Web of Scholars: Multidimensional Research Journal (MRJ)
Volume: 02 Issue: 05 | 2023 ISNN: (2751-7543)
http://innosci.org

Digital Technologies as a Method of Forming Students ' Informational Skills in the Educational Process

Muradova Firuza Rashidovna
Bukhara engineering - technological institute, DSc, professor

Ataullayeva Gullola Nabiullayevna
Shakhrisabz Branch of Tashkent Institute of Chemical Technology, Engineer of the sector of organization of scientific-research activities of talented students

Jo'raqulov Jasur Javhar ugli
Bukhara state university, teacher

To'xtayeva Nargiza Rasulovna
Master of the Bukhara state university

Abstract: *The relevance of the study is due to the fact that human life today is impossible to imagine without modern technology. Digital technologies are beginning to penetrate into many aspects of society. Education in this process is no exception. The purpose of the article is to consider the priority areas of the educational process, their advantages and threats based on the analysis of the capabilities of digital technologies. The article analyzes the advantages and disadvantages of electronic education, shows the forms of digitalization that require an integrated approach from the education system that would set new goals, change the structure and content of the educational process.*

Keywords: *digital technology, competitive educational model, e-education system, forms of digitalization of the educational environment.*

Modern science is developing at an unimaginable speed, spreading its achievements in all spheres of human life. Universal informatization was reflected in the field of education in the form of the introduction, adaptation and dissemination of numerous information technologies at all levels of education, from preschool to university, as well as additional. So, among the global trends in the labor market that determine the education system today are: freelancing, work outside the office or production premises; changing the means of communication between employees; changing processes, tools and methods of workflow management; interaction between humans and robots, humans and artificial intelligence; an increase in the speed of decision-making and data processing technologies; multitasking [1].

The global changes affecting the modern educational system include the following: changes in the methods and methods of delivery of information and educational content; changing the nature, methods of access to educational content; changing the nature of the interaction of the subjects of the educational process; content of educational content. Over the past decades, educational technologies have undergone significant changes, moving from passive to active, from the simple use of computers for printing to the replacement of teachers by robots, the introduction of modern information technologies and the digitalization of information content in general.

The basic purpose of using information technologies in the educational sphere is to improve the quality of education, to create effective motivation of students for the educational process. With

the help of information technologies, a teacher can vividly and visually present educational information, create conditions for students to independently search and obtain information, control knowledge using computer testing - the potential of such technologies is enormous and depends on the teacher himself [5]. The use of information technology contributes to the development of variability, individualization of the learning process, motivates the processes of perceiving information and obtaining new knowledge of the student, develops his intellectual and creative abilities. In addition, information technologies have become an integral attribute of the life of a modern person, and therefore their use by students does not require long adaptation and addiction.

The use of modern digital and information technologies in education will improve the role of the teacher and student in the learning process. The student becomes a more active participant in the educational process, guides him to a certain extent, sets goals for himself, learns to operate with a large amount of various information, transform it, and gets the opportunity to model processes. The position of the teacher becomes not so much passive as helping, accompanying, supervising. Taken together, the use of information technology in education makes the learning process more effective. To date, information technologies are widely used in the following areas of pedagogical activity [7]:

1. Development and execution of pedagogical and methodological documentation.
2. Use of Internet resources for professional communication, prompt response to changes in regulatory requirements, and feedback.
3. Application in the educational process of ready-made intellectual learning technologies and the creation of their own multimedia didactic materials.

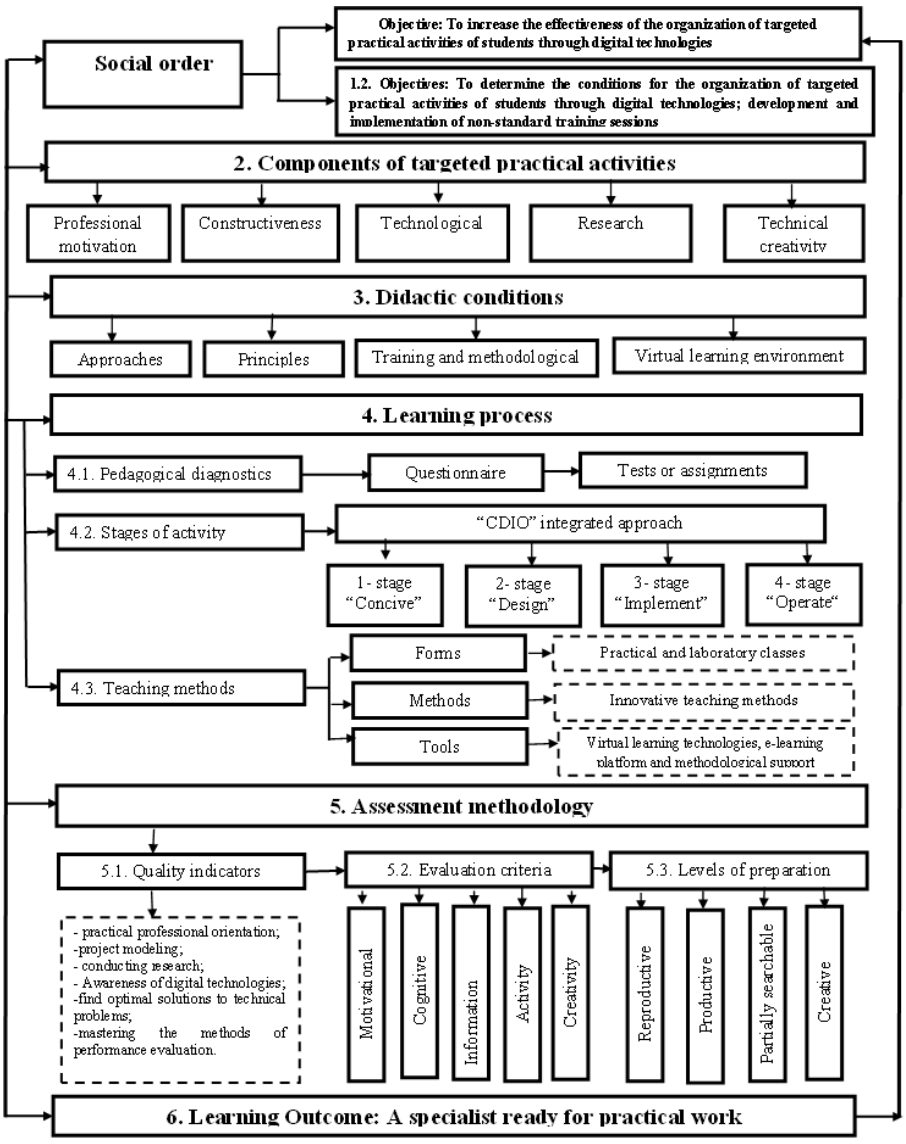
The presented list can be supplemented with augmented and virtual reality technologies, Internet platforms for the implementation of distance learning, which have recently acquired special relevance. It makes no sense to compare the effectiveness of full-time and distance learning, since each of them has its own specifics and advantages, however, it is absolutely certain that the most modern form of education is their combination in the educational process.

The infrastructure of the modern educational digital environment consists of the following components: web applications and the Internet; hardware and software; mobile applications; Big Data; Learning Management System; modern ICT tools; information visualization technologies, etc. Consider the possibilities of information educational technologies in the design and implementation of the educational process:

- blended learning: Depending on the degree of implementation of ICT tools in the educational process, 6 models are distinguished: face-to-face driver, rotation, flex, online lab, self-blend, online driver;
- project-based learning: involves the full immersion of the student in the educational process when implementing a project using ICT tools and information platforms;
- mental maps (mindmapping): a technology for visualizing a large amount of information in the form of diagrams, pictures, keywords. The following free applications are usually used to create mind maps: XMind, Freemind, BubblUs, WiseMapping;
- "end-to-end" immersive technologies (technologies of augmented -AR and virtual -VR reality): designed to facilitate the perception and visualization of abstract concepts, increase the motivation of students in the study of complex disciplines, form initial skills when performing logical tasks or physical actions, facilitate learning in an inclusive educational environments (Google Expeditions Kit; Near Sighted VR Augmented Aid);

- digital tools (Miro; Kahoot; Zoom; Google Meet, etc.): aimed at organizing distance interactive learning [8].

Modern digital technologies provide new tools for the development of universities and other educational institutions around the world. Digitization provides opportunities for sharing lessons learned and knowledge, enabling people to learn more and make better decisions in their daily lives. Additional areas of application of digital technologies in education are the development of digital libraries and digital campuses of universities, which have already been implemented by many universities. Thanks to digitalization, today everyone can gain access to information that was previously available only to experts and scientists. The world of education and science has become global, now it is almost impossible to find a student, teacher or scientist who has not visited foreign universities as part of academic mobility programs. In the course of unprecedented changes, many universities are trying to adapt and find their place on the global scientific and educational map, while maintaining their unique qualities and competitive advantages. The issues that now confront the universities boil down to the choice of a strategy for further development and the choice of the direction on which it is planned to focus. It is obvious that a digital transformation program should already be developed for the transition to a competitive educational and research model in the future.



Conceptual-didactic model of organization of purposeful practical activity of students

While countries with traditionally high-quality education, remain attractive to foreign students, new countries and regional educational centers are emerging in this field, competing for income from educational activities and the intellectual capital of foreign students. Every university, regardless of the chosen strategy, must go through a digital transformation. This transformation is not only and so much in the implementation of IT solutions, but as a whole is a significant cultural and organizational change at the university. The transition to a digital university implies the introduction of more flexible and seamless processes, a change in corporate culture, and process optimization.

The urgency of the transition is due to several factors. Firstly, nowadays almost all students belong to the digital native`s generation, they show a much greater inclination to apply new technologies in their daily life. Especially it concerns IT and Internet technologies, as well as their application not only in the professional field, but also for socialization and communication. Thus, digitalization of the university will make it more tailored to the target audience. This will definitely lead to an increase in the competitiveness of the university in the education market, the creation of additional value and the attraction of students.

The second argument is the increased competition among universities, especially in top-ranked universities. Due to the globalization of the market, the struggle for a student will no longer take place within one country or a cluster of countries, but at the international level. Thus, the creation and preservation of the competitive advantage of the university will be determined by the timeliness of the introduction of new technologies and, as a result, the readiness for fundamental shifts towards the educational system of the new generation.

The third argument comes from the need to digitize the internal processes of the university to increase the efficiency of interaction between departments at the level of the entire educational institution. This is necessary to carry out all the innovative and cultural transformations that are required from the university in the transition to a new educational model.

At the present stage of development of society in general and education in particular, information technology is not an auxiliary tool for coordinating the educational process, but an integral part of the learning process, which has enormous potential. Once again, the potential of information technologies in education can be revealed when the participants in the educational process have the appropriate competencies, the teacher's aspirations to make the learning process effective, innovative and, accordingly, apply a creative, non-trivial approach to its organization.

Note that the informatization and digitalization of the education system is a continuous process and an inevitable trend in the development of modern education, and therefore the teacher must follow the path of acceptance, development of information technologies, and not opposition, rejection. At the present stage of the development of education, information technology is one of the basic methods, forms of teaching, which have great educational and educational potential.

References

1. Muradova F.R. Virtual labs in distance learning. Psychology and education, Vol. 58 №1, 2020. P. 4547-4552.
2. Muradova F.R., Murodova Z.R. Use of information technologies in education. International Journal of Psychosocial Rehabilitation, UK. -2020.- P. 3110-3116
3. Muradova F.R., Muradova Z.R., Ataullaev Sh.N., Kadirova Sh.M.,Yodgorova M.O. Psychological aspects of computer virtual reality perception. Journal of critical reviews. 2020. Vol 7 Issue 18, p. 840-844.

4. F.R.Muradova Virtual laboratories in teaching and education. ISJ Theoretical & Applied science. Philadelphia, USA. 2020. P. 106-109.
5. Z.R.Murodova The formation and definition of the intellectual potential in education. ISJ Theoretical & Applied science. Philadelphia, USA. 2020. P. 113-116.
6. Muradova F.R. Using the capabilities of virtual laboratories in the educational process. Academicia. Impact Factor 7, India, 2020. Vol.10 Issue 8, p. 347-352.
7. Muradova F.R. The methodology of using virtual laboratories in the educational process. Modern views and research. Materials of the international scientific and practical conference. – England. 2020, p. 24-26.
8. Muradova F.R. Educational laboratory as a modern form of educational activity organization. XXII International scientific and practical conference "International scientific review of the problems and prospects of modern science and education". - USA, Boston. 2020, p. 41-43.
9. Muradova F.R. Using multimedia and communication technologies as a means to implement active learning methods. XV International scientific and practical conference. European research: Innovation in science, education and technology. - London. United Kingdom. 2020, p. 30-32.
10. Мурадова Ф.Р., Кадиров Р.Ж. Игровые технологии один из эффективных способов обучения учащихся на уроках информатики. Вестник магистратуры. Йошкар-Ола, 2019. – С. 60-62.
11. Muradova F.R. Methods of development of educational electronic resources. Eurasian Journal of Science and Technology. Vol. 1(2). UK, 2019. P. 13-15.
12. Muradova F.R., Kadirova Sh.M. The use of innovative methods in education. Проблемы и перспективы развития образования. Краснодар, 2019. - С. 62-63.
13. Muradova F.R. Game Technology for Science Lessons. Eastern European Scientific Journal. Germany, 2017.
14. Muradova F.R. Using multimedia and communication technologies as a means to implement active learning methods. XV International scientific and practical conference. European research: Innovation in science, education and technology. - London. United Kingdom. 2020, p. 30-32.
15. Muradova F.R. Educational laboratory as a modern form of educational activity organization. XXII International scientific and practical conference "International scientific review of the problems and prospects of modern science and education". - USA, Boston. 2020, p. 41-43.
16. Muradova F.R. Types and structures of educational and methodological materials with computer support. Electronic journal of actual problems of modern science, education and training. Khorezm, 2020. №1, p.106-109.
17. Muradova F.R. Virtual laboratories as promising information technologies in the educational process. Electronic journal of modern science, education and training. Khorezm, 2020. №4, 17-22 б.
18. Muradova F.R., Shafiev T. R., To`xtayeva N.R. Digital Technologies Es as a Perspective Information Technology in the Educational Proces // Spanish journal of innovation and integrity. Volume: 05, 2022. P. 271-277.
19. Muradova F.R., Shafiev T.R., Abdiyeva Yu. U. Basics of Distance Education and Digital Technologies // Spanish journal of innovation and integrity. Volume: 05, 2022. P. 251-256.

20. Muradova F.R., Murodova Z.R., Salimov S.S., Hayitov I.N. Use of Digital Technologies in Education// Spanish journal of innovation and integrity. Volume: 05, 2022. P. 264-270.
21. Muradova F.R., Murodova Z.R., Djamilov S.S. Methods and Algorithms of Automated Construction of Computer Tests of Knowledge Control in Technical Sciences // European Journal of Innovation in Nonformal Education (EJINE). Volume 2 | Issue 3 | ISSN: 2795-8612. P. 245-249.
22. Muradova F.R., Murodova Z.R., Narziyev U.Z., Teshayeva G.M. Creating an electronic textbook in a programming environment // European multidisciplinary journal of modern science https://emjms.academicjournal.io/index.php/ Volume: 4 P. 536-544.
23. Muradova F.R., Nuraliyeva P., Juraqulov J. Types and structures of educational and methodological materials with information communicative technology // European multidisciplinary journal of modern science https://emjms.academicjournal.io/index.php/ 2022. Volume:6. P. 156-161
24. Muradova F.R. Application of digital technologies in modern education // NamDU ilmiy axborotnomasi - 2022_2-сон. P. 574–579.
25. Muradova F.R., Nuraliyeva P., Abdiyeva Yu. The role of information technology in modern education // International conference on research identity, value and ethics hosted from USA, April 30th 2022. P. 254-258.