



**THE ROLE AND SIGNIFICANCE OF DIGITAL ELECTRONIC  
TEXTBOOKS IN THE TRAINING OF ENGINEERS IN TECHNICAL  
SPECIALTIES**

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A B S T R A C T	K E Y W O R D S
<p>This article presents thoughts and opinions about the role and importance of digital textbooks in the formation of independent learning skills that digital textbooks use in the process of teaching students. In addition, opinions and comments about the structural structure of the electronic education platform <a href="https://selfedu.uz/">https://selfedu.uz/</a> are presented.</p>	<p>Digital textbook, pedagogical game technologies, web quest, electronic tests.</p>

**INTRODUCTION**

Determining the priorities of the systematic reform of higher education, raising the process of training highly qualified personnel with modern knowledge and high moral and ethical qualities to a new level in terms of quality, modernization of higher education, advanced development of the social sphere and economic sectors based on educational technologies[1] is one of the main tasks facing the higher education system.

In order to achieve these goals, modern pedagogy, methods, tools, educational technologies, digital textbooks and technologies are widely used in the higher education system, creating a great basis for improving the quality and efficiency of educational activities.

Digital textbooks are e-books or e-learning programs that are designed for learning activities that cover all the topics covered in the curriculum. Electronic textbooks are electronic publications that correspond to the printed form of the textbook in terms of structure and content, and include multimedia elements and interactive links that expand and complement the content of the textbook.

As a result of digitization of education, there is a great need to use different platforms of distance education. Meaningful spending of students' free time and quick search for necessary information, presentation of all literature on the subject in one program (system) is carried out on the basis of digital textbooks. Let's briefly touch on the content of the digital (electronic resource) textbook created in the field of information technology.

The main tasks in the creation of digital textbooks (electronic resources) from the subject "Information technologies" are as follows:

improving the skills of independent work using electronic educational resources in the teaching of information technologies;

improvement of information technology practical training based on the integration of teaching technologies and e-learning tools;

improvement of laboratory training in the science of information technology using virtual laboratory work using global network resources;

development of scientific and methodical recommendations on improving independent educational activities in the field of information technologies based on electronic educational tools [2].

Information resources currently form a systematic and informative approach to the analysis of the surrounding world, study information processes, methods and means of obtaining, changing, transmitting, storing and using information, which are rapidly developing and constantly improving, and exist is one of the main areas of scientific knowledge. The use of information resources helps to expand the field of independent human activity.

Formation of students' skills in using information resources creates conditions for optimizing education. because in modern conditions, when the use of information resources has become an indispensable attribute of many professions, independent education based on the use of the potential of information resources becomes very important.

In the process of training on the profile, great attention is paid to the problem of training a student who can act well enough in the flow of information, is able to competently use and process it with the help of computer technologies and software.

It is necessary for students to have deep theoretical knowledge, the ability to apply it in practice, the ability to reliably work on a computer, and a clear understanding of the actual limits of using information resources to achieve specific educational and educational goals.

It is necessary to take into account the current state of the student's ability to use information resources in the process of independent education of future engineers.

The approach to independent education is the leader in the development of information technology at the professional level today. Currently, there is a need for practical training on modern software tools and their development technologies in independent education. Because the possibilities of the development environment have increased through independent education, but at the same time their complexity is increasing. In particular, this is related to the use of information resources in the independent education system.

However, this new methodology at the current stage is not sufficiently reflected in the training system of future engineers, which narrows the ideological basis of the studied specialized courses and undermines the professional training of students.

There is a need for practical training on independent learning using digital textbooks. In order to successfully work in their professional field in the future, students need to know how to work with Internet resources, digital resources, and find the necessary information on the Internet.

A digital educational platform <https://selfedu.uz/> has been created in the field of digital technologies. This educational platform is implemented in three stages.

The first stage of improving independent learning skills in future engineers is the orientation stage, the purpose of which is to direct students to independent learning activities of social significance in their future professional activities. This stage is aimed at encouraging students' motivational value attitude to independent quasi-professional activities through the need to search for new knowledge and methods of action with the help of pedagogical game technologies, contextual tasks [2].

First stage. At the introductory stage, the simplest types of learning and memorization of basic concepts and terms on the subject are used along with the formation of the skills of using information and communication technologies based on pedagogical game technologies.

The second stage is praxiological, i.e. learning, the purpose of which is to attract future engineers to independently master the information presented on the subject using electronic resources. At this stage, students perform laboratory and practical tasks in general professional subjects and professional modules, actively participate in conferences and competitions. As a result, students are involved in independent project activities. It helps the student to form the skills of planning his own activities, to use information from electronic resources to find solutions as a result of independent performance of practice-oriented tasks, self-assessment skills. At this stage, students use electronic educational methodical complexes of subjects and electronic libraries.

The third stage of improving the independent learning skills of future engineers is the intensive stage. Its purpose is to improve and strengthen professional skills of independent education with the participation of students.

Mustaqil ishni bajarishda talabalar aniq maqsadlar, vazifalar va o'z ishlarini rejalashtirish uchun mustaqil ta'limning tashkiliy ko'nikmalari zarur;

self-taught information analysis skills in order to search and select information sources for the development and operation of software modules, to find and use specialized software tools for optimizing the program code using electronic resources;

with the help of web quest technology, electronic libraries get acquainted with the fields of computer technologies and information technologies that require data analysis and processing.

It is advisable to give strict importance to the following content in the implementation of independent activities by the use of electronic resources in future engineers:

goal - a vision of the result of independent activity;

material and non-material features of the interrelated system of signs, objects, processes, appearances, functions;

Tool - with the help of which a person interacts with his independent work (the subject of the cocktail); given task functions;

related to production;

subject and social working conditions.

Therefore, based on the purpose of our research, we set the task of proposing a special program and putting it into practice for the independent activities of future engineers through the use of electronic resources. Special program (digital textbook), the purpose of this program is aimed at systematic implementation of independent activities of students.

The advantages of digital textbooks are that, in addition to mastering the subject, students also get theoretical and practical information on the subject, audio, video, animation, 3D graphics and additional literature on the subject, electronic tests, control questions, pedagogical game. combined use of technologies allows students to self-monitor the in-depth acquisition of information related to the topic. In addition, several students can use digital textbooks at the same time.

## REFERENCES

1. O‘zbekiston Respublikasi Prezidentining 2019 yil 8 oktabrdagi «O‘zbekiston Respublikasi Oliy ta’lim tizimini 2030 yilgacha rivojlantirish konsepsiyasini tasdiqlash to‘g‘risida»gi PF-5847-son Farmoni. – Qonun hujjatlari ma’lumotlari milliy bazasi, 06/19/5847/3887-son, 09.10.2019 y.
2. Tursunov M.A. Uzlüksiz ta’limda mustaqil ta’lining o‘rni va ahamiyati (“Axborot texnologiyalari” fanidan elektron ta’lim resurslarini yaratish misolida). Zamonaviy ta’lim № 2(99) -2021. 16-23-b.
3. Tursunov M.A. The importance of using electronic resources in education *Academicia: an international multidisciplinary research journal* V. 11 2021-y. 642-646 p
4. Abduqodirov A.A. va boshq. Masofali o‘qitish nazariyasi va amaliyoti. monografiya. - T. : O‘zbekiston respublikasi fanlar Akademiyasi “FAN” nashriyoti, 2009. - 145 s
5. Абдуразаков М. М. К вопросу подготовки будущего педагога к профессиональной деятельности в современной информационно-коммуникационной образовательной среде. //Информатика и образование. – 2011. – № 9. – С. 83–85.
6. Ergashev, N. (2021). METHODS OF USING VISUALIZED EDUCATIONAL MATERIALS IN TEACHING PROGRAMMING LANGUAGES IN TECHNICAL UNIVERSITIES. INNOVATION IN THE MODERN EDUCATION SYSTEM.
7. Ergashev, N. (2020). Didactic fundamentals of electronic books visualization. *An International Multidisciplinary Research Journal*.
8. Ergashev, N. (2020). Using the capabilities of modern programming languages in solving problems of technical specialties. *An International Multidisciplinary Research Journal*.
9. Ergashev, N. (2022, May). FEATURES OF MULTI-STAGE TRAINING OF TEACHERS'CONTENT TO PROFESSIONAL ACTIVITIES USING CLOUD TECHNOLOGY IN THE CONDITIONS OF DIGITAL EDUCATION. In *International Conference on Problems of Improving Education and Science (Vol. 1, No. 02)*.
10. Ergashev, N. (2022, May). THEORETICAL STAFF TRAINING USING CLOUD TECHNOLOGY IN CONTINUING EDUCATION. In *International Conference on Problems of Improving Education and Science (Vol. 1, No. 02)*.
11. Ergashev, N. (2022, May). PROBLEMS OF USING DIGITAL EDUCATION IN PEDAGOGICAL THEORY AND PRACTICE. In *International Conference on Problems of Improving Education and Science (Vol. 1, No. 02)*.
12. Ergashev, N. (2022, May). PROBLEMS OF DIGITAL EDUCATION IN PEDAGOGICAL THEORY AND PRACTICE. In *International Conference on Problems of Improving Education and Science (Vol. 1, No. 02)*.
13. G‘ayratovich, E. N. (2022). The Problem of Training Future Engineer Personnel on the Basis of Cloud Technology in Technical Specialties of Higher Education. *Eurasian Scientific Herald*, 13, 1-4.
14. Gayratovich, E. N., & Jovliyevich, K. B. (2023). Theory and Methodology of Software Modeling Using the Web Platform. *Eurasian Scientific Herald*, 16, 59-63.
15. Ergashev, N. (2023). Methods of teaching parallel programming methods in higher education. *Electron Library Karshi EEI*, 1(01). Retrieved from <https://ojs.qmii.uz/index.php/el/article/view/271>
16. Gayratovich, Ergashev Nuriddin. "A MODEL OF THE STRUCTURAL STRUCTURE OF

PEDAGOGICAL STRUCTURING OF EDUCATION IN THE CONTEXT OF DIGITAL TECHNOLOGIES." American Journal of Pedagogical and Educational Research 13 (2023): 64-69.

17. Shodiyev Rizamat Davronovich, and Ergashev Nuriddin Gayratovich. "ANALYSIS OF EXISTING RISKS AND METHODS OF COMBATING THEM IN CLOUD TECHNOLOGIES". American Journal of Pedagogical and Educational Research, vol. 18, Nov. 2023, pp. 190-8, <https://www.americanjournal.org/index.php/ajper/article/view/1522>.