



THE ORIGIN OF DISTANCE EDUCATION AND ITS PLACE IN HIGHER EDUCATION

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Introduction.

The state of development of modern technologies depends primarily on the intellectual potential of society, that is, on the development of the education sector. Issues of educational content and quality are considered a priority. In developed and developing countries of the world, special attention is paid to the informatization of education. Depending on the ways to develop education and increase its efficiency, special attention is paid to the introduction of new information technologies in education. Distance learning is widely used in the world as an important part of the open education system.[2] The use of information technologies and the INTERNET in education has led to a further increase in the quality of education. A number of changes are being made in our republic to train young people with modern knowledge. In this regard, the source of training highly qualified personnel - higher education - sets responsible tasks. In particular, the education system is being radically reformed, and curricula are being re-created based on state standards. All this, in turn, requires a rethinking of the methods of teaching subjects. With the development of technology, the presence of only one computer has become sufficient for teaching using technical means. The computer has successfully taken over the functions previously performed by television, video recorder, film projector, slide projector, etc. In addition, the quality of information transmission, storage, and imaging has significantly increased. By now, computer literacy has become an important sign of culture, and in the future it will become a necessity for every person, no matter where or in what field they work. Therefore, computer work, teaching how to use a computer will undoubtedly become a common thing in the near future.

In this regard, it is advisable to reform the educational system in all educational institutions, universities, develop it on the basis of modern technologies and widely involve them in practice, study innovations and achievements in the educational system of developed countries, and implement them in ours.

Recently, the positive aspects of distance learning have been proven. In this regard, the US National University of Technology NTU and the Open University of Great Britain are fighting

ABSTRACT

This article discusses the history of distance education, the need for and attention to distance education in our Republic, and the reasons for using distance education in the learning process. The article discusses the reform of the educational process in the education system, the development of teaching methods based on new information technologies, and their widespread implementation in higher education.

for the lead. In fact, at present, the number of distance learning and training institutions is sufficient to classify them. Analysis shows that they are divided into state and non-state groups, operating their educational services in the educational markets of countries, and vice versa. However, such training often includes training in the humanitarian field. The corporate system of the distance learning system is a separate class, designed for retraining and advanced training of employees of organizations and production facilities.[3]

Distance learning is a method of distance learning and teaching based on information and communication technologies - e-mail, the Internet, video conferencing, audio, video data and multimedia teaching aids. For example, it is possible to transfer information on a new topic or subject to voluntary educational institutions in cities remotely. If there are no specialists in this field in the localities, distance learning is the only way.

Distance learning requires constant activity from the student - interactive learning. This is an increase in the qualitative characteristics of the specialist's knowledge and skills.

The technological elements of distance learning have been observed for hundreds of years. An example of this from the Russian experience is the Moscow People's University named after General A.M. Shanyavsky, Morekhodnaya schools in the city of Nakhodka. Here, V. P. Chernov introduced distance learning in 1987.[4]

The main part. It is known that the amount of scientific research information in the world is constantly growing, and the process of analyzing it is becoming increasingly complex. Decree of the President of the Republic of Uzbekistan No. PF-4947 dated February 7, 2017 "On the Strategy of Actions for the Further Development of the Republic of Uzbekistan", No. PQ-2909 dated April 20, 2017 "On Measures for the Further Development of the Higher Education System", No. PQ-5099 dated June 30, 2017 "On Measures to Radically Improve the Conditions for the Development of the Information Technology Sector in the Republic", No. PQ-3151 dated July 27, 2017 "On Measures to Further Expand the Participation of Sectors and Industries of the Economy in Improving the Quality of Training of Specialists with Higher Education", No. PQ-3151 dated February 19, 2018 "On Measures to Further Improve the Sphere of Information Technology and Communications" This dissertation research serves to a certain extent in the implementation of the tasks set out in Decree No. PF-5349 and other regulatory legal documents related to this activity.[1].

The modern specialist, regardless of the field in which he works, is required to be aware of the events and developments relevant to his field and to constantly improve his level of knowledge. The introduction of modern information technology tools into the educational process, in addition to traditional teaching methods, has become a factor in the creation of a new form of education - distance learning. In distance education, the student and the teacher, being spatially separated from each other, are in constant communication with each other using specially created training courses, forms of control, electronic communication and other Internet technologies. Distance education based on the use of Internet technology provides access to the global information and educational network, performs an important set of new functions with the principle of integration and interaction. Distance learning provides an opportunity for all those who wish to receive education to continuously improve their skills. In the process of such training, the student independently masters educational and methodological materials in an interactive mode, passes tests, performs control work under the direct supervision of the teacher, and communicates with other students of the "virtual learning group" in the group. [7]

Distance learning is a convenient form of training for those who, for certain reasons, do not have the opportunity to study in full-time departments of educational institutions, for

example, for health reasons, who intend to change their specialty, or who are older and intend to improve their skills.

Distance learning uses various information technologies, that is, each technology depends on the purpose and essence of the problem. For example, while traditional print-based teaching aids (textbooks, textbooks) are designed to introduce students to new material, interactive audio and video conferencing are designed to allow for timed interaction, such as email, and direct and feedback communication, i.e., sending and receiving messages.[6]

While pre-recorded video lectures allow students to listen and watch lectures, the rapid exchange of facsimile communication, messages, and assignments over the network allows students to learn through mutual feedback. Based on the above, it is possible to provide descriptions and definitions of some terms that are currently being repeatedly mentioned in the educational process.

Distance learning is a form of education based on information technology, similar to correspondence and full-time education, that combines the best of traditional with innovative methods, teaching tools, and forms.

Distance learning is an educational system based on new information technologies, telecommunication technologies and technical means. It is a system that provides the learner with learning conditions and communication with the teacher based on certain standards and educational laws and regulations, and requires the learner to be more independent. In this case, the learning process does not depend on the time and place of the learner.

Distance education is an educational complex based on means of exchanging educational information remotely, in which the teacher provides educational services to all segments of the population and foreign students using a special information environment.

Distance learning system is an educational system organized on the basis of distance learning conditions. Like all educational systems, the distance learning system has its own structural purpose, content, methods, tools and organizational forms. Why is distance learning necessary? - It is natural to ask. The following can be listed as answers to this question:

- New opportunities in education (affordability of education, independence from time and place, etc.).
- Limited number of students admitted to educational institutions.
- Increase in the number of people wishing to receive education.
- Emergence and development of high-quality information technologies.
- Increased international integration.

The above conditions and opportunities indicate the need for distance learning.[2]

Uzbekistan, like other countries of the Commonwealth of Independent States, is making great efforts to bring its education sector to world standards. The large area of our country and the presence of geographically remote regions from the center are the main reasons for the development of e-learning, which leads to the fact that it is given great importance. In the current period of financial shortage, it is necessary to use this type of education on a large scale. It is natural that some problems arise with the introduction of this type of education. These are mainly the lack of funds, technical equipment, and qualified engineers and pedagogical personnel in this field, but we need to solve these problems as much as possible, because it is clear that the organization of distance learning in Uzbekistan will be very effective.

Analysis. Currently, many presidential decrees and resolutions of the Oliy Majlis have been issued on the computerization of education and production and the development of information technologies in these areas. As a result, many exemplary works have been done in our Republic over the past five years. For example, in 2002, the Tashkent University of Information Technologies was established, and since that year this university has been

training specialists in the fields of computers and communications, radiotelephone and information networks, software and electronic technology. This and other higher educational institutions are creating many new programs and e-books related to the field of education.

At the same time, it is worth mentioning the programs "Internet Access and Training Program" (<http://www.iatp.uz>) and "Internet in Schools of Uzbekistan" (<http://www.connect.uz>), which have been operating in our country since 2000 and were organized by the Bureau of Educational and Cultural Affairs (ECA) of the US Department of State and the International Council for Research and Exchange of Scholars (IREX). The main task of these programs is to develop the Internet and its services in our Republic and widely introduce them among the population. The results of these programs can be called the "Free Internet Access" centers that currently provide free services to the population in 16 cities of our Republic, as well as Internet centers established in 60 schools in 6 regions of our Republic. Since 2010, video conferences have been held between the Tashkent University of Information Technologies and its branches. The trainings are conducted by leading specialists in this field. Currently, masters students from the Fergana branch are improving their knowledge of My SQL and Java Script languages remotely online.[3] The communication between the teacher and the student in the traditional educational process conducted in the auditoriums is due to the creation of computer-based videoconferencing. Modern achievements in the field of transmitting audio and video digital signals allow the widespread use of computer-based videoconferencing communication systems.

The quality of computer-based videoconferencing communication largely depends on the type of communication between users, that is, the type of data exchange, both in a local computer network and in the Internet.

This speed, in turn, depends on the channel bandwidth and the number of users on this channel. Unfortunately, at present, the required quality level is provided within a specific local network. In the INTERNET network, this is unsatisfactory. The quality level is called ISDN.

The main tasks of modern computer videoconferencing communication systems are:

- Exchange of audio data;
- Exchange of video data;
- Creating a virtual whiteboard;
- Organizing a discussion by entering text data via the keyboard;
- Sending files;
- Shared use of applications;
- Use of multi-party conferences;
- Teaching and methodological materials for distance learning.

A distance learning student must have textbooks and study aids in printed or electronic form (textbooks, exercise books), laboratory manuals, etc. It is also necessary to have teaching and methodological materials, including methodological guides for organizing work on the exercises.

The most complete version of the course in distance learning consists of the following:

- Control materials;
- Examples of completing tasks to correct theoretical knowledge and material with an analysis of the most common errors;
- Virtual laboratory work;
- Reference books and glossaries. Glossaries - (historical development of science by year);
- Knowledge development and testing systems.

Each organizer of the course implements it differently, depending on the field of study and the educational direction in which this course is studied. For example: a set of practical exercises for technical education may be in the form of interactive games for economic education. [4]

In conclusion, it can be said that the history and development of distance education, distance learning today is necessary not only for educational institutions, but also in the process of

globalization, it plays an important role in training specialists for large enterprises and institutions, retraining them, maintaining their high level of knowledge and skills. The place of distance education in higher educational institutions is presented. Using distance education, it is possible to increase the general level of knowledge of the population and the quality of this knowledge. It is possible to satisfy the voluntary requirements of all segments of the population in obtaining knowledge. It is possible to disseminate knowledge to a wide population in a timely manner. It is possible to create a single educational environment and embody all knowledge in it. In distance education, constant communication is maintained, even if the student and teacher are separated by distance.

References:

1. Presidential Decree PF-4947 (2017) – "Strategy for the Development of Uzbekistan."
2. Akhmedov, B. A., & Khasanova, S. K. (2020). *Methods of Distance Education in Employee Development.*
3. Akhmedov, B. A. (2020). *Development of Interactive Online Courses in Modern Society.*
4. Yusupov, M., Akhmedov, B. A., & Karpova, O. V. (2020). *Numerical Simulation of Nonlinear Vibrations.*
5. Samieva, Sh. X., & Usmonova, G. X. (2022). *Innovative Development of Project Skills in Students.*
6. Samieva, Sh. X. *Creative Approaches in Project-Based Learning.*
https://lib.utu-ranch.uz/media/files/2024/07/30/Oliy_va_professional_talimda_mutaxxasisliki.pdf
8. https://www.researchgate.net/publication/348916562_MASOFAVIY_TA'LIM_TIZIMI

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