

Informatization in the Educational Process

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ABSTRACT

It is necessary to actualize education, to ensure that the content of education is in accordance with the requirements of the current material and spiritual Production, modern scientific knowledge. From this point of view, it is necessary to increase the balance of theoretical disciplines necessary for the effective use of information techniques.

The concepts of information and informatization have become one of the most important areas of modern science, and the unified system of informatization sets itself the goal of training personnel who have a solid fundamental knowledge and can apply them in their activities by mastering the created program of education in a wide range and specialty. Became a means of resolving the confrontation between usability, In addition, information techniques have become the main factor in accelerating the acquisition and practical use of scientific knowledge.

INTRODUCTION

Today there is no field left where information technology has not penetrated. In the chapter of convenience, transparency and immediacy, which aspect to not take, modern information technology is becoming an important factor in updates. Therefore, special importance is attached to the widespread introduction of information and communication technologies on all fronts in order to ensure economic security and stability, social well-being and further increase the standard of living of the population. One of the most important features of the present time is the rapid penetration of scientific and technological achievements into all areas of the human lifestyle, increasing the importance of universal values in the activities of people to the internationalization of all aspects of life, which, in turn, also creates terrible risks for a person.

“Information technology is the most important component of the process of using information resources of society. By now, it has passed through several evolution presets, the alternation of these stages is largely determined by the development of scientific and technological progress, the emergence of new technical means of information skating”[1, 45].

The need of life to effectively solve the tasks set before science, as well as the internal needs of science, necessitated the informatization of science. Informatization is a global process of maximizing the use of information resources. The increasing role of computers and technology is

one of its main features. Informatization of education is understood as purposeful activity on the development and implementation of information and communication technologies.

THE DEGREE OF STUDY OF THE SUBJECT

Informatization of education - in a broad sense, is considered as the provision of the educational sphere with the methodology, the practice of effective use and creation (processing) of new information technology tools aimed at the psychological pedagogical implementation of teaching goals. In addition, informatized programming serves as a base for the progress of the distance learning system. In the process of informatization, a large-scale use of new information technology tools is carried out in the educational system.

Informatization of education in a broad sense is a complex of socio—pedagogical transformations associated with the saturation of educational systems with information products, tools and technology; in a narrow sense, the introduction of information tools, information products and pedagogical technologies based on these tools into educational institutions. Education in this case, without losing its traditional function – the transfer of social experience to the younger generations, should perform a fundamentally new function, namely the creation of highly adaptive pedagogy of the information society.

With the development of technology, the presence of only one computer for training using technical means remained sufficient. The computer successfully took over the functions previously performed by the TV, video recorder, kinoproector, diaproector, etc. In addition, the quality of information transmission, storage, and imaging has increased significantly. To date, computer literacy has become an important sign of culture, and in the future it becomes a necessity for everyone wherever, on which plot they work. So it is no doubt that computer work, teaching to use a computer, will become a common job in the closest time.

The achievements and disadvantages of the educational system are especially evident in the training of Engineers. As you know, engineers make up the most mass group of specialists. They are associated with almost all spheres of society's life for certain reasons. The excessive technicalization of engineering education, its low emphasis on the humanitarian aspect, is one of the serious drawbacks.

In general, “technical education directed towards the development of a person's personality, his abilities and needs cannot be considered non-institutionalized education. Technical activity is a factor in the humanization of the individual, the development of an active creative attitude to the world in it”. The influence of external factors that shape the templates of a technical specialist on the educational system led to the non-institutionalization of engineering education, in which technocratism became excessive. Yawning at the achievements of Science and technology, aiming at practical-technical utility, over-idealization of Social Sciences caused excessive technicalization of Education.

As a result of the expansion of the process of informatization of education, the problems of the socialization of engineering education gained relevance. Developing figurative thinking, certain abilities and skills in educators is an important problem of social training. It should be taken into account that in making a certain decision, a person employs not only his scientific knowledge, but also his desire, desire, interest, surety, sympathy.

The stages of organizing a modern Information Technology Environment at an educational institution begin with the creation of a psychological information environment. On the basis of technological and scientific results, created software products, the need for the use of modern tools and techniques is formed. In this case, it is necessary to organize an independent and computer education system of Educators based on individual and advisory training in each educational institution. In the computerization (informatization) of the teaching process, two directions can be distinguished: mastering all methods of applying the computer as a means of educational activity, as well as using the computer as an object of study. The improvement of the technical characteristics and software of

the computer, the expansion of its didactic capabilities, manifests its new properties as a teaching tool.

The teaching of natural-mathematical and Technical Sciences has rich opportunities for the implementation of the social component of engineering education. Mastering the history of these sciences, their connection with the technical needs of production and the social environment of a particular period opens up great opportunities.

Technology is a complex of scientific and engineering knowledge implemented in labor techniques, sets of material, technical, energy, labor factors of production, ways of combining them to create a product or service that meets certain requirements. Therefore, technology is inextricably linked with the mechanization of the production or non-production, primarily management process. Management technologies are based on the use of computers and telecommunications equipment.

According to the definition adopted by UNESCO, information technology is a complex of interrelated, scientific, technological, engineering disciplines that study methods of effective organization of work of people engaged in processing and storing information; computer technology and methods of organization and interaction with people and production equipment, their practical applications, as well as related social, economic and cultural problems. Information technologies themselves require complex training, large initial costs and high-tech equipment. Their introduction should begin with the creation of mathematical support, the formation of information flows in specialist training systems.

INFORMATION TECHNOLOGY is a set of systematic and mass methods and techniques created by applied computer science for the accumulation, processing, storage, transmission and distribution of information (data, knowledge) in all areas of human activity using communications, computer technology and software. Information technology has always been an integral and essential part of human civilization, and its centuries-old development has mutually conditioned the parallel development of production, science, art and education. Information technology is based on certain technical inventions (printing press, telegraph, camera, typewriter, telephone, sound recording, radio, TV, video recording, etc.), which over time led to the creation of grandiose socio-technical structures that satisfied the information needs of society (printing, mail, electrical and computer communications, radio and television broadcasting, cinematography, the press, library and archival work).

In practice, the computer performs only on the formal (or rather, formalized) side of education and allows the teacher to deal with only the informal, creative, psychological side of the educational process. The role of the teacher does not decrease, but increases, since he now becomes a participant in the process of students' acquisition and understanding of knowledge from a knowledgeable student. Even in the future, the car will never be able to fully take the place of the teacher.

In education, a generalized drawing of the algorithm of activities for the purpose of organizing and implementing information technology can be used. It includes several stages of teaching and training: aiming (formation of visions of educational goals); implementation (implementation in the intended sequence of teaching-training methods, methods and Means); control and Correction. Each Information Technology also uses a control algorithm, which consists of a system of rules for monitoring, controlling and correcting its functioning in order to achieve the goal set.

In order to achieve each of the established teaching and educational goals, the algorithm of managing the strictly defined educational and educational activities of educators is used. This allows not only to assess the success of the training-training process, but also to pre-design processes with a set efficiency. Sorting and rational selection of methods, methods and means of educational interaction as a specific task of Information Technology iigirok. It is they who should determine the specificity of each of them and reflect the existing conditions of pedagogical activity, the personal characteristics of the educator and his pedagogical experience.

Computer literacy does not only imply the study of information technology, that is, it is not limited to

a purely technical approach. It is also important to introduce new principles of teaching and learning Informatics into the educational system. These principles should ensure the formation of new views on the role of information and Information Processes in humans in nature, they should be able to achieve moderation in the information world, help them master the rules for working with colorful information. The purpose of such work should be not computerization of education, but informatization.

At the present stage, in addition to computer literacy, it is necessary to form a computer culture. Computer culture means that a person can appropriately use the complex of information technologies in his activities. "In an information society, people have to make important decisions in conditions of uncertainty, in crisis and stressful situations"[2, 38]. Without a high social and production culture, the development of computer technology is impossible, while the effective and rational use of computers in everyday activities requires the acquisition of certain knowledge and skills in the field of computing.

Computer literacy involves how to use a computer, when and where to apply computational methods. Computer literacy can be divided into several levels. A person who knows the principles of computer operation and is able to use it in his practical activities is considered literate in the field of computing.

Different disciplines have different possibilities in formalizing their knowledge. In philosophy, for example, there is very little knowledge that can be formalized. Therefore, any attempt to computerize the teaching of philosophy is in vain. Only control over the appropriation of philosophical knowledge can be computerized in a rather rough form. In the teaching of social sciences, there is a relatively wider use of computers and other means of Information Technology. The computer is used to prepare and display diagrams, tables, schemes and other visual materials, to construct models of various situations and discuss them, to reinforce the material mentioned and to control its appropriation. In the field of social sciences, computer technology is especially widely used in the process of rationalizing the study of foreign languages, reducing educational deadlines, vocabulary richness and thorough recall of grammar.

Radical improvement of educational work is one of the important tasks on the way to the formation of an information society. So, what role can information techniques play in improving the upbringing of the younger generation? True, it is impossible to computerize the educational processes, since they imply that the educator personally communicates with the student or student. But, nevertheless, information techniques can provide a certain degree of opportunity to improve the upbringing process. The process of upbringing is based not only on sensations, experiences, emotions, but also on certain knowledge of being, social and natural environment. Therefore, the educational process also performs the functions of upbringing. When teaching any subject, it is necessary to distinguish and use aspects of its special educational significance. In this case, it is necessary to highlight certain facts from the history of scientific and technical discoveries, demonstrate different views on certain problems, create conflict situations and offer students to solve them. The use of a computer in the educational process fosters independent thinking and acting in students and students, accuracy in work and a responsible approach to it, interest in achieving an acceptable result.

The problems of informatization of education are gaining a wide social meaning, they are considered one of the most important areas of informatization of society. Educational informatization programs of different countries are evidence of this. The culture of information consumption is one of the characteristic features of globalization processes, the Internet network is developing completely it is especially important in the current conditions. Therefore, the ability to choose information before a person of the current period is so high-it is clear that information that cannot satisfy his demand will instantly lose its value. From this point of view, information consumption in the current period is fundamentally different from the previous ones. Obviously, having the necessary information is a requirement of the period.

CONCLUSION

In conclusion, in the current period, our population, especially our youth, perfectly copes with the modern techniques and technology of information transmission appropriation is important. To do this, along with the further development of the internet use system in our country, it is necessary to include in this network information of our national interests in various forms and languages. After all, the wide selection of objective, attractive information providing information about various spheres of our society's life from the pages of the Internet serves to strengthen Uzbekistan's position in the global information space. That is why, first of all, young people need to study and research incessantly, in order to preserve this boon as a tear, reaching the value of the calm and tranquility that is stable in our country today. Young people are constantly required for awareness and elegance. So, the most important task today is to educate the growing younger generation on the basis of national values, to strengthen in their hearts a sense of affection for their people, homeland, to alert them to information attacks of various destructive forces, to protect them appropriately is a phrase.

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