



INFORMATION TECHNOLOGY IN EDUCATION

Kobulova Mokhinabonu Avazbekovna,
Assistant, Andijan State Medical Institute
earlarchil@yahoo.com

ABSTRACT

In the article the author analyzed the role of information technology in education, the quality of the lesson and the increasing interest of young people in IT through the use of information technology in classrooms, as well as the benefits of multimedia in education.

Keywords: Information, Communication, Technology, audio signal, video signal, multimedia, individual, motivation, computer, informatics.

The modern world level of development of information and Communication Technologies is such that the creation of a national system in the Republic corresponding to the integration of the infrastructures of the world information space and the National Information and computing network is an important factor in the effectiveness of the national economy, Management, Science and education. These problems are much more complex and at the same time relevant for our republic. The results of the implementation of economic, structural and other changes that are currently being carried out also depend on how and in what terms the problems associated with informatization in the Republic are solved. The creation of electronic educational tools in academic disciplines further expands the possibility of using modern information and communication technologies in teaching these subjects. This, in turn, is the main factor in the deep assimilation of students' knowledge in these disciplines, increasing the quality and effectiveness of Education. The implementation of such efforts makes it possible to further accelerate the widespread introduction of modern pedagogical and information technologies into the educational process, arm the teaching staff with advanced pedagogical knowledge and technologies, improve their skills, in-depth study of the experience of foreign higher educational institutions, and introduce effective methods and tools in them into our national education system. Multimedia is a modern information technology that is developing rapidly. Its distinguishing signs include: various types of Information: traditional (text, tables, ornaments, etc.), original (speech, music, excerpts from videos, telecadres, animation, etc.), integrating types in one software product. Such integration is due to the fact that different devices of registration and reflection of



Information, work at a certain time, in contrast to text and graphics, which are static in their nature, audio and video recordings are considered only in a certain interval of time. To process and reflect Video and audio information on a computer, the central processor requires rapid behavior, the bandwidth of the data transmission tire is about two increments of the exchange rate on RAM and video memory, large-capacity external memory, computer input and output channels, a new level of interactive Human-Computer Communication, in which the user receives much more extensive and comprehensive information teaching students based on multimedia tools and the establishment of personnel reclamation is an urgent issue of the present day. The concept of Multimedia entered our life at the beginning of the 90s. He himself asked the question of what? Many experts analyze this term in different ways. In our opinion, Mul'timedia is an embodied view of the delivery of educational materials to students based on audio, video text, graphics and animation effects based on software and technical means of Informatics. The method of teaching in developed countries is currently being implemented in areas of the educational sphere. Even every family has become disinterested without multimedia tools. The gross turnover of Multimedia tools in the 81st year was 4 Milliard US dollars, while in the 94th year it was 16 billion US dollars. Nowadays, however, not every computer on sale can be imagined without Mul'timedia tools. The fact that attempts on the way to the widespread use of computers in education in the 70s went without fail was primarily due to the fact that they had extremely low productivity. Practice shows that training students based on multimedia tools is twice as productive and time-consuming. On the basis of Multimedia tools, it is possible to save up to 30% of the time in obtaining knowledge, and the knowledge gained is preserved in memory for a long time. Storage of information in memory increases by 25-30% if readers receive the supplied materials on the basis of drying. As an addition to this, educational materials include audio, video and graphics the preservation of materials in memory increases by 75% if given in a seemingly embodied state.

Training students based on Multimedia tools has the following advantages:

- 1) The possibility of deeper and more perfect assimilation of the materials being given have;
- 2) The passion for close contact with new areas of education increases even more;
- 3) Achieve the opportunity to save time, as a result of the reduction in the time of training;
- 4) The knowledge gained is long preserved in the memory of a person, and the ability to apply it in practice when needed is achieved. Computer science and information technology as a fundamental science are engaged in the development of a



methodology for building information support of management processes with any objects on the basis of Computer Information Systems. There is also an opinion that one of the main tasks of science is to find out what information systems are, what place they occupy, what structure they should have, how they work, what laws are characteristic of it. In the field of Informatics in Europe, the following main scientific areas can be distinguished: the development of a network structure, the production of a computer integrated process, economic and medical informatics, social insurance and environmental Informatics, professional information systems. The emergence of the Multimedia system has led to the emergence of revolutionary changes in several professional areas, such as education, science, art, computer training, advertising, technology, medicine, mathematics, business, scientific research.

Although the idea of using computers in the educational system appeared much earlier, the application of Information Technology in all areas of the educational system began to be introduced into practice literally when computers equipped with multimedia devices appeared. The application of Multimedia tools in education provides an opportunity for:

- * Ensuring the humanization of Education;
- * Improve the efficiency of the learning process;
 - Development of the personal qualities of the educator (mastery, thirst for knowledge, Independent Education, self-education, resourcefulness aimed at self-improvement, creative abilities, the ability to apply the acquired knowledge to practice, interest in learning, attitude to work):
- * Development of communicative and social abilities of the educator;
 - With the help of computer tools and information e-learning resources, the possibilities of individualization and differentiation of open and distance education are significantly expanded due to the individual (individual) education of each person;
- * To treat the educational person as an active cognitive subject, to recognize his dignity;
- * Taking into account the personal experience and individual privatization of the educational institution;
- * Conduct independent educational activities, in which the educational person independently studies and develops;
 - To form in educators the skills to use modern educational technologies that help them adapt to the current rapidly changing social conditions in order to successfully fulfill their professional duties. The process of implementing personality-oriented learning with the help of Multimedia tools requires the development and use of



modern, multidisciplinary, subject-oriented multimedia learning tools. They include an extensive database, a knowledge base in the field of education, artificial intelligence systems, expert-teaching systems, laboratory practices with the possibility of creating a mathematical model of the studied processes and phenomena. Multimedia is a useful and productive educational technology, according to the possibilities of taking into account the individual characteristics of educators and facilitating the increase in their interest (motivation), as well as due to the combination of various types of multimedia educational information, the qualities of interactivity, flexibility. The provision of interactivity is one of the important achievements of digital multimedia in comparison with other means of presenting information. Interactivity implies the provision of relevant information in accordance with the needs of the educational institution. Interactivity allows you to control the presentation of information to a certain extent: educators can individually change the settings specified in the program, study the results, respond to a program request about a particular user's desire, determine the speed of presentation of materials, as well as the number of repetitions. But when using multimedia, it is important to consider a number of aspects. The teaching materials offered in multimedia are required to be accessible for understanding, provided through modern information and convenient tools. For the full disclosure of all the possibilities of Multimedia technologies and their effective use, the support of a potential (competency) teacher will be needed for educators. As with the use of textbooks, in the application of multimedia tools, the educational strategy can be enriched in content only when the teacher in the educational process is engaged not only in providing information, but also in helping, supporting and guiding the process to educators. Usually, presentations enriched with beautiful images or animations come out much more attractive than plain-looking texts, and they can provide the necessary emotional level, complementing the materials offered. Multimedia tools can be used in the harmony of different areas of study (styles) and used by individuals with different mental and age characteristics of education and knowledge acceptance: some educators can directly study, and some through they enjoy learning and mastering knowledge by hearing and perceiving, while others like to see (videos). Interactive multimedia technologies provide unconventional comfort to an educational recipient with an academic need. In particular, there is a deficit in the sense of hearing, which ensures the growth of phonological skills and reading skills in educators, as well as their visual assimilation of information. And in those with speech and physical disabilities, it allows the use of tools based on their individual needs. Multimedia tools are an effective and promising weapon





(instruments) of teaching, which provides the teacher with a wider array of information than a traditional source of information; using not only text, graphics, schemes, but also sound, animations, video, etc., demonstratively and harmoniously; provides an opportunity to select information types in sequence in accordance with the level of acceptance (perception) and logical learning of

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