



IMPORTANCE OF INFORMATION TECHNOLOGY IN SCIENCE TEACHING

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Abstract: This article provides information on the role and importance of using information technologies in the educational process, the need to transition to a digital education system, and the level of use of innovative educational technologies.

Key words: educational process, innovation, innovative technologies, artificial intelligence, pedagogical skill, interactive methods.

Аннотация. Ушбу мақолада таълим жараёнида ахборот технологияларини қўллашнинг ўрни ва аҳамияти, рақамли таълим тизимига ўтиш зарурияти, инновацион таълим технологияларидан фойдаланиш даражаси ҳақида маълумотлар келтирилган.

Калит сўзлар: таълим жараёни, инновация, инновацион технологиялар, сунъий интеллект, педагогик маҳорат, интерактив усуллар.

Аннотация. В данной статье представлена информация о роли и значении использования информационных технологий в образовательном процессе, необходимости перехода на цифровую систему образования, уровне использования инновационных образовательных технологий.

Ключевые слова: образовательный процесс, инновации, инновационные технологии, искусственный интеллект, педагогическое мастерство, интерактивные методы.

It is known from scientific sources that the word "information" is derived from the Latin word *informatio*, which means to explain, state something, or provide information about something or an event. Explaining the role and importance of using information technologies in the process of technology education, didactic possibilities of teaching general professional subjects based on information technologies in training future technology education teachers, conceptual foundations of teaching general professional training subjects based on modern teaching technologies and tools, content of professional training of future technology education teachers in teaching general professional training subjects and its logical-structural scheme serves to increase the effectiveness of interpretation of education.

The concept of information has different meanings in different fields. But there are also common aspects of information, which is to have five important properties. These are the properties of creating, receiving, storing, processing and transmitting information (Figure 1).

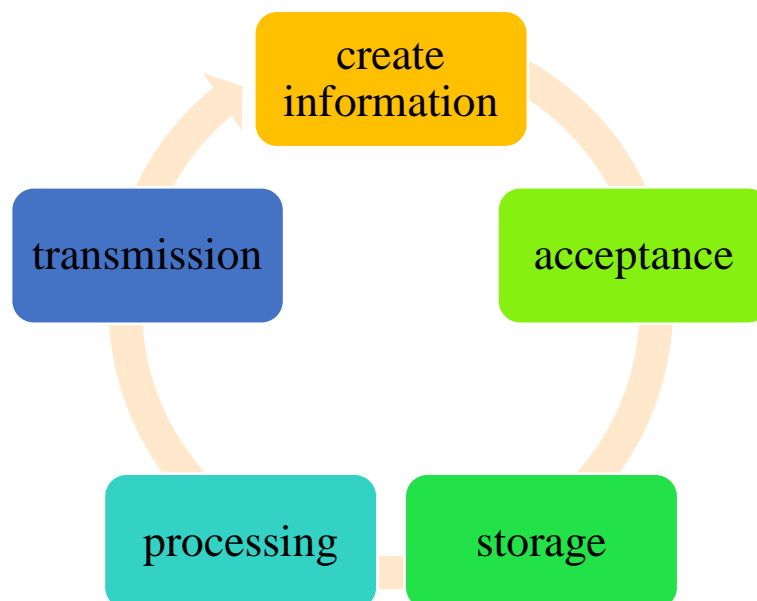


Figure 1. General criteria for sharing information

The main directions of professional training for the use of information technologies in the education of students were determined and a model was developed: the situation of preparing students for the use of information technologies in the process of pedagogical activity was studied, and their skills in the use of information technologies in the process of technology education were diagnosed. Based on the analysis of pedagogical literature and based on the student's requirements for the use of information technologies in his professional activity, the following criteria were distinguished during the research: motivation and the level of acquisition of knowledge on the use of information technologies in his professional activity; The degree of formation of creative skills and competencies in the use of information technologies in the student's educational activities is determined.

Scientists have different opinions about the information society. For example, Japanese scientists believe that the process of computerization in an information society allows people to use a reliable source of information, to ensure a high level of automation of information processing in production and social spheres. In the development of society, the driving force should not be material products, but information production. In the information society, not only production, but also the entire lifestyle and value system will change. Intellect, knowledge is produced and consumed in an information society, where all actions are directed to the production and consumption of goods, which leads to an increase in the share of intellectual labor. Creativity is required from a person, the need for knowledge increases.

Information reception, processing and transmission are carried out step by step¹.

¹ Study guide Tashkent-2008



Stage I. Writing is the creation, preservation and transmission from generation to generation. With the advent of writing, man was empowered by processing technology for the first time.

II stage. In the middle of the (XVI) century, it was connected with the creation of book printing, that is, it led to the development of culture. Along with the development of science, publication of books led to the rapid development of field knowledge. In the process of work, the knowledge gained by working on lathes and machines was applied to a new source of thinking and scientific directions.

Stage III. The end of the (XIX) century. Along with the appearance of electricity, it was possible to transmit and receive a large amount of information by telephone, telegraph, and radio.

Stage IV. It was characterized by the existence of an information revolution. The beginning of this stage coincided with the 40s of the 20th century, that is, the era of creation of universal EXMs. In the 70s, microtechnology and personal computers were created, the core of information technology. In the evolution of the development of computing technology, the direction of the microprocessor appeared.

Stage V. The end of the (XX) century. In order to facilitate management systems, information technologies were processed. Based on the meaningful processing of information, there are algorithms and models that allow us to study the control system. The appearance of computers is a great achievement of mankind, it has the ability to collect information in its memory and process them quickly, but it does not know what the purpose of information processing is.

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