MULTIMEDIA - ELECTRONIC TEXTBOOKS FOR INDEPENDENT STUDY

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ANNOTATION

The purpose of this article is to share experiences on the creation of multimedia electronic textbooks designed for self-study by distance learning students.

Key words: Multimedia electronic textbook, subject of the educational process, educational information, educational technologies, information technologies, hypertext, hypermedia, multimedia.

INTRODUCTION

We consider this article as a modest contribution to the development of these theoretical problems. Our views are based on practical experience in creating multimedia electronic textbooks (MEU), analysis of literary sources and the experience of our colleagues.

By definition of UNESCO, distance education is a new organization of the educational process, based on the principles of individual and independent student learning. The most effective implementation of these requirements is possible by creating a didactic system based on the use of computer tools and technologies in training. These include e-mail, newsgroups, digital libraries, databases, electronic textbooks, video and audio materials, etc.

Moscow colleagues evaluate MEAs according to the following criteria: the efficiency of the technology is wide, the complexity and cost of widespread adoption is average. Compared to other tools and technologies, this is the highest rating (1).

We consider MEU as part of a didactic system that includes the following components:

• subjects of the educational process

 teacher - the organizer of the educational environment, consultant, supervisor;

 the learner is the constructor of his own knowledge;

• educational information;

• educational technology;

• information Technology.

An electronic textbook is a combination of educational information and information technology, while being one of the means of organizing interaction between the subjects of the educational process (teacher, student) based on educational technology.

Educational information is the knowledge that must be transferred to the student so that he can competently carry out one or another activity.

In the disciplinary model of training inherent in the full-time education system, the teacher is the interpreter of knowledge. In remote form, the interpreter is to a greater extent the student himself, and therefore, increased requirements must be imposed on the quality of educational information and the methods for presenting it.

First of all, this applies to the MEA and teaching aids being created, as well as to information bases

and knowledge banks, reference and expert systems used for training purposes. Our experience shows that the information presented in them should have an organization and structure that is significantly different from printing. This is due to both the psychophysiological features of the perception of information from the monitor, and the technology of access to it.

In connection with the foregoing, it is obvious that the creation of MEAs is a complex didactic task. Modern computer technologies provide real opportunities for its solution, while the following requirements must be observed:

• presentation of the course as a set of sections (topics);

• modularity and free access to fragments of content;

• inclusion in the module of the system of educational activities;

• use of various types of information;

• adaptation of the content of educational material to the characteristics of the trainees.

The development of educational content involves taking into account the individual educational characteristics of different categories of students. What information is presented, how, in what sequence, what teaching methods are used, how they are built - all this should be determined depending on the individual characteristics that characterize a particular learning process.

Using the opportunities presented by new information technologies leads to overcoming many fundamental problems in the development of educational content related to the sharp increase in the volume of taught material, its updating, difficulties in preparing educational texts and the development of the educational environment. A new technological level of development of educational content provides a new quality of education.

Educational technology is a set of didactic methods and techniques used to transfer educational information from its source to the consumer and depending on the forms of its presentation. Among educational technologies that use computers as didactic tools, the most recognized among specialists are the information resource method, the associative teaching method, and the computer simulation method.

According to the method of an information resource, training mainly acts as a process of orienting the most diverse information — text, graphic, sound, video — into the sea with the goal of extracting exactly the information that a particular student needs and satisfies his or her educational needs.

The development of computer technologies such as hypertext, hypermedia, multimedia, etc. allows you to create a method based on the analysis of information resources.

The educational text is based on lecture information and is equipped with a system of hyperlinks.

The glossary is a set of pedagogical, psychological, sociological terms that go beyond those found in the educational text. Thus, the user has the opportunity to receive additional information of a theoretical nature.

Tests include several types of tasks: closed tests, training tests, situational questions.

The associative teaching method is based on the enrichment of the learning environment based on hypertechnologies and providing students with the opportunity to study the material not in some hierarchical or generally predetermined order, but freely guided by associations, any preferences.

There are many perspectives, aspects and positions of the development of the material. In accordance with

the associative teaching method, the teacher structures and organizes the learning environment, and the ways and sequences of work in it are determined by the student himself. When teaching using this method, the role of the teacher is specific, it manifests itself not in the choice of a particular way of teaching material, but in the way of structuring and organizing knowledge.

This MEC is an educational and methodical complex including an educational text, dictionary, gallery, shows and tests.

The educational text is a compressed lecture information equipped with a system of hyperlinks.

The dictionary includes the terms found in the educational text and designed in the form of hyperlinks. At the same time, the student has the ability to "walk" both in the dictionary itself and in the transition to the main text.

Among the methods of education developed on the basis of new information technologies, the method of computer modeling has significant educational value, as admittedly by specialists.

The above methods make it possible to fully implement one of the basic requirements of modern didactics, which consists in the maximum activation of the student.

CONCLUSION

Summing up, we note that MECs are a means of training in the pedagogical system of distance education, which includes elements inherent in any didactic system. Currently, electronic textbooks are an additional tool in the organization of the educational process in the framework of the traditional educational system. However, over time, their functions will specialize in connection with the development of methods of distance education itself, which will lead to the development of new technologies in the process of their creation.

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