

## Improvement of Educational Processes in Specialized Subjects Based on Digital Technologies

B.J. Khursanov

Acting Associate Professor, Fergana Polytechnic Institute,

Republic of Uzbekistan, Fergana

E-mail: b.xursanov@ferpi.uz

### Abstract:

In the article, information technologies and their didactic possibilities and improvement of education and training processes based on digital technologies are shown. The introduction of modern information technologies to educational-educational processes and the presentation of educational information and the didactic possibilities of ICTs are highlighted.

**Keywords:** information and communication technologies, computer, lecture, practical training, presentation, multimedia tools, internet, information systems, means of data collection, processing and transmission.

### Introduction

The step-by-step transition of the national economy of the Republic of Uzbekistan to socially oriented market relations and scientific and technical development has accelerated the level of application of achievements in the field of information and communication technologies to all aspects of the socio-economic life of our society. Informatization of branches and sectors of the national economy of our country is an objective process of social development and a natural continuation of collection, storage, transmission, processing and presentation of the necessary information [1-7].

Today, information and communication technologies (ICT) phrases are used in everyday life, especially 60720700- In the direction of "Technological machines and equipment" (machines and devices of the chemical industry and building materials enterprises) It is no exaggeration to say that these concepts are the most widely used in the training of trainees. Because no matter what sphere of life we take, no matter what actions we perform, we will certainly work with ICT. The use of modern ICT, the exchange of information, their transfer and mastering is the main basis of human activity [8-15].

The capabilities of modern information and communication technologies are a very wide system, which includes several new concepts in addition to the known computer, multimedia tools, computer networks, and the Internet. These include information systems, information systems management, information transfer systems, data warehouse, data warehouse management systems, knowledge warehouses, etc. can be an example. Introduction of e-



learning in the field of education in the "21st century - the age of informatization", in every educational institution:

- teaching and learning process;
- management of the educational institution;
- departments of the educational institution;
- requires information about the environment of the educational institution.

Information technologies- a process using a set of means and methods of data collection, processing and transmission to obtain new quality information about the state of an object, process or event (information product) [16-27].

Information technology is the process of creating information necessary for human activity in a new form by processing and processing certain information using existing methods and tools.

The purpose of information technology- is the production of information for human analysis and decision-making based on it [28-31].

Implementation of modern information technologies in educational processes:

- for the student to acquire professional knowledge;
- deep learning of the field of science by modelling the studied phenomena and processes;
- expansion of the field of independent activity of the student due to the diverse organization of educational activities;
- to individualize and differentiate the teaching process based on the introduction of interactive communication opportunities;
- by using the capabilities of the artificial intelligence system, the student acquires a strategy for mastering educational materials;
- formation of information culture in him as a member of the information society;
- presentation of the studied processes and phenomena through computer technologies is of great importance as it increases students' interest and activity in the basics of science.

Information and communication technologies, including the didactic possibilities of this educational tool, can be considered as natural aspects, technical and technological qualities of the object, and aspects that can be used for didactic purposes in the educational and educational process [32-38].

According to the classification of ICT, didactic possibilities can be divided into three groups:

1. Providing educational information.
2. Transfer of educational information.
3. Organization of the educational process.

Didactic possibilities of providing educational information and ICT:

- display and transmission of information through educational electronic resources in text, graphics, audio, video, and animation format;
- the ability to provide interesting information;
- the ability to strengthen skills based on received knowledge and to apply skills in practice;



- preparation, regulation and processing of educational, methodological, and scientific information;
- storage and collection of information;
- systematization of information.

Didactic possibilities of ICTs for the transfer of educational information:

- dissemination of information in various forms using information and communication technologies;
- ensure broad access to information;
- the ability to connect to any electronic data bank and targeted educational databases to obtain information of interest;
- uploading data from various media;
- organizing communication with the course teacher;
- send messages to a large number of readers at the same time;
- asynchronous exchange of information (text, graphics, audio) between the teacher and students.
- the possibility of organizing consultations, supervision, etc.

## Conclusion

Today, the term information and communication technologies (ICT) is the most widely used concept in everyday life. No matter what sphere of life we take, no matter what actions we perform, we will certainly work with ICT. The use of modern ICT, the exchange of information, their transfer and mastering is the main basis of human activity.

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