

INFORMATION AND COMMUNICATION TECHNOLOGIES AND THEIR SIGNIFICANCE

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Abstract. The article describes information technology, information communication channels, modern information and communication technologies (ICT), tools, their importance, classification and characteristics.

Keywords: ICT, cloud computing, software, hardware, economic operations (transactions), communication technologies, database, telephone, mobile technologies, multimedia technologies, electronic mail (e-mail), conference, teletext, web camera, Internet.

Currently, ICT is rapidly being introduced into every sector of society, increasing the efficiency of professional activity. We could not imagine our daily life without modern devices such as not only television, radio, but also mobile phones, computers, and tablets. They enriched the content of our lives, eased our tasks in work and education. Currently, the introduction of ICT in the education system, among all other areas, is an urgent issue.

In the speech of the Acting President of Uzbekistan and the Prime Minister of the Republic Sh.M. Mirziyoyev on September 8, 2016 at the joint meeting of the Legislative Chamber of the Oliy Majlis and the Senate, the tasks and importance of the widespread introduction of ICT systems were emphasized as follows: “We will continue to implement the strategy carefully thought out and developed by the President of the Republic of Uzbekistan on the formation of modern or transport and engineering infrastructure connected to international communication networks, as well as the development of national information and communication systems”[1]. As noted in this speech, the development of ICT in our country, the adoption of the President's decision PQ-4699 of April 28, 2020 “On measures for the wide introduction of digital economy and electronic government”, electronic government (my.gov. uz) system, providing high-quality mobile communication services to customers, development of the national postal system, implementation of reforms in the education system in the training of IT specialists, training of experts in the field of artificial intelligence, the President of the Republic of Uzbekistan” It can also be seen in the examples of the works carried out, such as the adoption of Decree No. PF-6079 dated October 5, 2020, “On the approval of the

Digital Uzbekistan - 2030 strategy and measures for its effective implementation”.

In the following periods, we observe that the importance of ICT will be emphasized in articles published in many fields. With the introduction of ICT in the educational process, new innovative approaches in accordance with the modern information environment began to appear.

For example, in M. Kadyrov's educational manual entitled “Information technologies”, One of the most basic types of information is economic information. Its difference from ordinary information is that it is related to management processes of people in a large community, organization, enterprise and other economic structures[3;7-8]. Information technologies are entering all social, economic, political and spiritual spheres of society. In the transition to an information society, a new information processing industry began to emerge on the basis of ICT.

M.T.Azimdzhanova, M.T.Muradova, M.Pazilov's educational manual entitled “Informatics and information technologies” states that “The process of performing various operations on information and all the technical means and methods that implement these processes are called information technology. The main technical tool of information technology is a computer”[5;8].

“Information and communication technologies” manual of Kazakh teachers states that “Electronic education is a complex system consisting of software and technical tools. Such a system is usually built on a client-server architecture. Since the client and server are on different machines, data transfer becomes one of the main issues. Data exchange is carried out in the education sub-network. It is usually carried out through channels and the Internet

communication network”[6;199]. Organizing education is not easy. In this regard, ICT serves to make the tasks a little easier.

In Sh.Pozilova's educational manual entitled “Pedagogical software tools”, it is stated that before the online education model, until the early 2000s, students were in the classroom, and the educational process was organized very simply with the teacher who led it[7;50]. Modern ICT tools are important not only in the classroom, but also in the process and methods of distance online education (E-learning).

Information society is a society in which most members of the society are engaged in the production, storage, processing and implementation of information, especially its highest form, knowledge. In the transition to an information society, a new information processing industry is emerging on the basis of computer and telecommunication information technologies[4;8]. Modern technologies, changes and new, innovative business models are changing the economic life and spheres of activity of today's society. Information technology includes a number of modern technologies and consists of:

Cloud computing;

Software;

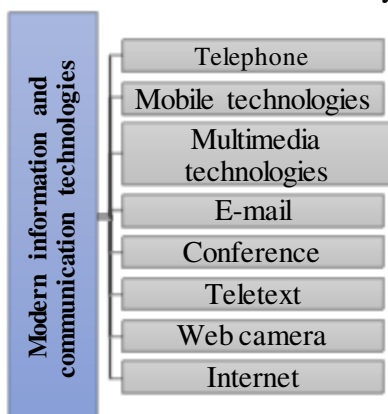
Hardware;

Economic operations (transactions);

Communication technologies;

Database and Internet.

Modern ICT tools, when combined with the help of a network and transfer of image, sound, video and other forms of information, help to animate and manage the educational process, receive and monitor information remotely.



Modern ICTs include:

Below we will discuss these ICT tools and their importance in education.

Telephone. A device that serves to receive and transmit speech and other types of data. Telephone apparatus by A.Bell it was discovered in 1876 and is widely used in the world[2;279].

A telephone is a communication device. With the help of this device, it is possible to exchange information, conduct question-and-answer sessions, and hold mobile conferences while conducting distance education. It is possible to get in touch with any part of the world through mobile city and interstate numbers.

Mobile technologies. It has revolutionized the field of communication and introduced many useful features to communicate anywhere supported by the network. Below are the services related to the exchange of information and knowledge:

- ✚ audio communication (conference);
- ✚ voicemail;
- ✚ sms (text, voice and picture);
- ✚ video conference;
- ✚ internet usage;
- ✚ dictaphone;
- ✚ video camera;
- ✚ calculator;
- ✚ work with documents and information;
- ✚ card and account management;
- ✚ map;
- ✚ microscope;
- ✚ taking notes;
- ✚ Face control;
- ✚ creating holograms, etc.

Mobile technologies are entering education, which has led to the emergence of the concept of mobile education. The support of e-learning resources by mobile devices gives rise to views on it as an element of distance education.

Multimedia technologies. The word “multimedia” is derived from the Latin word media, which in Uzbek means “multiple environments” or “distributor of information”. Multimedia is a special technology that provides the ability to combine simple information (text and graphics) with sound and moving images (video films) with the help of software and hardware.

The use of multimedia technologies in education ensures efficiency and achievement of educational competencies. Educational technical tools working with multimedia environment, including modern tools such as electronic (interactive) board, interactive table, interactive

projector, are used as an effective tool to achieve the desired educational results.

E-mail. Electronic mail is popularly known as e-mail, where text messages are sent to the recipient via telecommunication links. Both sending and receiving e-mail are processed and managed by mail server computers connected via a network. Enables remote electronic exchange of messages, files and necessary resources in e-mail. This feature of it is of special importance in distance education and education management, exchange of official letters.

Conference. A conference is a virtual meeting where people can see, hear, talk and work with people in different parts of the world without the expense of travel. Conferencing can take many forms such as teleconferencing, video conferencing, audio conferencing, multimedia conferencing, screen sharing, and more. Conferencing is a way for several users to interact in a network[2;159]. It serves to organize mutual communication, such as business organizations, forums of educational institutions, discussions, exchange of experience **Teletext.** This is a televised electronic message. This type of text is widely used to broadcast news, business reports to a large group of people at once, stock market news, weather reports, etc. are presented as teletext on televisions.

Currently, not only television texts, but also special online school TV channels have been established, which help to meet the demand for distance education in our country, use the experience of qualified teachers, and provide modern knowledge to young students.

Web camera. A webcam is a camera that captures images and transmits any images that can be displayed on the world wide web through a server web camera. In 1991, the first webcam went live in the computer science department at Cambridge University, and since then, webcams have taken over homes, businesses, public streets and buildings.

For video communication from anywhere in the world, to participate in conferences and

forums, to monitor online training sessions and broadcasts, and to organize remote training controls, you must have web cameras.

Internet. As the latest development in the world of communication, the Internet has increased the speed of communication, connected thousands of computers through a network, and has become an "ocean" of unlimited knowledge. Electronic commerce (electronic commerce), electronic education (e-learning) is based on the Internet architecture and is based on the relationship between interested parties in business, and in education between the teacher and the receiver, in the exchange of information, in the implementation of e-mail, conferences. will help. The Internet has rapidly penetrated all fields with its services. At the same time, it should also be noted that there is information about various mentalities on the Internet, and it is necessary to control that students do not use information that negatively affects the spirituality of young people, to use information for positive purposes, and to use information for various negative purposes. It is necessary not to fall under the influence of information. It depends on how the culture of using the Internet is formed.

In conclusion, it should be noted that modern pedagogues and students need to be aware of modern information technologies along with knowledge of foreign languages. ICT has become a new educational tool of the 21st century. It helps prepare students for their future careers, opens new opportunities for learning and teaching, introduces new methods of teaching in their subjects, new approaches for teachers' professional growth. creates an opportunity to learn, implement ideas and develop new skills, and use their resources wisely. Also, by rationally managing and controlling the educational process, it saves time and money, shortens the process of preparing for lessons, makes the educational process interesting and entertaining for students, improves the competence of searching and storing information, using a computer. helps in the formation of skills.

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