. Of course, it is necessary to realize that the informatization of education, as well as all vital aspects of human activity, is an inevitable necessity.

What does the informatization of education brings? Most scholars believe that this is to increase the efficiency of the educational process, individualization of learning, personality-oriented attitude of learning. And this is true, but it is worth looking at what the new information energy brings to the development of personality. A new kind of value, information culture, freedom of choice of development and self-development, formation of increased responsibility of the individual for his own choice, self-development - in fact, the «image of I» is born! [5].

Attempts of teachers, almost at all times, to pay attention to the development of creative abilities of learners are given in almost every publication devoted to the education of the younger generation. It is known that the rate of aging of knowledge, or, as they say, the period of «half-life» of knowledge is such that most of the knowledge obtained in higher education before its completion is aging. World practice shows that against the background of the information explosion, «information hunger» is increasingly felt.

Given this, it is clear that modern education should be built using the latest advances in the natural sciences and humanities. The priority goal of education is the formation of such qualities in a person that would help him to quickly adapt to modern living conditions, to form the need for continuous improvement and a critical attitude to life. The most important areas of personal development in the higher education system, first of all, are the following:

- ecological culture;
- information culture;
- creative activity;
- high morality [5, c. 18-19].

Instead, it should be noted that purposeful activities for the development and implementa-

tion of information and communication technologies in education are understood as informatization:

1) in the educational process to prepare students for life and work in a modern information society; improving the quality of general education and training of specialists on the basis of extensive use of information and communication technologies;

2) in the management of the education system to improve the efficiency and quality of management processes;

3) in methodical and scientific-pedagogical activity for increase of quality of teachers' work; development and implementation of new educational technologies based on the use of information and communication technologies.

Problems of informatization of educational process consist not only in saturation of educational institutions by means of modern information and communication technologies, how many in creation of modern computer-oriented methodical systems of training to various subjects and the corresponding pedagogically verified methods of training focused on pedagogically expedient use of means of information and communication technologies in the learning process, taking into account the age and individual characteristics of students, levels of their intellectual and general development, the formation of their worldview, culture of communication with people and the world, a creative approach to solving various problems.

It is extremely important to understand that to solve not all problems it is necessary to use the means of modern information and communication technologies [6, p. 86-90]. Scientific analysis of creative productive thinking shows that the main thing in the process of thinking is not so much operational and technical procedures and programs for solving already formulated problems, but building a sample problem situation, hypotheses, modeling and problem formulation, problem statement. The main problem is to competently and accurately describe the necessary results, which creates appropriate requirements for general and logical human thinking [6, p. 96-104].

To a large extent, the informatization of the educational process contributes to solving the problems of its humanization, as there are opportunities to significantly intensify communication between teacher and student, taking into account individual aptitudes and abilities, creative potential of teachers and students, differentiation of learning according to requests, individual characteristics, aptitudes and abilities of students, depriving the teacher and student of the need to perform routine, technical operations, giving them opportunities to solve cognitive, creative problems. At the same time, due to the significant intensification of the educational process and communication between students and teachers, the role of communication with teachers does not only decrease, but, on the contrary, significantly increases, as the management of educational activities of students intensifies, significantly increases the number of situations where teacher participation is required, feedback with students is intensified [7, p. 35-38].

The use of modern information and communication technologies should significantly improve the efficiency of comprehension of messages circulating in the educational process and the assimilation of relevant data due to the timeliness of messages, their usefulness, appropriate dosage, accessibility, pedagogically appropriate redundancy, rapid use of educational sources, adaptation of pace submission of educational material to the speed of its comprehension and assimilation, taking into account the individual characteristics of students, an effective combination of individual and collective educational and cognitive activities, independent work and work under the guidance of a teacher [8, p. 57-59].

Conclusions. Thus, today, given that Ukraine has chosen the vector of European integration, as well as under the influence of global processes taking place in the world, it is obvious that one of the main factors of successful reform of the national education system is its informatization. After all, the formation and use of modern information and communication technologies directly affect the efficiency of all activities in the educational environment.

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