IMPORTANCE OF INFORMATION TECHNOLOGIES IN EDUCATION

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Abstract*:* Currently, as part of the implementation of the priority national project "Education", information technologies are being actively introduced into the educational process. The concentration of modern technical teaching aids contributes to the modernization of the educational process, activates the thinking activity of students, promotes the development of teachers' creativity, allows for distance learning, develops a system of continuous education, thereby increasing the effectiveness of the educational process. The latest information technologies in education allow for more active use of the scientific and educational potential of leading universities and institutes, attracting the best teachers to create distance learning courses, and expanding the audience of students.

Keywords: information technologies, individualization, educational process, quality of education, telecommunication, program.

Information technology (IT) in education is currently a necessary condition for the transition of society to an information civilization. Modern technologies and telecommunications allow changing the nature of the organization of the educational process, fully immersing the student in the information and educational environment, improving the quality of education, motivating the processes of perception of information and acquisition of knowledge. New information technologies create an environment of computer and telecommunication support for the organization and management in various fields of activity, including education. The integration of information technology into educational programs is carried out at all levels: school, university and postgraduate education.

Continuous improvement of the educational process along with the development and restructuring of society, with the creation of a unified system of continuous education, is a characteristic feature of education in Russia. The school reform carried out in the country is aimed at bringing the content of education in line with the modern level of scientific knowledge, increasing the effectiveness of all educational work and preparing students for activities in the context of the transition to an information society. Therefore, information technology is becoming an integral component of the content of education, a means of optimizing and increasing the effectiveness of the educational process, and also contributes to the implementation of many principles of developmental education.

The main areas of application of IT in the educational process of the school are:

- development of pedagogical software for various purposes;
- development of websites for educational purposes;
- development of methodological and didactic materials;
- implementation of management of real objects (educational bots);
- organization and conduct of computer experiments with virtual models;
- implementation of targeted search for information of various forms in global and local networks, its collection, accumulation, storage, processing and transmission;
- processing of experimental results;
- organization of intellectual leisure of students.

Integrated lessons with the use of multimedia are most widely used at the moment. Educational presentations are becoming an integral part of training, but this is only the simplest example of the use of IT.

Recently, teachers have been creating and implementing their own pedagogical software, which reflects a certain subject area, to one degree or another implements the technology of its study, and provides conditions for the implementation of various types of educational activities. The typology of pedagogical software used in education is very diverse: training; simulators; diagnostic; monitoring; modeling; gaming.

In the educational process of a higher educational institution, the study of IT involves solving problems at several levels:

- The use of information technology as a tool for education, knowledge, which is carried out in the course "Computer Science";

- Information technologies in professional activities, which is the focus of the general professional discipline "Information Technologies", which examines their theory, components, and methodology;

- Training in applied information technologies focused on a specialty, intended for organizing and managing specific professional activities, which is studied in the disciplines of specializations.

For example, the discipline "Information Technologies in Economics" and the synonymous "Information Technologies in Management" are part of the educational program for students majoring in economics. A modern economist should be able to make informed decisions based on information flows; in addition to traditional economic knowledge, a student should be familiar with the process of data processing and have the skills to build information systems.

Methodological materials for these disciplines are widely presented in print, in electronic versions, accompanied by various applications and application programs. It is quite difficult to understand such an abundance of proposed material on your own. If you take, for example, only the fact of how many sources are offered on the Internet: a list of recommended literature, interactive manuals and online textbooks, abstracts, etc. In response to a user's query "Discipline "Information Technologies in Economics", the Google.ru search engine returns about 400 thousand links.

Only a qualified specialist-teacher can help to understand the current situation and to master the educational material: he/she not only organizes independent work of students (abstracts, testing, tests and term papers), but in the conditions of the regulation of time for studying the discipline, he/she knows how to choose the most important aspects for study. At present, teachers, pursuing such goals, create original pedagogical software tools, implemented in multimedia and hypermedia form on CD and DVD disks, on websites on the Internet.

Postgraduate education is also focused on the implementation of IT: the curricula of postgraduate students and applicants of many scientific fields include disciplines related to the study and implementation of information technology in scientific and professional activities. At the Oryol State Institute of Arts and Culture, postgraduate students and applicants of all specialties study the discipline "Information Technology in Science and Education" already in the first year of postgraduate study. The purpose of this course is to teach students the basic methods and means of using modern information technologies in research and educational activities, to increase the level of knowledge of a novice scientist in the field of using computer technologies when conducting a scientific experiment, to organize assistance to a postgraduate student in his scientific research, in the design of articles, theses, reports and dissertations.

Increasing the level of computer training of students, increasing the number and expanding the variety of author's pedagogical software, the use of new information technologies in science and education in general are one of the main areas of improving secondary specialized, higher and postgraduate education in our country.

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