

## INNOVATIVE LEARNING TECHNOLOGIES IN THE DIGITAL LEARNING ENVIRONMENT

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### ABSTRACT

The article discusses the issue of adapting the existing education system to the digital descendant through the effective use of innovative educational technologies based on information and communication technologies and didactic models. Topical problem of improving traditional education, development of electronic and mobile learning were also discussed.

**Keywords:** Digital education, information, computer, media, communication, video lecture, virtual library, multimedia presentation, digital education models.

### INTRODUCTION

A number of new terms have entered the education system of modern Uzbekistan and the vocabulary of our mother tongue in general, and they have become active in our language in a short period of time as active vocabulary, such as “*digital economy*”, “*digital education*”, “*digital transformation of education*”, “*digital skills*”, “*digital device*”, “*digital technologies*”.

In the real sector of the country’s economy, new achievements appear in promising areas of digitalization, which are actively promoted in the media, are actively discussed at various events (forums, seminars, conferences, etc.). Most importantly, measures are planned to increase the level of knowledge of citizens in the digital economy, the organization of online resources for independent assessment, including free assessment of primary education, the implementation of the project “One Million Programmers” to train highly qualified professionals.

The process of introducing digital economy skills across the country is also having an impact on the existing education system. In particular, the formation and implementation of requirements for the main powers of the digital economy in the education system for each level of education (taking into account the model of powers) to ensure their continuity; It is planned to implement a number of practical measures, such as narrowing the gap in the level of digital skills in all regions, developing mechanisms for assessing the skills of using digital technologies in education. In particular, the following aspects are taken into account: *a) information literacy* (the ability to find information necessary to make a particular decision); *b) computer literacy* (ability to work with digital devices); *c) media literacy* (the ability to critically study the media); *g) communication literacy* (ability to use modern digital means of communication); *d) the formation of a creative attitude towards technological innovations* (new technologies), etc.

We believe that today it is necessary to adapt the existing education system to the digital generation through the mass and effective use of innovative educational technologies and

didactic models based on information and communication technologies. This is the requirement of the times. Because only if a certain research-based approach is used effectively in the educational process, the purpose of scientific research will be realized, and most importantly, students will have the opportunity to develop skills in this area, IT-competence-based creative abilities and creative thinking.

Information and communication technologies in the existing education system serve as a tool for the digital generation, which is just entering teacher education, in order to make lectures and seminars on special subjects rich in relevant information and interactive. But it's significant to remember that university professors play a key role in student-centered interactive learning - a situation that no one can and will never deny.

In conditions when in our country special attention is paid to professors and trainers, the prestige of a teacher in society and the effectiveness of his teaching activities depends not only on the level of knowledge in a particular subject, but also on the level of practical application of modern information and communication technologies. requires computer literacy. In particular, in today's digital age, digital education is entering our lives as a new phenomenon, and the current new processes in our society require a complete change in the education paradigm. The main reason for this is that modern students who have mastered information and communication technologies, or rather information, computer, media and communication literacy, are reluctant to attend classes in the traditional style that has been preserved for many years. Although higher education professors who have learned the skills of live, face-to-face instruction want to teach in a traditional way, they, like students, need to be information, computer, media, communicative literate, and active in the future digital education system. It is a period and a requirement of life.

Speaking about the process of digital education, we consider it expedient, first of all, to fully preserve the leading role of professors in the field of "*English Language and Literature*" and implement the following tasks to improve traditional education:

- Development and distribution to all students of special teaching and methodological instructions for students on the use of innovative educational technologies in the form of paper and interactive multimedia materials on the Internet on the basics of the subject taught;

- Development of a public virtual library for video lectures on the main topics of guidelines developed with the help of general educational technologies and the active involvement of students in them;

- Conducting and organizing public open online lessons and online trainings in the "*Digital Competence Center*", which includes high-performance digital devices, classrooms and laboratories, media studios, etc., and the positive experience gained in English language training in regional educational institutions necessary to apply.

In order to ensure the solid integration of modern information and communication technologies and educational technologies, in this regard, for the continuous development of professional skills of teachers based on a special "Roadmap", we consider it necessary to perform the following tasks in everyday practice:

- A. effective use of presentation systems in English in the conduct of training sessions;
- B. development of interactive and multimedia presentations in English related to the Internet for lectures and seminars of specialty subjects in English;
- C. implementation of remote access processes in English with the effective use of interactive presentations, video conferencing systems and virtual halls in real time;

- D. implementation of distance learning process in English in text-graphic or video format at any time using electronic resources;
- E. effective use of cloud technologies, virtual and augmented reality in English in the classroom;
- F. the use of a 3D printer in the development of didactic materials and experimental designs;
- G. application of digital didactics and digital education models in English in lectures and seminars of specialty subjects;
- H. for teachers and students of the faculty "English" for use at the faculty of scientific and practical projects, coursework, thesis, research results (monograph, textbook, brochure, dissertation, scientific article, science), it is necessary to develop a scientific website in English for the proposed basic and additional literary texts, etc.).
- I. the use of interactive tables and interactive presentation systems in English, including systems for two-way communication in lectures held in classrooms equipped with modern laptop computers;
- J. Effective use of "recording lecture or seminar" programs in English in classrooms equipped with interactive desks. This program allows you to record the content of lectures or seminars using slides, audio, video, camera, teacher notes and an interactive whiteboard. Students - Future English teachers can then use English again via the Internet, iPod and iPhone.

Actual tasks of the development of e-learning and mobile learning in the context of digital transformation of education, as well as our scientific and practical proposals on this matter:

- Improvement of the electronic platform of pedagogical higher education, which is a virtual scientific environment in English, active involvement of professors and talented students;
- Publication of lecture and seminar materials in text-graphic and video formats for all general and special disciplines of the curriculum "English" on an electronic educational platform organized in a digital educational environment;
- Creation of electronic interactive multimedia educational materials for students of general and special disciplines and their publication in the virtual library;
- Creation of a national fund of digital educational resources in English for students of higher education "English language and literature", consisting of electronic interactive multimedia teaching materials, virtual simulators, etc .;
- Development of training courses in pedagogical higher education in the format of mass open online courses for both students studying in English and for professors and teachers, and their effective use in English by involving them in practice;
- to develop and apply textbooks and manuals that provide students with basic opportunities for the digital generation in the digital learning environment, as well as interactive tests to check and evaluate the acquired materials, as well as interactive tools for specific gaps in existing and previously identified knowledge reach and other.
- In the environment of digital transformation of education, we believe that in the effective use of innovative educational technologies "learner" (future English teachers) and "educator" (professors) it is necessary to pay special attention to the following factors:
  - Effective use of smartphones in the digital education system and the transformation of smartphones into personal virtual assistants for future teachers;
  - Organizing distance learning programs based on modern information and communication technologies and ensuring that students can effectively use them in English;
  - Implementation of the platform "E-MINBAR", which allows online monitoring and mastering of lectures and seminars on general and specialized disciplines in the digital learning

environment, as well as uploading them to electronic media, effective use of “cloud technologies” in English in digital learning processes ;

- Organization of educational processes on the basis of games (gamification) in the digital educational environment and increase the creative and intellectual activity of future teachers of English;

- The use of “IoT” and “IoE” in the teaching and learning process in English in a digital learning environment;

- use of robots as an object of control and as a teacher's assistant in teaching in a digital learning environment;

- The use of artificial intelligence in the process of teaching English in digital education;

- Creating a digital learning environment for the learning process, which is part of e-learning and mobile learning through teacher-student relations based on the “teacher-student” system, and thus collective learning through an active network between students and future English teachers - both in the traditional form of *teaching - learning - to achieve* the formation of the principle of operation;

- Development of effective use of modern software products, which are widely used internationally in the process of digital education, based on the direction of “English language and literature” and the specifics of the specialties in the curriculum;

- Improving the content, methodological and technical features of public open online training in the field of digital education;

- Development of relevant websites in English for research parks in the digital education system, etc.

In addition to the above, for the effective use of innovative pedagogical models in a digital learning environment, industry representatives also need to: achieve effective use of innovative technologies as the main source in the process of transforming traditional didactic models into innovative models; individualization of educational processes based on digital technologies, development of distance learning services, implementation of webinars, online, “*blentet learning*”, “*Flippet classroom*” technologies.

In addition, if we present the highest-level digitization tools such as “*big data*”, “*blockchain*”, “*artificial intelligence*”, “*Data Science*”, as the main source for introducing a scientific approach to education in the digital education system, we can achieve our goals - to increase the efficiency of the digital environment learning.

Serious attention should also be paid to the analysis of the results of the introduction of innovative educational technologies and didactic models into the digital learning environment. This is due to the fact that by summarizing and analyzing the work done, it will be possible to correct shortcomings and develop long-term plans for future tasks. We believe that all of the above comments and suggestions will serve to train future English teachers as mature professionals who are world-class and meet today's requirements.

Currently, the transition of the country's education system from a reproductive state to a constantly developing transparent state, the process of students' orientation towards the realization of their educational and sociocultural interests requires a change in the attitude of the main subjects of the education system “learners” and “educators”.

It should be noted that most of the trainings (lectures and practical classes) in higher education institutions in a number of countries around the developed world are conducted using the *Google Classroom platform*. Professor K. Omonov's article “What is digital education and

what does it give us?”, Published on social networks, states that the general public generally recognizes *Google* as a search engine and electronic translator. However, the useful potential of this system for science and education is extremely wide. *Google* eliminates the concept of distance and space in education. The reason is that his programs allow students and educators to work at the same time anywhere in the world. All you have to do is open an *email* from *gmail*. “*Google classroom*”, “*Google doc*”, “*Google disk*” programs can help.

“*Google classroom*” - acts like a classroom. At the same time, the teacher can prepare a list of students, assign appropriate homework, set deadlines for assignments, assess, provide additional information on the subject, organize discussions on various topics, and ask students’ opinions.

“*Google doc*” helps students prepare articles, term papers, dissertations, research papers, research projects. The student creates an electronic document in “*Google doc*” and communicates with the supervisor via *gmail*. The advantage of this program is that both the student and the teacher will be able to edit and make additions at the same time. It is also very useful in co-authoring scientific articles. This program provides great convenience and advantages, especially in the current context of limited opportunities to meet directly with foreign partners or supervisors.

“*Google Drive*” is used to store data. The program has the ability to store large amounts of data. This program is equally convenient for everyone. Free users from losing written texts and carrying heavy books. While working in the library, the necessary information is stored on “*Google Drive*” and, if necessary, can be downloaded from anywhere on the Internet. After using all the above programs, students will be able to display the results of their work on the page “*E-Portfolio*”.

“*The e-portfolio*” will also be powered by “*Google*”. “*Google*” has developed a very user-friendly program for creating websites. At a time when information technologies are developing and accelerating, in the context of the digital transformation of education, if each professor or student creates this type of “*electronic portfolio*” to share his thoughts, ideas and achievements in all areas, all his scientific, social and philosophical activities of course you can enjoy.

In this regard, we believe that Mark Prensky, author of a number of educational sites, in his article “*Digital Natives, Digital Immigrants*” gave today’s students the following definition: “Now our students have completely changed. Contemporary students are no longer taught according to the education system we have developed.” The article views today’s students as ““*Digital Natives*” – today’s young people who speak their native language in the digital language of computers, video games and the Internet. Professors in the field of education are considered to be “*Digital Immigrants*”, who are adapting to the digital, electronic world and are now embracing many aspects of new technologies.

In short, it should be noted that the majority of professors and lecturers of higher pedagogical education lag behind today’s students in this area. More specifically, the contemporary descendants of digital education (televisions, computers, tablets, tablets, tablets, phablets, smartphones, and smart boards) is lagging behind in the effective use of electronic devices in teaching, lectures, workshops, and seminars. In this regard, they instantly acquire the appropriate qualifications and skills the period requires.

future English teachers to some extent.

## REFERENCES

1. Shaloo Sharma. Modern Methods of Teaching Computer Science, Sarup Teaching Series.
2. Nevilla Bennet & Clive Carre. Learning To Teach. London and New York: Taylor and Francis e-Library, 2002.
3. Marilyn Leask & John Meadows. Teaching and Learning with ICT in the Primary School. London and New York, 2000.
4. Норова Ш.У. Взаимозависимость социальной среды и образовательного процесса и их влияние на личность студента // Вестник науки и образования. № 21 (97), 2020, часть 2, С. 40-43.
5. Алаева З.М. Педагогика как наука и искусство воспитания // Вестник науки и образования. № 21 (97), 2020, часть 2, С. 74-77.