

INFORMATIZATION OF EDUCATION AS A TREND OF MODERN EDUCATIONAL ACTIVITY

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INTRODUCTION

The modern period of development of our society is characterized by a huge influence on it of computer technologies, which are present in all spheres of human activity, ensure the spread of information flows in society, forming a global information space. An indisputable and important part of all these processes is the computerization of education. Information technology is understood as a process that uses a set of means and methods for collecting, processing and transmitting data (primary information) to obtain information of a new quality about the state of an object, process or phenomenon (information product).

One of the priority directions of the process of informatization of modern society is the informatization of education - the process of providing the education sector with methodology and practice for the development and optimal use of modern, new information technologies (NIT), focused on the implementation of the psychological and pedagogical goals of teaching and upbringing.

Acceleration of scientific and technological progress, based on the introduction of flexible automated systems, microprocessor and programmed control devices, robots and processing centers into production, has set the task of modern pedagogical science to educate and prepare the younger generation, which is able to actively engage in a qualitatively new

stage in the development of modern society associated with informatization.

The process of informatization of modern society is initiated by:

- improving the management mechanisms of the education system based on the use of automated data banks of scientific and pedagogical information, information and methodological materials, as well as communication networks;
- improvement of the methodology and strategy for the selection of content, methods and organizational forms of training, education, corresponding to the tasks of the development of the student's personality in modern conditions of informatization of society;
- creation of methodological learning systems focused on the development of the student's intellectual potential, on the formation of skills to independently acquire knowledge, carry out information and educational, experimental research activities, various types of independent information processing;
- creation and use of computer testing, diagnosing methods for monitoring and assessing the level of knowledge of students.

Informatization of education as a process of intellectualization of the activities of the teacher and the student, which develops on the basis of the implementation of the capabilities of new

information technologies, supports the integration trends in the process of cognition of the regularities of subject areas and the environment (social, environmental, informational, etc.), combining them with the advantages of individualization and differentiation of learning, thus ensuring the synergy of pedagogical influence.

BAT can be used as a teaching tool that improves the teaching process, increases its efficiency and quality. As a result of using BAT, the following is provided:

- implementation of the possibilities of software and methodological support of modern PCs for the purpose of communicating knowledge, modeling educational situations, exercising training, monitoring learning outcomes;
- the use of object-oriented software or systems in order to form a culture of educational activity;
- implementation of the capabilities of artificial intelligence systems in the process of using educational intelligent systems (IASECHKO, IASECHKO, SMYRNOVA, 2021).

NIT can be used as a tool for cognition of the surrounding reality and self-knowledge, a means of developing a student's personality, an object of study, a means of information and methodological support and management of the educational process, educational institutions and the system of educational institutions as a whole.

They are also means of communication in order to disseminate advanced pedagogical technologies, means of automating control processes, correcting the results of educational activities, computer pedagogical testing and psychodiagnostics, means of automating processes for processing the results of an experiment (laboratory, demonstration) and managing educational equipment, means of organizing intellectual leisure, developing games (HARRIS, SUTTON, 1986).

THE INITIAL PRESUPPOSITIONS

In the article, the following research methods were used to solve the set tasks: theoretical (study and analysis of scientific and pedagogical, psychological and pedagogical, reference, specialized literature, regulatory documentation on the topic of research, additional professional advanced training programs; analysis, comparison, classification of the information received and generalization); empirical (pedagogical experiment, observation, questionnaire survey, survey, conversation, testing); mathematical (statistical data processing).

METHODS

Information technologies not only change the very essence of the activities associated with them, but also have an impact on a person's personality. The consequences of this can be manifested in those activities that are not directly related to their application. Indeed, in the educational process that uses the capabilities of IT, all subjects (both students and teachers), with the help of new means, master new categories, methods and forms of activity that give new ideas about the picture of the world (POLAT, 2021).

The development of multimedia technologies, virtual reality, the constantly growing power of the computers used make it possible to "define" previously abstract teaching programs. They offer not only informational, but also intellectual and cultural resources: photo and video recordings of objects and processes under study, rare museum and archival materials, original reports and live reports on fundamental and applied research. Modeling and subsequent "inclusion" of students in various situations, provoking and implementing non-standard solutions in a potentially multivariate educational environment contribute to the development of imagination and creative abilities. Thanks to these means of preserving objectivity, deep understanding of the activity that the student carries out by means of a computer with visual models, it becomes possible to escape from narrow mechanical thinking (HARRIS, SUTTON, 1986).

Whether all of the above possibilities are realized depends not only on the teacher, but also on

whether, in addition to his own desire, he has real conditions: whether a sufficient number of hours is allocated for the study of the discipline, whether time is planned for preparing classes using certain electronic resources, including support for independent work within the framework of individual educational trajectories. After all, the creation of conditions for the teacher, first of all, depends on whether it will be a full-fledged productive activity that gives new ideas about the essence of phenomena, or simply with the help of a computer simulator, a set of concepts will be memorized and a certain sequence of elementary operations, sufficient for passing tests, will be mastered. All this is very important for education, since formal or non-formal approaches, having become entrenched in students, will undoubtedly manifest themselves in other, not only educational, spheres of activity.

Information technology has great potential for student-centered, developmental learning.

But in order to use them, the teacher's desire and readiness for innovations is not enough. E-learning systems can reduce the routine work of teachers and free up more time for live communication. It turns out that in fact, in these systems, the most demanded is the functionality that formalizes learning: more effort and money is spent on all kinds of testing (preparation, conduct) than on the development of multi-level training courses in which different learning scenarios, the creative abilities of students are developed. This is understandable: subject testing is becoming the norm for assessing the quality of education for universities. The reports include data on the number of computer presentations prepared by the teacher. However, at its core, a presentation is just a report outline combined with illustrations (diagrams, maps, tables). But a good lesson or lecture is not a report, but communication. Therefore, even the highest quality computer-based presentations by themselves do not guarantee the quality of learning and do not indicate mastery teacher of educational technology.

Business, as a rule, pursues as the main goal the liberation of a person from routine operations in order to create conditions for creativity or, at least, to direct efforts to solving non-standard tasks. However, now we can see evidence that in the course of informatization very important skills and abilities, even forms of activity, are being lost. For example, preparation of an abstract (and sometimes a dissertation), which requires careful selection, study and analysis of literature, comes down to formal copying into one document of more or less relevant fragments of other people's works. Not knowing what the essence of working with the library catalog is, students cannot find the publications they need in the electronic catalog. With the wide distribution of e-mail, forums, chats, ICQ, blogs, hopes were pinned for the revival of epistolary creativity, albeit in somewhat modified forms. After all, these are technologies that require written communication skills, which in many developed countries have turned out to be practically forgotten due to the wide availability of telephone communications. It seemed that where communication technologies became available, conditions were naturally created for the emergence of motivation for mastering written speech. Of course, with the advent of IT, both schoolchildren and students began to write more, although more often these are not full-fledged letters, but comments from youth blogs, chats, forums. However, it can hardly be considered a positive result that it is in these comments that the Ukrainian part of the Internet is widely spread the language "padonkaff", with deliberately incorrect spelling of words, frequent use of profanity and slang stamps.

These examples can be continued. But, most likely, these are some growing pains that simply cannot be ignored.

It seems to us that future teachers, to whom this publication is addressed, should take into account the following: a great danger lies in the underestimation of the fact that modern information technologies (in particular, the Internet) provide the ease of obtaining a variety of information in the absence of the need to comprehend it. It leads to the fact that random or most advertised fragments are snatched from the entire information flow. The last remark can be attributed to all subjects of the educational process.

RESULTS AND DISCUSSION

Information and communication technologies in action ensuring the quality of general education. In the current structure of general education, the issue of its accessibility is resolved at a higher level than in a separate educational institution. Unlike universities,

teachers and directors of schools, gymnasiums and other educational institutions are faced with the following task - to provide a new quality of education based on the use of modern information and communication technologies (IASECHKO, KHARLAMOV, SKRYPCHUK, FADYEVA, GONTARENKO, SVIATNAIA, 2021).

The program for their implementation should provide for all aspects of this complex process, take into account the problems that students, teachers, and organizers of the education system will face.

The transition from teaching informatics to real informatization of general education is possible on the basis of a single educational information environment formed by all participants in the educational process.

The information educational environment (IEE) is a complex system that accumulates intellectual, cultural, programmatic, organizational and technical resources and ensures the formation of a personality in its various manifestations. At the same time, the management of the educational environment and its development is determined by the target settings of society and the subjects of the educational process - students and teachers.

Thus, ITS as a system consists of the following main components:

- problem-oriented multilevel information (intellectual, cultural, software-methodological) resources containing knowledge and technologies for working with them (search, storage, processing, application);
- information infrastructure that ensures the functioning and development of the environment in the course of the educational process.
- In the structure of a developed ITS, three levels can be distinguished. The first, invariant, level, which includes the resources of the library (including electronic), laboratories, museums, is publicly available and functions at the level of the entire educational institution. At this level, the following ITS subsystems are formed and developed:
 - support for collective and individual educational, cognitive and creative activities (educational, training and monitoring software systems, virtual laboratories and scientific research systems);
 - collection, storage, search and delivery of electronic educational resources (information storages and electronic library catalogs, specialized information retrieval systems);
 - electronic interactive reference tools for universal purposes (dictionaries and encyclopedias, glossaries, databases) (IASECHKO, SHELUKHIN, MARANOV, 2021).

CONCLUSION

Thus, the informatization of education leads to the transformation of certain aspects of the learning process. The activities of the student and teacher are being transformed towards informatization. The student can use a wide variety of information, collect it, process it. The teacher is freed from routine activities and gets the opportunity to explore the learning process, track the development of the student. Basically, teachers are not ready for the transition from established teaching methods to the use of information technology in the educational process. Computers are mainly used as an additional learning tool.

The use of information technology helps to improve educational activities, increases the quality of the learning process and increases the efficiency of the individual activities of students. Also, the use of information technologies in the educational process prepares qualified specialists in the development and application of modern technologies and means of informatization of education.

Informatization of education means focusing on a new quality of education. The university is obliged to prepare graduates for a successful life and work in the conditions of an abundance of information. Information and communication competence, which was previously the

property of a few, should now be available to everyone. This requires updated educational standards. Informatization of education is a process of change. Informatization is, undoubtedly, an expensive thing.

As a result of the analysis of modern trends in the development of the process of informatization of education, its reasonable organization in the interests of the future scientific, technical, socio-economic and spiritual development of society is a complex and very urgent scientific, organizational and social problem. To solve this problem, continuous interaction of education specialists is necessary, as well as effective support of this interaction from the state.

In addition to the main educational function, information technology develops the student's creative skills and broadens his horizons. In addition to basic subjects, the student can receive additional education, for example, start learning a programming language, use online courses, simulators, and communication in any social network. You can get knowledge regardless of place of residence and age. Currently, the worldwide network and various software products are diverse in their assortment. It is precisely because of the development of information technologies that the idea of continuous additional education is being fully implemented. Also, information technology to a greater extent motivates people to study, conduct various research projects, create innovative projects and articles.

Thus, the use of information technology in the educational process is necessary to prepare students for life and work in a modern information society.

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Informatization of education as a trend of modern educational activity

Informatização da educação como tendência da atividade educacional moderna

La informatización de la educación como tendencia de la actividad educativa moderna

Resumo

O objetivo do artigo é revelar a problemática do uso da tecnologia da informação nas instituições de ensino. A partir da análise do marco regulatório, da literatura científica e metodológica sobre o tema da pesquisa, foi determinada a especificidade da implementação das tecnologias da informação no estudo de cada disciplina. No artigo é dada particular atenção à consideração da influência da informatização na qualidade da educação, revelando exemplos do uso de tecnologias de informação na educação. O artigo descreve os três principais componentes da tecnologia da informação como um complexo de hardware, software e um sistema de suporte organizacional e metodológico; a descrição das tecnologias de informação analógicas e digitais é apresentada. Os autores listam os aplicativos multifuncionais de escritório e ferramentas de TI mais comuns; destacam-se as vantagens do uso da TI no processo educacional. Os autores concluem que o uso das tecnologias de informação na educação permite diversificar uma vasta paleta de formas e métodos de ensino, que constituem uma das formas modernas de melhorar o processo educativo.

Palavras-chave: Ensino inovador. Ensino superior. Tecnologia de ensino.

Abstract

The purpose of the article is to reveal the problem of using information technology in educational institutions. Based on the analysis of the regulatory framework, scientific and methodological literature on the research topic, the specificity of the implementation of information technologies in the study of individual subjects was determined. Particular attention in the article is paid to the consideration of the influence of computerization on the quality of education, examples of the use of information technologies in education are revealed. The article describes the three main components of information technology as a complex of hardware, software and a system of organizational and methodological support; the description of analog and digital information technologies is presented. The authors list the most common multifunctional office applications and IT tools; the advantages of using IT in the educational process are highlighted. The authors come to the conclusion that the use of information technologies in education makes it possible to diversify a wide range of forms and methods of teaching, which are one of the modern ways to improve the educational process.

Keywords: Innovative teaching. Higher education. Teaching technology.

Resumen

El propósito del artículo es revelar el problema del uso de la tecnología de la información en las instituciones educativas. A partir del análisis del marco regulatorio, la literatura científica y metodológica sobre el tema de investigación, se determinó la especificidad de la implementación de las tecnologías de la información en el estudio de sujetos individuales. Se presta especial atención en el artículo a la consideración de la influencia de la informatización en la calidad de la educación, se revelan ejemplos del uso de tecnologías de la información en la educación. El artículo describe los tres componentes principales de la tecnología de la información como un complejo de hardware, software y un sistema de apoyo organizativo y metodológico; Se presenta la descripción de las tecnologías de la información analógicas y digitales. Los autores enumeran las aplicaciones de oficina multifuncionales y las herramientas de TI más comunes; Se destacan las ventajas de utilizar las tecnologías de la información en el proceso educativo. Los autores llegan a la conclusión de que el uso de las tecnologías de la información en la educación permite diversificar una amplia paleta de formas y métodos de enseñanza, que son una de las formas modernas de mejorar el proceso educativo.

Palabras-clave: Enseñanza innovadora. Educación superior. Enseñanza de la tecnología.