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THE ROLE AND APPLICATION OF INFORMATION TECHNOLOGY IN THE LEARNING PROCESS

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ABSTRACT

This article deals with the role of modern information technologies in the learning process. The use of information technologies makes the learning process interesting and productive, provides a differentiated approach to learning, makes it possible to objectively and timely monitor and summarize results.Also, modern information technologies allow teachers to change the content, methods and organizational forms of training.

KEYWORDS: ***information technologies, learning process, electronics, computerization, Informatization, distance learning, virtual learning, telecommunications, computers.***

DISCUSSION

The development of the information society is inextricably linked with the growing need for each person to constantly improve their skills, update their knowledge, and develop new types of activities. This trend has led to the question of changing the very paradigm and model of education.There was a need to ensure that education is adequate to the dynamic changes taking place in nature and society, the entire human environment, the increased volume of information, and the rapid development of information technologies.

The entry of humanity into the era of the information society has caused the change of the established motto "education for life" to the new motto — "education for life". Qualitatively new characteristics of an innovative educational paradigm, is to focus on developing personality, the transition from the reproductive model of education to a productive, humanistic, culturally oriented; diversity and variability,
activity-based character education. The most important component of the new paradigm of education is the idea of continuous education, covering all forms, types and levels of education.

The implementation of the idea of continuing education is aimed at overcoming the main contradiction of the modern education system-the contradiction between the rapid growth of knowledge in the modern world and the limited opportunities for a person to acquire knowledge in the learning process.This contradiction forces educational institutions, first of all, to form the ability to learn, to extract information, to extract the necessary knowledge from it. However, to do this, the teacher must not only own the basics of information knowledge and skills, but also be professionally ready to broadcast them [1, 2005].
The current stage of development of society poses a number of fundamentally new problems for the education system due to political, socio-economic, ideological and other factors, among which we should highlight the need to improve the quality and accessibility of education.Increasing academic mobility, integration into the world scientific and educational space, creating optimal educational systems in economic terms, increasing the level of University corporate identity and strengthening ties between different levels of education.

One of the most effective ways to solve these problems is to develop modern educational

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technologies. A huge number of pedagogical technologies have been developed: problem-based learning technology (V. F. Shatalov), integrated technology (V. V. Guzeev), human-personal technology (sh. a. Amonashvili), technology of personality-oriented education (E. V. Bondarevskaya), etc. New educational technologies are not born as a fashion statement, but as the result of scientific research, due to scientific discoveries.

Currently, the concept of pedagogical technology is firmly embedded in the pedagogical lexicon. But there are great discrepancies in its understanding and use. Pedagogical technology is often defined as an ordered set of actions, operations, procedures that instrumentally provide a predictable and diagnosable result in changing conditions of the educational process (the state standard of higher professional education).In UNESCO documents, learning technology is considered as a systematic method of creating, applying and defining the entire educational process of teaching and learning, taking into account technical, human resources and their interaction. The technological nature of the educational process is to make the educational process fully manageable.

The formation of new technologies should be carried out in the following sequence: determining opportunities through basic research; determining effectiveness through applied research; analyzing the needs and demand among teachers and students; developing documentation, software and methodological tools; training teachers; replication and distribution of software tools.

The emergence of new information technologies associated with the development of computer tools and telecommunications networks has made it possible to create a qualitatively new information and educational environment as a basis for the development and improvement of the education system. The task of technology as a science is to identify a set of patterns in order to determine and use in practice the most effective, consistent educational actions that require less time, material and intellectual resources to achieve any result.

Taking into account the transition to a global informative society and the formation of knowledge, the adequacy of education to the socio - economic needs of the present and future can only be said if its modernization is based not only and not so much on organizational innovations, but on changes in substance - in the content and technologies of training personnel and the preparation of scientific research.As a social institution that reproduces the intellectual potential of the country, education should have the ability to advance development, meet the interests of society, a particular individual and a potential employer.

Information technologies in a broad sense should be understood as a set of tools 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)[1, 2005].

A retrospective analysis of the process of introduction and use of computer equipment and computer technologies in the educational process allowed us to identify three stages of Informatization of education (electronics, computerization, Informatization of the educational process) [2, 2001].

The first stage of Informatization of education (electronics) was characterized by the widespread introduction of electronic tools and computer technology in the process of training students first in technical specialties (late 50s-early 60s), and then in Humanities (late 60s-early 70s) and involved training in the basics of algorithmization and programming, elements of logic algebra, mathematical modeling on a computer.

This approach provided for the formation of students ' algorithmic thinking style, mastering some programming languages, and mastering computer skills using computational and logical algorithms. There latively low performance of computers at that time, the lack of user-friendly, intuitive of ware tools for the average user (not a programmer) and having a friendly interface did not contribute to the wide spread use of computer technology in the field of Humanities education.

The second stage of Informatization of education (computerization) (from the mid-70s to the 90s) is associated with the emergence of more powerful computers, software that has a friendly interface, and is characterized primarily by the use of human-computer dialog interaction.Students as subjects of the educational process for the first time got the opportunity to work on a computer, interact with models -"substitutes" for real objects and, most importantly, manage the objects of study. Computer-based educational technologies allowed us to study various (chemical, physical, social, pedagogical, etc.) processes and phenomena based on modeling.Computer technology began to act as a powerful means of learning as part of automated systems of various degrees of intelligence. In the field of education, automated systems of training, know ledge control and educational process management have become increasingly used.

The third, modern stage of Informatization of education is characterized by the use of powerful personal computers, high-speed high-capacity storage devices, new information and telecommunications technologies, multimedia technologies and virtual reality, as well as a philosophical understanding of the ongoing process

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of Informatization and its social consequences [3, 2004].

Information technologies, in contrast to other technologies, are constantly undergoing changes caused by the rapid development of computer technology and modern communications. Therefore, today we should not just talk about information technologies, but about modern information technologies.They are based on such scientific achievements as: the emergence of a new medium of information storage on computer-readable media; development of communication means, providing delivery of information to almost any point of the globe without significant restrictions in time and distance, wide coverage of the population means of communication; dynamic development of microprocessor technology, providing the ability digital information processing; the possibility of automated processing of information using a computer according to specified algorithms; the emergence and rapid development of the Internet [4, 1999].

The use of information technologies makes it possible to significantly speed up the process of searching and transmitting information, transform the nature of mental activity, and automate human labor. It is proved that the level of development and implementation of information technologies in education determines its success.The basis of information technologies is information and telecommunications systems based on computer tools that represent information resources and hardware and software that provide storage, processing and transmission of information over a distance.

Information technologies turn learning into an exciting process with game elements, and contribute to the development of students ' research skills. The technology of conducting classes using modern technical means and new information technologies trains and activates memory, observation, intelligence, concentrates the attention of students, makes them evaluate the information offered in a different way. The computer in the classroom significantly expands the possibilities of presenting educational information. The use of color, graphics, sound, and modern video equipment allows you to simulate various situations and environments. This help stoincrease students ' motivation to study.

The use of information technologies makes the learning process interesting and productive, provides a differentiated approach to learning, makes it possible to objectively and timely monitor and summarize results. The penetration of modern information technologies also allows teachers to qualitatively change the content, methods and organizational forms of training. An example of the use of information technologies in universities is the widespread use of software for educational purposes. Theseinclude: trainingprograms, electronictextbooks, etc. Training programs are designed for independent work of students. They contribute to the maximum activation of students, individualizing their work and giving them the opportunity to manage their own cognitive activity. And electronic textbooks include didactic, methodological and informational reference materials on the academic discipline, as well as software that allows you to use them in a comprehensive manner for self-learning and control of knowledge.

With the development of information technologies, a system of distance education appeared, which supplemented full-time and part-time forms of education and provided an equal opportunity to receive education for all categories of citizens. This opportunity is valuable for people who are physically unable to get to their place of study. This category includes people who have movement restrictions due to health reasons; people who live in remote localities, or who are receiving a second higher education.

Modern information technologies also play an extremely important role in Russian as a foreign language classes. The use of information technologies in teaching Russian to students increases the effectiveness of teaching, develops motivation, cognitive activity of students, stimulates their independence, reduces the loss of working time to a minimum, and also makes the learning process bright and exciting.

Working in a computer class using modern information technologies in Russian language lessons in national groups allows you to:

- find the meaning of unfamiliar words using a variety of dictionaries, reference books, and encyclopedias;
- get the necessary information about the country of the language being studied;
- get acquainted with the biography and work of Russian writers and poets;
- read excerpts from literary works;
- select additional material on the topic under study;
- create a multimedia presentation on the topic;
- find a review of a literary work, the work of a poet or writer of a certain literary direction;
- write a report or essay on the topic under study;
- check your level of knowledge by completing test tasks.

Thus, active and effective implementation of information technologies in education is an important factor in creating an education system that meets the requirements of the information society and the process of its reform, improves the quality of training and education, allowing students to successfully and quickly adapt to the environment and on going social

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changes, accumulate and realize the innovative potential of the educational process participant.

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