

## Information and Communication Technologies in the Development of Qualifications of Construction Workers

**M. T. Azimdzhanova, F. S. Islamova**  
Associate Professor, TASI

**Abstract.** The article provides for the study of the issues of the state of modern computer technologies in the design, implementation and determination of the effectiveness of computer technologies in practical activities in the direction of "Information and communication technologies in production".

**Key words:** information and communication technologies, e-government, web server, teleconference, videoconference, multimedia.

Advanced training of employees of state and economic management bodies, state authorities at the local level (in the construction, architectural and municipal industries) in the direction of "Information and Communication Technologies in Production", it is planned to study the issues of the state of modern computer technologies in the design, implementation and determination of the effectiveness of computer technologies in practical activities.

Mastering modern information and communication technologies (ICT), developing practical skills in the field for the effective use of modern computer technologies and the Internet system in their activities gives the student the opportunity to acquire the knowledge and skills necessary for a qualitative change in their competencies.

The retraining course provides the organization of systematic work on continuous professional development in accordance with the trends in the implementation and development of the "Electronic Government" system in the Republic of Uzbekistan.

The listener in the course of advanced training in the field of "Information and Communication Technologies in Production" acquires:

- knowledge of the main legislative and regulatory legal acts in the field of informatization;
- prospects for the development of information and communication technologies in Uzbekistan;
- Law on e-government;
- processes and stages of implementation of information systems;
- automation of business processes of state and economic management bodies.

When studying, the student will know the basic principles of effective search for information on the Internet, e-mail services or using instant messengers: creating, receiving and sending messages.

To do this, you need to organize interactive classes with special network and communication equipment.

The creation of such servers in educational institutions provides access to the information resources of these institutions. On Web servers, educational institutions can provide the necessary information for organizing the educational process (class schedule, consultation schedule, etc.), structured educational information on academic disciplines, links to useful information resources (electronic libraries, educational portals, etc.). .).

With the help of a Web server, it is easy to distribute educational material; organize group work in the network; provide an opportunity for interactive interaction of the listener with training programs; provide work in the local network of the educational institution.

The other main focus is teleconferencing. Teleconferences are an active form of group work, allowing you to organize a discussion of issues and an exchange of views between students and with teachers. Teleconferences (tele - from the Greek "far") can serve as the basis for conducting educational work at a distance. And it does not matter in what information environment and by what technical means (e-mail, Web server, etc.) they are organized. Another thing is important: teleconferences allow organizing public discussions of various issues; arrange an exchange of views among the audience; finally, to eliminate the state of complete isolation of each student.

Teleconferences are organized as follows. Messages on a specific topic are stored on a special server. Users can read these messages and post their messages to the section they are interested in. Materials are stored in a form convenient for work, they can be supplemented, changed, saved. They are available at any time for an extended period.

There are correspondence teleconferences, the so-called "off-line", and internal - "on-line", allowing for a discussion in real time. Interactive communication of users in the "on-line" mode is implemented using the IRC (Internet Relay Chat) system. This system is designed for real-time conversations and exists due to the high speed of information transfer on the Internet. When working in this system, the user on one part of the monitor screen sees constantly incoming information on the selected topic, and on the other, he can place his messages in the same group, which immediately appear on the displays of all other group members.

Thus, teleconferences can become, and in some cases already are, powerful pedagogical and psychological tools in the distance learning system.

Videoconferencing. Modern computer networks provide the ability to organize video communication sessions. In this case, videoconference participants have the opportunity to exchange video and audio information in real time, as well as transfer various electronic documents, including text, tables, graphics, computer animation, and video materials.

Desktop videoconferencing, using miniature video cameras connected to a computer, can be used for individual consultations, seminars and discussions in small (up to 4-5 people) groups. Such videoconferences are easy to organize on the Internet; for this, it is only

necessary to have an appropriately equipped computer. For large audiences, videoconferencing requires a powerful projector and a large screen, or large television or computer monitors.

Videoconferencing over the so-called ISDN (Integrated Service Digital Network) channels has much greater educational potential. This network is similar to a telephone network, but can simultaneously transmit voice, text and video data at high speed and quality. Today this service is available to the population of many cities of the country. It allows you to organize not only group work with a large number of participants, but also provides the ability to jointly control the computer screen, namely, the creation of drawings and drawings, their simultaneous correction with a light pen on both sides, the presentation and transfer of photographic and handwritten material.

Videoconferencing over a digital satellite channel provides a high quality of the transmitted video image. Due to the high cost, this technology is mainly used in large auditoriums for review lectures with the involvement of prominent experts and for educational and collective discussions of the results of courses and educational programs.

Multimedia. The use of multimedia technologies has become an integral part of the educational process. Multimedia means combine information technologies that combine various means of displaying information: text, sound, pictures, drawings, photographs, video, animation, three-dimensional image.

The use of multimedia technologies in education multiplies the pedagogical capabilities of teachers of an educational institution, makes the learning process more visual, creates additional motivation for students to study the material.

The most popular multimedia tools are, perhaps, animation and video. Animation, like animated films, allows you to show the dynamics of various processes occurring in devices, devices, circuits. Video materials from real life, inserted into educational materials, provide an opportunity to better illustrate specific processes, phenomena, actions, technologies, etc.

So, the listener, after increasing his further activity to obtain information of a new quality about the state of an object, process or phenomenon (information product), in addition to traditional information technologies such as mail, fax, telephone, which were previously used in information exchange processes, are beginning to increasingly use e-mail in their activities (in particular, the exchange of information using instant messengers), the Internet, the exchange of information by teleconferencing and videoconferencing technologies, using multimedia tools in the production of information for its subsequent analysis and the user making appropriate decisions.

A modern worker in the construction, architecture and utilities industries should not only have knowledge in the field of ICT, but also be a specialist in its application in their professional activities.

## References

1. Когаловский М. Р. и др. Глоссарий по информационному обществу Архивная копия от 31 марта 2020 на Wayback Machine / Под общ. ред. Ю. Е. Хохлова. — М.: Институт развития информационного общества, 2009. — 160 с.

2. Рогозин К.И., Рогозин У.К., Стриженко А.А. Применение компьютерных информационных систем в организациях // Ползуновский Вестник. № 3. - 2004.
3. Khodjayeva, Nodira Sharifovna, and Ahrorbek Tolibjon oglu Eshondedayev. "Computer Automated Drawing and Design." *Spanish Journal of Innovation and Integrity* 4 (2022): 117-120.
4. Xodjayeva, Nodira Sharifovna. "HTML ELEMENTLARI VA ATRIBUTLAR." *BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI* (2022): 115-119.
5. Mamurova, F. I., & ugli Mustafayev, E. I. (2021). SHADOWS IN A PERSPECTIVE BUILDING. *Conferencious Online*, 16-18.
6. Omonov D. E. et al. ENGINEERING GRAPHIC SCIENCES ARE A CONCEPTUAL FRAMEWORK FOR CONDUCTING EDUCATIONAL TECHNOLOGIES IN LECTURES AND PRACTICAL TRAINING //ResearchJet Journal of Analysis and Inventions. – 2021. – Т. 2. – №. 12. – С. 66-70.
7. Olimov, S. S., & Mamurova, D. I. (2022). Directions For Improving Teaching Methods. *Journal of Positive School Psychology*, 9671-9678.
8. Ogli, Makhmudov Anvar Abdulla, and Khudayberganov Abdulla Makhmudovich. "What should a future physics teacher know about the history of the atom and its development?." *Вестник науки и образования* 15-1 (51) (2018): 74-78.