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## ANALYSIS OF MULTIMEDIA DISTANCE EDUCATION PLATFORMS IMPLEMENTED IN THE REPUBLIC OF UZBEKISTAN

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**Abstract:** The age of information technology and advanced students sets new goals and objectives for education. On the one hand, digital tools help to solve them; on the other hand, they create new challenges. This study is aimed at studying the existing educational platforms in the Republic of Uzbekistan, identifying the pros and cons of each of the systems. The paper also presents electronic resources that used in the enrichment of the educational base of the platforms.

**Keywords:** e-learning, education, platform, distance learning, distance learning platform, electron resources, information technologies.

### INTRODUCTION

Progress does not stand still, every day new methods and technologies appear in the world to make life easier for a person, including in the educational field. Education using modern information technologies is becoming more and more popular. With the development of educational systems, the demand for the use of digital technologies is increasing, elements of electronic and distance learning are being actively introduced. That is why

the study of the possibilities of distance learning has recently attracted the active interest of many researchers and practitioners [1; 2; 3]. In addition to general issues, close attention is also paid to the use of distance learning technologies in the education system [4; 5].

According to UNESCO terminology, E-learning means learning using the Internet and multimedia, and distance learning means interaction in which the teacher and student are at a distance,

and the transfer of all materials occurs through any means of communication.

In Uzbekistan, all areas, including the education system, are moving towards digitalization, and Uzbekistan will have to adapt to new realities. The pandemic has led to an experiment, unprecedented in its scale, when all levels of education around the world either stopped their activities for a certain period or tried to provide an uninterrupted learning process using digital technologies, i.e. remotely. Under the current conditions caused by the global spread of the coronavirus infection, the entire country was forced to urgently switch to a remote form of professional interaction. During the period of quarantine conditions, Uzbekistan launched remote lessons for school students, which broadcast on national television. In addition, for university students, couples were held using the Zoom and Moodle learning platforms using electronic resources designed for distance learning [6].

The concept of "educational platform" has confidently entered the lives of researchers, educators and students. An educational web platform is a limited, student-centered Internet resource or a limited interactive network entirely dedicated to education and development issues, which necessarily contains educational materials. Educational web-platforms provide an opportunity to receive knowledge when the need arises, without leaving home. In general, educational web platforms in the world are a fairly popular and developed phenomenon. This is manifested in the involvement of current curriculum with analog information resources in the educational practice of universities. These are school and university websites, the Kundalik system, the Zoom and Moodle learning platforms and numerous educational and spiritual channels in social networks [10].

#### **METHODS**

In this article, we will consider distance learning with elements of E-learning. We also use comparative and comparative methods to determine the positive and negative aspects of the Zoom and Moodle educational platform, which actively used by the universities of the Republic of Uzbekistan in distance learning in the implementation of quality education. Innovations constantly introduced in the field of education, allowing any person to receive a large amount of information in a minimum amount of time, learning and developing in any field through distance learning.

#### **RESULTS AND DISCUSSION**

An important condition for high-quality modern education is a competent combination of traditional education and the use of innovative tools. The use of digital technologies in a modern the education system is one of the most important aspects of improving and optimizing the educational process, enriching the arsenal of methodological tools and techniques that allow you to diversify the forms of work and make the lesson interesting and bright.

There are a large number of platforms for distance or e-learning. When choosing a specific site, first of all, you should determine the overall strategy: set goals and objectives for the implementation of a particular platform, predict the final result.

When working with pupils or students, it is important to decide whether new technologies are being introduced to digitalize and automate the educational process, or to organize distance learning. In the second case, the teacher has new roles: tutor, coordinator of the cognitive process, corrector of the taught course, consultant, head of educational projects. It should be noted that interaction with students is carried out mainly asynchronously using E-mail or instant messengers.

If distance learning is used at trainings, webinars, conferences for teachers, then the choice of platform must be made taking into account the availability of special tools for the implementation of such events with the possibility of issuing a certificate or certificate of advanced training at the end.

Traditionally, distance learning is divided into two main categories: synchronous and asynchronous. When using the synchronous model, communication takes place in real time using various platforms and various methods of information transfer: infographics, mind maps, educational portals, simulators, etc. With the asynchronous model, the student himself determines the pace of learning and passes the finished work to the teacher for verification.

An educational platform is a whole learning management system, application software that is used by all participants in the educational process. Depending on the area and tasks of application, platforms are distinguished for:

– full implementation of distance learning in an educational organization;

- introduction of individual elements of distance learning;
- group or individual training;
- holding webinars, courses and conferences, etc.

The digital platform is a tool that provides a personalization process that helps: keep students interested in learning; form design thinking; navigate information – search, study, analyze, classify; stimulate the need for constant self-learning and self-improvement.

The introduction of digital platforms into the practice of educational systems will allow the development of fundamentally new pedagogical approaches to the organization of the educational process at school or higher education institution. In this regard, it is necessary to study the most significant resources, test them in practice and highlight the best of them for use in pedagogical activities.

The higher education institutions of Uzbekistan have had to use creativity to provide teachers and students with learning management systems such as Moodle, Zoom, and conference platforms to connect with students.

Consider the educational platform Zoom.

Advantages:

- A large number of participants. A webinar via zoom involves active interaction with the public. Already on the free version, you can organize an online event with the participation of up to 100 users.

- Multiplatform. It is easy to get to the conference using an invitation link through your browser from any device, even from a smartphone. There is no need to specifically install the program/application.

- High quality video and sound. An important measure of zoom as a webinar platform.

- No delays or delays. Multifunctionality does not affect the operation of the program. Interference with communication is usually associated with poor Internet connection of users, and not with site problems.

- There are no delays or platform freezes. Multifunctionality does not affect the operation of the program. Interference with communication is usually associated with poor Internet connection of users, and not with site problems.

- Screen demonstration. For clarity of the

event, the free version offers several options for working with the screen. In order for participants to see the content of the presenter, he must have administrator rights.

- Visualization. During a speech, you can make visible the movement of the cursor on the screen. Moreover, supplement the presentation with text, diagrams, drawing elements. Drawn fragments are easy to delete, move and save.

- Continue the webinar on another platform. If you need to draw a lot, then you can continue to conduct a zoom webinar on the iPad.

- Built-in chat. A great opportunity to have a conversation with participants without interrupting the speaker. The organizer and participants can write messages for everyone, as well as correspond with each other. In addition, there is a chat with yourself, where it is convenient to copy notes, photos, videos, audio and store materials for 10 years. If the chat conversation contains important data, it can be saved as a separate file.

- Feedback. The built-in “raise hand” feature will let you know that someone has questions or suggestions during the presentation. With the help of “reactions” stickers, you can show a personal attitude to what was said or seen. In addition, the presenter will understand that they are really listening to him.

- Conference recording. It is easy to record and save the progress of the event, pause and continue recording from a certain point.

- Speaker management. The administrator has the ability to mute the microphones of all participants in the conference and leave the sound only for speakers.

- Session rooms. To discuss something with some participants and not distract others, you can create separate rooms right during the event and group them. The function disabled by default in the free version; it is easy to enable it in the service settings on the website.

- Invitations. To invite to an event, it is enough to copy the direct link of the created conference and send it to the recipients in any way: by message, via mail or social networks.

Disadvantages:

- The downside is the lack of technical support.

- The need to independently adjust the

audio and video settings

- Number of participants. If 100 people are not enough for an event, then the "Business" tariff will already accommodate up to 300 users.

- Duration. The "Basic" tariff implies unlimited communication with only one person. For the maximum number of users (up to 100 people), time is limited. After forty minutes, the video session will end and you will have to re-create the conference, as well as invite participants to it. The "Professional" tariff removes such duration restrictions, and also includes a cloud for storing recorded conferences

- Number of speakers. Initially, only one person can be the organizer. To assign more moderators, you need to purchase this feature for money.

Consider the educational platform Moodle

Advantages:

- The main advantage of the Moodle system is free distribution. This means that if you implement it yourself, your costs will be zero. There is no need to pay for a license or a monthly "subscription".

- Ability to adapt to specific goals and objectives. The system has an open system code, so it is easy to change it using plugins.

- Freedom of choice. You can install the system both on the server and on the teacher's local PC, and then Moodle will be available only on the corporate network.

- The platform supports international standards for the exchange of educational materials: SCORM and AICC. Thanks to this, you can embed e-learning courses from different developers in Moodle.

- It has many tools for creating e-learning courses. You can freely upload video lectures; attach files, quizzes, and more.

- Ability to develop in a corporate style. Moodle allows you to prepare the interface in such a way that the corporate style will be expressed in full accordance with the brand book of your company.

Disadvantages:

- Like any other system, unfortunately, Moodle has its drawbacks. Chief among them is the lack of technical support. The fact is that many programmers around the world are working on the source code, and communication between development participants is difficult.

- Groups are created within a course and

cannot be transferred to others.

- In addition, student grades can only be operated within the course. It is not possible to draw up a summary sheet, for example, for all disciplines of the semester, and the very concept of a semester is absent in the basic version of the system.

"One Million Developers Platform" ([uzbekcoders.uz](http://uzbekcoders.uz))

Advantages:

- free access (designed for free distance learning for residents of Uzbekistan over 12 years old);

- the possibility of organizing distance learning;

- online courses on this platform that will prepare you in four months to become an experienced programmer. HTML, CSS, JS, Node courses are held;

- You will receive a certificate after completing the online course. Nanodegree certifications are recognized by Google, AT&T, Autodesk, Salesforce and many other IT industry giants;

- reliable protection of access to the personal page;

- in addition to training courses, online forums and grants are provided.

Disadvantages:

- high-quality Internet connection is required;

- it is required to study the algorithm of work in the system;

- no version for mobile devices.

IT Park platform (<https://it-park.uz>)

Advantages:

- IT Park and the online learning platform «Coursera» are collaborating on several major projects;

- is free;

- Areas: business, computer science, data science, language learning;

- broadcast content provided by teachers on the screen;

- the opportunity to ask students open-ended questions;

- the ability to display video recordings;

- presence of an answer board;

- availability of tools for conducting questions, tests, quizzes, projects;

- the presence of tools for drawing, adding graphs and charts, creating slides;

- the ability to work in several small groups (at the same time);
- availability of tools for exchanging links, images, video and audio materials;
- the availability of a convenient report with the ability to download in PDF format;
- in addition to training courses, various online forums, startups and grants are provided.
- the presence of communities in social networks, where you can learn about updates, events and the experience of colleagues working with the platform;
- high speed of data creation;
- the possibility of information exchange;
- availability of templates and already created data library.

Disadvantages have not been identified by us.

In addition, consider the electronic resources that can be used when filling out the educational platform module for distance education in the Republic of Uzbekistan are:

1. Eduportal.uz. The official portal of the Ministry of Public Education of Uzbekistan, which provides teachers and students with free access to electronic textbooks, video lessons, tests, virtual laboratories, audio lessons, educational games, lesson plans, exit exams and other teaching methods, educational materials for everyone primary and secondary school classes in Uzbek and Russian.

2. TV channels. Three national TV channels broadcast educational programs for schoolchildren initiated by the Ministry of Public Education. Programs are broadcast during all days of the week in three languages - Uzbek, Russian and English, along with translation into sign language.

3. Utube.uz is an educational videoportal with a large collection of video files: clips, films, animations, commercials, educational materials and other videos. Tags: education clips films animation commercials educational materials.

4. tas-ix; www.txt.uz - a library of e-books with a wide range of topics - computer literature, science and education, technical publications, home and family hearth, fiction, periodicals.

5. <http://idum.uz/> - a mega portal for teachers and students, where you can find tests, lesson development, video lessons, audio lessons, presentations, essays, games, android applications, laboratory lessons.

6. <http://www.e-tarix.uz/> - world history

and history of Uzbekistan.

7. <http://e-adabiyot.uz/> classical literature

8. <https://kursy.uz/> directory of courses and training centers for additional education, where licensed training courses are concentrated, offering training in popular specialties and skills. This is the study of foreign languages, professional courses, tests, innovative and interactive tasks, diagrams, diagrams, etc.

9. <http://maqollar.uz/> - proverbs are posted in Uzbek, Russian, English. The site is integrated with messengers.

10. <http://adolatnashr.uz/> Legal Information Center «Adolat» of the Ministry of Justice of the Republic of Uzbekistan.

11. <http://meros.uz/> - cultural heritage of Uzbekistan.

12. <http://geom.uz/> - problems in geometry.

13. <http://geografiya.uz/> - the site is intended for studying geography [8].

#### CONCLUSION.

In general, electronic educational resources are an integral part of the modern education process and have a number of advantages. E-learning resources - lecture notes, glossary, list of required dates, presentations and more. It should be noted that there are wide opportunities for interactivity when using these resources: electronic lecture courses with the ability to switch between sections, to move to the desired section of the keyword search section; testing capabilities.

Despite many advantages, e-learning resources have a number of disadvantages. The problems of local E-learning resources are, first of all, that they require additional equipment compatible with the carrier, a direct connection to the network (the absence of which will not be immediately accessible), as well as, including registration, problems with connecting it to a particular network, paid site (Zoom), protection, etc. At the same time, in modern conditions, this is one of the most popular types of electronic aids [7]. With the help of educational platforms, students or trainees (training) will have the opportunity to learn remotely without leaving their workplace. Distance education of students or listeners is carried out in the form of online (video lectures, consultations, control types remotely in real time) and offline (independent learning of relevant educational and methodological resources in the distance education system) the increase procedure was implemented. In many

universities and training institutes, the educational process organized because of the «Moodle system» and aimed at designing it with a single goal and achieving guaranteed results. All training sessions are practically oriented, interactive methods and modern innovative pedagogical technologies are widely used [10].

Thus, we conclude that in the current situation, many countries are moving to digital and electronic educational tools, in the case of the Republic of Uzbekistan, the main electronic resources that contribute to the effectiveness of the training system in universities and training institutions are the Zoom and Moodle platforms. Efficiency increases when combining different technologies and forms of education and the process of introducing any new educational technology into the educational process is not an easy task. The effectiveness, intensity, activity, individualization and communication of the educational process largely depends on how electronic resources are used, what tasks are solved when they are used. A flexible combination of well-organized and innovative teaching tools is the best way to improve the quality of education. Prospective

information technologies provide a fundamentally new level of summarizing, transferring, changing, collecting or searching information created and used in the educational process. In short, the use of modern innovative technologies in the educational system has both economic and social benefits. Therefore, developing theoretical and methodological foundations and effective implementation of necessary measures is one of the urgent tasks of today.

In general, electronic educational resources in the modern educational process, that is, educational platforms, are an integral part of the educational process, and there are a number of factors that make it possible to emphasize that teaching without using them in modern conditions is not very effective. Therefore, to further conduct the Foresight research on the widespread use of digital technologies and distance education in higher educational institutions of the republic and to use digital technologies in the higher education system in Uzbekistan until 2030 on the basis of «Digital Uzbekistan – 2030» it is necessary to develop a development strategy.

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