

Designing Students' Independent Learning In The Era Of Digital Technologies

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Abstract

This article discusses the current state-of-the-art promotional work in the pedagogical design of independent educational processes of students in digital educational environments in higher educational institutions of the Republic of Uzbekistan.

Keywords. Digital economy, individual educational trajectory, e-business, information technologies.

The role of digital technologies in modern education Nowadays, it is impossible to organize the educational process without using modern digital technologies. A 21st-century student should develop the following skills and qualities: personal responsibility, tolerance, communication abilities, self-development, critical thinking, analysis, management, synthesis, evaluation, creativity, teamwork, and problem-solving capabilities. Due to the transition of the higher education process to a credit-module system, the number of classroom hours has been reduced while the time allocated for independent study has increased. As a result, students must accumulate credits for each subject. For example, in one subject per semester, 26 hours are allocated for lectures, 26 hours for seminars, and 78 hours for independent learning. This shows that students need to approach each subject individually and master the material independently. The professor's role is to provide guidance.

In the Address of the President of the Republic of Uzbekistan to the Oliy Majlis (Parliament), it was emphasized that mastering digital knowledge and modern information technologies is necessary and essential for achieving progress. It was noted that digital technologies not only improve the quality of products and services but also reduce unnecessary expenses, increase efficiency, and, in short, can significantly improve people's lives. The task of developing and implementing the “Digital Uzbekistan – 2030” program, which aims to modernize all sectors of the economy based on digital technologies, was set. This opens up wide opportunities for the modernization of leading industrial sectors, increasing competitiveness, introducing advanced technologies, establishing high-tech enterprises, technoparks, manufacturing companies, and building modern engineering-communication infrastructures.

In the 1940s–60s, “electric” technology emerged, including typewriters with replaceable elements, copy machines using plain paper, and portable dictaphones. These tools improved document processing quality, quantity, and speed, enhancing management efficiency. Many modern institutions are based on such technologies. It can be said that information technology originated millions of years ago with the first forms of communication between humans—various sounds, gestures, and actions. Initially, information exchange occurred only between individuals. With the advent of speech (around 100,000 years ago), humans gained the ability to store information mentally. Over time, digital information technologies expanded from simple communication to encompassing almost every aspect of human life.

The modernization of the educational and upbringing process in higher education institutions, improving the quality-monitoring system of teacher training, equipping future educators with modern professional knowledge, skills, and abilities, and forming acmeological motivation

towards professional activity are among the essential tasks in shaping the professional readiness of pedagogical specialists. The experience of developed countries such as the UK, Australia, Switzerland, Germany, Malaysia, and Canada shows that the main goal of professional education is to develop students' intellectual and logical thinking based on the specific features of their chosen field. Through task-based learning, professional readiness is ensured.

To enhance professional readiness, students must thoroughly master digital technologies. During independent learning, students can use digital technologies in their professional activities by approaching each subject individually. In the current era of constant updates, it is essential to master digital technologies, apply them, and use them in practice to develop personal activities.

Lecture classes conducted with the help of digital information technologies are more effective and comprehensible compared to those without them. As the saying goes: "Seeing once is better than hearing a thousand times." During practice, students who use digital technologies can conduct open lessons that captivate the attention of school pupils. The application of digital technologies is effective not only in education but in various other sectors as well.

Taking the independent study of one subject as an example, a professor can assign tasks to each student individually or in groups. The preparation of essays, presentations, lesson plans, and other assignments greatly benefits from digital technologies.

Today, digital technologies have deeply penetrated nearly all areas of life, especially education. The educational process has become more flexible, adaptable, and individualized through digital tools. In addition to traditional classroom teaching, online classes, video lessons, and webinars have become widespread. Students now have the opportunity to learn from any place at any time (distance learning).

Digital technologies provide content tailored to each student's interests, level, and learning pace. AI-based systems (such as Duolingo and Coursera) analyze students' knowledge levels and offer personalized recommendations. Educational resources are expanding with access to online libraries, scientific article databases, electronic textbooks, and video lectures. Teachers also use digital resources to improve their methodologies. Students are developing self-learning skills and transitioning to more responsible and active learning. Designing learning, creating personal timetables, and solving online tests turn students from passive listeners into active participants.

Online testing, electronic assessment systems, and automatic analysis tools allow for precise evaluation of knowledge. Communication between teachers and students (through forums, chats, platforms) is becoming faster and more effective.

The integration of modern information technologies in the education process enables:

- Acquisition of professional knowledge by students;
- Deep understanding of subjects through modeling events and processes;
- Expansion of students' independent activities due to diverse learning formats;
- Personalization and differentiation of the learning process through interactive communication;
- Mastering learning strategies via AI systems;
- Development of information culture as members of the information society;
- Increased student interest and activity in science through computer-based representations of studied phenomena and processes.

The didactic possibilities of information and communication technologies (ICT) in the educational and training process can be viewed in terms of the object's natural characteristics, technical and technological features, and their application for didactic purposes. ICT's didactic possibilities can be categorized into three groups:

1. Presenting educational information;
2. Transmitting educational information;

3. Organizing the learning process.

Didactic opportunities in presenting educational information using ICT include:

- Displaying and transmitting educational content in text, graphics, audio, video, and animation formats via electronic resources;
- Presenting engaging content;
- Reinforcing and applying knowledge based on received information;
- Preparing, organizing, and processing educational, methodological, and scientific data;
- Storing and collecting information;
- Systematizing information.

Conclusion: In pedagogical activity, using digital technologies enables sharing, presenting information, facilitating learning, and creating systems that simplify analysis and assessment for teachers. Through digital technologies, both teachers and students can teach and learn more effectively.

References:

- Decree of the President of the Republic of Uzbekistan On approval of the Concept for the Development of the Higher Education System of the Republic of Uzbekistan until 2030. <https://lex.uz/docs/4545884>.
- Harper, M. (2000). Public Services through Private Enterprise: Micro Privatization for Improved Delivery. Intermediate Technology Publications.
- Furubotn, E. G. & Richter, R. (2003). Institutions and Economic Theory: The Contributions of the New Institutional Economics. The University of Michigan Press.
- B.M.Kuchkarov. „Cooperation of higher education institutions and industrial enterprises in pedagogical design of students' economic education processes in a digital learning environment”.