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## THE USE OF EDUCATIONAL TECHNOLOGIES IN EDUCATION

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**Abstract.** This article outlines the software tools of educational technologies, uncovered didactic requirements for electronic resources, as well as software categories.

**Key concepts:** technology, education, means, software, electronic resource.

A special role in the process of creating and using information technologies belongs to the higher education system as the main source of qualified highly intellectual personnel and a powerful base of fundamental and applied scientific research. A characteristic feature of the education system is that it acts, on the one hand, as a consumer, user, and on the other, as a creator of information technologies, which are subsequently used in various fields. This, in fact, provides the practical implementation of the concept of transition from the informatization of education to the informatization of society. But at the same time, one should not exaggerate the capabilities of computers, since the transfer of information is not the transfer of knowledge, culture, and therefore information technologies provide teachers with very effective, but auxiliary means.

The didactic requirements for electronic resources as an ICT tool are as follows:

1. The ability to ensure a higher level of implementation of such traditional requirements as the scientific nature of teaching, the accessibility of teaching, the problematic nature of teaching, the visibility of teaching, the activity and conscientiousness of students in the learning process, the systematic and consistency of teaching, the strength of knowledge assimilation, the unity

of educational, developmental and educational functions of teaching ...

2. Electronic resources must meet the requirements of individuality, interactivity and adaptability of learning.

3. Consistency and structural and functional coherence of the presentation of educational material in an electronic resource.

4. Ensuring completeness (integrity) and continuity of the didactic training cycle.

Computer communications, providing both the process of transferring knowledge and feedback, are obviously an integral part of all of the above technologies when it comes to using local, regional and other computer networks. Computer communications determine the capabilities of the educational information environment of a particular educational institution, city, region, country. Since the implementation of any ICT occurs precisely within the framework of the information educational environment, then the means that provide hardware and software support for this educational technology should not be limited only to a single computer with a program installed on it. In fact, everything is the opposite: ICT software and educational technologies themselves are embedded as a subsystem into the educational information environment - an electronic educational resource.

Hypertext technology underlies the construction of the World Wide Web,

electronic dictionaries and encyclopedias, and various information systems. But regardless of the scope of application, hypertext always provides the ability to quickly find information through direct selection. At the same time, even within the framework of hypertext learning systems, there are a large number of approaches to the choice of the very principles of representing the subject area and organizing the learning process. Thus, it is necessary to consider hypertext systems in the context of specific applications, taking into account their specific features.

For the effective use of an electronic educational resource, a teacher first of all needs to navigate in the appropriate software. Development of full-fledged educational software products is an expensive business, since this requires the joint work of highly qualified specialists: psychologists, subject teachers, computer designers, programmers. Many large foreign firms and a number of domestic manufacturers of software products finance projects for the creation of computer training systems in educational institutions and conduct their own developments in this area.

The main requirement that must be observed for software tools aimed at using in the educational process is the ease and naturalness with which the student can interact with the educational materials. The corresponding characteristics and requirements for programs are usually denoted by the abbreviation HCI (English Human-Computer-Interface - human-computer interface). This literal translation can be understood as "computer programs, the dialogue with which is human-oriented."

The software used in information and communication technology can be divided into several categories: teaching, monitoring

and training systems; information retrieval systems; modeling programs; microworlds; educational tools; tools of a universal nature; communication tools.

Currently, in the practice of automated testing, control systems are used, consisting of subsystems for the following purpose:

- creation of tests (formation of a bank of questions and tasks, strategies for conducting a survey and assessment);
- testing (asking questions, processing answers);
- monitoring the quality of students' knowledge throughout the entire time of studying a topic or academic discipline based on logging the progress and results of testing in a dynamically updated database.

Either the teacher or the operator works directly with the test creation subsystem, who enters the information provided by the teacher. In order to avoid possible errors, in order to simplify the preparation of materials in such subsystems, template forms are usually used - to enter the text of a question or task, answer options, correct answer, etc. As a result, this subsystem forms a database that serves as the basis for testing.

A trainee working with a testing subsystem can be offered an individually selected set of questions and an algorithm for presenting them.

Based on the test results, a database will be formed with the help of the monitoring subsystem, providing the necessary information to the teacher, trainees and the administration of the educational institution.

Educational and training systems. Creation of educational computer tools proper proceeded on the basis of the idea of programmed teaching. And now, many educational institutions are developing and using automated learning systems (ATS) in various academic disciplines.

AOC includes a set of teaching materials (demonstration, theoretical, practical, control) and computer programs that control the learning process. The development of specialized programs usually involves the solution of well-defined problems of computerization of the educational process. So, AOS is used to learn new concepts and processes for the learner. The material is presented in a structured manner and usually includes demos, comprehension questions, and feedback. Modern AOC allows you to adjust the learning process by adapting to the actions of the student.

AOS is usually based on an instrumental environment - a set of computer programs that provide users who do not speak programming languages the following possibilities of working with the system:

- the teacher enters versatile information (theoretical and demonstration material, practical tasks, questions for test control) into the database and forms scripts for the lesson;
- the student, in accordance with the script (chosen by himself or proposed by the teacher), works with the educational and methodological materials of the program;
- automated control of knowledge assimilation provides the necessary feedback, allowing the student to choose (based on the results of self-control) or automatically assign the sequence and pace of mastering the educational material;
- student's work is recorded, information (test results, studied topics) is entered into the database;
- the teacher and the student are provided with information about the results of the work of individual students or certain groups, including over time.

The use in electronic editions of various information technologies (AOS, multimedia, hypertext) gives significant didactic

advantages of an electronic resource in comparison with a "paper" one:

- multimedia technology creates a learning environment with a vivid and visual presentation of information, which is especially attractive for schoolchildren;
- integration of significant volumes of information on a single carrier is carried out;
- hypertext technology, thanks to the use of hyperlinks, simplifies navigation and provides an opportunity to choose an individual scheme for studying the material;
- on the basis of modeling the learning process, it becomes possible to supplement the textbook with tests, track and guide the trajectory of learning the material, thus providing feedback.

The specificity of Internet technologies lies in the fact that they provide both learners and teachers with enormous opportunities to choose the sources of information needed in the educational process:

- basic information posted on Web- and FTP-servers of the network;
- operational information systematically sent to the customer by e-mail in accordance with the selected mailing list;
- various databases of leading libraries, information, scientific and educational centers, museums;
- information about CDs, video and audio cassettes, books and magazines distributed through online stores.

Recently, with the development of information technology, the use of the Internet and corporate intranet networks in distance learning has become increasingly popular. The term e-learning (Electronic Learning) has come into wide use - e-learning (or Internet learning), which provides access to computer training programs via the Internet or corporate intranets using learning management systems. Synonymous with e-

learning is the term WBT (Web-based Training) - training through web technologies.

The global information network Internet offers unique learning opportunities in this regard. It is she who can provide remote interactive work of a student with educational and methodological material, constant communication between a student and a teacher, as well as students among themselves. A student in the process of distance learning is not limited either by space or time frames for receiving any information.

There are various approaches to organizing distance learning systems on the Internet. These approaches are primarily distinguished by the use of different ways of composing, delivering and using educational material. At the same time, the organizers of the distance learning process should remember that an excess of information can be as harmful as its lack, and the Internet today is the world's largest repository of information, where it is not difficult to "drown". The now popular method of traveling on the Internet from one interesting link to another, "surfing," is good for entertainment or general development, but not for the targeted search for the desired data. Therefore, the relevant methodological instructions should regulate the search area for the reference information required by the student.

The use of hypertext technology in itself already introduces all developments into the framework of a single standard, but for the integrated functioning of information and communication technology software, a standard shell program is usually designed or involved, which ensures the formation of a single information space and is a problem-oriented information environment that is quickly accessible trainees, teachers and the administration of the educational institution.

The introduction of such shells (VLE, Net-school) is carried out with the direct participation of teachers, who already at the stage of trial operation are exploring their possibilities for organizing the educational process, making their proposals to developers.

## Literature

1. Belonosova V.V. Educational and research work of students as a means of developing their creative activity electronic resource: Diss.Kand.ped.nauk / V.V. Belonosov. Moscow: RSL, 2003
2. Ivanov B.JI. Electronic textbook: knowledge control systems // Informatics and education. No. 1, 2002. P.71-81.
3. Kalinin I.A. Principles of creation and methodology for using an electronic textbook as an open information system electronic resource: Candidate of Pedagogical Sciences / I.A. Kalinin. Moscow: RSL, 2003.